VITREO-RETINA TRAINING SPECIAL

DETAILED INFORMATION ON RETINA TRAINING PROGRAMS IN INDIA & ABROAD

MENTORS PANEL ON VITREO-RETINA TRAINING

- Dr ANAND RAJENDRAN
- Dr MAHESH SHANMUGAM
- Dr RAJA NARAYANAN
- Dr ATUL KUMAR
- Dr MANABJYOTI BARMAN
- Dr SHOBHIT CHAWLA
- Dr GURUPRASAD AYACHIT
- Dr MANISH NAGPAL
- Dr VISHALI GUPTA

MENTOR’S PERSPECTIVE • THE BIG QUESTIONS • NEW FRONTIERS • FELLOWSHIP PEARLS

Dr SUBER HUANG
GUEST EDITORIAL

Dr HARRY W FLYNN
5 QUESTIONS

Dr F. BANDELLO
TIPS FOR A YOUNG VR SURGEON

Dr SUBHADRA JALALI
WOMEN IN RETINA - DR NEHA GOEL

Dr PARVEEN SEN

Dr S. NATARAJAN
MASTERING YOUR MIND

Dr H. BHATTACHARJEE
MAXIMISING YOUR VR FELLOWSHIP

Dr JOSEPH MAGUIRE:
FINAL LESSONS
-DR. JAYANTH SRIDHAR

Dr BERTHOLD SEITZ
CORDULA GABEL-OBERMAIER
ICO FELLOWSHIP PROGRAM

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-DR. JAYANTH SRIDHAR

ICO FELLOWSHIP PROGRAM
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Please click here http://bit.ly/YOTfeedback or type it in your address bar to submit your feedback.

You can mail your feedback to secretariat@yosi.in as well

Select feedbacks will be featured in the subsequent updates of the issue
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Dear Friends,

After completing residency, once the initial euphoria wears off, one is hit by a fresh wave of panic thinking of ‘What Next’? During this time few questions haunt the mind, whether to go for a fellowship or not? If yes, then one has to make very important decisions regarding the choice of sub speciality and institute. Then starts a series of frenzied internet searches, multiple phone calls, emails and queries to collect information. The problems don’t end there! Most often the realisation that the fellowship/training period is one of the most crucial phases in a surgeon’s life, comes towards the fag end of the fellowship. One needs and seeks a lot of guidance not only in choosing but also in the execution of the fellowship/training.

Often in such exasperating moments, one wishes that there were a ‘go to’ single resource which could make this herculean task simple. So, when my co-editor Dr Apoorva Ayachit and I were brainstorming over ideas for the next issue, we thought of attempting to develop a resource which every aspiring vitreoretina surgeon could find useful.

The issue has been divided into seven segments:

The segment Mentors Perspective is full of words of wisdom from the doyens of vitreoretina. The highlight of this issue is the Mentors Panel on VR Training. We urge all aspiring VR surgeons to read and imbibe each word carefully, as it will give them a precious insight into the thought process of the Mentors and their expectations from a trainee. Our Segment The Big Question deals with several burning dilemmas, which are often debated but rarely answered. New Frontiers will bring to you the latest in the world of VR. We have collected a bunch of wonderfully written articles in the segment Fellowship Pearls, which deal with various aspects of vitreoretina training.

An International fellowship gives one the opportunity to learn from international masters and gain invaluable exposure. So, we have added a segment on International Training, which will make you aware of various long and short term international training opportunities in vitreoretina.

In the segment Institute watch, we have put together relevant information about institutes that offer vitreoretina training in India along with fellowship interview experiences and tips from successful candidates.
Though we understand that by no means is this an exhaustive resource, but we hope it will provide some guidance to aspiring VR Surgeons, Fellows in Training & Young Retina Surgeons. To keep the information in this issue relevant and current, we plan to update it regularly. Any ideas, suggestions or contributions in this regard are most welcome. As an extension to this issue and other forthcoming training specials of other sub specialities, we have launched the **YOSI FELLOWSHIP HELP DESK**. It is a unique service that will allow YOSI members to seek fellowship advise from a panel of experts.

We are indebted to our seniors and mentors for their whole hearted support to this endeavour of ours. Everybody we approached was very forthcoming and encouraging, and for this we thank them from the bottom of our hearts. This issue is dedicated to our mentors, to whom we owe all our knowledge and skill. The cover represents the same spirit, where Dr Ronel Soibam (Senior Vitreoretina Consultant, Sri Sankardeva Nethralaya) is seen carefully guiding a young surgeon through a buckling procedure, while another trainee looks on.

Each and every contribution has been carefully crafted and lot of effort has gone into all the articles. We applaud the contributors for their excellent articles and timely submissions.

This issue has been a tremendous team effort and it would not have been possible without the untiring efforts of the Editorial Team. I thank all of them for taking out time from their busy schedules and being part of this issue.

*I hope you find this issue useful and interesting. Please feel free to send us your feedback.*
YOSI FELLOWSHIP HELP DESK

YOSI announces a dedicated help desk for counselling & information related to various fellowship opportunities (all specialities) in India and abroad. It is a free service available to all YOSI Members.

The process is simple, write a mail to secretariat@yosi.in with the subject “YOSI FELLOWSHIP HELP DESK”. Along with your query, kindly provide all relevant information and contact detail for prompt redressal.

The email will be replied by a FELLOWSHIP HELP DESK team member of the concerned sub speciality, within 48 hours.
EDITORS AT WORK
YOSI EXECUTIVE MEMBERS

Dr. Akshay G. Nair  
Dr. Aniruddha Agarwal  
Dr. Annu Joon  
Dr. Ashish Ahuja

Dr. Bhavik Panchal  
Dr. Biswajit Dey  
Dr. Chintan Desai  
Dr. Jay Sheth

Dr. Mayank Bansal  
Dr. Mainak Bhattacharyya  
Dr. Nandini Chandak  
Dr. Neha Goel

Dr. Nilutparna Deori  
Dr. Ronak Solanki  
Dr. Sahil Bhandari  
Dr. Samendra Karkhub

Dr. Saurabh Agrawal  
Dr. Sumit Grover  
Dr. Vaitheeswaran L. G  
Dr. Vedang Shah
The Young Ophthalmologists Society of India (YOSI) was established on 1st January 2014 under the able leadership of Dr Tarun Arora & Dr Vijay Sharma. It is a registered society affiliated to All India Ophthalmological Society (AIOS) that caters exclusively to the needs of ophthalmologists in training, within five years of training or ophthalmologists under 40 years of age. At present, it has a membership of over 2,700 and has risen as a platform for the for Young Ophthalmologists (YO) to voice their concerns and get guidance for a successful and balanced career. It also aims to act as a bridge between the senior leadership and the young ophthalmologists.

YOSI had humble beginnings and started as an online platform. The power of social media was used to connect young ophthalmologists. Online platforms like Facebook and twitter were utilised for information sharing, case discussions, job opportunities, emotional support and other relevant issues. YO Central, a Dropbox based distribution platform was established which housed hundreds of e-books and journals for the use of our members.
YOSI started a quarterly magazine, the YO Times, which gave YOs the opportunity to see their work in print. It also contains words of wisdom from our leaders, senior ophthalmologists and clinically relevant articles as well. We have published 14 issues till date, and all have been highly successful. YO Tube (Chief Editor: Dr Karan Bhatia) a YouTube channel was created to generate educational content in video format. It is regularly updated with high quality ophthalmic videos. Another project by YOSI is the YOSI Flashnotes (Editors: Dr Awaneesh Upadhyay & Dr Chintan Desai). The flash notes aid in understanding and memorising ophthalmic facts and knowledge quickly. YOSI is working on a Mentor Mentee program, which will help YOs to connect directly with the masters.

YOSI has been very active in conducting physical meetings as well. We conducted our first meeting YES (Young Eye Surgeons) meet in Delhi in 2015. We have been part of sessions at an international level like in EURETINA, Vienna 2018 & APAO Bangkok 2019. Under the guidance of Dr Namrata Sharma, we conducted our first international meeting the AIOS-YOSI Forum in November 2018 in collaboration with All India Ophthalmological Society & Singapore Society of Ophthalmology.

YOSI Office Bearers: Standing L to R Dr. Sonal Kalia (Vice President) Dr. Vijay Sharma (Immediate Past President), Dr Lalit Verma (Chairman Scientific Committee, AIOS), Dr Rajesh Sinha (Treasurer, AIOS), Dr Namrata Sharma (Secretary, AIOS), Dr Diva Kant Misra (Secretary), Dr Awaneesh Upadhyay (Jt. Treasurer), Dr Apoorva Ayachit (Academic Incharge). Sitting L to R Dr Karan Bhatia (Jt. Secretary), Dr Indeevar V Mishra (Treasurer).
For the first time in the history of AIOC a dedicated YO Lounge was created during AIOC2019, Indore. It was packed with YO Centric activities (Meet the Mentors, YOSI HACKATHON, YORCC(Young Ophthalmologists Retina Case Competition), Young Ophthalmologists Oculoplasty Case Competition, Extempore Speech Competitions etc) and was very popular amongst the young surgeons. YOSI also conducted two Instruction Courses in AIOC2019 under the supervision of Dr Lalit Verma. In collaboration with AIOS ARC and under guidance of Dr Partha Biswas, YOSI conducted the AIOS ARC YOSI QUIZ at AIOC2019 which had prizes upto 2 Lakh Rupees. Under guidance of Dr S Natarajan, YOSI conducted the AIOS YOSI Writing Competition on the theme of Diabetic Retinopathy Screening. The competition was judged by Dr Suber Huang, Dr Harsha Bhattacharjee, Dr Vishal Agarwal & Dr Neha Goel. It received a record number of entries & ten winners were awarded travel grants for AIOC2020, free registration for AIOC2020 and ophthalmic text books at AIOC2019.

Our seniors have been extremely supportive and granted us sessions in the major national level conferences like AIOC, ISCKRS, KERACON, EIZOCON, IIRSI, iFOCUS, OPAI etc. Major state societies like Delhi (DOS), Maharshatra (MOS), West Bengal (OSWB), Orissa(OSSA), Karnatakka (KOS), Punjab (POS), Uttar Pradesh (UPSOS), Bihar (VRSB) have welcomed YOSI with open arms to conduct sessions in their state conferences. These session have been very well attended have received a lot of appreciation.

The first ever YOSI elections were conducted in November 2018 and a young and energetic team was elected (President: Dr Digvijay Singh, Vice President: Dr Sonal Kalia, Secretary: Dr Diva Kant Misra, Jt. Secretary: Dr Karan Bhatia, Treasurer: Dr Indeever Mishra, Jt. Treasurer: Dr Awaneesh Upadhyay, Academic Incharge: Dr Apoorva Aya-chit.). A team of Executive Members were also elected: Dr. Akshay Nair, Dr. Aniruddha-
Agarwal, Dr. Annu Joon, Dr. Ashish Ahuja, Dr. Bhavik Panchal, Dr. Biswajit Dey, Dr. Chintan Desai, Dr. Jay Sheth, Dr. Sahil Bhandari, Dr. Mainak Bhattacharyya, Dr. Mayank Bansal, Dr. Neha Goel, Dr. Nandini Chandak, Dr. Nilutparna Deori, Dr. Ronak Solanki, Dr. Samendra Kharkur, Dr. Saurabh Agarwal, Dr. Sumit Grover, Dr. Vaitheeswaran L G, Dr. Vedang Shah.

YOSI has been very active in collaborating with international ophthalmic societies. Our executive member Dr Aniruddha Agarwal officially represented YOSI at AAO2018, Chicago. Dr Diva Kant Misra was invited to represent YOSI at EURETINA 2019, Vienna. Dr Diva Kant Misra represented YOSI in a APAO-AAO-SOE (European Society of Ophthalmology)-YOSI joint session at APAO2019, Bangkok.

A YOSI delegation (Dr Diva Kant Misra, Dr Karan Bhatia, Dr Ashish Ahuja & Dr Mainak Bhattacharyya) was given travel grants and invited by the Korean Ophthalmological Society to participate in their 121st Annual Congress in Busan, South Korea. YOSI has established strong ties with American Academy of Ophthalmology (AAO YO) European Society of Ophthalmology (SOE YO), Singapore Society of Ophthalmology (SSO YO), Hong Kong Society of Ophthalmology YO, Ophthalmological Society of South Africa (OSSA YO), Turkish Ophthalmic Association (TOA YO) and other prominent societies.

Dr Diva Kant Misra has been invited to speak in the YO Session of American Academy of Ophthalmology 2019, San Francisco. Dr Samendra Karkhur & Dr Diva Kant Misra have been invited to speak in the Turkish Ophthalmic Association annual conference 2019, Antalya, Turkey.
In an attempt to decentralise its activities and to manage the increasing number of its members, YOSI has decided to form state chapters. **Maharashtra Ophthalmic Society (MOS)** has allowed us to create the first state YOSI chapter and we have formed a joint committee of ten members to cater to the needs of Young Ophthalmologists in Maharashtra. Additionally, MOS has given dedicated slots to YOSI in the upcoming **MOSCON2019**. Similarly **Odisha** YOSI chapter was launched on 16th June in Bhubhaneshwar under the leadership of **Dr Biswajit Dey**. Jammu & Kashmir, Assam, New Delhi and many other state chapters are in the pipeline.

In collaboration with AIOS, YOSI is in the process of formulating **Travel & Research grants** for young ophthalmologists who have interest in research related activities.

With the strong foundations laid by our founders, support of our senior leaders & backing of a strong team, YOSI has reached a place where it can actually support and guide YOs in their careers and beyond. We hope to continue doing good work & make a positive impact in the lives of young ophthalmologists.

**To become a YOSI member visit** [http://www.yosi.in](http://www.yosi.in) **or send an email to secretariat@yosi.in**
1. Guest Editorial: Role of a Mentor
   Dr Suber Huang

2. 5 Questions with Dr Flynn
   Dr Harry W. Flynn

3. Mastering Your Mind
   Dr S Natarajan

4. Maximising your VR Fellowship
   Dr Harsha Bhattacharjee

5. Tips for a Young Retina Surgeon
   Dr F. Bandello

6. Final Lessons from a Mentor
   Dr Jayanth Sridhar

7. Women in Retina
   Dr Subhadra Jalali, Dr Parveen Sen, Dr Neha Goel

8. Mentors Panel on VR Training
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   Dr. Rodolfo Mastropasqua

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    Dr. Pritam Bawankar

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43. ESASO
   Dr Sahil Bhandari

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<td>GNEC, New Delhi</td>
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<td>46.</td>
<td>PGI, Chandigarh</td>
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<td>47.</td>
<td>McH Vitreoretina, PGI, Chandigarh</td>
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<td>48.</td>
<td>RP Centre, AIIMS, Delhi</td>
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### Fellowships

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<tr>
<td>49.</td>
<td>Aditya Jyot Eye Hospital, Mumbai</td>
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<td>50.</td>
<td>Aravind Eye Hospital, Madurai</td>
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<td>51.</td>
<td>Centre for Sight Eye Institute, New Delhi</td>
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<td>52.</td>
<td>Chaithanya Eye Hospital And Research Institute, Thiruvananthapuram</td>
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<td>53.</td>
<td>C.H. Nagri Eye Hospital, Ahmedabad</td>
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<td>54.</td>
<td>C.L. Gupta Eye Institute, Moradabad</td>
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<td>55.</td>
<td>Dr. Shroff Charity Eye Hospital, New Delhi</td>
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<td>56.</td>
<td>Eye Foundation, Coimbatore</td>
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<td>Giridhar Eye Institute, Kochi</td>
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<td>58.</td>
<td>Haji Bachooali Charitable Ophthalmic &amp; ENT Hospital, Mumbai</td>
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<td>HV Desai Eye Institute, Pune</td>
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<td>60.</td>
<td>Indra Gandhi Eye Hospital, Lucknow</td>
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<td>61.</td>
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62. ROP Training, LVPEI, Hyderabad
63. MGM Eye Institute, Raipur
64. Minto Eye Hospital, Bangaluru
65. MM Joshi Eye Hospital, Hubballi
66. Nandadeep Eye Hospital, Sangli
67. Narayana Nethralaya, Bangaluru
68. National Institute of Ophthalmology, Pune
69. Nethradhama Super Speciality Eye Hospital, Bangaluru
70. Prakash Netra Kendra, Lucknow
71. Raj Eye Hospital, Gorakhpur
72. Retina Foundation, Ahmedabad
73. Retina Hospital, Rajkot, Gujarat
74. Retina Institute of Karnataka, Bangaluru
75. Sadguru Netra Chikitsalaya, Chitrakoot
76. Sankara Eye Hospital
77. Sankara Nethralaya, Chennai
78. Shanti Saroj Netralay, Miraj
79. Shri Ganapati Netralaya, Jalna
80. Sri Sankaradeva Nethralaya, Guwahati
81. Susrut Eye Foundation & Research Centre, Kolkata
I have had some of the greatest mentors one could wish for, so I cannot deny the impact they have had on my life. I hold them in the highest esteem knowing that I can only try to emulate them but that I will never exceed their accomplishments. I consider myself fortunate beyond words. Most people reading this will not have the benefit of an internationally recognised Guru. They may be jealous of those that do, or worse, blame their lot in life to their inability to have had one. We all know of people who blame their own shortcomings on “having a bad teacher.” Perhaps it is so. It is much more important to understand that everyone and anyone can be your Guru. Your friends, family, colleagues, and especially your patients teach you about medicine, life, and what is truly important. Even those (perhaps especially those) who live lives much more difficult can be inspirational. The single mother, the chai-walla, and or the elderly neighbour may each have priceless lessons on living with dignity, purpose, and meaning.

Dr. William Osler, considered widely to be the father of modern medicine, said “Listen to your patients, they are dying to tell you what is wrong with them.” This powerful quote well illustrates how important it is to listen and learn not just to see and do. Your patients have a world of experience and accomplishments. You have but to ask.

Learning is a lifelong process. It should be in the life-sustaining flame of every physician. A mentor is also one who can re-light the spark of inspiration when the light has dimmed. Indeed, teachers have likened to candles sharing their illumination with others until their own light is extinguished. It is my hope that you will fan the flame of inspiration for yourself and others.

Gratitude is the virtue from which all others spring. It is powerfully ingrained in our culture. Do not let yourself be imprisoned by self-deprecation, diminishment of self, or loss of self-worth. It is your task to be worthy of the life you live, to be joyful in your tasks, and to selflessly share yourself with others. Hold high standards to honour those who have come before you. Live your own unique life.

Be inspired. Be an inspiration to others. Be well.

- Dr. SUBER HUANG
Dr. Suber S. Huang, MD, MBA is CEO of the Retina Center of Ohio in Cleveland, Ohio and Voluntary Assistant Clinical Professor of Ophthalmology at the Bascom Palmer Eye Institute, University of Miami. He founded the Retina Diseases Image Analysis Reading Center and was Director of the Visual Sciences Research Center. Dr. Huang has served as Convenor for the APAO Surgical Retina program since 2015, President and Scientific Program Director for the ASRS, faculty for AAO Retina Subspecialty day, and Chair, NEI/NIH National Eye Health Education Program. He is the former AAO Associate Secretariat of Federal Affairs; Chair, Research, Regulatory, and External Scientific Affairs Committee.

Dr. Huang has extensive clinical trial experience, is Founder of the Retina Image bank and Editor-in-Chief of the ASRS Online Retina Atlas. He is the IMSM for the Argus II retina prosthesis programs, DMC Chair for NVAMD gene therapy and for stem cell transplant trials for atrophic AMD. He has 4 chapters on aspects of retina surgery.

He was inducted into the Retina Hall of Fame in 2017 and received the 2018 APAO Jose Rizal International Award. He has received the “Top Doctors” and “Best Doctors in America” award annually since 2003, the AAO Secretariat Award (twice), and AAO and ASRS Senior Achievement and Honor Awards. He also received the Rainbow Babies and Children’s Hospital Pediatric Innovation, OPS J. Donald M. Gass MD, ICOP, National Diversity Council Leadership Excellence, Cleveland Sight Center Person of the Year, and the CWRU Humanism in Medicine award given to the faculty member who most demonstrates compassion and professionalism in the care of patients and their families.
**WHY SHOULD OPHTHALMOLOGY TRAINEES CONSIDER A CAREER IN VITREO-RETINAL SURGERY?**

There are many strong reasons for a career choice in Vitreo-Retinal surgery. In talking with colleagues around the world, Vitreo-Retinal surgeons enjoy the opportunity to help patients regain or improve vision when they are confronted with serious blinding conditions. The surgery requires meticulous attention to detail and no two cases are exactly alike. In talking with senior Vitreo-Retinal surgeons, they all seem very happy with their retinal surgery subspecialty choice. *Vitreo-Retinal surgery offers not only the opportunity to help patients but it also allows collaboration with colleagues in clinical research projects and the opportunity for a good income.*

**TELL US A LITTLE BIT ABOUT YOUR RETINA FELLOWSHIP EXPERIENCE?**

Following my residency of the University of Virginia in Charlottesville, VA, I was a Vitreo-Retinal surgical fellow, at California Pacific Medical Center in San Francisco. During the day hours, I operated primarily with 2 Vitreo-Retinal surgeons but in the evenings, I also operated with some of the private attendings. I had a chance to use many different vitrectomy instruments but especially with the Ocutome, which was a 20-gauge 3 port system, (relatively new at the time of my fellowship). Retinal drawings were expected on all retinal detachment cases, which often took time and effort. The advantage of this process was gaining better skills with the indirect ophthalmoscope. Following my 1-year surgical retina fellowship, I was an “obligated volunteer” to join the United States Army. I was fortunately stationed at Brooke Army Medical Center in San Antonio, as a Vitreo-Retinal surgeon for 2 years and I had the pleasure of working with residents in the Army and at UTHSC-SA.
WHAT ARE THE MOST IMPORTANT QUALITIES YOU LOOK FOR IN PROSPECTIVE RETINA FELLOWS?

Humility, honesty, and willingness to accept hard work are the key qualities. It is difficult to evaluate these qualities in a short interview. For sure, all the applicants are very smart. Often, phone calls to prior mentors of the individual will help to clarify these aspects.

WHAT ARE THE MOST COMMON MISTAKES FELLOWS MAKE EARLY IN FELLOWSHIP?

Slacking off and laziness are unacceptable. The fellows need to be the first to arrive in the clinic and last to leave at the end of the day. They need to treat the staff with respect and work as a team. Likewise, they must have empathy with patients and be thorough in their clinical examinations.

SURGICALLY, WHAT ARE THE MOST IMPORTANT PRINCIPLES TO UNDERSTAND?

Taking a conservative approach towards surgery is generally the preferred approach. Aggressive surgical recommendations to patients with minimal disease can land a person in big trouble. The risks and benefits of surgery should be carefully discussed with the patient especially with family members in the room. The surgeon should always help the patient make the best decision, but should not coerce patients into surgery simply because the surgeons schedule that week is somewhat light.

The fellows should be well versed in the significant issues of individual patients such as previous operations, allergies, special needs, etc. In addition, fellows should be very familiar with the operating microscope and the operating room set-up. These principles can be mastered early in the year.

DR. SRIDHAR

is a Vitreo-Retinal surgeon on faculty at the Bascom Palmer Eye Institute. He is also the host and creator of "Straight From The Cutter's Mouth: A Retina Podcast" found at http://www.retinapodcast.com. Dr. Sridhar can be reached at jsridhar119@gmail.com

DR. JAYANTH SRIDHAR

(YO TIMES SPECIAL CORRESPONDENT)
HARRY W. FLYNN Jr., M.D is the J. Donald M. Gass Distinguished Chair in Ophthalmology at the University of Miami, Miller School of Medicine. He is Professor of Ophthalmology at the Bascom Palmer Eye Institute. Dr. Flynn has been author or co-author of more than 594 peer-reviewed publications as well as 119 book chapters. He has edited or co-edited 8 books including 1) Diabetes and Ocular Diseases: Past, Current, and Future Therapies (2010) 2) Vitreoretinal Disease: The Essentials (2018) 3) Endophthalmitis in Clinical Practice (2018). Dr. Flynn had held numerous administrative positions including President: The Vitreous Society (now ASRS) (1992-1993), President: The Miami Ophthalmological Society (1999) and President: The Retina Society (2002-2003). Dr. Flynn has served as Senior Editor for Section 12 (Retina) of the Basic and Clinical Science Course for the American Academy of Ophthalmology (AAO). He has also served as Director and Co-Director of the Retina Subspeciality Day for the American Academy of Ophthalmology. He serves on the Editorial Board of numerous journals including the American Journal of Ophthalmology, RETINA, OSLI: RETINA, and Evidence Based Ophthalmology. He has served on the Data and Safety Monitoring Committees for DRCR Network, SCORE Study, Regeneron VIEW 1 and VIEW 2 Studies and Neurotech MacTel Study. He received the AAO “Life Achievement Honor Award” in 2008. Dr. Flynn received the Shaler Richardson, M.D “Service to Medicine Award” from the Florida Society of Ophthalmology. He received the “Hermann Wacker Award” from the Club Jules Gonin in 2012. He has delivered 31 named lectures including the “J. Donald M. Gass Lecture” at the Retina Society in 2012. In 2014, he received the “Honorary Alumnus” recognition from AOA of UVA School of Medicine. In October 2016, he delivered “The Charles L. Schepens, MD Award Lectureship” at the AAO annual meeting. In September 2017, he delivered “The Relja Zivojnovic Award Lecture” at the European Vitreoretinal Society. In November 2017, he received the “Secretariat Award” from the AAO. In 2018, he was honored to be among “The Top 100 Most Influential People in the World of Ophthalmology.” He was the keynote speaker at the 2018 Ophthalmology Times Research Scholar Symposium. In 2019, he received the Distinguished Faculty Scholar Award from the University of Miami, Miller School of Medicine.
I grew up in the Government Ophthalmic Hospital Quarters, Egmore, Chennai in 1957-1969, a treasure trove of knowledge. I had the opportunity to learn from enlightened individuals including my grandfather, Dr. S. Nataraja Pillai and my father, Dr. N.S. Sundaram. I was born with a passion for Ophthalmology and went on to continue the proud family tradition as a third generation Ophthalmologist.

During my childhood, I had the opportunity to observe a number of eye surgeries; I used a case-based approach and learned from each surgery. I accompanied my father to a number of Ophthalmology conferences. My father encouraged me to be a volunteer for writing operation notes, shifting patients and for assisting him during a number of free eye camps.

I value my experience at Sankara Nethralaya (SN), Chennai. It was my Gurukulam. I was a part of the First Retina Course in Sankara Nethralaya with Dr. S. S. Badrinath & Dr. M. M. Kini in 1985. I assisted Dr. Badrinath in complicated Vitreo-Retinal surgeries and performed surgeries independently as well. I also learnt the importance of hard work, honesty and sincerity and viewed every patient as God. I was fortunate to be the youngest consultant at SN in my early days. While pursuing my residency in ophthalmology, I tried to imbibe knowledge from all quarters - from my Chief of Ophthalmology to the OT staff, who taught me finer nuances of surgery.

Vitreo-Retina training starts during your ophthalmology residency when you are exposed to cases of the posterior segment. It is of utmost importance to have stereopsis to perform Vitreo-Retinal surgery. It may not be of prime importance in other sub-specialities in Ophthalmology. Colour blindness, red-green blindness can pose a challenge in identifying retinal lesions. It is advisable for a Vitreo-Retina surgeon to work on improving his/her dexterity. I would advise that one should rule out physical restrictions before taking up a fellowship in Vitreo-Retina surgery.
Doing VR surgery is like working on a treadmill – being on the move is a must and skill sharpening is essential. Standard operating procedure (SOP) is important and must be followed. It can be modified according to an individual, once you have understood it.

Choose your mentor. I believe that teachers and students shape each other equally and that good teachers prepare good surgeons for future but good students also make their teachers better in several ways. You should be able to master what your mentor is thinking.

I never think of anything to be impossible and strive to do what catches my interest. Our perception is what matters and an obstacle can be turned into an opportunity. I believe in five “P’s” – **Perseverance, Perfection, Patience, Prayer** and **Precision**.

The patient is of utmost importance to the doctor. Patient satisfaction is a skill which should be developed. Value work over money. The work will speak for itself. Keep learning, keep innovating, keep upgrading. Make friends, develop a network of people who you can rely on.

It is important to take care of your health, both physical and mental. I exercise regularly and try to be fit and this has helped me stay sharper and more efficient and manage the challenges that often arise in life. Having faith in Almighty has guided me and has given me an inner strength.

But as I look back at my ‘young ophthalmologist’ days, I think the one thing that stands out was my quest for learning, the constant urge to do better and better and the resolution to not stop and rest on my achievements but to keep marching ahead and creating bigger targets to achieve and giving it all I had. I would like to quote what Robert Greene mentions in the book ‘The Concise Mastery’: ‘The potential for mastery lies within each of us. Learn the secrets of the path you must follow. Unlock the passion within you and become a Master’.

What separates Masters from others is often something surprisingly simple. When learning a new skill, there comes a point of frustration, where we quit on ourselves before we actually give up. Learning and mastering a skill requires practice and therefore time. As humans, we tend to shy away from anything that seems painful or overtly difficult. We have to overcome this feeling of boredom, panic, frustration and insecurity. The secret is to have faith in the process and keep practising the
skill till it becomes hardwired and your mind is no more mired in details and you can see the larger picture.

The difference between those who succeed and those who do not is not simply a matter of determination, but more of trust and faith. Many who succeed in life have the experience in their youth of having mastered some skill- a sport or game, musical instrument, a foreign language and so on. Buried in their minds in the sensation of overcoming their frustration and entering the cycle of accelerated returns. In moments of doubt in the present, the memory of the past experience rises to the surface. Filled with trust in the process, they trudge on well past the point at which others slow down or mentally quit.

When it comes to mastering a skill, time is the magic ingredient. Assuming your practice proceeds at a steady level, over days and weeks certain elements of the skill become hardwired. Slowly, the entire skill becomes internalized, part of your nervous system. The mind is no longer mired in the details, but can see the larger picture. It is miraculous sensation and practice will lead you to that point, no matter the talent you are born with. The only real impediment to this is yourself and your emotions: boredom, panic, frustration, insecurity. You cannot suppress such emotions, they are normal to the process and are experienced by everyone, including Masters. What you can do is have faith in the process. The boredom will go away once you enter the cycle. The panic disappears after repeated exposure. The frustration is a sign of progress- the signal that your mind is processing complexity and requires more practice. The insecurities will transform into their opposites when you gain mastery. Trusting this will all happen; you will allow the natural learning process to move forward and everything else will fall into place.

From the same book, Robert Greene mentioned as rightly quoted by ‘Albert Einstein’, “The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift”

My advice to youngsters is to keep working to gain experience; always look at Best surgeons, visit them and update your knowledge and skills. I hope all of you can create even greater marvels in ophthalmic science and surgery.
Prof. Dr. S. Natarajan, has been honoured with the Padmashree Award, one of the highest civilian awards. He has been globally acclaimed for his precision in Vitreo-Retinal surgery and has been inducted in the RETINA HALL OF FAME.

Dr. Natarajan is a distinguished member of the Board of Trustees of the International Council of Ophthalmology. He is also President of All India Ophthalmological Society (AIOS), Asia Pacific Ophthalmic Trauma Society (APOTS), Sankara Nethralaya Alumni Association, Editor for Eye World India, Secretary General for Global eye genetics consortium. He has 195 peer reviewed publications, 5 books, 38 book chapters, 62 IJO Editorials and more than 2000 presentations and orations to his credit. He has performed more than 600 live surgeries worldwide. He has received Senior Achievement Award from AAO, Achievement award from APAO, P Siva Reddy Award from AIOS, 1st Bicentenary Medal by Regional Institute of Ophthalmology, Govt. Ophthalmology hospital, Chennai. He was awarded the “State Award for Meritorious Public Service” by the Govt. of J&K for performing over 200 complicated VR surgeries on pellet injury patients. He attended the Leadership Development Program of the American Academy of Ophthalmology in Nov’06 and started the Leadership Development Programs in AIOS.

Dr. Natarajan established a non-profitable Public Charitable Trust, Aditya Jyot Foundation for Twinkling Little Eyes in 2005. The Foundation has conducted thousands of Diabetic Retinopathy camps and screened over 70,000 diabetics and over 200,000 children in school screening programs. Under ONE INDIA – ONE AIOS – ONE VISION, His desire is to unite the various wings of AIOS towards a common goal of seeing our country blindness-free, where every individual has access to eye care without any discrimination on caste, creed or wealth. He has taken up the challenge of a Nationwide diabetic retinopathy screening program coined as “S.T.O.P Blindness”. "Jyot Se Jyot Jalao” will be the theme of this campaign over the next five years implemented through AIOS.
Sub-specialisation is required for optimal career development of an Ophthalmologist. Vitreoretina as a subspecialty is challenging but rewarding in the long run. Fellowship is a period of transition between residency to clinics and it aims to transform a general ophthalmologist into a safe and independent vitreoretinal surgeon. To achieve this goal, combined clinical and surgical is a must.

Vitreoretinal training thirty years before and now is completely different. Small gauge vitrectomy and myriad of surgical tools empower a VR surgeon to perform the surgery with more precision and perfection with lesser surgical training time. Learning curve is not as long and tedious as it was before. It is an interesting and joyful experience with opportunity for expansion of clinical knowledge and surgical skills. Complications during modern VR surgery is less so observations of more number of procedures can help to gain experience in complication management.

Time is of utmost importance. Proper utilisation of time during the fellowship programme makes all the difference. Time is limited, hard work and enthusiastic participation in academics, training and scientific research gives a better yield.

Career selection before joining a fellowship programme depends primarily on the candidate’s choice. What interests more? Self assessment for aptitude of learning? Evaluation of individual strength and weakness helps to take correct action and decision. Decision is to be essentially realistic otherwise a trained VR surgeon may ultimately land up performing only intravitreal injection or cataract surgery.

Certain fundamental knowledge is to be acquired before joining a fellowship programme. To understand the advance concept of VR specialty, one should be well
versed with anatomy, physiology and pathophysiology of various vitreoretinal as well as macular diseases. Without mastering these building blocks, VR knowledge and skill development may become extremely challenging. Only sufficient background knowledge would make the fellowship more interesting and productive.

Choice of fellowship should be competency based, target oriented and based on measurable outputs. Hybrid model of fellowship combining optimum proportions of academics and surgical hands-on is most rewarding. Other points of consideration for evaluating a fellowship could be, Number of faculty and their reputation, scope of research and mentor guided/independent surgical opportunities in the programme. It is good if all of these are in perfect combination. Outpatient or surgical load should not be the only consideration, rather the training schedule and the efficiency of the programme determines the final output. **At the completion of training a fellow should be skilful, confident and safe for service delivery and develop the potential for future capacity enhancement.**

Patients are like open books and can teach a lot. Learning, understanding and confidence building depends upon how much a fellow would attend the clinic, the operation theatre, observe the procedures and attend & execute investigation session. A sincere involvement towards patient’s care helps one to understand the need of the patients.

Learning process includes clinical evaluation, short listing, investigation, diagnosis and action plan. Regular verification of individual assessment with that of the mentor is required. If there is disagreement, logical evaluation of opinions would improve the understanding. Take active part in decision making and follow the result of action taken. Vitreoretinal service is a teamwork, one should master that skill too.

Developing soft skills for patient management and connecting with patient following legal, moral and ethical standards are encouraged. The medical business, administration, billing and legal matters should also be learnt from the mentor.
Success depends upon how one fulfils the expectation of the patients and proves his or her efficiency in decision making, diagnosis, investigation plan and skill. Mind set for progress is to change along with time towards perfection.

“A mentor is someone who sees more talent and ability within you, than you see in yourself, and helps bring it out of you.”

Bob Proctor
DR HARSHA BHATTACHARJEE, MS, FRCP, FRCS is the Founder, Medical Director and Trustee of Sri Sankaradeva Nethralaya (SSN).

An MS in Ophthalmology, Dr Bhattacharjee is also a Fellow of the Royal Colleges of Surgeons (FRCS). After a stint in the government where he grew to the post of Associate Professor at the Regional Institute of Ophthalmology in Assam, Dr Bhattacharjee went on to found SSN in 1994.

In addition to offering comprehensive eye health care for all key blinding conditions, SSN trains local eye health teams and engages in research. Community eye health for vulnerable groups is a core element of their ethos, with over 60% of patients being treated free of cost. In 2004, SSN was declared a Centre of Excellence by Dr Manmohan Singh, former Prime Minister of India. Over the years, SSN has impacted on over 25,24,952 persons in the base hospital excepting outreach patients.

Dr Bhattacharjee has pioneered services such as intra-ocular lens implantation, vitreoretinal care, paediatric eye care, occuloplasty and laser surgery in the region. He has performed over 200,000 cataract and anterior segment eye surgeries and over 200,000 other surgeries and ocular cancer treatment interventions till date.

He has authored over 250 scientific papers and has co-authored several text books on ophthalmology. His work has been presented in numerous scientific forums and he has chaired several prestigious scientific sessions, both nationally and internationally. Some of the awards and honours that he has received include: Achievement Award by South Asian Academy of Ophthalmology; Achievement Award by Asia Pacific Academy of Ophthalmology; Excellence in Medicine Award conferred by Down Town Hospital, Guwahati and felicitations by Rotary International, among others.

Dr Bhattacharjee assists several universities and is a lifetime member of prestigious bodies like American Academy of Ophthalmology, American Society for Cataract & Refractive Surgery and ICEH among others. His pioneering efforts have helped significantly strengthen eye health care in Northeast India.
Vitreo-Retinal surgery is one of the most important subspecialties of ophthalmology, treating a large percentage of ophthalmology patients. After completing a full training in general ophthalmology the willing Vitreo-Retinal surgeon will undergo a sub-specialty training of at least 2 years.

The learning process combines surgical expertise with clinical skills, surgical strategy development, and ability in communications with colleagues and patients. The above skills wave together being liked one to the other.

As for many surgical specialties, the technological support is becoming more essential therefore developing a practice with latest and advanced instruments is an unmet need for a Vitreo-Retinal surgery trainee.

If available, it is useful to spend time with a simulator and completing the full course offered by this tool. This shortens significantly the learning curve and makes the supervisor’s role more productive.

Receiving supervision by different mentors is a key factor to enrich technical and personal progress.

Passion, commitment and perseverance are the ingredients of success.

A forward-thinking country should take into consideration the amount of resources needed by a teaching hospital. Dedicated staff and technologies are critically important in the development and maintenance of an adequate training system, which is indeed money consuming. The economic support of these centres should be a priority for the National Health System. Nowadays, only few European governments provide solid funding for teaching hospitals and hopefully, this example will be followed by the other countries.
FRANCESCO BANDELLO MD FEBO, is Professor and Chairman at the Department of Ophthalmology University Vita-Salute, Scientific Institute San Raffaele, Milan, Italy & Academic Dean “Corso di Laurea Specialistica/Magistrale in Medicina e Chirurgia” University Vita Salute, Scientific Institute San Raffaele, Milan.

He is the National Institute of Health (N.I.H. – U.S.A.) Peer Reviewer for grant-applications since 2006, President Academia Ophthalmologica Europea, Member Academia Ophthalmologica Internationalis, Fellow of the European Leadership Development Programme (EuLDP) of the American Academy of Ophthalmology, President of the Scientific Committee of the “IAPB Italia Onlus”, Executive Board Member of ESASO Foundation, Coordinator of the “Gruppo di Studio SID Complicanze Oculari del Diabete”, Member of the Board of Directors of Retina Global, Novartis Ophthalmology Vision Award (XOVA) Committee Member, Member of the Subspecialty Jury of the ICO-Allergan Research Fellowship, Member of the Grants Review and Awards Committee (GRAC) of the Bayer Ophthalmology Awards Program (BOAP), Editor in Chief of the European Journal of Ophthalmology.

Prof. Bandello is co-author of several books and he serves as a peer reviewer for grant applications for the NEI. He has authored or co-authored over 555 articles and he served as trained Principal Investigator in several clinical trials performed following ICH/GCP and mainly concerning retinal diseases.
Dr. Joseph I. Maguire, a Vitreo-Retinal surgeon at Mid-Atlantic Retina and Wills Eye Hospital and one of my fellowship attendings and role models, passed away over last year after a long battle with cancer. I wrote this article to pay tribute to a few of the lessons he taught me and countless fellows and residents over the years at Wills:

1) **Take time:** In his own practice and in his teachings, Dr. Maguire emphasised the importance of *taking the necessary time to sit down with patients and explain*. Explain what is going on, why it is happening, and what the goals of therapy are. I remember once presenting to him a patient with a diabetic tractional retinal detachment from the fellow clinic. Dr. Maguire, despite being very busy in his own private clinic, took the time to sit down with this patient to go over her blood sugar and insulin regimen, emphasising the impact that her systemic disease was having not just on her vision, but also her life as a whole. That experience has always stuck with me and since then, *I always try to make enough time for my initial encounters with patients suffering from significant diabetic eye disease.*

2) **Be a doctor, not just an eye specialist:** Dr. Maguire had almost an encyclopaedic knowledge of systemic diseases with retinal findings, whether it was Purtcher-like retinopathy or crystalline retinopathy. It reflected in his day to day patient care; *he took thorough, comprehensive medical histories* that put me, as the fellow working in his clinic, to shame on more than one occasion. As he liked to say to me, ‘*the ‘MD’ stands for ‘medical doctor’ for a reason’*. 
3) Movement equals error: One of Dr. Maguire’s favourite expressions in the operating room was ‘movement equals error’. It was his caution for the excited, rapidly improving surgical fellow that being an efficient and skilled surgeon is not about how fast you move while operating, but about preparing and planning in advance, understanding surgical principles, and avoiding wasted movement. There were surgical specifics that I personally learned first from him, like how to imbricate sutures on a scleral buckle or the concept of ‘oar-locking’ instruments in vitrectomy cannula, but the concept that moving faster is not better will stick with all of his former fellows.

4) Give feedback: Dr. Maguire gave direct, honest, and constructive feedback frequently to me and I appreciated every bit of it. Early on in fellowship I remember doing (what I thought was) a thorough retinal examination on a patient with new floaters on call and finding no issues. Dr. Maguire saw the patient two days later in follow-up and found a retinal tear. He picked up the phone and called me, not to berate me or scold me, but to simply tell me what he had found and where so I could learn. Giving feedback seems like a simple thing to do, but for many of us it can be difficult to tell someone to improve in a compassionate enough way to avoid hurt feelings. He also would give positive feedback unsolicited. When he once called me after a long day in the OR together, I assumed it would be about a patient-related medication prescription or paperwork that I had forgotten to fill out. Instead, he simply told me that I had done a great job and that he was very proud of me. We cannot forget to let our trainees and colleagues know when they are doing well.

5) Pick up the phone: The examples in #4 above were classic Dr. Maguire because he was ‘old school,’ and he picked up the phone and called you when he needed to talk. We live in the digital age of text messages, Instagram DMs, and retweets, but so much can be misconstrued when sent in a few words without any sense of inflection or context. If a conversation is important, pick up the phone. Two minutes of talking can get a lot more across than fifteen minutes of back and forth cryptic emojis.

6) Be loyal to your team: No one would stand up for his fellows, residents, and staff more than Dr. Maguire. No matter what his schedule commitments were like, he always came to fellow presentations and conferences. He was generous to all those around him; in fact, the last time I saw him in person he quietly picked up the check for fifteen former and current fellows out for lunch after a reunion in Philadelphia. I also remember once there was a patient being extremely rude to one of the front desk staff. Before anyone else could intervene,
Dr. Maguire arrived at the scene and quietly but concisely reminded the patient his responsibility as a patient of the practice to be as respectful to the staff as he would be to any of the doctors. *Being loyal to the people around you is not only the right thing to do, but it inspires loyalty back that will build priceless relationships and an A+ working environment.*

7) **Be honest:** I remember as a fellow writing a research paper with several attending surgeons including Dr. Maguire as a co-author. When I emailed a draft to him, he called me (see point #5 above!) and asked to not be listed as an author, not because he was not keen in supporting me, but because he felt that he had not contributed enough to merit a spot on the authorship docket. While I explained and eventually convinced him that the research would have been impossible without his help, I was always struck about how principled he was about academic honesty that his initial instinct was to call and ask not to be included. *Let’s all be honest with ourselves, because in the end it is more important we respect the person we see in the mirror every morning than to have a couple extra lines on a CV.*

8) **Be a good person:** Dr. Maguire was an exceptional doctor and surgeon, but more than that, he was one of the best people I have ever met. The first word that comes to mind when his colleagues and fellows think of him is ‘gentleman.’ *He was respectful and kind to everyone, without any ulterior motives.* It was simply the way he was built.

*I will miss him tremendously and I know I am not alone among my friends and family from Wills. I feel for his family, and I hope that they can take solace that Dr. Maguire was regarded by all who worked with him as an amazing husband, father, doctor, surgeon, mentor, role model, and friend. RIP Dr. M. We all love you.*

Dr. Jay Sridhar is a Vitreo-Retinal surgeon on faculty at the Bascom Palmer Eye Institute. He is also the host and creator of “Straight From The Cutter’s Mouth: A Retina Podcast” found at [http://www.retinapodcast.com](http://www.retinapodcast.com). Dr. Sridhar can be reached at jsridhar119@gmail.com
Vitreoretinal surgery has traditionally been a male-centered subspecialty, since the days of lengthy retinal detachment surgeries. Whenever I attend a vitreoretina conference, I realize the painfully obvious disproportion: this remains a male-dominated field. Looking at the speakers and moderators I find a few women scattered in the majority of men, usually less than 20%. This leads me to the inevitable question – what is holding us back and how do we overcome “it”?

The American Society of Retina Specialists (ASRS) has a group called “Women in Retina” (WinR) which focuses on peer connection, mentoring and uplifting other women within the field. Our field has been a “boys club” for decades, where men mentor men, elevate men, and encourage men. It’s time for women to come together and do the same.

We asked two leading female vitreoretinal surgeons their thoughts, experiences and perspective on this aspect. These women are at the top of the field, something that required exceptional talent and effort. They chose to pursue vitreoretina at a time when they were the only females to do so. We rely on these great female role models to guide us towards establishing our place in the filed and maintaining it.
1. Vitreoretinal (VR) surgery has traditionally been a male-centered subspecialty and continues to be so. What made you pursue this field despite this obvious disproportion? Did you feel a male preponderance and any hindrance due to it during your training in VR?

**Dr SJ:** I was possibly the second or so dedicated VR surgeon aspirant in India. (Kairobi Lahiri from Mumbai ahead of me; maybe few others). It was sort of ‘News of the day’ at LVPEI in 1991, that a woman aspirant had applied and was selected on merit, for retina training! My HOD appeared not too happy at this news as for ten years as a trainer he had never considered a woman trainee. I was told that “women are not fit for retina, will you cut your hair to wear indirect Ophthalmoscope? How will you take care of your four year old child while doing ‘tough work’ of VR surgeries? You are sure to take lots of unplanned leaves for family care and the department work will suffer. Women are very good, but are suited for contact lens department etc.” I was amused and not hurt. My reply was ‘Thanks for the Welcome; I hope I will make you change your mind about women’.

The huge amount of hard work, naïve sincerity, focus of purpose, scientific vigour, excellent knowledge and keen learning desires were what changed the perception of my male teachers about me and possibly about other women in Retina. I neither cut my hair nor have almost ever taken any ‘unplanned leaves’! Seeing my work from close quarters, gave them new insights, I believe, about how women work both for patients and for family. Within six months, the same HOD, whom I had already declared and considered as my Guru from the day of joining, became my staunch supporter, mentor, guide, friend and has been encouraging and supporting me ever since. Whatever I am today is because of his ever forthcoming faith in my work and my values, and his remarkable encouragement over last nearly three decades at LVPEI.

I fell in love with “Retina” the first time I used an Ophthalmoscope, as a medical student, and saw this mystic, hidden, beautiful pink, irreplaceable delicate organ inside our eyes, from which we ‘see’ this whole world! That day I dreamt of being a retina specialist. It is a male dominated world or that avenues for learning and practicing were really severely limited, I came to know only later- but true love always prevails and so did mine!
Dr PS: It’s destiny. As a postgraduate the first conference that I attended was on Vitreoretinal Surgery. This was attended by stalwarts like Dr. S.S Badrinath, Dr. Lingam Gopal and Dr. George Hilton to name a few. So much was the influence of all these great Retinal surgeons on my mind that the decision was made instantly in my mind at that moment that I have to specialise in Vitreoretina. Being a woman and that it could be difficult for me as a women didn’t even occur to me. This passion brought me to Sankara Nethralaya, Chennai.

In Sankara Nethralaya, I was the only female Vitreoretina fellow in my batch. I was fortunate to be in Sankara Nethralaya which provides an excellent working environment for all including women. The long hours of work, with surgeries going into the night was exhausting but enjoyable. Lot of support from my family and friends helped me sail through.

Dr SJ: Except for the initial skepticism by my HOD, I have never felt discriminated by my patients or fellow retina surgeons, due to my gender. With more and more dedicated and excellent surgeons, both males and females in my institute, patients are quite comfortable with both genders. In fact many patients perceive the compassion and care and patience and fineness exhibited by women retinal surgeons a great reason to ask for them.

As regards Pay scale gaps, in our institute these do not happen as everyone is treated equally and starting salary is based on qualification and years of experience so everyone gets the same to begin with. Performance linked promotions ensure similar pay-scales as women move higher up. This may be different in other organizations.

However, it is true that if we see overall earnings, women may be earning less because 1. They may not be asking for more and let the system decide, so this may not give them the best of what they deserve 2. They do take a slower route to promotions during few years of child care and so reach the male pay levels slower as they go higher 3. Due to actual performance issues because I do not believe that all women (and all men) perform equally well and so this may not always be a gender issue. 4. Perceptions that the women can be given lesser pay or delayed pay because anyway their male spouses are earning for them!!

2. Do you feel career opportunities for women retina surgeons differ from their male counterparts? Employers and even patients have been known to prefer male surgeons as they appear more “committed”. Studies in the USA have also revealed a wage gap as far as women are concerned – why do you think this gap exists, if at all, in India?
(this was actually told by an organization to their female surgeons!! Of course the female surgeons resigned urgently!) **5.** Lack of confidence or conviction that they should get same pay as their male colleagues. I remember when Dr. Rao asked me how much pay you expect (my first job and I had no idea what a doctor earns) I just blurted out, ‘give me same as you are giving to Dr. Bansal who joined few months before me!”

**Dr PS:** The career opportunities in general are lesser for vitreoretinal specialists because of the nature of work as well as the higher cost of initial investment. It may be further limited for women in India because of the challenge of having to manage both the home front as well as the professional life. The challenge is to find a good set up close to where the family is. But I think with lot of private hospitals coming up, things are improving. The wage gap in India probably is not as bad as in the USA; unless the women choose to work for lesser hours.

But you rightly mentioned, the patients may prefer a male surgeon. All these problems are more in the initial stages of your career but if you continue to treat your patients with kindness, empathy and most importantly efficiently, the patients will come to you. In a surgical branch probably one advantage is that your results speak for you. A well done retinal surgery speaks volumes about the surgeon (male or female). The value of the word of mouth is unbelievable even in this era of internet. As a woman you may have to work harder than your male colleagues but let that not deter you; the respect you will earn for your good work is worth it all.

**Dr SJ:** In early years of my career, I did not feel any challenges as a woman retinal surgeon-in fact many would respect me and be awe-struck just for being that unique person in a crowd of men! My Scientific vigour, meticulous work, integrity, honesty, compassion and love for truth and justice helped me to outshine many of my peers in all areas: clinical/surgical and academic. Excellence was what I pursued with single minded determination and this was what brought in all the achievements.
Only later, as I moved up the administrative responsibilities becoming the Head of department and participating in policy and decision making bodies did I have a problem. Problem was that my perspective of looking at problems, offering solutions and discussing issues was not always the same as others on the panels (most panels had only me as the lone woman). These differences were of course partly because I looked at issues from a woman’s perspective (safety, justice, effect on family and society, legal aspects) and less from financial and disciplinary aspects- which was reverse of some of the male thought process and priorities or solutions; but differences were also due to non-gender perspectives like being ahead of times, listening less and talking more, sometimes not planning well so I cannot blame it on gender discrimination alone. Over the years, my colleagues have learnt to respect and accept my perspectives and also I have made continuous attempts to improve the flaws in my approach and in my personality so as to become more effective and acceptable. This journey of self improvement continues even now and is helping to move forward.

One area I have found discrimination/challenge is from some of the invitations at conferences and especially at industry sponsored symposia. Corporate world needs huge changes in mindset about strategies to get valuable, sincere and excellent women speakers into their seminars! The Women Ophthalmological Society of India supported by Allergan is a nice beginning, but still there is a challenge to find women in mainstream corporate symposia. Same is true for many seminars and workshops where usually complicated surgical topics are rarely given to women!

**Dr PS:** The most challenging thing is to be able to have a good balance between the professional life and personal life. Again the struggle is more in the early years; your professional career is also demanding because you are new to a lot of things and the learning curve in a surgical branch can be really steep; the children also are small demanding more of your time and attention. The key is to just “hang on there”. Taking a decision to quit one for the other should not be taken in a haste. Continue working at whatever pace possible. You may win on one day and lose on another day.

I wasn’t able to travel for many meetings or conferences and observerships abroad in early years; but that also meant I could give more time to improve my surgical skills and involve myself in research activities. And of course keep reading so that you are up-to-date with the latest.
Dr SJ: Believe in yourself and work hard with values and convictions. There are no short cuts to success—success is a beautiful journey and every human being can strive to this journey of Excellence! As mentioned above, gender related issues become much smaller when we are inside rather than outside of the problem and we continuously look inside to improve ourselves. I do not believe that there is any ‘glaring disadvantage’ for women VR surgeons in India or in many other countries. Scores of outstanding Women-in-Retina, Role models are all around us both Nationally and globally. It is all in the mind. We have to remove negative thoughts from our mind, as Tagore said and I strongly believe, “Where the mind is without fear and the head is held high.” If your heart and soul are in vitreoretina, you will definitely outshine, no matter what!

Dr PS: Leadership can be bestowed but more importantly is earned. The best way to make a beginning is to keep working on presenting papers. Don’t wait for “invites”. Things have improved and increasingly people do notice your publications and see what you have worked on and invite you to share your published work.

As the number of females will increase at the podium, this glaring disadvantage will decrease. There are difficulties but none that cannot be overcome. The women have to be ready to put that much more hard work that is necessary to attend conferences. To prepare your talks and keep up-to-date with the ever evolving field of medicine requires a lot of commitment and can eat into your private time or time for relaxation. Sometimes having less meetings to attend is also nice; it allows you more time to do quality work and more quality time for yourself!

For newcomers I would say start early. Don’t postpone your professional aspirations. And don’t be scared to ask for help.
Dr SJ: I do not like the term ‘WORK-LIFE Balance”. It connotes that we have to compartmentalize our lives into ‘work’ and ‘life’! For me ‘work is life and life is work’ and my life is intertwined in a tight beautiful tapestry of work that makes the amazing tapestry of ‘ME” very beautiful and ‘Beingful’. Patients, extended family, husband, children, colleagues, my Institute, my staff, my neighbours, my country, the bountiful nature, the amazing heritage of literature, music, dance, history and geography, my society and so much more- each one of these completely fills up every moment of my life. Each is given due priority, yet the ‘ME” remains detached while being attached- this is due to a lot of spiritual training I had in my childhood in Kashmir. Hence the joy of LIFE is from within and I share it all around me with full energy and Joy! Yes some practical tips of how I did this: Always had my House next to the children's’ school so that they did not have to waste precious time and energy in travel through traffic, organised my children's’ post school schedule in such a way that we always had one to two hours of QUALITY unhindered Mother-child time together. Full time housekeeper to share the household work and ‘Mother-in Law’ is always right and she is an essential and very affectionate partner in my journey of life were key decisions I made very early in my life. I was very sensitive to the fact that society looks down upon working women, and I was determined to be the very Best! I became a voracious reader of non-fiction on topics like human relationships, child upbringing, mid- life blues, our epics, Upanishads and Puranas and a lot more and all this reading helped me to take pragmatic decisions during innumerable challenges in my life.

Doing Homework and project work was completely the responsibility of the children and I empowered/encouraged them from early childhood to take this responsibility- I never had to sit for homework with them; time spent with Children was for building bonds of love, care, values, telling stories, having fun, solving conflicts of teenage and adolescence, broadening horizons of mind and making them capable to follow a life ‘where the mind is without fear and the head is held high… ’. There are a large number of instances to depict my “SINGLE LIFE”- that is for next time!
Dr PS: You need to prioritize your goals and remember, it’s not possible to do it all.
Take your personal life responsibilities as another facet of your life; and life is so much more interesting and enjoyable when you have multiple facets than just wearing a “tie and a business suit” and be present in all possible meetings!
Be proud to be a good surgeon, a good teacher, a good researcher, a good friend and a great mother. But don’t use your personal commitments as an excuse to find an easy way around your professional career.

6. If you could offer advice to your younger self, what would it be?

Dr SJ: I am still young, but anyway will answer this!

a. In early years of my life, I was very lean and thin as I was a very active sportsperson and did significant physical work at home with kids and kitchen. I put on weight later on as I did not pay attention that these activities were dropping off my life, when kids became older and housekeeper managed everything. I would advice my early life self to watch weight and not let it go beyond control. I would certainly advise not to reduce weight by diet restrictions but to continue alternate daily physical activity with changes in years of life.

b. Continue some introspection into leadership development and personality development as you move from junior to senior levels and learn to listen more and more. Learn to Speak in more crisp and clear manner. Keep to the time and space allotted to You!

Dr PS: “Look at the larger picture”. Don’t fret about small things in life. The pleasure is in the journey; there is no “destination”. Slow and steady really does work and helps you emerge a winner.
And remember the most important thing is to take care of your health especially your physical fitness. Retinal surgery is physically demanding and literally “back breaking” especially for women. Take out time for yourself to keep physically fit and enjoy whatever you do.
Dr Neha Goel MS, DNB, FRCS, MNAMS, has worked as vitreo-retina and uvea consultant and in-charge electrophysiology services at ICARE eye hospital and postgraduate institute, NOIDA, U.P for 7 years. She has keen interest in academics with over 100 publications in various journals. She has presented over 90 papers at various levels. She is a co-author of “Handbook of clinical trials in ophthalmology” and has authored several chapters in books. She is currently Assistant editor, research methodology and clinical research, innovation and translational research of Indian journal of Ophthlamology and was the assistant editor of Delhi Journal of Ophthlamology from 2015-2017. She also serves as a reviewer for several international journals. She has received numerous awards, including “Young Researcher’s (PG) Award” for thesis from All India Ophthalmological Society (AIOS) in 2011, Dr. A.C. Agarwal trophy for best paper from the Delhi Ophthalmological Society (DOS) in 2011 and 2012, Best Paper Award at Joint Meeting of Asia-Pacific Academy of Ophthalmology and AIOS in 2013.
Dr. Subhadra Jalali, did her MBBS from Govt. Medical College Jammu in 1986 and MS from PGI Chandigarh in 1989. She completed two year fellowship from LVPEI in 1993, and further fellowships in USA in Ocular genetics, Visual Electrophysiology and Posterior Uveitis (1995) and in Retinopathy of Prematurity (1998). Presently she is at LVPEI since 1993 and currently runs an exclusive Paediatric retina service. She was amongst the first group of pioneering women in India to go for exclusive Retinal surgery practice that was an exclusive male domain at that time. She has over 600 presentations including orations and 165 publications in National and International journals and 15 book chapters. She is a Co-investigator in various multicentric international studies. She is the recipient of State, National and International awards including the AAO and APAO Achievement awards, ISCEV travel grant, P. Siva Reddy award to name a few. Her crowning glory is however the more than 350 fellows trained by her in ROP from Mexico to Azerbaijan to Indonesia and Bangladesh besides all over India through one of the first dedicated one month hands-on ROP training program. She also conducted the first ever paediatric retinal surgery hands-on workshop. The IJO platinum award is for her pioneering work published on outcomes of setting up a city-wide ROP program, the first one in India and in most of the countries. She is now working for setting up similar programs in cities and towns of India and also in neighbouring countries. She loves dancing and enjoying various cultures around the world. She can be reached at subhadra@lvpei.org
Dr. Parveen Sen trained at Sankara Nethralaya has been working at Sankara Nethralaya since as a vitreoretinal surgeon since 2000 and currently a Senior Consultant at the institute. She has more than 80 publications and several book chapters and has coedited 3 books. She has made many presentations at National and International Conferences.

Her special interest is pediatric retinal surgery especially surgery for Retinopathy of Prematurity. She heads the electrodiagnostic department at Sankara Nethralaya with several years of experience in Genetic disorders of the retina. Her other areas of interest are AMD, polypoidal choroidal Vasculopathy, and Retinal Imaging.

She has been actively involved in the teaching and training of the postgraduates, Vitreoretina fellows and optometrists. Has been involved in many research projects including multicentric international trials.

She is also a reviewer for several National and International Journals.

She can be reached at parveensen@gmail.com
Fellowship directors of prominent programs in the country share their candid opinions on an ideal VR fellowship, qualities they seek in fellows and advice on how to make the best of your fellowship.

We wholeheartedly thank the mentors for sharing their vast experience in vitreoretina training and their invaluable advice to all young vitreoretina surgeons in training across the globe.

We dedicate this issue to all the mentors who have trained scores of students directly or indirectly.
Do you think most of your fellows are equipped to dive into a full-fledged Vitreo-Retina fellowship right after residency? What are the prerequisites a resident must bear in mind before embarking on the journey? Do you feel Vitreo-Retina fellowship is different from other subspecialties?

Dr. Manabjyoti Barman

The most important thing before starting any residency program is candidate’s interest in the particular specialty and knowledge about future perspective. Residents should bear in mind that Vitreo- Retina sub-speciality is slightly different from other sub-specialities due to its relatively long learning curve, unpredictable treatment outcomes and higher machine dependency. However a Vitreo- Retinal surgeon has the advantage in career as he/she can deal with both anterior as well as posterior segment pathologies.

Dr. Mahesh Shanmugam

I would say, yes, most of my fellows do come equipped to cope with the vitreoretinal fellowship after residency. The inclination to become a VR surgeon probably makes them acquire the requisite knowledge during the residency itself in preparation for the fellowship.

What they understandably lack is the basic VR surgical expertise, either because a VR set up was not there at their centre or even if available, VR fellows get the chance and not the postgraduates.

I would not be in favor of another bridge course between the residency and fellowship – the long journey of becoming a specialist would just get longer – there are other things in life other than the profession one has to attend to as well! Vitreoretina is a rewarding field – not financially but to the inner fire that made one become a doctor in the first place. When a blind person who had to be led in to the room at the initial visit, walks in by himself after surgery, the satisfaction one feels is the ultimate reward – it is his and his family’s livelihood that one has saved.

The struggle, the frustration, the despair felt when battling the retina in to place during the surgery was all worth that one moment.

On the other hand, there will be many moments of dejection one will feel as a VR surgeon – despite the best efforts, the disease can defeat you and at times, it may happen once too often, making one wonder if it is all worth it. When faced with repeated failures, one has to strike a balance between attributing all failures to the disease vs. taking the blame for all failures on oneself. Both are bad, the first will lead to an ultimate failure as a VR surgeon and the second to persistent heartburn and depression.

Some patients’ expectations also run rather high – when we struggle to give them ambulant vision, their expectation is 6/4, N6 vision, the resultant heartburn is to the surgeon!

Being a VR surgeon is being a student for life - each surgery, every day teaches something – if one refuses to learn, one will fade professionally with surgical failures piling up. The long surgeries and poor ergonomics will also take a toll on your orthopedic health.

One should figure out all these aspects before pursuing VR as a career.
Do you think most of your fellows are equipped to dive into a full-fledged Vitreo-Retina fellowship right after residency? What are the prerequisites a resident must bear in mind before embarking on the journey? Do you feel Vitreo-Retina fellowship is different from other subspecialties?

Dr. Manish Nagpal

Whether fellows are well equipped to do fellowship right after residency depends on the place or institute from where they have finished their training since in India there is no uniformity on the training imparted at different places. However we require a minimum of three year residency program and in case they have done 2 year diploma program then we do ask them to get another year of experience before applying to us. Regarding pre requisites, the most important aspect is personal interest in the particular sub-speciality. Because otherwise to spend two years in a field without any interest in it would not do justice to the whole program. Moreover they should also have some clarity on how they would utilize the training post fellowship and preferably have some place in mind which has good facilities and equipments with a existing patient volume to be able to do further your training and gain confidence. Every speciality is different from each other and VR requires a lot of patience and skill to face a large variety of cases. Every case is different than the other as compared to a cataract speciality where the diversity of cases is much less.

Dr. Guruprasad Ayachit

No. The pre requisites are –
Proper motivation for doing the fellowship in the specialty, e.g. Did not learn during residency and want to learn now, taking on the challenge of a difficult sub specialty , wanting to serve an underserved population or geographic location, starting a department in a hitherto busy hospital previously not equipped.

An aspiring VR fellow must be good at SICS and preferably Phacoemulsification too. A good cataract surgeon can mature into a good surgeon in any specialty because of the skill involved, the awareness about the low safety margins during certain steps and the necessity to handle tissue appropriately.

Vitreoretina is certainly different from other specialties.
1. It is not taught like other specialties in residency and usually needs to be taught from basics during fellowship.
2. It needs weeks of practice to master basic examination techniques,
3. The findings in the vitreous and retina are so subtle, similar and diverse that it takes long to familiarise with even the common signs.
4. Safety margin for certain steps of surgery is so little that it is only in the later part of residency that they can be allowed to be done by the resident.
5. The diagnostics and surgical equipment are prohibitively expensive that it is difficult for most to start full-fledged.

Dr. Atul Kumar

I feel Vitreo-retina fellowship is more complex than other fellowships. It is labor intensive, exhaustive and requires a lot of commitment from the fellow. It has a slow and steep learning curve. The resident should be well versed in finer aspects of tissue handling and surgical skills to become a successful fellow.
Three questions in one here.

First, Residents differ, in my experience, in capability at the end of residency. For the average ones, a period of at least 6 months as a General Ophthalmology junior consultant helps them get perspective and learn the art of managing a patient as a whole, grasp the nuances of empathetic counseling, handle difficult situations etc and generally become more aware of ground realities compared to a raw resident. It matures them for the grind and allows gives them time to truly determine if they wish to take on a tough fellowship.

Second, prerequisites are
a) do they have the passion to sustain a career in retina (rewards being the only joy of the job rather than instantaneous material benefits for at least 5 years post fellowship)
b) are they willing to spend as much time (or more) reading as they did during their residency?
c) they will never have the same level of surgical confidence as an IOL counterpart – it will require more effort post fellowship
d) is setting up a practice post fellowship their priority (tougher option) or do they wish to continue in their institution (more suited for those with an academic mindset)

Third – Of course, vastly different - the reading, effort is more, hands-on surgical opportunity is less, but the reward and pride of belonging to a true super-speciality is more.

Dr. Raja Narayanan

This is a great question. India has more than 3000 residents in Ophthalmology at any point of time. However, historically, training in retina and exposure to retinal procedures is grossly inadequate in most programs. Theoretical knowledge is quite good in many candidates, but this is largely dependent on the Resident’s passion rather than the program. Basic training in indirect ophthalmoscopy, biomicroscopy, interpretation of OCT, B-scan and fluorescein angiography is quite limited in many residency programs. Fellowship programs in Retina are of 1 to 2 years duration, and lack of basic practical knowledge can be a significant hurdle in attaining proficiency of various surgical procedures at the end of the fellowship. It would be unjust to group all candidates in one basket, and I think fellowship interviews and exams should be designed in a way that they can differentiate those with just good theoretical knowledge from those with adequate practical knowledge of retina. Retina is not ‘different’ from other specialties, rather the training in residency is inadequate.
Dr. Shobhit Chawala

I would like to answer this question by rewinding back into time. I feel the mindset and passion to pursue a VR fellowship comes from the time when you first pick up an indirect ophthalmoscope and view the fundus in a totally different perspective. So the only prerequisite I see is a passion for VR work and the capacity to give it a few years of hard work even post fellowship.

The difference lies in that the learning curve in VR surgery is longer.

Dr. Vishali Gupta

We run a three year Mch course in Vitreo-retina that is equivalent to Mch in other surgical specialties. Ours is the first institute in the country to start this course, thus bringing VR surgery at par with specialties like Neurosurgery, plastic surgery etc. Prior to initiation of this course, we used to have three years of senior residency in VR Surgery. During the third year of their training, our trainees get hands on experience to do most complicated of the cases independently and are competent to dive in full fledged retina practice. I feel that VR surgery training should be at par with other surgical super-speciality training so that you don’t need to ask this question. I can proudly say that our residents who get trained in VR practice VR after leaving and not revert back to anterior segment.
How have you designed the fellowship teaching program in your institute? What are the different protocols and disciplines you follow in OPD, OR & bedside clinics in grooming the fellows?

Dr. Atul Kumar

We have the largest ophthalmology residency training programme at R.P. Centre, AIIMS, Delhi. After residency, we have dedicated, extensive 3 year sub-speciality training in all the major disciplines. We have state of the art Vitreo-Retinal setup and provide exhaustive training in medical, surgical Vitreo-Retina, ROP and Uvea. In OPDs and dedicated afternoon speciality clinics, the fellow is exposed to variety of complicated cases referred from all over India. With the help of latest multimodal imaging facilities like Optos, SS-OCT, OCT-A, Retcam, MFERG, fellows manage the cases under direct guidance from faculty. In evenings, they do detailed preoperative workups of various cases admitted in wards.

They are also encouraged to teach and discuss among themselves. Case based bedside teaching is given utmost importance. Symposia and Live surgery workshops are held routinely on difficult topics. They perform VR surgery under supervision in a graded manner. Fellows are encouraged to pursue research and present in various conferences.

Dr. Mahesh Shanmugam

Formal classes wherein the fellows present are scheduled at least 2-3 times in a month. Most teaching however is informal, a small group discussion in the morning of the OR’s, discussion on latest literature in the OPD etc., In the OPD, on rotation, one fellow is with the consultant the other working up the patients. There is always something to be learnt from each case – the person working up learns from the case file and also in the examination of the patient; the fellow posted with the consultant sees each patient the consultant sees, learning the art of interacting with the patient, clinical findings, treatment protocols and management of that particular patient. Fellows are posted to assist in the OR – they examine the patient pre-op and assist in that patient’s surgery. The teaching will pivot on the particular surgical plan the fellow has envisaged for the patient vs. how the consultant manages the patient and learn from this experience.

Senior fellows do independently examine patients in the OPD and dispose them. Surgical expertise is gained initially by doing surgical steps, then simple surgeries such as silicone oil removal, dislocated lens removal, SF IOL, macular hole etc., independently before progressing to independently managing complex cases such as rhegmatogenous retinal detachments with PVR, diabetic TRD’s and CRD’s etc., Of course, a consultant or senior fellow will supervise / take over and manage in case of difficulties.
Dr. Manish Nagpal

We have a two year program and they go through a certain sequence of training and gradually increase their independence over the period. How fast they pick up also depends on individual skill and determination and can vary from person to person. We have weekly classes in which cases are presented by the fellows and are discussed in details apart from discussing recorded surgical videos from that week to learn about the techniques and management of complications. Each fellow takes up one or more clinical project which is furthered over the period and can formulate into a peer reviewed publication and also for submission at various retinal forums for presentation as free papers. Similarly surgical videos are also made a periodic intervals for teaching as well as participating in various surgical forums and competitions. In the operation theatre also they have a sequence of how they observe, assist and do assisted procedure over the tenure. We do not have a fixed number of surgeries that they need to do and it all depends on their individual skill set as well the type of patients being operated. They become well versed with all the diagnostic procedures as well as lasers and intravitreal injections. They are also trained to setup vitrectomy machines for the surgical procedures and to trouble shoot when something is not working. In the outpatient they work up new cases and come up with a probable diagnosis to the consultant which is then confirmed or redefined based on final impression by consultant or after carrying out diagnostics thus enhancing their skills.

Dr. Guruprasad Ayachit

Yes there is a structured teaching program in our Institute.

Protocols in OPD- In the first three months of fellowship the fellow is asked to shadow a senior fellow/junior consultant /director by rotation. He/She is taught and asked to take fundus pictures with the fundus camera of patients having abnormal fundus. The diagnosis is mandatorily entered in the patient information.. Cases with typical signs seen by seniors are shared with the new fellows. Lot of importance is given to retinal drawings. The fellow is required to have his drawing verified and validated by a consultant. Class room teaching is done twice a week. The fellow is asked to present a seminar or a case. A moderator/faculty is assigned the discussion but the entire class is encouraged to participate.

Imaging is an important aspect of diagnostic methods. A fundus picture, OCT,FFA,ICGA, B scan, electrophysiology etc are discussed between juniors and seniors/faculty.

In the OR the newly joined fellows are allowed from month 2 onwards. They are taught scrubbing, gowning and gloving to orient them to the institute’s methods. They are taught OT etiquette and gradually allowed to assist in the surgery. Steps of surgery are discussed in detail. The fellow is taught as to why a particular step is done in a certain way and rationale behind it. As the fellows become seniors they are asked to start surgery independently. Initially they are allowed to do steps of surgery with a wider safety margin and as they become adept at these are allowed more and more challenging steps.
How have you designed the fellowship teaching program in your institute? What are the different protocols and disciplines you follow in OPD, OR & bedside clinics in grooming the fellows?

Dr. Anand Rajendran

This demands an exhaustive answer.

The 2-year fellowship programme at our centre, in brief, is graded and divided into 4 segments of 6 months - where they go through basic orientation of clinical skills, diagnostics, lasers, injections and surgeries with a continued upgradation through the segments. In the last 6 months, they get to perform a greater amount of surgeries, mostly independently with assistance.

In the OPD too, they are to see cases and show consultants with increasing, graded independence in treating patients as the course progresses.

Dr. Raja Narayanan

I have not directly designed fellowship program, but have been glad to be part of a collaborative team under the leadership of our Director of the Academy of Eye Care Education. We devote the first month of fellowship in brushing up basic clinical skills, irrespective of which residency program they graduated from.

We have a rigorous schedule of classes, which includes basics of surgical machines, viewing systems and diagnostic equipment.

We have regular assessments of fellows in clinical skills, including surgical competency, as well as research skills. Each fellow is assigned a faculty mentor, who is typically of another specialty. This helps them in having frank discussion about their progress during fellowship.

Dr. Shobhit Chawla

We take in two VR fellows at a time at a difference of six months.

We have them start with medical retina and attend the imaging area with every patient they see and generate reports. At the same time they read from the library and other resources, whatever they encounter in Outpatients. Besides this they workup all the patients and that’s our OPD procedure.

The first 12 weeks are thrice a week with one retina consultant in Operating Room to observe machine set up and the procedures. the next twelve weeks they assist and thereafter the start the cases in operating room under full supervision, basic steps at first.

On the academic front is a grand round day shared by VR fellows and DNB students.
Dr. Manabjyoti Barman

Fellowship teaching program should be designed with plenty of opportunities to learn under supervision with aim to groom the fellow to become an independent and complete VR surgeon by the end of the program. It is divided into 3 phases (though sometimes customized, depending upon the skill and previous clinical exposure of the resident).

Phase 1: Orientation, obtaining skills in OPD work-up as per Institutional protocol, obtaining skills in posterior segment examination and imaging procedures including laser and minor surgical procedures like intravitreal injections. At the same time some research project is given to the resident.

Phase 2: Learning OR protocols, knowledge about OR equipments and sterilization, OR preparation, Observing surgeries and working with equipments, post –operative patient care and record keeping are expected to learn during this phase. In OPD, case examination, diagnosis, documentation, counseling and patient disposal should be learned under supervision.

Phase 3: Performing some surgeries and patient disposal independently under supervision by the mentor. Also he / she is expected to gain sufficient knowledge and skill to guide juniors and to work in a team.

During the course of fellowship fellows are expected to maintain their log-book and actively participate in regular academic classes. Also they are expected to write and publish paper/ case report in journals, attend conferences and to participate in other Institutional activities for overall development.

Dr. Vishali Gupta

As mentioned previously, we have a structured teaching program for Mch. Each resident is rotated through different disciplines like ROP training; peadatric retina training; retina imaging lab posting comprising of FFA, ICG, USG, OCT, UBM, OCTA etc, laser posting and surgical training. They also participate in regular teaching including grand rounds, CPC, surgical videos, journal club etc. They are involved in doing emergencies and taking care of indoor patients as well as teaching junior residents.
What is the best way to grasp the nuances of Vitreo-Retina & do you recommend any mandatory reading sources for medical and surgical retina?

Dr. Atul Kumar

The best way to learn is to observe and assist live surgeries being done by the mentor and understand finer nuances. We perform Digitally Assisted Vitreoretinal Surgery using NGenuity at RPC. It gives a major boost to teach multiple fellows at the same time. One has to be thorough with the latest volume of Ryan’s Retina. I have also authored a book on retina which encompasses my personal experience. It is a concise book focused on diagnosis and management pertaining to Indian settings. The title of the book is Retina: Medical and Surgical Management, Edition 2018, Jaypee Publishers. The fellows can also learn from online resources like AAO, ASRS websites.

Dr. Manabjyoti Barman

One should not become impatient and rush to do new things. Regular study, positive attitude, self confidence and respect to patient is must. In my opinion best way to grasp the nuances of VR is by a combination of regular reading from standard text books (like Ryan’s or Peyman) reviewed journals and in clinic discussing cases with colleagues and mentor. Small tips during surgical steps or in OPD may go a long way, for which one should be observant and attentive as well.

Dr. Vishali Gupta

The best way to learn is to see your patients meticulously and go back home and read everything about that particular disease that you have seen in your patient. The resources have to be a combination of text book with latest journal articles as many a times the information given in the text book may be outdated.

Dr. Mahesh Shamugam

The focus is on learning about a particular finding in a given patient or a particular diagnostic or surgical issue we face in the course of an OPD or surgical case. This is achieved by searching the literature then and there using the mobile Internet or any other resource such as digital textbooks or journals– this tends to stay etched in the memory.

Preparing for classes, presentations in conferences, writing manuscripts are all avenues for learning and all these are encouraged.

The fellows do read standard textbooks and seminal articles in due course as part of their preparation for the fellowship theory exams.
What is the best way to grasp the nuances of Vitreo-Retina & do you recommend any mandatory reading sources for medical and surgical retina?

Dr. Guruprasad Ayachit

Nuances of Vitreoretina – I feel that a fellow must learn from his seniors. However shadowing a consultant who is experienced (clinically and in teaching) is a must to draw inspiration and learn the nuances of the specialty. The approach to a patient to arrive at a diagnosis and customising the treatment for a given patient can be learnt only from an experienced clinician. Reading material – Besides text book (Kanski/AAO BCSC series/Ryan retina/ Yanoff/Jackobiec/Steve Charles VR surgery), the fellow must also know how to do article search from journals and must read these articles. A lot of information not available in text books can be got from reading journals.

Dr. Shobhit Chawla

With the change in informatics and availability of reading resources times have moved. In our time as fellows mandatory reading used to be Howard Schatz book on fundus fluorescein angiography and Atlas of macular diseases by Donald Gass. These were the mainstay along with Charles Schephen’s book on retinal detachment and allied disorders. Now of course I would rate Stephen Ryan’s retina as a comprehensive resource with lot of add on reading on imaging etc from net resources. The old books by Schepens and Gass were not only information but moreover were inspirational for a young fellow and showed the path to diligence and perfection.

Dr. Anand Rajendran

It has to be an amalgamation of continuous, intense reading as well as discussion, presentation of cases, journal perusal. We make it mandatory to read Ryan, Yannuzzi, Peyman’s Surgical text. We also recommend a number of atlas’ (especially Gass Atlas).
What is the best way to grasp the nuances of Vitreo-Retina & do you recommend any mandatory reading sources for medical and surgical retina?

Dr. Manish Nagpal

Typically we would recommend fellows to read up the Ryan Retina volumes as well as Steve Charles surgical books as well as diagnostic texts on imaging of all sorts. However nowadays there is so much available online as well for them to refer all the time. There are websites of the AAO, ASRS and Eye Tube etc which have a lot of video and imaging content apart from all the new updates in medical and surgical retina. In fact I encourage all fellows to refer to them as well as be a part of them by uploading interesting images on sites like the Retina Image Bank etc which allows them to get noticed globally and also contribute to such online libraries of information.

Dr. Raja Narayanan

My focus is on applied learning, rather than cover to cover reading. Cases seen in the clinics should be flagged for discussion at the end of the day with the faculty, and those cases should be read from text books (Ryan is usually what I would recommend), and updates from Pubmed search should be incorporated. Additional reading is also recommended, such as from Atlases (Gass, Yannuzzi are my favourites). There is no point seeing a patient of Coats disease in the clinic and reading a chapter on Retinitis Pigmentosa in the evening.

Similarly, for surgical cases, the reading should happen the previous day, such that the fellow is able to understand the nuances of surgical steps during the surgery.

I send off fellows to the library during clinics to read up cases if they are unable to answer basic questions, and ask them to bring back written notes. Fellows are also encouraged to do extra reading in their passionate areas, which may culminate in a manuscript.

Finally, I spend many hours (over many days) with fellows reviewing their case presentations and journal clubs.
Apart from the theoretical knowledge, fellow’s ability to think and adapt during a surgical case, decision making and technical dexterity play an important role. How do you go about teaching these?

Dr. Atul Kumar

A fellow works directly under supervision of faculty members. They learn observing faculty members and their seniors.

Dr. Manabjyoti Barman

Detailed planning of the approach towards a case should be made before hand and should be discussed by the mentor with the fellow. Any change in surgical steps or treatment plan should be explained. For this a healthy mentor – mentee relation is a must. Before starting surgery, one should try to spend some time in the wet lab to improve technical dexterity and hand-eye co-ordination. Always start OR practice with simple surgical steps. Record your surgical steps and see these later to find out the difficulties and scope of improvement.

Dr. Mahesh Shanmugam

As mentioned earlier, the fellow is encouraged to draw up a game plan for the surgical case he / she is to assist the surgeon and discuss it with the surgeon. I would also encourage them to wonder why I did a particular step in that particular way in a given case, thereby encouraging the ability to think on the trot and devise solutions. I would also do a surgical audit of my own surgery that went wrong. Doing this with the fellows allows them to learn from it and also encourages them to do the same – review their own surgical videos and learn from them. Technical dexterity is individual but most can be trained to overcome their limitations and become decent surgeons. The multiple complete surgeries they perform, initially under supervision and subsequently completely independently allows them to realise their potential. Junior fellows are encouraged to assist senior fellows as well thereby breaking the barriers to learning and also to learn from the mistakes their colleagues make.

We do a surgical audit as well, particularly when a given surgery performed by a fellow did not go as per plan. The surgical video is dissected by the consultants, guiding them to improve their techniques – the whole team participates in this exercise allowing all to learn from each other’s mistakes. The bottom line is that each should take responsibility for their own actions – not that they are penalised, but then assuming this responsibility results in one giving their best to their patients, for life.
Apart from the theoretical knowledge, fellow’s ability to think and adapt during a surgical case, decision making and technical dexterity play an important role. How do you go about teaching these?

Dr. Vishali Gupta

Simulators and wet labs are the best way to acquire these surgical skills.

Dr. Manish Nagpal

This is the most important aspect of a long term fellowship. The fellows are constantly assisting you or working up your cases and you are constantly discussing every nuance. They constantly ask why I choose to do this or that for a particular reason in a given situation and why I have chosen to do something different in exactly the same diagnosis in a different patient. The beauty of any pathology is that they don’t read books and hence we have to build on our experience to diagnose and treat and vary our treatment strategies as per what we feel might be more effective in that particular scenario. During surgery also the fellows constantly discuss the reasoning behind doing a particular step etc and when they watch that again and again in different situations its easy for them to remember these treatment strategies as well as surgical steps and nuances. Dexterity is a boon for any surgeon. However the amount of dexterity and finesse would of course vary with every individual. Hence they are always asked to practice using both hands and interchange the tools with both to gain as much dexterity from practice as possible.

Dr. Guruprasad Ayachit

As I already said - Surgery is taught in a phased manner and initially the steps which can be delegated should not be intricate. As the fellow gains confidence more difficult steps can be allowed independently. The entire process is to be done under supervision and akin to a sports coach, mistakes are to be highlighted without dampening the confidence of the fellow. During surgery the consultant has to know exactly when to take over from the fellow. In the interest of patient safety the threshold for taking over v/s allowing the fellow to continue has to be judiciously balanced.
Apart from the theoretical knowledge, fellow’s ability to think and adapt during a surgical case, decision making and technical dexterity play an important role. How do you go about teaching these?

Dr. Shobhit Chawla

The best approach to adapt to a particular surgical case is *surgical planning*, *discussion to approach in OR* and *keen observation*. For surgical dexterity we follow the approach of teaching and making the fellows do a one step at a time in a particular case, way back *Prof Arthur Lim* a great teacher in the Asian context advocated *teach but do no harm*, so navigating a path of surgical skill transfer should be a very systematic, stepwise and a well supervised process. *Complications are a natural part of the learning process and should be dealt with by the supervising consultant.*

Dr. Anand Rajendran

Ensuring that fellows watch cases - at least a few of the challenging ones, during OTs and then engaging and encouraging them to discuss and voice their doubts helps improve their thought process, decision making and technique choices at critical situations. *Creating an atmosphere where the fellow feels uninhibited in asking and clearing their doubts is vital to their learning process.* Also having them see recorded surgical videos also helps them analyse the surgeries as well as learn how to manage complications.

Dr. Raja Narayanan

This is a tricky point. This is best taught during surgery, but it is not easy when a patient is being operated under local anaesthesia(LA). A lot of problems can be avoided by doing an indirect ophthalmoscopy just before giving LA, or going through relevant scans. *A plan should be discussed with the fellow, but the fellow should be allowed to make the plan.* Examples include using a 6 mm infusion cannula because of various reasons, or planning a bimanual surgery with Chandelier illumination. Most fellows understand instructions during surgery. Some of them can have a mental block of not being able to listen and operate. In such cases, I take over if there is a threat to safety. But it is always a good point to go over the video and teach the fellow after the case.
Is there a magic number for surgeries and other procedures to declare that a fellow is competent to deal in Vitreo-Retina? Are there any other yardsticks you use to assess surgical competence of your fellows?

Dr. Anand Rajendran

We believe a minimum of 30 independently performed vitrectomies, and 5 buckles should help achieve an acceptable degree of competence to perform the basic and slightly complex cases. Of the vitrectomies, at least 5 should be independently (or with minimal watchful assistance) settled Retinal detachments. All this, however, comes on the backdrop of at least 100 assisted vitrectomies, in which they do parts of the surgeries in a graded manner over the 2 years.

Dr. Atul Kumar

There is no magic number. The fellow should be well versed in theoretical knowledge and finer surgical skills to become successful. He should be able to manage the postoperative complications. Patient satisfaction defines your competence.

Dr. Guruprasad Ayachit

No, there is no magic number as such. It depends on several factors such as, number of live surgeries watched, number of surgeries assisted, number of steps of surgery performed, number of independent surgeries performed, number of videos watched and above all the comprehension and inherent creativity and dexterity of the fellow.

But on an average 10 independent successful complex surgeries can be considered the “magic number”.

Yardsticks to assess surgical competence of a fellow:

1. Doing the basics consistently right.
2. Safe surgery at a reasonable speed
3. Knowing when to blame an instrument or machine
4. Adapting to and overcoming special and difficult situations,

Dr. Mahesh Shanmugam

I wish I knew what this magic number was!

Our fellows would do 100-200 or more independent surgeries of different complexities during the course of their fellowship. The surgical and visual outcomes are monitored and as mentioned above, a surgical audit within the department allows each to learn from the other’s mistake.
Is there a magic number for surgeries and other procedures to declare that a fellow is competent to deal in Vitreo-Retina? Are there any other yardsticks you use to assess surgical competence of your fellows?

Dr. Manish Nagpal

Don’t think it can be defined by a magic number and moreover with centres like ours which are totally private its difficult to keep a fixed number for each program. We do not take exams of any sorts and this program is a voluntary fellowship program where it’s the internal integrity and interest and skill of the fellow to take as much from the institute as possible.

Over a period of time we do know in a few months after a fellow has joined the particular strengths and weaknesses they have. Some are well prepared and very clear in their ideas about how they go about and some of them constantly need to be guided. Some have a lot of academic interest apart from enhancing clinical skills and some have a better or poorer combination of both. Frankly speaking fellowship program is the only time of your life when you can freely ask any questions and take up as many academic projects as possible .You can leave the entire responsibility of outcomes on your guide. This would not be possible once you are independently working in the future. So we encourage all fellows to be as curious as possible, ask the silliest of questions wherever in doubt and constantly prod the guide with ideas. It would go a long way in building their experience which will help them throughout their life.

Dr. Manabjyoti Barman

I don’t think so. It is not the quantity but the quality matters. Competence to do surgery depends on the individuals interest, knowledge, confidence and grasping power. While each fellows have different capabilities, customized training schedule with ample opportunities under supervision should be given to each of them to improve on the skill set and areas needing improvement should be communicated.

Surgical competence can be assessed either by directly watching the fellow while doing surgeries or by seeing the outcome in post-operative period. A monthly surgical stepwise competence based analysis and appraisal report can be handed to the fellow with some grading system.

Dr. Vishali Gupta

There is no magic number though the residents do keep a log book. I think the biggest yardstick is the confidence of mentor to give independent surgeries to his or her fellow.
Is there a magic number for surgeries and other procedures to declare that a fellow is competent to deal in Vitreo-Retina? Are there any other yardsticks you use to assess surgical competence of your fellows?

Dr. Raja Narayanan

I do not believe in a magic number, and I can vouch for this with personal experience. There is also a huge variation in the number of surgeries offered in different fellowship programs. Wrong skills get magnified by doing them in more number of cases! One should assess the following – is the Fellow’s hand following the thoughts of his/her mind, and is their thought process correct? Having said this, I also don’t believe in programs which give 10 cases in 2 years.

Dr. Shobhit Chawala

There is no magic number, it is a more of a continuum of surgical exposure which we focus on with our fellows. Once satisfied with the development in skill levels we give them the liberty and confidence to commence every VR surgery and then take over at the most complex parts. This not only is a great skill builder but watching and assisting in the most complex dissections and peelings leads them up the scale.

The only yardstick which we personally take into account are the pre-surgical planning done in the OR before cases and that determines the approach of the fellow which is more important than just the core surgical skills, which can happen to all with time.
What qualities do you value most in your fellows? What sets an extraordinary fellow apart from the rest?

**Dr. Anand Rajendran**

The basic requisites of a fellow that are non-negotiable for us are – honesty, integrity, empathy for patients, sincerity in doing their duties, a high degree of diligence and an acceptable level of theoretical knowledge and surgical capability. An outstanding fellow, and we have had quite a few, is one who consistently goes beyond the call of his duty in doing that extra bit in serving patients, demonstrates high surgical competence, high theoretical knowledge and is able to make excellent, confident presentations, execute projects & do high quality research.

**Dr. Atul Kumar**

Dedication and commitment towards work is must. He should be a patient learner. He should focus on concepts and basics of surgery. He should learn from the seniors.

**Dr. Guruprasad Ayachit**

- Sincerity and Hard work.
- Discipline in documentation
- Following general departmental etiquette
- Focus, Quest and yearning to learn.
- Inclination to research.

**Dr. Mahesh Shanmugam**

Honesty, integrity, owning up responsibility for one’s own actions, compassion, innovation, enthusiasm to learn and positive energy.

**Dr. Vishali Gupta**

Honesty and dedication. Nothing else matters to me.
What qualities do you value most in your fellows? What sets an extraordinary fellow apart from the rest?

Dr. Manish Nagpal

Curiosity is quality what I think I would value most in a fellow. He/she needs to be inquisitive about everything around. They should be able to question and constantly ask why this is so and why not so and also why are we treating this patient differently as compared to another patient with a similar diagnosis. They should not work mechanically. They should not presume a diagnosis just because somewhere in the patients past papers someone else has mentioned some diagnosis. When one has worked with so many fellows it is easy to gauge in a few months whether the fellows has these qualities or not. Some of them have in built curiosity whilst in many one has to make them curious or teach them the value of curiosity by giving examples in the daily routine. The other quality I also would like in my fellow would be to look at every case they see as something unique. They should try to find out what the given literature says and why this case may be different, whether it be imaging, be the follow up or some clinical manifestation which may be unique. As they say “Diseases don’t read books” and that’s the best part because it stops making you mechanical and think and correlate so many different clues to arrive at a diagnosis.

Dr. Manabjyoti Barman

Being focused, dedicated and sincere are important qualities. One’s will to learn new things and the inherent curiosity to understand the subject make a difference.

Dr. Raja Narayanan

Fellows who are excellent with their head, hands, and not the least, their heart.

Dr. Shobhit Chwala

Honesty and recognizing his limitations when he is dealing with situations in this new challenging speciality and off course the desire to learn and continuously improve. What sets an extraordinary fellow is the ability to analyse and question and off course extraordinary hard work To take on responsibility of analyzing data for papers etc.
You must be faced with situations where fellows do not follow instructions or fail to keep up with deadlines for projects that a mentor has assigned. How do you deal with such a fellow?

**Dr. Anand Rajendran**

Fellows who do not meet the mark are immediately apprised of their shortcomings – I believe that being candid with them is important as it is important to know if there are some mitigating, personal issues that are limiting them. Once that is clarified, non-compliant fellows should be dealt with firmly – they will be told that their non-performance would affect their clinical and surgical opportunity. Repeat, serial offenders, especially if they are serious, are given one final warning and may even be terminated.

**Prof. Atul Kumar**

We have strict working atmosphere. Every case is dealt in a personalised manner based on institute’s guidelines.

**Dr. Guruprasad Ayachit**

Strong warning and if no effect withhold his/her completion certificate. However this is a very rare occurrence.

**Dr. Mahesh Shanmugam**

The basic ethos of the department reflects in the fellows’ behaviour. It is thus imperative that the mentors practice what they preach thus setting the tone for the fellows to follow. There are usually no penalties but then the environment in the department is such that everyone understands their role and strive to give their best. In extreme situations where patient safety and care are compromised, penalties may follow – from not being allowed to participate in patient care for a period of time, to warnings etc. Not meeting deadlines is dealt with by repeated reminders, which if ignored, are dealt with by assigning responsibility to another person. The more serious offshoot of this behaviour is the loss of trust with that particular fellow which will have long lasting consequences. For instance when there is an enquiry in the future for a job reference for that particular fellow, the consultant may be less forthcoming. Hence it is in their own interest that fellows own up the responsibility and act as expected out of them during the fellowship.
You must be faced with situations where fellows do not follow instructions or fail to keep up with deadlines for projects that a mentor has assigned. How do you deal with such a fellow?

Dr. Manabjyoti Barman

I strongly believe that unlike a residency program, a fellowship program is absolutely voluntary. When a fellow joins you he is sacrificing two years plus of the most important years of his life to come and learn and imbibe all that you have to offer. So most of them are extremely sincere and make a lot of efforts to define and complete their tasks. It would be rare to see someone constantly failing to do so. What usually happens is that as a mentor you start giving more responsible and important work to the fellow who is efficient and curious and is constantly driven to perform. That way the work gets done efficiently and is productive for the whole team. The fellow who has time and again shown laxity would slowly be given less and less responsible aspects of the work, be it clinical or academic. Since this is a voluntary fellowship program we do not have any penalties or punishments but in the long run they would realise what they have missed out on in the crucial two years of the fellowship program.

Dr. Vishali Gupta

I don’t take it to heart. I help them in understanding the importance of doing it right and leave it to them. I don’t believe in spoon feeding and I have not come across a fellow who has not met deadlines. Fortunately, all the thesis that I have guided has resulted in publications.

Dr. Shobhit Chawla

Frankly speaking have had very few such situations and have been blessed with great hard working fellows.

Dr. Raja Narayanan

If a fellow is sincere in work, work on them with kindness and get them on track. They deserve a teacher’s kindness. If a fellow is not sincere in work, they need lots of talking, and reprimand. If a fellow is not sincere, has lots of ego, show them the door.
At the end of the tenure, on what benchmarks do you define a successful Vitreo-Retina fellowship?

Dr. Anand Rajendran

A successful fellow would be one who emerges confident and has achieved a high level of clinical, theoretical and surgical knowledge and competence coupled with an ability to make the right practical as well as compassionate decisions for patients. They should also have gained the affection and respect of all their colleagues, paramedical staff as well as consultants.

Dr. Atul Kumar

There should be total dedication and commitment towards one’s speciality. We should perform result oriented surgery and do personalised patient care.

Dr. Guruprasad Ayachit

Mastery over examination techniques. Proper interpretation of Imaging modalities.

Dr. Mahesh Shanmugam

The routine benchmarks are the marks they obtain in the theory paper and the practical exam, conducted at the end of the fellowship. The true benchmark is the confidence with which they go out in to the real world – the day the call me back to tell me that they have successfully operated on their first case outside the boundaries of their alma mater.

Dr. Manabjyoti Barman

I will deem a fellowship program successful, if at the end of the tenure the fellow can independently handle the Retina outpatient department, confident on diagnosis and management plan and perform common VR surgeries independently and successfully. Having at least 2-3 good publications is also equally important.
At the end of the tenure, on what benchmarks do you define a successful Vitreo-Retina fellowship?

Dr. Manish Nagpal

I think when a fellow has spent two crucial years of their life on a daily basis to be with you and be a part of every clinical, surgical, diagnostic and academic activity at the hospital, it’s a privilege to give completion to that tenure. **Completing the fellowship does not mean that the learning is complete. It actually means that you have a very good foundation laid on which you could go out and build a strong future for your self.** We do not have any exams which define a benchmark and it’s the tenure which defines a completion of fellowship. After completion the fellow is a part of the alumni and begins a new life knowing that **its alma matter is always there to constantly support them for their future endeavours**. Moreover during a fellowship period the fellow is exposed to a particular school of thought of that institution and I would always encourage them to go out and observe other experts from different schools of thoughts which may help them to truly find their own.

Dr. Raja Narayanan

Fellows who are excellent with their head, hands, and not the least, their heart.

Dr. Vishali Gupta

An honest physician, good researcher with curiosity for learning, capable of leading and good surgeon.

Dr. Shobhit Chawla

The ability to diagnose routine situations and competently manage these cases with confidence, skill and proper counseling. Nothing less than that should be defined as a successful VR fellowship. Most of all also to recognize limitations and cross consult.
If you were to do a fellowship in today's era, how differently would you approach it?

Dr. Anand Rajendran

I would have been delighted to do a fellowship in this era as for one, **reading material is so easily accessible** and available in this cyber-age, secondly there is an **explosion of excellent Retina Meets** all around the country where great information exchange and discussion with stalwarts in the field are available. Additionally, clinical and surgical outcomes, given the antiVEGF and MIVS era, have improved, **making the Retinal branch far more gratifying than in our time**. I would have devoted more energy to reading more journals of the net as this was not as accessible earlier, perhaps been able to focus more on the complex vitrectomy cases, especially the

Dr. Atul Kumar

I **would start from the basics**. I would first learn basics of instrumentation, microscope handling and tissue dissection. I would then perform Vitreo-Retinal surgeries starting from basic to complex cases. I would read latest advances in retina including imaging. I would learn by observing/assisting others.

Dr. Guruprasad Ayachit

I would choose a proper fellowship center after a lot of research / compilation of facts from reliable sources/past fellows. Given a choice I would list my priorities keeping in mind my training requirements for the practice type. e.g mainly medical retina practice or comprehensive Vitreo-Retinal practice. Teaching Vs Private Vs group vs family practice. **I will make a choice for concentrating further and honing my skills on medical/ surgical aspects depending on my inherent abilities.**

Dr. Mahesh Shanmugam

All the above are my take on how I would like my fellowship to be!

Dr. Vishali Gupta

I have not done any fellowship nor I have gone abroad to train. I have done my three years of VR training as senior residency under **Prof Amod Gupta** and I would not like to change a thing about it. Given a chance, I will repeat those three years even today.
If you were to do a fellowship in today's era, how differently would you approach it?

Dr. Manish Nagpal

I don’t think it would be very different today as far as the approach is concerned. You have to dedicate two years of your life to a program and you want to master it as much as possible in that tenure. You want to imbibe everything that your alma mater can give you. **So approach is based on sacrifice, dedication, ambition and an inherent curiosity to know more and more.** When a fellow applies for a particular fellowship program they should have visited the place and seen its functioning for a few days or a week before finalising the program. Because sometimes you go with a certain intent and expectation and every place is different in its approach. So I would always advice any fellow to make sure they know what they are getting into, right from the institute, its mentors, the city, logistics because if you have to go away from your own comfort zone and spend two years you have to **make sure that you reduce the variables that may affect the quality of your fellowship program.** Moreover fellowship program is also about a team work. There are already senior fellows when you join and some may be starting with you and it's always best if you work in a team. **The learning becomes much easier as a team and knowledge multiplies easily.**

Dr. Manabjyoti Barman

Mentor should be friendly and interested in teaching fellows and should make them feel relaxed through professionalism at the work place. With massive growth of technology and rapidly evolving science, mentors are also expected to be up-to-date with the changes and ready to accept new things and ideas.

Dr. Shobhit Chawla

**I feel the fellowship we did was very adequate in training and direction.** I feel today the mandatory requirement is more towards data analysis and publication which was quite nascent in our times as the speciality was slowly getting more established in the country and training norms were still getting defined. This is an area which needs to catch up to fellowship programmes available internationally.
Dr. Anand Rajendran

I believe, setting up a basic minimum standards draft, is a welcome idea as it will help standardize the fellowship programmes of the country. Additionally there needs to be a greater effort to upgrade exposure of postgraduates to the retinal branch so that bright talent is attracted to this field as a higher density of retinal surgeons around the country is the need of the hour. We also need to ensure that support programmes from parent institutes for their fellows, once they pass out and are finding their way in the world, are also encouraged.

Dr. Atul Kumar

Vitreo-Retina is a complex fellowship which demands commitment and patient learning. Surgery should be result oriented.

Dr. Guruprasad Ayachit

A fellow in Vitreo-Retina must realise that as it stands today the specialty is very satisfying in terms of the challenge that it poses. However investment to start a basic set up is heavy. Monetary reward and matching patient satisfaction is difficult to achieve. A judicious counselling is required, given the unpredictability of results which however can sometimes result in losing the patient and frustration to the novice. The fellow should also learn from the mentors the art of not falling into the net of litigation.

Dr. Mahesh Shanmugam

At the end of it all, it can be frustrating if one is not able to practice the craft one has pursued with passion. Opportunities are difficult to come by for VR specialists in cities but this should not be a dampener – one should be ready to relocate to a smaller place which would allow him / her to pursue their love for VR

Dr. Vishali Gupta

Just be honest and follow your heart always.
**Dr. Manish Nagpal**

I had joined Retina Foundation in 1997 as a fellow. My father has been my mentor along with other consultants and senior fellows. At that time our program used to be for 6 months. But for me there was no time frame and hence it went on for a few years. This made me realise the value of a longer fellowship period. Eventually we extended our program to 1 year and then to a two year program which is what it is even today. And for me the learning has come from our own centre as well as visiting almost all the premier teaching places within India and many wonderful surgeons abroad. I would advise every fellow that after the fellowship please take every opportunity to visit a good teacher/surgeon in your field wherever you get a chance to travel. You may be going to a place for an annual meeting and you should find out who is a good surgeon practicing there and make sure you plan to see some surgical work before or after the meeting. Keep yourself open to different people, different ideas, different ways of doing the same thing and you ware bound to find what you can call your own.

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**Dr. Manabjyoti Barman**

Selection procedure for the fellowship should be transparent and should be based on attitude, knowledge and his/ her future perspective in the particular speciality. Number of publication during post graduation should not be an important criteria. A healthy relationship and a good academic environment proves beneficial for both the mentor and the mentee.

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**Dr. Shobhit Chawla**

I feel the time has come for fellowship programmes to be standardized among all institutions in the country and an optional certification examination to be offered nationally, this may not be mandatory but will be a great indicator to quality of fellowship programmes.
9. Fellowship: To Do or Not To Do?
   Dr Manoj Khatri

10. Senior Residency or Fellowship?
    Dr Samendra Karkhur

11. Medical Retina or Surgical Retina?
    Dr Chintan Desai
    Dr Saurabh S. Mistry
    Dr Amit Palkar

12. How to find the right Fit?
    Dr Chintan Desai
    Dr Smriti Mishra
    Dr Vishal Govindhari
    Dr Tanya Jain
FELLOWSHIP:
TO DO OR NOT TO DO?
- Dr MANOJ KHATRI

WHAT IS A FELLOWSHIP?

Fellowship for doctors is an additional period of training after completion of a specialty-training program, which is now called “residency” in various parts of the world. A typical fellowship is 1 to 2 years during which one undergoes focused training in a particular area within a specialty and develops expertise in the management of a certain patient population.

WHAT ARE THE PROS AND CONS OF PURSUING A FELLOWSHIP?

After 4 to 5 years of medical school, 1 year of housemanship, 1 or more years of non-trainee MOship (medical officer), and at least 3 to 6 years of residency, more years to remain as a trainee may sound daunting and unattractive. A fellow’s life is definitely not easy. One is expected to be the first point of contact for referrals to the sub-specialty. This will translate into dealing with complex or urgent cases and most likely the need to be on duty after office hours. In addition to clinical work, research output and scholarly activities are also standard requirements for most programs that a fellow needs to excel on. Salary during fellowship is usually very basic if there is any. Most people will need support from his/her home institution, which comes with waiting time and period of service obligation. Most if not all fellowships are only available in distant places/ states, which may be difficult for those with family and young children.

On the other side, there are certainly benefits in pursuing fellowship. After fellowship training, one should be able to offer expert level of care to a certain patient population and to perform certain specialized procedures independently. A sub-specialist is allowed to focus his/her time in one specific area of interest in clinical work and research so there is a potential to be a knowledge expert or even an opinion leader. The compensation for sub-specialist is generally
higher than generalist according to published reports, although the opportunity cost from the additional training should be considered.

WHAT ARE THE CONSIDERATIONS BEFORE COMMITTING TO A FELLOWSHIP?

As discussed above, fellowship training has pros and cons. It may not be suitable for everyone and is dependent on one’s overall professional and personal goals. It is also a major career and life decision that should not be taken lightly. It is essential to think through the following questions before committing to a fellowship.

- **Do you have a strong passion or deep interest in a particular subspecialty?**
  - If you think you are, have you had enough exposure in this subspecialty to know what it is really like?

- **Are you satisfied clinically to care primarily for patients with problems within a particular subspecialty?**

- **Are you interested and comfortable in performing procedures in some subspecialties?**

- **Will the particular fellowship program help you achieve your goals?**

- **Are you comfortable with the lifestyle and financial compensation of a particular subspecialty?**

WHAT SHOULD YOU DO TO PREPARE YOURSELF FOR A FELLOWSHIP?

After careful consideration of your professional and personal goals, long-term professional satisfaction, financial liability, and family considerations, do act early if you are thinking of pursuing fellowship training. Gain as much exposure as possible in your subspecialty of interest to avoid any uninformed decisions. Find a mentor who can inspire you to go further in the subspecialty, help you develop research projects and introduce you to others in the specialty. Go for specialty
conferences and do your research on which are the reputable fellowship programs that fit your goals.

**SHOULD I DO A FELLOWSHIP?**

If provided with an opportunity, I will always and always do fellowship – it will allow me much needed exposure in the subspecialty of my choice. The fellowship will allow me to make independent decision for better patient care and outcome. The fellowship will provide me with the much-needed window into what will be lying ahead for me in future. It will also allow me to explore certain key topics in greater details and an appropriate platform for research. To be completely independent physician or surgeon, one definitely need to take the path of fellowship and I believe there is no short cut into one’s clinical or academic career without prior fellowship.

**WHY RETINA OR UVEITIS FELLOWSHIP?**

I will like to use this opportunity to throw insight into why I ventured into retina and uveitis fellowship – I really enjoy challenges and the mere thought of salvaging one’s vision by tamponading the most important layer of the eye gives me greatest joy and sense of fulfilment at the end of the day. Retina fellowship strengthens a surgeon mentally and allows him to be in total control of patients vision (and to a certain extent life) – likewise clearing the inflammation and infection from eyes is again a tough enduring task but witnessing the smile back on patients and his family is the most important goal in life of a uveitis specialist.

On similar lines, is the need of the hour is to train people globally on the work/specialization related to Ocular trauma. It is indeed a very challenging work to give the optimal outcomes both anatomically and visually for a severely traumatized eye and even more daunting task is to manage the patient at the point of contact along with the hyper anxious attenders/relatives.

**VRSI (Vitreo Retinal society of India) and USI (Uveitis Society of India)** are taking huge strides forward in shaping the future of the upcoming trained Vitreo Retinal and Uveitis specialists in India and they will have a very bright future ahead for Clinical work, Academics and Research and the opportunities galore will widen further.
So, folks don’t think twice and make up your mind and get into the fellowship programme of your choice and dedicate yourself for the best to bestest patient care!! *As the future lies in the expertise delivered by the super specialists*...

All the very best!!

**DR MANOJ KHATRI** MBBS, DO, DNB, FICO (UK), FLVPEI, FMRF, FRCS (GLASG, UK), FAICO, FIAMS is the Principal Consultant Ophthalmologist and Vitreo-Retinal Surgeon

Founder and Managing Director, EYDOX EYE HOSPITAL, Chennai. Senior Consultant Ophthalmologist and Chief of Rajan Retina Foundation at Rajan Eye Care Hospital, Chennai. Senior Consultant Ophthalmologist and Chief of Rajan Retina Foundation at Rajan Eye Care Hospital, Chennai. Senior Consultant Ophthalmologist and Chief of Rajan Retina Foundation at Rajan Eye Care Hospital, Chennai.

A well-trained actively practicing Ophthalmologist in both anterior and posterior segment of the Eye over a decade. His academic achievements comprises of a Vitreo-Retina fellowship (short term) from the prestigious L V Prasad Eye Institute, Hyderabad followed by a Clinical and Research fellowship in Vitreo-Retina and Uveitis from the esteemed Sankara Nethralaya, Chennai. Dr Khatri has published several papers in peer reviewed scientific journals, presented widely nationally and internationally at various scientific forums.

He is on board as a Principal investigator and Co-investigator of various drug trials in Ophthalmology. He is assiduously engaged as a DNB (Diplomate Of National Board in Ophthalmology) teaching cum thesis guide. Principal areas of interest include – Cataract and Vitreo-Retinal Surgeries as well as Uveitis/Ocular trauma and Neuro-ophthalmology.

His special interests rests in - Retinopathy of prematurity, Diabetic retinopathy and challenging Vitreo-Retinal surgeries.

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Ophthalmology is one of those branches in Medicine which until now did not have a super-specialty degree like DM or MCh. Now PGIMER, Chandigarh is the only institute in India which offers MCh in Vitreo-retina Surgery. However, this does not meet the requirement of several hundred diploma and degree holding ophthalmologists passing out each year in India. These young ophthalmologists seek sub-specialty training in various fields like Vitreo-Retina, Uveitis, Glaucoma, Oculoplasty, Ocular Oncology, Cornea and Refractive, Neuro-Ophthalmology, Pediatric Ophthalmology and Squint.

The reasons are firstly the lack of adequate sub-specialty rotation, limited availability of equipment/training in majority of government or private medical colleges in the country that offer post-graduate courses in ophthalmology. Secondly, increasing awareness and rising demand among patients who seek specialty care in opthalmic problems similar to other fields in medicine.

Currently, after post-graduation or diploma in ophthalmology a candidate takes two routes to achieve the sub-specialty training in various fields. These are senior residency (henceforth called ‘SRship’) and clinical fellowships (henceforth called ‘fellowship’). I will discuss these two paths in detail and the advantages/disadvantages of each; this may help many of my colleague standing at crossroads, in making an informed decision.

SRship is termed as the gateway to academic medicine in India. The duration may vary from one to three years and needs to be completed before one can apply for teaching or faculty position in a state or central government institution. In general, state medical colleges accept a candidate for the post of lecturer or assistant professor with one year of SRship from an MCI recognized institution. In central government institutions like AIIMS (New Delhi & all the other AIIMS), PGI Chandigarh, JIPMER Pondicherry, SGPGI Lucknow etc.; three years SRship is usually required before one can be considered for the post of assistant.
professor. This period is counted as a teaching experience and need not necessarily be consecutive i.e. a cumulative period of three years in different institutions is sufficient. Also, three years of research experience in a recognized institution or a combination of both teaching and research is equally valid to begin your journey towards becoming a professor.

Now, what I have elaborated above is – what you get at the ‘completion’ of your SRship; which of course is equally important to what you get ‘during' SRship! So, the experience you receive during your SRship fully depends on the institution that you are associated with. If the institution has sub-specialty fragmentation in the department (which unfortunately very few eye departments in the government institutions, have in our country) then you may have the option of attaching yourself to a particular sub-specialty of your liking. If this is not the case, then you will end up gaining teaching experience but not necessarily the specialization. However, keep in mind that most places do perform basic cataract/refractive, oculoplasty and glaucoma to say the least and you possess a choice to either embark upon an academic career with a satisfying institutional life or a good comprehensive ophthalmologist with thriving private practice. Public sector in India has its challenges; but if you want to have a broader impact on society, bring about a change in the public health sector or want ‘professor' prefixed to your name, then this option may be well worth it!

When we look at fellowships vis-a-vis an SRship, the most obvious difference is the lack of teaching experience at the end of a fellowship program. Very rarely are the fellowship programs counted as teaching experience and one must enquire about the same from MCI. Another difference that stands out is the great variety and flexibility in pursuing a fellowship of your choice. For example, there are well structured programs across country in private and charitable institutes of great repute like LVPEI Hyderabad, SN Chennai, NN Bangalore to name a few prominent ones. These institutions provide fellowships for a period of 1.5 – 3 years in sub-specialties like Cataract, Refractive, Vitreo-Retina, Glaucoma, Oculoplasty, Ocular Oncology, Pediatric ophthalmology and Neuro-ophthalmology. A vast majority of ophthalmologists in the country today are trained at these institutes and have established great careers. At the completion of fellowship program, one has the option of working in similar academic institution for a great academic and research career. On the other hand, a private practice is an equally good option.

One important thing to be noted here is that over the past few years, there has been an increasing trend towards diminishing number of surgeries and hands on
experience, in several reputed institutions in our country. This makes it difficult for a fellow to establish a private practice at the end of two years fellowship, which may be owing to lack of confidence in managing an independent surgical case. This situation is worsened by a signed ‘service bond’ after fellowship on meagre salaries. On an average with or without post-fellowship bond, the time spent by a fellow at an institution can range from 3 to 5 years before one is confident of starting an independent private practice. This model of retaining a trained hand by institutions does not bode well for several fellows who might want to move back to their home town at the completion of fellowship. They may be unwilling to stay away from families and spouse due to inability to pay off hefty amounts, which makes the signed bond a compulsion rather than an option. YOSI is making efforts in this direction which should help bring about a change, to this unhealthy bond culture, raising its head in the ophthalmology training in India.

In the end, choosing a fellowship or SRship depends on an individual’s post-graduate training, sub-specialty of interest, future career choice – private/institutional practice and the city or town one would like to settle in. The most important factor is discussing with your mentors, seniors and colleagues; who will be able to guide you in taking a decision which is very crucial at this juncture. All things considered, an individual makes his or her own destiny; where institutions and programs can only assist you in achieving your goal in life.

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There are some questions that have forever plagued the minds of young ophthalmologists, taking a leap into the world of retina fellowships.

“Does medical retina and cataract suffice? “After all, doesn’t these form the bulk of our patients?”

“How do I justify the steep and infinitely long learning curve as well as the financial burden of pursuing a surgical retina fellowship?”

"Wouldn’t a surgical retina fellowship also aid me in dealing with my own cataract complications?”

"Wouldn’t one feel handicapped in handling various retina patients without a surgical fellowship?"

These are endless questions, which definitely need precise answers.

We have with us Dr Sourabh Mistry, a practising Medical retina, Uvea and cataract consultant and Dr Amit Palkar, a final year Surgical retina fellow, who started pursuing his training in surgical retina after completion of his Medical retina and uvea fellowship; fellows from the same tree, trained at Sankara Nethralaya and Medical Research Foundation, Chennai.

They will offer their respective perspectives on this very important topic, and may be offer some relief to our never ending questions.

- DR CHINTAN DESAI
WHY I CHOSE A MEDICAL RETINA FELLOWSHIP?

- Dr Saurabh S. Mistry

A comprehensive ophthalmologist is someone who provides primary care for all diseases and conditions in and around the eye. For many ophthalmologists working in individual practice, who depend on cataract surgery for their bread and butter; missing a retina finding and proceeding with cataract surgery without explaining guarded prognosis may have serious medicolegal implications! Thus, having a thorough knowledge of medical retina in the current world practice assumes significant importance.

Also, India is set to emerge as the diabetic capital of the world. According to the WHO, 31.7 million people were affected by diabetes mellitus (DM) in India in the year 2000. This figure is estimated to rise to 79.4 million by 2030, the largest number in any nation in the world. Almost two-third of all Type 2 and almost all Type 1 diabetics are expected to develop diabetic retinopathy (DR) over a period of time. [1] Sooner than later, the number of diabetic retinopathy patients attending our OPD services will become greater than cataract. Having an accurate knowledge of managing such patients becomes primordial. Ability to carry out retinal lasers and intravitreal injections can enhance your general practice.

Why is it easy to get a medical retina fellowship?

Unlike other clinical fellowship programmes like cornea, glaucoma, surgical retina and oculoplasty where the duration of course is ranging from 1.5 to 2 years, medical retina fellowship on the other hand, offers basic course which starts with 1 month as minimum duration. Sankara Nethralaya, Chennai offers Basic course for 1 month, Advanced course for 12 months, and Medical retina combined with Uvea for 24 months. [2] Aravind Eye Care, Madurai offers Lasers in Diabetic Retinopathy for 2 months and Management of Retinopathy of Prematurity and Paediatric Retinal Disorders for 1 month. [3,4] Dr Agarwals Eye
Hospital, Chennai offers medical retina course for 6 months duration. Of course, duration may vary in various institutes which one needs to find out prior to sending in an application.

**What does the advanced medical retina course offer?**

The fellow will gain an in-depth exposure to both diagnostic and therapeutic approaches to all medical retinal conditions including retinal vascular disorders, macular degeneration, inherited retinal degenerations, posterior uveitis and intraocular tumours.

Fellowship will include the comprehensive evaluation of patients as well as the review of ancillary tests, such as angiography, ultrasonography and electrophysiology.

Competency in the use and interpretation of fluorescein and ICG angiography, optical coherence tomography (OCT), ultrasonography, and visual function tests will be achieved during this training. In addition to evaluation and management of patients in the clinic, the fellow will gain expertise in intraocular injection therapy, retinal lasers, ultrasonography, and retinal imaging. The fellowship is structured to provide the fellow with maximal responsibility in the performance of clinical and medical retina procedures, depending on the skill level of the fellow.

Surgical Exposure - Not Applicable

Research Exposure – Yes, if candidate is interested.

**For whom is the medical retina fellowship suitable?**

Basically for any candidate, who is interested in managing medical aspect of retina can opt for the fellowship. Irrespective of whether you have completed glaucoma fellowship or oculoplasty fellowship, knowledge of medical retina is to transform you into a comprehensive ophthalmologist.

For candidates who wish to do only private practice after MS or DNB with primary aim of having a cataract setup, the basic knowledge of medical retina can play a very important role as emphasized earlier.

Candidates with time constraints due to age or other factors, in search for a shorter duration of fellowship may also find a medical retina fellowship attractive as it is not shorthanded by a long duration of fellowship with a longer learning curve associated with a surgical retina fellowship.
Can it be opted as a bridge course? Yes definitely!

Getting a surgical retina fellowship is even tougher than other clinical fellowships, due to greater demand than supply. For candidates being unable to make it through the fellowship interviews, can opt for a short term medical retina course for 2 months added with or without ROP screening course for a month, which can act as a bridge and facilitate the chances of selection in the next round of interviews on account of a stronger CV.

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WHY TO CHOOSE A SURGICAL RETINA FELLOWSHIP?

- DR. AMIT PALKAR

If you are at this question in your life, then it’s already 8 to 10 years, at the least, from the day you entered medical school. You find yourself in a turmoil, where feeling to go out there and begin, brings anxiety and excitement at the same time, but also the notion of continuing training is daunting and frustrating. The process of making this decision taxes you and drains a lot of energy. So, feel completely normal if you find yourself sailing in this boat.

I found myself in a similar dilemma at the conclusion of my Uvea and Medical Retina fellowship. In the quest to find a solution, I scribbled rough sheets, writing pros and cons, conversed with numerous friends, colleagues, seniors, and faculties; discussed with beloved ones and finally had a word with myself. There were 5 questions, that needed an answer, before I plunged into a Surgical Retina (Vitreo-Retina) fellowship. If you can address these questions for yourself, then you are very close to your decision.

- Why a Vitreo-Retina (VR) fellowship?
- What are the pre-requisites of pursuing a VR fellowship?
- How much time and money are you investing?
- Where do you want to pursue your fellowship?
- Where do you see yourself in the next 5 years?

“I am planning to pursue a VR fellowship in India. Hold on! Let me first ask myself....

1. Why a Vitreo-Retina fellowship?

Any fellowship program is pursued to acquire new sub specialty skills, to augment the residency training with a strong interest in a subspecialty, to experience a different system or to live somewhere new. But an important aspect that needs introspection is whether you WANT or NEED a fellowship?

Often wanting to do a fellowship is influenced by peer pressure.
or herd behaviour. A lot is accounted to the feeling of prestige and grandiose, falsely attributed to be a Vitreo-Retina surgeon. Quite frequently, residents involved in Vitreoretina services in their residency tenure are coaxed by their faculty into this subspecialty fellowship.

However, “I want to, or wish to do a VR fellowship” is completely different from “I need a VR fellowship.” A good residency training in comprehensive ophthalmology and a brief duration of post-qualification senior residency, often makes one realise this need for career augmentation. It is the underlying motivation arising from a feeling of inadequacy, drives the NEED for a VR fellowship.

2. What are the pre-requisites of pursuing a VitreoRetina fellowship?

In other words, “Am I primed enough for the fellowship?”
In India, VR fellowships are commonly, a 2-year program. They are majorly focused on clinical training, research and academic activities. A lot of clinical attendings during a VR fellowships in India involves medical retina, unlike the West, where Medical retina is a separate sub-specialty. So, a fellow may find it a formidable task to keep up to learning both sub specialties together in the span of two years. And it is indeed a short duration to fathom this.
Preparing oneself well with basics of Medical retina and Vitreo-Retina prior to a fellowship may help you in early orientation and better equipped in the program. Not only does it prime you but makes the entry prelims and interview process towards enrolment into the fellowship program, less intimidating.

3. How much time and money are you investing?

These are two crucial deciding factors that should not be undermined. After a decade of education, time may be a limiting factor. After all we all have personal and family commitments. A delay in marriage proposition, spending quality time with your partner, children, taking care of parents or their health concerns and many other, may take a back foot. A healthy discussion with your loved ones is as important as your fellowship decision.
Rest taken care, if age is deterring you from pursuing a fellowship, then remember “Age is just a number”. Your determination and perseverance can circumvent this number. Although taking care of your health is as much paramount in a fellowship program. Extending subspecialty training has costs involved, that could be rather spent, investing for financial independence, support to the family or practice development.
Working out finances—savings and expenditures is prudent to pull you through, during the fellowship tenure.

4. Where do you want to pursue your fellowship?

The Vitreoretina Society of India (VRSI) and Indian Journal of Ophthalmology (IJO) are good sources to search for VR fellowships in India. Besides, friends and colleagues currently in a fellowship program or alumni members can be informal sources of information.

Unlike universities in the US or Europe, in India, we have eye institutes, private practices and few medical colleges offering VR fellowships. And only a handful of them affiliated to a University. All have varied degrees of academic, research and surgical exposure. Getting into a VR fellowship program is fairly competitive and depends on the number of candidates appearing for the positions. The program may have an associated exclusive mandatory research semester or comprehensive Ophthalmology or community ophthalmology rotation or mandatory service towards the institute as a junior consultant post fellowship.

The most common expectation an aspirant has, is the volume of surgical hands-on in a VR fellowship, followed by the renumeration, working hours, proximity to the hometown and often language barrier. However, not to undermine, there should be bigger considerations when evaluating a fellowship program.

Independent learning vs Mentor based learning

Most of the high-volume centers have busy retina clinics. They may provide opportunities for independent management of patients, sometimes unsupervised. For a novice fellow, this may either cause undue apprehension with an inappropriate management plan or motivate the fellow to discuss with the faculty, go back read, and plan a treatment for the patient. Unsupervised activities may hamper quality patient care, especially when it involves surgical management.

Vitreoretinal surgery is learned in four steps:

Step 1- Observation
Step 2- Performing sections of the procedure and then the entire surgery under supervision
Step 3- Performing the surgery without supervision but with an experienced surgeon as a backup
Step 4- Performing surgeries independently
Understanding this, the first thing that becomes clear is, the timeframe. To achieve these milestones in a span of 2 years is unrealistic. Though fellowship program trains for 2 years, but when you decide to subspecialize in VR, one should add another 2 years, at the least, to become a competent VR surgeon. The second thing is that a mentor is quintessential. A mentor-based learning becomes far more rewarding compared to independent learning. However, there is a caveat to this. All mentors may not assure you a quality mentorship. The prestige and fame of a mentor is not always the only parameter to be considered. Their inclination to academic medicine, clinical teaching, research, connections among faculty at different centers, industry connections and often personality traits, heavily influence the quality of training you receive. We seldom research into these aspects when applying for a fellowship program.

Faculty members
The number of faculty members in the institute have a distinct advantage over practices with fewer number. In addition to the exposure to clinical and surgical volume, one is also exposed to a variety of approaches and surgical techniques to manage one single clinical condition. This certainly enhances learning from multiple faculty members. Finding a mentor who guides you through the intricacies of the subspecialty, open up new insights, and also helps you prepare for practice, may not always be easy and often not under your control.

Surgical Hands-on
Surgery numbers has always been the prime concern amongst aspirants, which is legitimate to an extent. There are large variations in the surgical volume in VR fellowship across the country. In a high surgical volume fellowship, one is more likely to witness complications of surgery and learn how to manage them when they do occur. This experience provides confidence when you begin a practice on your own, without a supervising or a backup surgeon. Performing hundreds of unsupervised procedures to learn a specific technique may not benefit as much as learning the correct technique under a good and dedicated mentor. Often unsupervised use of wrong techniques is responsible for surgical complications. And frequent complications can pull your spirits down as a VR surgeon, very early in the career.

On the other side, in a low surgical volume fellowship, the course of surgical training may go snail speed and result in frustration and early exit from the fellowship. The longing for complete independence in the operating room (OR) puts the patience of a fellow to test. And patience to sustain long surgical hours, is one virtue, must for a VR surgeon.
But once your surgical career gets a head start, you will be the lone surgeon in the OR with no one to guide you. Hence fellowship is the time to do all the learning, ask all the question, the silliest ones, learn why and how an instrument is used, observe keenly a specific technique and its modifications, even if for the N'th number of times. I remember a colleague in initial days post fellowship, narrated how her mentor’s words were playing in her head when she was doing her first surgery independently. Boasting the number of a cases you graduate with, has no credibility, compared to how you spend your OR time and how much you learned in that time.

**Give and Take relationship**

Any Fellowship program is a choice made by a student. At the hind ground, applying to one should be a conscious decision, where you comply to all the rules and regulations of the institute. The institute is liable to TAKE your services and in return, GIVE you an experience and certification of fellowship. This is the cost you pay to get yourself enrolled in a fellowship. Rather than whining the entire duration of the fellowship, it is prudent to understand this symbiosis and accept it. GIVE your complete dedication and TAKE the maximum out of the fellowship.

**5. Where do you see yourself in the next 5 years?**

This is almost always a discounted introspection, when considering a VR fellowship. And much of it should be given the benefit of doubt, to the lack of knowledge regarding the type of careers and practice patterns after fellowship. To begin with, a proportion are fascinated with the institute practice, others enjoy the thrill of private practices, whereas some have practices waiting for a takeover back home. One may choose an opportunity with a clinical career, or an academic career or a research career or an opportunity with combination of any of the three. However, these choices do change during the fellowship program. So undue anxiety to answer this question at the beginning of the fellowship may be inappropriate.

Geographic location, financial expectations, work life pattern become priorities later. Today, the demand and supply dynamics of a VR surgeon is uneven in Tier-1 and Tier -2 cities. There are huge number of fellowship trained VR surgeons passing out every half yearly. Lucrative VR opportunities are handful, and one has to compromise on either the geographic location, financial gain and long working hours. A hidden disclaimer is that a VR fellowship at conclusion, may not guarantee
you the dream job, money or life sooner, as you anticipated. Sometimes practicing general ophthalmology with cataract surgery in a Tier-2 or Tier-3 city may be a fulfilling opportunity. Despite never get dissuaded if you have a strong calling for VR. This is an important decision in one’s career.

**My Journey so far..**

I embarked on the journey of fellowship to train myself in Uvea and medical retina. As time passed by, I was intrigued by the surgical management of vitreoretinal disease in a tertiary referral center. The fact that every case needs strategic planning and individualised approach appealed me. Although, dismal visual outcomes sometimes dissuaded me. But the satisfaction of even an ambulatory vision from a non useful vision was something coherent with my purpose. I clearly had a WANT, but was not convinced with the NEED yet. A surgical VR training dramatically improves the skills of an anterior segment surgeon. Moreover, I realised my role as an uveitis specialist was incomplete, without a surgical expertise in vitreoretina. A referral for management of surgical indications in uveitis made me feel incomplete as a clinician. With this insight, I discovered my niche in clinical practice. And the NEED was identified and the WHY answered for me. I was equipped with the knowledge and clinical skills to camouflage into a VR fellowship. Time was a factor that bothered me for a while, until I made truce with it. I had to sit and work out my finances that would support me through the second fellowship. I chose to live a modest lifestyle. Pursuing a fellowship in the same institute was a logical option. Familiarity with faculties, structured fellowship program with an opportunity for mentor-based learning and a reasonable surgical volume factored positively for me. Although for another spell of rostered hospital duties and delay in financial and practice independence was taking on my nerves sometimes. But it is a part of the learning process and sacrifices one make, to augment your career. I was an ardent believer in a clinical career. But the fellowship opened avenues for research and academic opportunities and got me interested in them as well. I see myself at 5 years striking a balance between clinical, research and academic career.


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HOW TO FIND THE RIGHT FIT?:
FACTORS INFLUENCING THE CHOICE OF VR FELLOWSHIP

- DR CHINTAN DESAI

“The hardest decisions in life are not between good and bad or right and wrong, but between two goods or two rights.’

Joe Andrew

Over the years, Vitreo-Retina as a sub-speciality has experienced a paradigm shift. From the crude and unforgiving era of 20 G vitrectomy we have entered the age of precision and predictability that the 25-27 G systems offer. We are witnessing 3D Viewing capabilities, intra-operative OCTs, newer and more effective pharmacological agents and diagnostic modalities. As some may say, there hasn’t been a better time to be a VR surgeon!

From the fellows perspective, both the demand and supply for VR fellowships have increased exponentially, with numerous institutes introducing fellowship programmes to add to the list of established ones across the country. In this scenario, the choice of institute to pursue a fellowship becomes increasingly confusing, especially when compounded by multiple other variables such as the length of fellowship, geographical location, brand value, clinical exposure, family commitments and even marital status.

To help us gain objectivity into this discussion, Dr Smriti Mishra (SM), Dr Tanya Jain (TJ) & Dr Vishal Govindahari (VG), hailing from different backgrounds and different corners of the country, talk to Dr Chintan Desai (CD) and discuss their perspective.
TJ: Passion for the subject is foremost, and one tends to achieve excellence only when pure passion exists. Speaking for myself, I always found myself driven towards VR notwithstanding adequate exposure to all other sub-specialities as well during postgraduation. My consultants too played an important role, by not only sensing my enthusiasm but also providing opportunities to enhance my understanding of the subject. There is no doubt that one needs to be patient with VR considering the steep learning curve and wealth of knowledge, but as they say you never work a day in your life if you do what you love.

SM: The only factor for deciding a subspecialty is love for the subject, which in turn breeds true excellence. I understand factors like scope, region and financial constraints may be important, but nothing matters more than enjoying what you do.

VG: VR is a branch which tests one’s patience, common sense and judgement to the optimum. The fact that unsalvageable eyes are a VR surgeons daily work, is something which excites me! If a fellowship aspirant is ready to bite the bullet of a steep learning curve and experience some of the best innovations in medical science, nothing would be more fulfilling than VR.

CD: Passion is definitely important, but for the majority the choice might be not be that straightforward. One may feel passionate about more than one speciality, or may not have the means to continue with what they feel passionate about. The financial constraints become important when the long term aim is private practice. It would be prudent to be practical, collect information about cost of investments, and foresee if it is in sync with other liabilities. A thorough research is important to know about all possible low cost equipments as well, not everybody has an OCT angiography machine, or a high end vitrectomy machine. As for the scope, I believe excellence breeds success irrespective of the region or the extent of market saturation.

“A passion for the subject is foremost, and one tends to achieve excellence only when pure passion exists.”
- Dr Tanya Jain
Notwithstanding the exciting prospects a **better institute** might offer, one cannot really overlook the advantages of furthering one’s stay in their **parent institute** for pursuing a fellowship. What is your take on this?

**SM:** Better institute is always the best choice. In your parent institute you know how things work, what are the protocols followed. So opting for a better institute will give you a different exposure and perspective.

**TJ:** I agree it can sometimes be a double edged sword. If you have a good rapport with your seniors and your department is adequately equipped, staying in your parent Institute would be a boon since the effort to break the ice and get accustomed reduces significantly in a course, which is inherently long. On the contrary, a better institute might teach you a few other protocols. Having said that, protocols can be learnt even later, as one is always a student in this profession!

**VG:** Unless one’s parent institute offers the best mix of clinics, surgery, research, academics, conference exposure and community ophthalmology! I believe leaving your parent institute is wiser.

An uncomfortable, novel and stimulating environment brings the best out of young fellows and avoids a ‘frog in the well’ scenario. The comfort of a parent institute developed over 2-3 years can unknowingly become detrimental to ones growth.

> "An uncomfortable, novel and stimulating environment brings out the best out of young fellows and avoids a frog in the well scenario”
> 
> - Dr Vishal Govindahari

**CD:** No doubt, one saves time in breaking the ice when you continue in your parent institute. The protocols are well known, and it is far easier to fall into the rhythm inherent with the place. At the same time, other factors such as adequacy of clinical exposure, duration of the fellowship and post fellowship prospects are also crucial factors. If the familiarity of the parent institute falls in conjunction with all other needs, it would definitely be a wise choice to stay back. On the contrary, it could prove to be a career defining decision, if all other factors are compromised, only because one chooses to remain in their comfort zone.
VG: I believe that vitreo-retina fellowship should be 4 years in duration. While surgical retina is a life long run, medical retina and its surprises are very challenging and it needs guided training and development of decision making skills for optimum outcomes. The fourth year of fellowship should encompass independent OPD; which is a very challenging scenario for any young retina specialist. Clinical research, teaching and interactive sessions are key to understanding imaging in retina.

TJ: The longer course of settlement is true for any surgical field. It is about priorities and ambition. A candidate’s choice of the desired fellowship programme should be based upon the amount of surgical exposure during post-graduation. Someone with adequate cataract exposure may have a faster learning curve, wherein an 18 to 24 months programme of VR fellowship in a high volume centre might suffice, as opposed to someone with suboptimal cataract exposure, who would may have a relatively longer learning curve.

SM: I am totally against any kind of bonds. The choice of continuing the association should be an individual’s choice, and not a compulsion. An attractive opportunity post a short term fellowship, with ample opportunities to enhance and sharpen one’s surgical skills, would definitely help retain a trained fellow. On the other hand, a fair amount of surgical exposure in a long term fellowship might encourage the fellow to shift base to their area of permanent settlement and start a practice individually.

CD: The answer depends on three main factors, 1. Exposure to cataract and retina during post graduation 2. Expected amount of surgical hands on and medical retina exposure in the choice of institute, and most importantly 3. Time and training required to feel confident stepping into clinical practice.

An individual who has undergone exhaustive postgraduate training (adequate surgical hands on / confident with IDO / exposure to latest retinal diagnostics, intravitreal injections & laser procedures) may need a shorter learning curve. For such a candidate an 18 months of fellowship programme may suffice. On the contrary, those who did not have the necessary basic training, may opt for a 24 months or longer fellowship, and can even consider working under a bond to further sharpen their skills. This also depends on the volume of surgical exposure at the choice of institute, with a shorter learning curve in high volume centres. Speaking about feeling ready for practice, let’s get one thing straight, learning in retina is a long process which lasts for years into practice. No fellowship can potentially train a fellow for all kinds of complicated surgeries and 100% accuracy in managing medical retina. So, choosing a longer fellowship to feel more confident may be unwise and counter-productive.
VG: Dream fellowship always. One should be greedy and desire the best always. In a country like ours with strong family values, the decision might be a little difficult to make a choice, but one has to take a step for a better future.

As far as the geographical location is concerned, accessibility of an institute should not be an issue as long as the patient load for good clinical exposure is maintained.

TJ: This can be a grey zone at times, and a tough choice to make. I believe numerous candidates, including myself, have gone through this dilemma at some point. However, after thoughtful weigh of all the pros and cons, I believe the focus should be on attaining maximal clinical exposure to develop lifelong skills, may it be in a peripheral institute. Its a short term sacrifice one has make which can have a lasting effect on long term success.

SM: It's obviously an individual's choice. But if one opts for the best institute when pursuing both undergraduation and post graduation then why settle with anything less than the best for a fellowship. Personally speaking, geographical location and accessibility of an institute doesn't matter as long as the fellowship programme offers you what you are looking for.

CD: This is easier said than done, but selecting the best available option irrespective of the geographical location seems the most apt choice. An exposure to quality high volume training for a couple of years can facilitate a smoother path in the future. It's also important to bear in mind that the graph is skewed in favour of demand rather than supply of fellowships, so not everyone can get into a premier institute in the big city. Factors like accessibility, marital status, family pressure, child responsibilities or ailing parents, cannot be overlooked and can nudge the decision towards one’s hometown or at least a major city with good connectivity, and hence may not be a straightforward decision for many.
SM: Volume centres are always good for skill development but brand names do matter a lot, especially if one plans to practice in a metropolitan city. If one intends to start a private practice then being well versed with the skills required is more important, and the brand of the institute comes secondary. A balance between quantity and quality is what is required.

VG: The issue is in knowing what to expect. The better institutes have both value and exposure. Brand value normally comes from a good mix of exposure, academics and environmental. On the other hand, brand values can be deceptive and outdated. So a good pre-exam research from existing fellows, understanding your surgical curves to decide on exposure needed and a fair brand value should fit the bill for any new aspiring fellow.

“Brand and adequate clinical (medical & surgical) exposure are not always mutually exclusive, with a majority of these centres offering a good mix of both.”

- Dr Chintan Desai

TJ: There is only one logical answer to this. If you are good at what you do, you will be your own brand. A good branded Institute can open one or two doors for you but wouldn’t take you a long way if you are not well acquainted with your subject or adequately trained surgically. Speaking to numerous fellows form various Institutes, I concluded the grass felt greener on both sides, with those having a higher brand, were worried about their surgical exposure while those from peripheral centres were seeking a brand! So, no place is absolutely perfect, all have their pros and cons, and one must aim for personal excellence.

CD: There are varying opinions on this topic. I think the decision has to be based on two more important factors than the others

1. Where does one see oneself after 5 years, job versus private practice?
2. Which in the final place of settlement?
Someone, who is looking towards better institutional job opportunities, should aim towards a higher brand value, as it does open many doors, and also helps in forming important networks. It also gives one an opportunity to form a long term association with the institute. On the other hand, a private practitioner would aim towards acquiring maximal surgical exposure irrespective of the institute. The same applies to the place of settlement, as brand may become important in major cities compared to tier 2-3 cities. However, it is important to address that a brand and adequate clinical (medical & surgical) exposure are not always mutually exclusive, with a majority of these centres offering a good mix of both.

At the end of the day, our paths will be decided by the opportunities that are offered to us and the choices that we make. I hope these varied perspectives will help you in making the most appropriate and a personalised decision. Where ever you land up, make the best use of your time, be in pursuit of excellence and that will be enough to set you apart from the crowd. Best of Luck!

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13. Research & fellowship: Can they go hand in hand?  
   Dr Sabyasachi Sengupta

14. How to be Innovative during Training phase?  
   Dr Ashish Ahuja

15. PhD (Doctorate of Philosophy): the path less trodden  
   Dr Chaitra Jayadev

16. My Artificial Intelligence Journey: And How to write good AI papers in Ophthalmology?  
   Dr Daniel SW Ting & Dr Aaron Y Lee

17. Precision Medicine & CRISPR Genomic Editing in Retina  
   Dr Mayank Bansal

18. Role of simulators in surgical training  
   Dr Vedang Shah
A fellowship in an ophthalmic subspecialty is something to be proud of. However, once we join the coveted fellowship, the feeling of elation quickly disappears as we are immersed in daily clinical chores related to being a fellow. I have gone through all the rigors of a VR fellowship including a burdening load of patients to be seen in the OPD, admitting patients in the evenings, attending the OR days with your consultants, writing surgical notes, discharging patients, and performing your procedures including lasers, ultrasounds, intravitreal injections and many other activities that take up as many as 12-15 hours per day. In all this chaos, is it possible to do any clinical research at all? Publishing papers in this environment appears to be very hard and is almost the last thing on a fellow’s mind. With this background, which is a reality for most of us, let us discuss how we can still do research and publish.

Before we begin, let us briefly delve into why you should be doing clinical research during your fellowship. For starters, doing research inculcates a very scientific approach in you which goes a long way in making you an expert clinician as well. Secondly, with the ever-evolving ophthalmic literature at break-neck speed, what you learn during your fellowship may become out dated and even obsolete in a few years. You will have to unlearn, relearn and adapt quickly to stay relevant. The only way to do this is to keep pace with literature. Having done some research during fellowship will help you keep up with this pace and more importantly, interpret the message from published papers and apply it to your patients, thereby improving their outcomes. Lastly, having published meaningful papers during fellowship gets you a lot of respect from your peers leading to better potential job opportunities in the future. The world is moving quickly towards valuing you for what impact you have created rather than what your net worth is. Doing research gives you a great opportunity to make an early impact in life. Now that we understand that publishing gives us a head start, how do we go about doing it in a busy VR fellowship?
In one word, the answer could be “prioritize”. Another important quality you must have is “desire”. We can get everything done in life provided we have the desire and hence, give it enough priority. Remember that not everyday in a fellowship will demand 15 hour work days. There will be some down time which you can devote to your research projects. In my experience, after having published about 30 papers during my residency and fellowship combined, giving **45 minutes to this on a daily basis** is more than enough to get great results. Once you have the desire and are willing to prioritize your time, I will give you a framework which you can adopt and tweak as per your own requirements to do excellent clinical research and publish right from your fellowship days. The key components of this framework, as are most things in life, are planning and execution.

**THE PLANNING PHASE:**

1. **Know your stuff:** There are many steps you have to go through to do clinical research, much like learning a surgical procedure. A good literature review, study design, sample size calculation, and manuscript writing are skills that can be easily learnt in a few days. I urge you to attend clinical research workshops if available in your city, or enrol for some online courses that will give you this knowledge.

2. **Biostatistics:** It is essential to know some of the basic concepts of biostatistics so that you have an idea of how your data should be analysed. There are many sources available for this, including text books, online courses and workshops. The recent newsletter (April 2019) of the Vitreoretinal society of India has a write up on “Statistics for Starters” which I have contributed. You can read it to get a good idea of some basic concepts in biostatistics.

3. **Learn to communicate with a biostatistician:** The same biostatistician can do a fantastic job with one dataset and a very poor job with another. The main difference is how the clinician communicated his requirements to the statistician and how he interpreted the results. A basic idea of biostatistics
and looking at how some previous studies were analysed will help you a great deal in getting the best out of your biostatistician.

4. **Have a list of potential topics to study:** It is essential to have a list of topics that you can study, right from the beginning of your fellowship. Subscribing to e-table of contents of the top journals publishing retina topics can help you know the latest trends i.e. what topics are hot and what are not. You can consider choosing some topics based on what is being recently published. Brainstorming with colleagues and seniors will also get you an idea of what is possible at your institution. Lastly, looking at the disease profile of patients visiting the hospital will help you choose relevant topics where you will be able to get a good sample and a meaningful dataset.

5. **Have a notebook in hand:** It is advisable that you have a note taking medium at hand all the time. It could be a notebook or an app like Google Keep or anything else you choose. If you see a rare case, note the MR number and the details immediately. Similarly, you can enter details of your on going study into the notebook as well. Make sure you dump all the information from the notebook into carefully organised folders in your laptop or phone for future recall.

6. **Have journal clubs regularly:** Journal clubs discuss complete articles along with the nitty-gritties of the study and are a great way to get into the habit of analysing and dissecting articles for their quality and scientific rigor. Journal clubs are not only helpful for your own research but also help you in making sense of scientific literature later in life.

**THE EXECUTION PHASE**

1. **Collect data diligently:** When you have your sights on a particular study, you will need to collect data for analysis. Think hard about what are the variables you would like to study and don't miss out on documenting important confounders that could undermine your results later. For example, it is always better to record the intraocular pressure, even for a VR based study. Do a thorough literature review to see what are all the things previous studies have measured and make sure you are
measuring all of those variables. A good literature review will also tell you the lacunae in literature which you should aim to plug with your own study. A very important point to remember while entering data is **making the excel sheet** in the best possible way so that it is easy to do statistics with it. In a previous edition of YO Times (10th), I have enumerated on basic rules to follow while making an excel sheet.

2. **Analyse data thoughtfully**: Remember that you need to make every attempt to identify the hole in literature and plug the hole with your study. So **statistics should be goal directed to plug this hole**. This is the key ingredient which often decides the fate of your paper.

3. **Start writing early in fellowship**: It is important that, once you have the desire for research and have prioritised it, you act upon it. The best way is to start writing case reports and other forms of short communications that don't require as much scientific rigor as an original article, but still stand a good chance of getting published if presented well. A few case reports in the early part of your fellowship will give you the confidence that you can do it and will set you up for bigger and better things in the future.

As you will notice from the above framework, the planning phase has more steps and requires a lot more work than the execution phase, something which you feel is counter intuitive, but is true. So be aware of the importance of clinical research right from the beginning, have the desire and prioritise it, plan and execute your research so that you are able to publish meaningful papers even during your fellowship. It is very much possible to publish at least 5-6 papers before you are done. This will make your fellowship the most productive phase of your academic career, which it should be.

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HOW TO BE INNOVATIVE DURING TRAINING PHASE?

-Dr. ASHISH AHUJA

At the start of our residency the common mindset is to incorporate clinical or surgical skills and the focus is not on research. We don’t realize that the impact of innovative research could be global and could have a chance to change the preferred practice patterns. We must take the path that is less travelled and strive to have a big impact.

At the start of the residency one has limited knowledge of what research topic to select. Doing research is much easier during fellowship than during post graduation.

How to be innovative??

The process could start with brainstorming of ideas with senior teachers, interact with engineers and learn about the latest technology advancements in artificial intelligence, 3D printing and virtual reality. Always question every surgical technique or procedure and ask yourself if it can be made better, lower the cost or a technique easier.

During my fellowship period I had worked on several innovative devices inspired by mentors which included smartphone based high magnification imaging (1), low cost video indirect ophthalmoscope (2), reduced eye model for fundus simulation (3) and smartphone based monochromatic green filter based fundus imaging (4). The technology that we have now days leads to endless possibilities.
Residents and fellows may search for the best research abstracts that are presented across different state, national and international conferences, support of the senior mentors is very crucial, avoid topics which have already been done, attending research methodology workshop is a good way to get oriented. The institute may apply for a grant if they have a good research project from ICMR or BIG (Biotechnology Ignition Grant Scheme).

Collaborate with other institutes or a senior mentor from another hospital (residents may interact with the ophthalmologist in their city who are writing many manuscripts and are actively involved in research to collaborate with them). A manuscript paper usually has up to 6 co-Authors allowed and we should make good use of this and collaborate with others.
Most important quality needed is the willingness to work and do quality work passionately, everything else will follow. Residents may start with working on a case report for a journal or an eposter for a conference in the first year and then gradually work on bigger research projects. In the USA most of the residents start working on research work during the MBBS phase itself, a culture we should adopt in India too.

Each institute has its own pros and cons and if there is a good patient base then research can be done. Collaboration may also be done across specialities with other departments (for example, microbiology, pathology, endocrinologist). The residents and at times the institute should be ready to shell out money for innovative research.

To accelerate the innovation process we need to have innovation labs which could provide collaboration between doctors, engineers, 3D printing experts, virtual reality app developers and data scientists. Next step would be providing sufficient funding.

I recommend reading the book “The Kaizen way” by Robert Maurer, based on the Japanese manufacturing philosophy of taking small steps to improve on regular basis to promote productivity.

Professor Steve Charles has been one of the most prolific innovator so far in the field of vitreo-retina surgery having developed innumerable surgical and diagnostic instruments. He had done engineering before starting a career in medicine which helped him to develop and patent many devices (and begin several startups) which changed the way we practice today. In a similar way if we acquire new skills beyond our speciality, believe in yourself, work extremely hard and give it everything that you have then there is limitless potential to what one can achieve and leave a legacy behind.

References

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"The history of innovation is the story of ideas that seemed dumb at the time."

Andy Dunn
Given that we are already doctors and have the coveted ‘Dr’ tag, the other ‘Dr’ or doctorate does not figure in most of our career paths. While MD, PhD is quite a common qualification in the West, it is yet to gain popularity in India. With a Supreme Court ruling in 2018 that a PhD is not required for promotion to the post of professor in medical colleges attached to central government-funded universities, there also doesn’t seem to be a need. While this means that fewer medical professionals would opt for a PhD, there is also likely to be less research output in the field. On a positive note, in the past few decades, the Indian higher education system has expanded phenomenally paving the way for PhD research with several prestigious universities offering doctorates. Some of the key reasons why you can pursue this higher degree in India are diversity in specialisations on offer, affordability, English as the language of instruction and increasing global recognition.

A PhD or doctorate is one of the highest research qualification, and those who have already completed under graduation and (usually) postgraduate training are eligible. You need to choose an original topic and conduct independent research with the support of a guide or supervisor. To complete your doctorate you need to summarize your research activities and results in a ‘dissertation’. Depending on your institute requirements and supervisor, you may also need to have a certain number of peer-reviewed publications. The Défense, a public examination in front of a committee, marks the completion of your PhD. While the most important criteria for a successful outcome is whether your research is original, the committee will also access your knowledge, interpretation, extrapolation and social relevance, if any, of your work. The committee will be chaired by your supervisor and will have other examiners, either PhD holders themselves or experts in the field. The public are also allowed to attend the Défense.
A requirement for PhD applicants in India is the **Research Eligibility Test (RET)**: this is a written exam to ascertain that you have the required knowledge and expertise to pursue a doctoral research in your chosen subject. Once you are through this, there will be a round of interviews before the final selection. Choosing an institute will depend on the specialty you want to pursue. Institutes of National Importance are premier public higher education centres that play a major role developing highly skilled personnel within the specified region and churn out the highest number of PhDs in our country. These include the All India Institutes of Medical Sciences, Indian Institutes of Technology, National Institutes of Technology, Indian Institutes of Management, Indian Institutes of Science Education and Research, National Institutes of Pharmaceutical Education and Research, and Schools of Planning and Architecture.

A PhD in Medicine would be an interesting degree to pursue given our specialty. It is a 3 to 5 year full-time Doctoral program in Medicine. The eligibility is a post-graduation degree in Medicine. The course enables candidates to get an in-depth insight into specific areas of medicine thereby strengthening their core skills. Through this program, candidates can improve on their analytical and innovative skills. Some institutes that offer a Ph.D. in Medicine are Dr. DY Patil Vidyapeet, Gujarat University, Jawaharlal Institute of Post Graduate Medical Education.
and Research, Mahatma Gandhi Institute of Medical Sciences, and BLDE University. Public health is another field that doctors can pursue a doctorate in.

Those who want to expand their horizons, explore a new research environment, or work with most experienced in a particular field, should consider studying abroad for a PhD. There are several premier institutes across the globe offering PhD programs and can take few years to reach complete. While there are no traditional tuition fees for doctoral candidates in some centres, the same is not a norm. Research work itself is very expensive and time consuming. Hence, cost of education and stay in a foreign country is a major financial concern. One can get a trainee or faculty position during the program or a scholarship to reduce this burden. Across the continents there are different education systems. In Europe, the European Higher Education Area (EHEA) is a network of 48 countries including 28 EU members (including the UK) and other countries in Europe and Eurasia offers the advantage of acceptability and recognition of academic degrees across EHEA countries. Netherlands, in particular, is a popular choice for a PhD study owing to its rich culture, excellent graduate schools, a large variety of research fields, extensive interdisciplinary collaboration, world-class research and innovation.

Maastricht is particularly close to my heart as I completed my PhD from this University in Netherlands. This is thanks to my institute, Narayana Nethralaya Eye Institute, which has a collaboration with Maastricht University. We have three
other doctors who have completed their doctoral degree and some more on the way. The advantage was that we could carry out our research along with clinical work at our home institute. While there was no fee as such for the PhD, we only had to bear the cost of travel for meetings with our guide and the defense. We had guides from India and the Netherlands, hence got a better and wider perspective. The ceremonial thesis Défense of a Dutch PhD, with all participants wearing a full academic dress, is special. The beadle (or pedel), an officer of the university, opens and closes the ceremony. Two supporters (paranimfen) will also be allowed to accompany you. They can be your friends or family or can be someone from the university. While in older times they acted as a backup for the doctoral candidate to ask for advice when answering questions, in modern times they provide moral support and encouragement. On the whole it is like a beautiful wedding (albeit academic) ceremony, followed by a reception.

And finally, what’s in a name? PhDs are termed differently across branches and countries. It is called Doutorado in Brazil, Filosofian tohtori in Finland, Dottorato di ricerca in Italy and Daktaras in Lithuania. PhD equivalents are Fellow Programme in Management, Doctorate in Pharmacy and Master of Philosophy. Some of the websites from which the above information is collated are below. Please go through them for more information. Wishing you all the very best for your doctoral aspirations and do mail me for any queries.

https://collegedunia.com/courses/phd-medicine
https://targetstudy.com/colleges/phd-medicine-degree-colleges-in-india.html
https://www.icmr.nic.in/content/icmr-scheme-mdms-phd-programme
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Dr. Chaitra Jayadev MS, PhD is currently employed as a senior Vitreo-Retinal consultant at Narayana Nethralaya Eye Institute, Bangalore. In addition to her clinical role, she is actively involved in editorial management, scientific publications and translational research at her Institute and beyond. She has served the Indian Journal of Ophthalmology from 2006-17.

Dr. Jayadev is an avid researcher and has close to 85 PubMed indexed articles in subjects even beyond her core interest. She has contributed to internationally renowned textbooks like Myron Yanoff’s Text Book on Advances in Ophthalmology. She has defended her PhD at the Maastricht University, Netherlands.

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INTRODUCTION

Over the past few years, there was an enormous surge of interest in deep learning and big data analytics. Over the past 24 months, we have been asked to review numerous number of AI papers submitted to various medical and Ophthalmology journals. Also because of this, Ophthalmology journals, for e.g. Ophthalmology, the American Journal of Ophthalmology (AJO), British Journal of Ophthalmology (BJO) and Translational Vision Science and Technology (TVST) have created a position for AI editor to sit in the editorial board, responsible for performing critical appraisals on the clinical and technical aspect of the AI papers submitted to the journal. In this article, we will be sharing our AI journey and the tips of developing sound AI algorithms on fundus photographs and optical coherence tomographs (OCT).

DANIEL TING’S AI JOURNEY

HOW DID I START MY AI JOURNEY?

I would say, by chance! Six years ago, given my past PhD experience in health technology innovation for DR screening, I was asked by mentor, Professor Tien Wong, to take over a machine learning project when another principal investigator had to go back to her home country due to social reason. During that time, it was still at the feature-based learning era where we were required to annotate the features prior to training an algorithm. In 2014, the use of deep learning had suddenly become popular given the advent of the NVIDIA graphic processing units (GPUs). We attempted this novel approach and to our surprise, the performance had unbelievably improved by at least 10 to 15%, reaching the clinically acceptable level. We were not convinced about the results at first as we thought ‘it may be too good to be true!’ In order to confirm our findings, we initiated a multi-center collaborative group, called the DEEP-EYE study group, searching for new external validation datasets to confirm the diagnostic performance of this algorithm.
THE INITIAL NIGHTMARE OF MY AI JOURNEY!

While we were getting really excited about our AI findings using deep learning (with the initial 5 datasets), we wrote up the manuscript and submitted to a major medical journal (1 month prior to the Gulshan et al, JAMA publication on the Google AI algorithm), without knowing that the Google has also prepared and submitted the manuscript to JAMA one month before us. When the JAMA article was published in December 2016, our manuscript was rejected one month later in January 2017, after rebutting more than 200 comments raised by 5 reviewers, due to the loss of novelty in our research findings (this reflects the importance of being ‘fast’ to get the manuscript out). From our submission to the time of ultimate rejection (post rebuttal), it took a total of 3 months. In the subsequent 3 months, we attempted another 2 major medical journals which, again, rejected us for the similar reasons. At that point, our team was already extremely demoralised and almost wanted to give up. After a rigorous internal discussion, we decided to beef up the datasets, increasing the external validation datasets from 5 to 10, with addition of 2 more ocular conditions, namely glaucoma suspect and age-related macular degeneration, totally up to close to 500,000 retinal images in training and testing. Following that, we submitted our article to JAMA and was finally accepted/published in December 2017 after 3 rounds of revisions. This was 1 year later than the 1st submission to the first major medical journal!

My painful journey did not end as part of the above journey. At the same period, I have undergone 1 year of draught in securing research funding for the AI team. Thank you to my mentor, Prof Wong, who has large research grant that is on-going and supporting this AI team. The term ‘deep learning’ was still very new back then. In fact, I would say it was an ‘alien’ term that very few understood the novelty of this technique. Having 2 consecutive rejections by 4 reviewers, once again, made me think whether our research team is headed in the right direction. In fact, the confidence of many of the team members were also shaken that time. We went through a 2-year no papers/publications and research funding period up until our JAMA publication was published thereafter.

Since the JAMA publication, our research group has made a 180 turn, starting to get many interest worldwide for potential collaborations and also invited editorials to many medical and ophthalmology journals. Since 2017, the hype, and also the understanding, on machine learning and deep learning have continued to rise and this has pushed the field into a new era. To date, we have published more than 20 AI articles, including JAMA, Nature Medicine, Nature Biomedical Engineering,
Nature Digital Medicine, Lancet Digital Health, Progress in Retinal and Eye Research, IAAI, ACCV and many ophthalmology journals. We have also fortunately been invited to many conferences to speak and share our past AI experience, and until to date, I am still feeling extremely indebted to my entire AI team (especially my mentor -Tien), who had put their trusts in me despite the ‘dark’ period during the initial 2 years. At present, we are still looking for opportunities to collaborate with many collaborators worldwide, and would love to take this opportunity to call for joint projects with the All India Ophthalmological Society & Young Ophthalmologists Society of India members.

AARON LEE’S AI JOURNEY

My foray into AI was both serendipitous and circuitous. Since the early 2000s, I had been developing bioinformatic algorithms for next generation sequencing data while going through my medical training. As more and more clinical data became electronically codified with the rise of electronic medical records, I began to transition my research focus towards doing research with large clinical data repositories. Under the mentorship of Dr. Adnan Tufail at Moorfields, I began to wrangle with large diverse real-world datasets.

After joining the faculty at the University of Washington, I was able to extract OCT imaging data en masse from the imaging data repositories while at the same time using the enterprise data warehouse to generate clinical labels to link with the imaging. After merging these two large datasets, I was at a loss of what I could do. Traditional algorithms did not scale well and computer vision algorithms were mainly semi-automated, requiring large amounts of manual labor.

At around this time, I happened to have dinner with a friend in radiology who had been deep learning and when he first suggested using deep learning, I was very skeptical. He encouraged me to apply for a graphics processing unit from NVIDIA, and within a week of the GPU arriving, I had trained my first deep learning model. I was shocked at how well the model learned to distinguish age-related macular degeneration from normal, and I was nervous about publishing the results because they appeared too good to be true.

After applying occlusion masking and convincing myself that the results were indeed real, I moved forward with publishing my first paper in using deep learning for fully automated AMD classification. Since then, my research interests have grown to attempt to push deep learning models to their limit and aiding in scientific
discoveries. We have shown that deep learning models can predict OCTA from standard OCT scans as well as predict the HVF 5 years into the future from a single HVF.

TIPS TO DEVELOP GOOD AI SYSTEMS (DANIEL AND AARON'S EXPERIENCE)

1. Identify a research need (there is no such thing as a ‘Me 2’ project). If there is a need to develop a new AI algorithm for self-sustainability for service implementation in a nation, I would say – Do it! Do not be put off by the big tech companies (Google, IBM and etc) or us (who have the opportunity to do this first a few years’ back) – It is always good to develop an AI system in house, provided there is enough expertise.

2. Source for datasets, either in retrospective manner (fastest), or in prospective manner (much slower but cleaner).

3. Source for a technical team (either locally or overseas).

4. For every success there are many failures. We had numerous deep learning experiments fail because there was either not enough data or the null hypothesis was true.

5. Systematic biases in your data matter more than ever with machine learning.

6. Real-world performance and generalizability to other populations are harder than most publications would lead you to believe.

7. Deep learning models are lazy. It is very easy to fool yourself into believing that deep learning models are doing something useful but they instead they may have overfit your data.

With this, we would like to thank the YOSI for the kind invitation to contribute to this piece.

Look forward to meeting you all in the future conferences. Please come up to say hi!
Daniel Ting MD (1st Hons) PhD is currently the Assistant Professor in Ophthalmology with Duke-NUS Medical School Singapore, and also a vitreo-retinal consultant at the Singapore National Eye Center.

His main research focus is on artificial intelligence (AI), big data and digital health innovations in Ophthalmology. He was the J. William Fulbright Scholar (2017/2018) who visited Johns Hopkins University (JHU) School of Medicine and Applied Physics Laboratory to evaluate the use of AI in Ophthalmology. To date, he has published >140 peer-reviewed papers, conference abstracts, book chapters and educational articles, including >20 AI articles in JAMA, Nature Medicine, Nature Digital Medicine, Nature Biomedical Engineering, Lancet Digital Health, IAAI, MICCAI and ACCV. As the clinical lead for the AI team in Ophthalmology with the Singapore Eye Research Institute, he has received approximately 1.5 Million USD as the principal investigator and 25 Million USD as co-investigator/collaborator research funding for his AI work.

Academically, he graduated as the Valedictorian of SingHealth Residency in 2016 (across all specialties) for maintaining 1st ranking nationally in the US OKAP (International) exam for 3 consecutive years, winning the prestigious UK FRCOphth McCartney Prize and a total of 9 outstanding awards during his residency period. He was also the Singapore Health Service (SHS) ophthalmology chief resident in 2014-2015.

Aaron Y. Lee MD MSCI is an assistant professor and vitreoretinal surgeon at University of Washington, Department of Ophthalmology. He completed his undergraduate at Harvard University and his medical training at Washington University in St Louis.


He has published over 60 peer reviewed manuscripts and is known as a leader in the field of artificial intelligence and ophthalmology.

Aaron Lee’s research is focused on the translation of novel computation techniques in machine learning to uncover new disease associations or pathophysiologic mechanisms from routine clinical data from electronic health records and imaging datasets.
With the recent Food and Drug Administration (FDA) approval of the first gene therapy, Voretigene, for RPE65 gene in Leber’s Congenital Amaurosis (LCA), there has been an advent of new wave of gene therapies in retina. The role of molecular biology is bigger and gene therapies closer than ever before. This makes a deeper understanding of genomics, with relation to retinal disorders very relevant. **As young retina specialists delve into this fascinating field of retina, this article would cover questions like, what is Precision Medicine, what is CRISPR, and how do they apply in Retinal disorders. As well as guide the way for those wishing to pursue this field more definitively.**

Precision Medicine, refers to tailoring therapy to patients. Our genetic makeup, often dictates our health profile, in addition to other factors. When it comes to specifically inherited retinal dystrophies (IRD), ‘one size fits all’ or ‘cookie cutter technique’ is most often not the answer to therapy. As a part of precision medicine approach, what is important to design therapy based on patients’ genetic make-up. Broadly, we do a genomic sequencing to detect mutations, and then develop targeted therapy against them.

Clustered Regularly InterSpersed Palindromic Repeats or CRISPR, is a cutting edge genomic editing tool, which has taken the scientific community by storm. While a detailed description would be out of bounds of this article, in brief, this powerful tool, acts as a molecular scissors. The Cas9 enzyme, cuts DNA, at particularly designed sites, which includes the mutation to be treated. These mutation sites can be replaced by the correct copy of DNA sequence. While potential limitations include off-target effects, newer modifications in this technique, like CRISPR base editors, act as an eraser-pencil,
changing point mutations without causing double stranded breaks (DSB) in the DNA.

Now, where is all this information relevant to us as a retina specialist?

While most retinal gene therapies are in clinical trials, mostly phase I/II, the time is not long before the new wave of CRISPR genomic editing based therapies are in clinical trials. All of this makes this field of research most dynamic and exciting. Further, the possibility of a career as a clinician scientist is an exciting prospect to explore. It provides the opportunity to see patients, as well as perform basic biology research. For some, this may mean spending time at a molecular biology lab, while for others, to take it more conclusively, this may mean taking up a PhD in molecular biology, leading the way in translational research. Working at a molecular biology lab, would involve doing basic sciences experiments, including pipetting, electrophoresis, Polymerase Chain Reaction (PCR), cell culture experiments, as well as animal experiments. While this area may be very different from the current set of retina skill you may possess, it can be a very rewarding experience to answer a critical research question and strategizing ways to develop therapies.

*Whichever path you choose, when it comes to genomics experiments, the idea will always be to deliver the very best to the patient, and to do meaningful research, developing effective therapies.*

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ROLE OF SIMULATORS IN SURGICAL TRAINING

-DR. VEDANG SHAH

Simulation is defined as “a technique to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive manner.”¹ Simulation was first described when leaf and clay models were used to simulate the very first recorded operation, a forehead flap nasal reconstruction in ancient India in 600 BC.²

The paradigm of surgical training has evolved from laboratory practice to operating on cadaveric tissues and, more recently on synthetic eye models³. The importance of surgical simulation is now widely recognised for surgeons. It is becoming a popular way to train both novice and skilled doctors. While traditional didactic teaching and textbooks remain of utmost importance, it has been shown that the current generation of trainees is more amenable to technology and alternative teaching methods. Interactive, hands-on experiences with the opportunity to learn through trial and error are considered more enjoyable and effective.

The virtual reality training system for intraocular surgery has the potential to revolutionize medical training. The Ophthalmic Surgical Simulator is unique, as it provides a realistic and appropriate platform to acquire psychomotor skills and develop micro-surgical spatial awareness, which can be applied to real-life vitreo-retinal surgery.⁴ The simulator enhances the process of preparing a surgical resident for his first surgical experience by providing more skills and confidence. Repetitive practice of a well-defined task and feedback allow for an accelerated and safer learning curve.

Ophthalmic surgical trainees must acquire, within a limited time, sufficient experience and proficiency in Vitreo-Retina surgery before they can embark on their journeys as consultants. At the beginning, it is mainly the hand-eye coordination that is difficult to learn. Because eye surgeries are performed using a stereomicroscope, hand movement is decoupled from natural vision, and the coordination is different from the accustomed way. In the
limited space of the surgical field, tiny hand movements can have fatal consequences. Hand-eye coordination can be well-learned using virtual reality.

The virtual training bridges the gap between textbook surgery and real-life theatre experience, and allows one to contextualize the precise nature of intraocular surgery. It also provides tactile feedback, an appreciation of depth perception, and safe instrument-handling. This set-up allows the surgeon to understand the ergonomic dimensions and challenges that operating presents and to develop muscle memory for intraocular surgery. Residents learn the foot controls in a no-stress environment and they can work on posture and hand position. They also learn to work while looking through a microscope. The simulator allows focussed practice if a resident is struggling with a particular step of surgery. It also enforces the habit of learning incrementally even if the mentor is not present. The simulator has a built-in curriculum that a resident must work through to unlock the next step.

The benefits of simulation are far reaching. It also has the ability to grade an individual on his surgical skills, such as time to complete a procedure and the accuracy of manoeuvres. The virtual image is displayed on the screen, so the teachers can observe and guide the resident well. It is like a video game where medical training is conducted in the surgical subspecialty with no risk to the patient.

There are several simulators developed for Vitreo-Retinal training like the Eyesi® and the VR magic. Some simulators have even undergone validation studies with regard to developing skills necessary to perform surgeries.
There are a few centres in India which offer VR training on simulators. **Aravind Eye Hospital, Coimbatore & Madurai** conduct a 2 week paid Vitrectomy Course. The **Eyesis® Simulator** is used for training and the candidate should have completed a VR Fellowship. Please check the website for more details.

**The National Ophthalmic Surgical Skills Centre, at R.P. Centre, All India Institute of Medical Sciences (AIIMS), New Delhi**, is equipped with eye surgical simulator, with a retinal module. With due permissions, it can be accessed by residents from all over India.

However, the expense of a virtual eye surgical simulator is a barrier to its use in some programs and may represent the main obstacle to its integration as a mandatory component of ophthalmic surgical training.

In summary, computer-based surgical simulation is a useful arrow in the quiver of the trainee surgeon, which acts to supplement – but not replace – surgical textbooks, videos and wet-lab experience.

References


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19. What’s behind a proper Vitreoretina training?
   Dr. Rodolfo Mastropasqua

20. Try! Try! Try! Till you succeed
   Dr. Pritam Bawankar

21. Step by Step Vitreoretina Surgical Training
   Dr. Mayank Bansal & Dr. Vinod Kumar

22. Ergonomics in our ophthalmic World
   Dr. R Krishnaprasad

23. How to study as a Young Vitreoretina Student?
   Dr. Awaneesh Upadhyay

24. Online Resources for a Vitreoretina Trainee
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25. FAICO Examinations: All you need to know!
   Dr. Mahima Jhingan

26. Tips for FAICO preparation and wider reading during a VR Fellowship.
   Dr. Apoorva Ayachit
27. Nuances of Retinal Imaging: A case based discussion
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28. Conferences and Travel Grants
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29. Retina Conferences: 2019 - 2020
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30. Establishing an Independent Retina Practice
   Dr Bikramjit P Pal

31. Best Comebacks to things people say to women in vitreoretina: A comprehensive manual
   Dr. Apoorva Ayachit

32. Differential Wars
   Dr Mahima Jhingan,
   Dr Jay Chabblani
   Dr Komal Agarwal
Becoming a specialist in Vitreo-Retinal surgery means being able to deal with both straightforward and complicated cases. These include the surgical treatment of retinal detachment, macular hole, epiretinal membrane, ocular trauma, complicated diabetic eye disease, complications of cataract surgery and endophthalmitis.

After completion of residency in Ophthalmology, a subspecialty training of at least 2 years should be performed to acquire the necessary skills to face competently and independently the above conditions.

The first step of learning Vitreo-Retinal surgery is about gaining clinical skills: a proper retinal examination is critically important in addressing an adequate treatment. An expert must be able to examine the patient with both the slit lamp and the indirect ophthalmoscope. Failing in this will almost surely guarantee a surprise on the table which will lead to an avoidable “last second” change of plan. Speaking to the patient is equally important: a large percentage of VR diseases have a guarded prognosis and in surgery, complications can happen. It is always advisable to spend time discussing the disease and explaining the risks and benefits of surgery comprehensively.

Once in theatre, the most important point for a trainee is to respect his learning process. It is essential to take the time necessary to understand each surgical step and make it reproducible. At the beginning it’s not important to raise numbers, what really counts is to make a technique personal and unique. There is no point to take unnecessary risks and try a manoeuvre never done before: ask for supervision as much as you need.

RODOLFO MASTROPASQUA MD FEBO, completed his training in general Ophthalmology at the University of Verona, Italy. Thereafter he moved to the United Kingdom, where he completed an 18 months research scholarship at the Vitreo-Retinal Department of Moorfields Eye Hospital, London. He completed a cataract fellowship at the Moorfields Eye Hospital and a vitreoretinal fellowship at the Whipps Cross University Hospital, London, UK. He is currently employed as a vitreoretinal fellow at the Bristol Eye Hospital, University of Bristol, UK. He is author of 89 publications and has an H index of 21.
Medical education is the ultimate test of patience, perseverance and passion. Getting into your dream branch after 5 and a half years of slogging not only requires intelligence to crack entrance exams but fate also play a very important role. After 3 years of slogging and endless working hours, a postgraduate doctor comes out into the real world. It doesn’t end here, rather it has just begun and the lingering question of ‘WHAT NEXT?’ remains.

Ophthalmology comprises of various sub-specialities. Most of the government medical colleges and the DNB training institutes are unable to provide a comprehensive and holistic approach which involves medical and surgical training in various sub-specialities like Refractive, Vitreo-Retina, Oculoplasty, Neuro-Ophthalmology, Squint and Glaucoma. Hence the need for a fellowship arises, if one intends to practice subspecialty in the field of Ophthalmology.

The process of getting into a fellowship is indeed a tedious one. There are a few tertiary eye care hospitals which offer fellowship programs in each region and have 2-3 spots for each sub-specialty every 6 months or 1 year. The selection criteria of a candidate at each institute is very different and unknown to the young ophthalmologists. It usually comprises of a written exam and an interview. Doing well in the written exam and interview doesn’t guarantee a selection. Several add on factors like publications, reputation of residency training institute and recommendations come into play.

In India, the residency training scenario varies considerably from one institute to another. An environment of research and publication is lacking in majority of the institutes. Lack of mentorship, paucity of dedicated time for research and long working hours create an environment which is not conducive for research.
In my personal experience, despite having keen interest in clinical research I was unable to achieve publications due to various factors. I did well in my post graduate exams and fellowship entrance tests/interview, but they were not enough to get me a Vitreoretina fellowship. Absence of publications in my resume was one of the biggest hindrances. I didn’t give-up and kept appearing for interviews and eventually found my dream institute. During the interview process they overlooked my shortcoming of not having the add ons and were able to identify my zeal for research. At the end of the interview they made me promise that I will convert my aspirations into reality. With my mentors support, excellent infrastructure and adequate patient exposure, I learned the nuances of research and I was able to publish in various peer reviewed indexed journals during the course of my fellowship.

Refinement of the selection criteria or a common and uniform fellowship exam might be helpful for the young ophthalmologists and is indeed the need of the hour.

Is doing a fellowship mandatory? Is it beneficial? Yes! Undoubtedly, it helps one gain knowledge but it also changes the way one thinks. The clinical and methodical approach when treating a patient gives you an edge over the others. During a fellowship, you get an opportunity to work and excel as a clinician and an academician. All in all, acquiring a “Specialist” tag in the end is surely worth it!

**My Tips for Fellowship Entrance Tests:**

1. **Start early**: The day you decide that you want to pursue a fellowship, start working towards it. Even if you are in the first year of residency!

2. **Be Focussed**: Try to focus some of your energy towards your choice of subspecialty. That may involve simple things like reading the subject more and trying to concentrate your research towards that area. But you should not overlook the fact that we have to become comprehensive ophthalmologists first and specialists later.

3. **Be Aware**: Keep your self updated about all the fellowship programs in the country and abroad. You don’t want to miss an application deadline!
4. **Seek Mentorship** : Seek mentorship from all possible sources. A mentor can be any body and from anywhere. Be an eklavya! Know all the possible mentors form your choice of specialty, follow their work and talk to them when you see them in conferences. You never know, they might be taking your interview one day!

5. **Talk to people** : Talk to your seniors, Fellows & Residents from your dream institute. They might be able to give you some very important insight and help you with the process. You will find all relevant contact details in this issue of YO Times itself.

6. **Publish!** : Publications look good on your resume! If your institute appreciates and encourages research then you are in good hands and just follow the guidance. But if you don’t find the environment conducive, you can seek guidance from outside. YOSI Research Cell can help you in this endeavour.

7. **Know your Subject** : Last but definitely not the least, know your ophthalmology well. You will eventually find your way if know your subject well!

In the end, you have to understand that we have to try and try till we succeed. Nothing in life comes easy, you have to work hard! Everybody has faced failures and we have to try again without giving up hope!

I wish you all the best!

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**YO TIMES** acknowledges the contribution of Dr Aditi Tripathi in developing this article.
STEP BY STEP VITREORETINA SURGICAL TRAINING

DR MAYANK BANSAL
DR VINOD KUMAR AGGARWAL

One of the most dynamic fields of ophthalmology and perhaps medicine, Vitreo-Retinal surgery has swiftly become the top choice of recent ophthalmology post-graduates, wishing to pursue sub-specialty training. The surgical expertise needed, the challenges involved, and fast changing practice patterns, all add up to make it a sought-after area of work.

As you embark, or decide to pursue this fascinating speciality, this article in short will cover some simple nuances to make the most of this field.

GAINING THE ARMAMENTARIUM

Perhaps the most useful skill - and maybe among the neglected ones, is reading. You may ask, whether reading is really important in a surgical training program. Much like the ophthalmology training, reading paves the way for better understanding of the actual subject, and surgeries. Surgical retina involves both extra ocular and intra ocular maneuvers, and a good knowledge of anatomy to identify surgical landmarks goes a long way. For example, while passing an encircling silicon band, the location would be different for myopic and emmetropic eyes. Identifying the vortex veins and passing the band accordingly (2 mm anterior to it) is most desired.

Very often when you read up, you will come across the solutions to your common problems. Learning from other’s experience, and mistakes, knowing common pitfalls, and how to handle complications is must for making of a good VR surgeon. Vitreo-Retinal Surgical Techniques by Gholam Peyman, and Retina by Stephen Ryan are among the top texts available this area. Other excellent online resources include retinalphysician.com and eyetube.net.

Knowing your equipment - is extremely important in Vitreo-Retinal surgeries as it is in any other surgery or even in general life. Depending on the vitrectomy machine
used, foot pedal controls, vitrectomy parameters, and availability of features are something the surgeon must understand. A minor feature of the vitrectomy machine/foot switch maneuver may sail you through toughest of surgical scenarios (e.g. reflux is the easiest way of inadvertently caught retina in the cutter). This also includes troubleshooting features, and compressed air requirements. A knowledge of all of these will come in handy while operating. It's best to hope for the best, however when it comes to the equipment, being prepared for the worst is always a good idea. Vitrectomy machine error messages, inadvertent shut-down, etc. during a surgery, especially during a critical step, can significantly tip the operating theatre environment into a state of panic. Being in control at such times certainly helps.

LEARNING TO OPERATE

When it actually comes to operating, understanding tissue handling is among the key features to learn surgical skills. Respecting the integrity of tissue goes a long way in improving the surgical outcomes. My mentor used to say that “every intraocular movement should be purposeful”. When available, practicing prior on animal eyes, or eye simulators are a great first step. On a relevant note, the National Ophthalmic Surgical Skills Centre, at R.P. Centre, All India Institute of Medical Sciences (AIIMS), New Delhi, is equipped with eye surgical simulator, with a retinal module. With due permissions, it can be accessed by residents from all over India. Another pertinent point is being ambidextrous. As an initial step using both hands for daily activities (e.g. brushing with your non-dominant hand), does give better control on the non-dominant hand.

A structured introduction into the steps of surgery by a mentor would be an ideal way. The value of assisting a senior surgeon and if possible assisting multiple surgeons, cannot be emphasised enough. With every surgeon having some tips to share, it is also a good practice to observe, assist multiple surgeons when possible, and adapt to your own technique accordingly. Good assistance involves both observing the nuances of surgical steps, and asking relevant questions. It always helps to come prepared in advance, by reading relevant literature before a patient is scheduled for Vitreo-Retinal surgery. When appropriate, the surgical mentor, can gradually introduce the retina fellow in training, to steps of the surgery.

When it comes to the extra-ocular steps, techniques of peritomy, hooking muscles, passing scleral sutures, and so on are best introduced gradually. For Vitreo-Retinal surgery, making ports, placing infusion cannula, posterior vitreous detachment induction, macular peeling, eye pressure control, endo-illuminator control, fluid air exchange and many such other steps have their nuances, again best performed in
a graded fashion. Also worth noting is that while most of anterior segment surgery involves operating in a horizontal plane, Vitreo-Retinal surgery is largely in the vertical plane, which may take some adaptation, especially when coming straight out of post-graduation.

OTHER AREAS OF RETINA WHICH GO IN TANDEM

Solid **clinical skills**, indirect ophthalmoscopy (IDO), and 90D skills help in effective diagnosis, and management. Indenting without causing pain, and visualising extreme periphery with 90D, are examples of techniques which get better with practice. Retinal lasers and cryotherapy are aided with good IDO skills.

A good understanding and practice of retinal **imaging** is integral part of Vitreo-Retina training. Imaging characteristics learned by doing the retinal imaging on your own are far superior than reviewing images taken by the optometrist. For example, as a retinal physician, when it comes to optical coherence tomography (OCT), you would know which segmentation to apply, how to compare registered images on follow up, and using appropriate type of OCT protocol for relevant retinal condition.

Lastly, there is always concerns amongst residents about numbers of surgery. While numbers do matter, equally or perhaps more important is to learn the right technique. Structured and planned training always has a shorter learning curve.

COMMON MISCONCEPTIONS

This section is relevant for those who are contemplating whether to choose Vitreo-Retinal surgery, (or those who have chosen it, and are still debating their choice). There are some common perceptions which often lead to incompletely informed choices. One of the most common is that ‘all retina patients have poor vision outcome’. While patients with retinal disorders are among the most challenging in ophthalmology, prognosis is not always poor, for example patients with fresh retinal detachment, or vitreous haemorrhage with good underlying macular function. Moreover, even for those with poor prognosis, there is always vision worth striving for.

Another common perception is that Vitreo-Retinal surgery cannot be practiced out of tertiary care hospital setting. With advancing surgical equipment and instrumentation, most eye institutes, centres are providing Vitreo-Retinal services
now. After cataract surgery, retinal procedures including intravitreal injections are among the most commonly performed eye procedures.

Last but not the least, attending conferences and retinal meetings forms a very integral part of retina training, where in you get abreast with the latest in the field. Presenting your work helps gain insights and critical review of your research.

To conclude, learning is a continuous process, a journey without one destination. It is great to set targets, and work on constant improvement of oneself. This field of Vitreo-Retinal surgery, is ever evolving making it exciting, addictive and most of all satisfying. Wish you all the best in this journey, please feel free to contact on the details below for any questions.

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ERGONOMICS IN OUR OPHTHALMIC WORLD

-DR KRISHNA PRASAD

We learn about Ergonomics in our community medicine text books of our medical school and then comes a long amnestic interval! Most often as professional hazards we only start talking about it when our Back and Neck problems prompt us to do so! Fortunately we are hearing more about Ergonomics in recent times with more and more ophthalmologists being aware of this silent pandemic.

On an evolutionary perspective, our bodies are not meant to be sitting for long periods. Our skeletal system is designed for running, walking and standing, not for sitting! As Ophthalmologists, we sit in our out patient consultation rooms and our operating rooms. But we just don’t sit! We perform very intricate maneuvers like slit lamp examination or intraocular surgery where our attention is at its peak and we momentarily forget how we position our spine. If you consider slit lamp biomicroscopy, many clinicians cannot even reach out to the eyepieces of the slit lamp easily. If they are short statured, they have to extent their neck or they have to cantilever their neck down to reach the oculars, if they are taller! Both positions of the neck create repetitive stress injury to the bony and soft tissue components of our neck. It is well known that our neck carries the entire weight of our head and the effective weight of the head increases, linearly with progressive flexion of the neck. The persons performing indirect ophthalmoscopy for Retinal Evaluation have to keep their necks flexed for long periods and also weight of the Indirect Ophthalmoscope adds to the misery! Similar situations can be seen in our operating rooms where people perform prolonged surgeries keeping their neck in awkward postures. The lower end microscopes which lack tiltable eyepieces makes it mandatory for a surgeon to flex his neck for performing surgery.

The second mobile segment of our spine is the Lumbar vertebral column which bears the brunt of this occupational peril. The healthy sitting posture is one in which lumbar spine maintains the lordosis and feet firmly on the ground or any other support which transfers the weight of the body to the ground. In view of bad design of our OT Chairs and also the disparity in the microscope eyepieces levels, the surgeon
slumps down, obliterating the lumbar lordosis which cause prolonged stress on anterior position of intervertebral discs causing them to degenerate, encouraging disc herniation.

It is not out of place to recall some of the orthopedics we learnt in medical school. Spinal column is at its best when the normal curvatures are maintained like lordosis of lumbar region and slight extension of cervical region. Thoracic and sacral segments are immobile and hence are not of significance here. Flexion of cervical spine and loss of lumbar lordosis puts extra strain on the anterior part of intervertebral discs which can predispose to posterior herniation causing compression on neural structures. Repetitive stress injury also contributes to damage. Weak para spinal muscles aggravate the situation and can herald a dangerous situation. Bad chairs in OR and outpatient areas, poor postures, lack of regular physical exercise and ignorance about the musculoskeletal disorders increase the risk.

HOW TO MANAGE THIS PANDEMIC?

Musculoskeletal disorders arising out of occupation as an ophthalmologist are best prevented. Three strategies can be employed to curb this menace.

**Changing the things around us.**
Start with chairs on which you sit. Specially designed chairs which maintain the lumbar lordosis while operating or sitting in OPD can help. Most people who spend lakhs on microscopes and other machines do not spend some thousands on good, ergonomically designed chairs. Tiltable eye pieces are pricey in a microscope but can go a long way in the wellbeing of your cervical spine. Adjust heights of chairs in such a way that the feet are on the floor transferring the body weight to the ground directly.

**Adopting healthier habits:**
Get up every time you complete a consultation in OPD and walk the patient to the door. You are not only respecting the patient but also respecting your back. Sitting for prolonged periods in the chair has to be avoided. Remember that standing is the best posture for spine. You can also perform certain simple stretching exercise in OR & OPD every 30 minutes. Do not bend abruptly down with your knees extended as it can precipitate a disc herniation.
Fitness, Fitness & Fitness.

A Sound body solves it all. A regular physical exercise regimen can tone up your muscles, strengthen the bone, can make your joints supple and lastly can supply regular dose of ‘Endorphins’! Weight training of specific muscles around the neck and shoulders, crunches, back lifts can be of help. Swimming is a great aerobic exercise which can strengthen your back and neck muscles. An Athletic toned up body can be a great asset for a marathon surgeon. Being aware of this professional hazard can make us wiser and allow us to have a healthier and happier ophthalmic career.

Wrong Posture

Dr. R. Krishnaprasad is the head of Paediatric Ophthalmology and Glaucoma services in M. M. Joshi Eye Institute, a premier superspeciality Institute of Southern India. Being the Best outgoing University student with 8 Gold Medals in Medical Graduation, he has completed his M. D. (Ophthalmology) from prestigious All India Institute of Medical Sciences, New Delhi with honours. He is the Director of Post Graduate Training and Fellowship programmes at M. M. Joshi Eye Institute, a niche area very close to his heart. He is the Deputy Director of Community services and has been working tirelessly on pediatric community ophthalmology projects.

Dr. Krishnaprasad has undergone a fellowship training in pediatric ophthalmology at Storm Eye Institute, Medical University of South Carolina USA. He has three International publications and Eight National publications in peer renewed journals.

He is the member of South Zone in Academic and Research Committee of All India Ophthalmic Society for South India.

Post-graduation Education has been the passion of Dr. Krishnaprasad. He has been a Post Graduate Teacher for last 23 years. His flagship PG program – ‘Eye to Eye with Examinations’ has been highly successful in orienting the exam going post graduates for the ordeal of PG exams. He has been a member of National Post Graduate Education Committee in the past and has been a regular Guest Faculty in all the National Level and State level post graduate orientation programs. He has been awarded “Distinguished NBE Teachers” from ANBAI. He has more than 200 scientific presentations as lectures and panel discussions in various National & State conferences.

Correct Posture
HOW TO STUDY AS A YOUNG VITREO-RETINA STUDENT

-DR AWANEESH UPADHYAY

A) Medical Retina Training

1) Clinical Skills
   • Indirect Ophthalmoscopy
   • Scleral Depression
   • Fundus Contact Lenses 78D and 90D
   • Biomicroscopy Slit Lamp Examination
   • Fluorescein Angioscopy
   • Ophthalmodynamometry

2. Diagnostic Tools
   • Angiography - Digital Fluorescein and ICG
   • Wide field and standard
   • Ultrasonography
     • Dynamic B-Scan Ultrasound
     • Exposure to 3D Ultrasound
     • High Frequency Ultrasound
   • Autofluorescence of RPE
   • Optical Coherence Tomography
     • Maps & Line Scans
     • Standard and enhanced depth
   • ERG - Full field & Multifocal
   • Electro-oculography (EOG)
   • Dark Adaptometry
   • Microperimetry
   • Color vision analysis

3. Diabetic Retinopathy & macular edema
   • Classification and management
   • Role of Anti-VEGF therapy
   • Role of Steroid therapy
   • Role of Laser therapy
   • Management of rubeosis and NV
4. Various laser techniques
   • Standard slit lamp focal and PRP
   • Pascal pattern laser
   • Laser indirect ophthalmoscope

5. Age Related Macular Degeneration
   • Classification and management
   • Role of Anti-VEGF therapy
   • Role of Steroid therapy
   • Role of Laser therapy
   • Pneumatic blood displacement

6. Retinal Vascular Occlusive Disease
   • Classification and management
   • Role of Anti-VEGF therapy
   • Role of Steroid therapy
   • Role of Laser therapy
   • Management of rubeosis and NV

7. Peripheral Retina Disease
   Classification and management
   Diagnostic Skills
   - Indirect Ophthalmoscopy with Scleral Depression
   - Contact Lens Evaluation of Peripheral Retina
   1. Goldmann 3 Mirror Lens
   2. Super Quad 160 Wide Lens
   3. 78D and 90D biomicroscopy
   Retinal Breaks
   - Recognition
   - Therapy with cryopexy/laser
   Peripheral neovascularization
   - Recognition & Differential
   - Therapy with cryopexy/laser

8. Uveitis
   Classification and management
   Diagnostic blood test work-up
   Specialty history assessment Role of PCR testing
   Immune suppression management

9. Paediatric Retina
   • Retinopathy of Prematurity
     • Screening Programs
10. Ocular Oncology
- Recognition and classification
- Role of imaging and ultrasound
- Therapy with I125 plaque
- Therapy with thermotherapy
- Therapy with enucleation
- Role of Laser therapy
- Role of fine needle biopsy
- Understanding systemic workup

11. Hereditary Diseases
- Recognition and classification
- History taking & Pedigree
- Role of electrophysiology
  Management & Low Vision Aids

B) Surgical Retina Training

1. Retinal Detachment
- Classification: Exudative versus Tractional versus Rhegmatogenous
- Rhegmatogenous RD
  - Localization of Retinal Breaks
  - Drawing of Configuration
  - Surgical Decision Making
    - Pneumatic Retinopexy
    - Scleral Buckle
    - Vitrectomy

2. Surgical Skills
- Pneumatic Retinopexy
  - Intraocular Gases ~ Kinetics ~ Complications
  - Retinopexy ~ Cryopexy ~ Indirect Laser
- Scleral Buckle
  - Options for Elements
  - Encircling versus Radial
  - Drainage vs Non-Drainage
  - Cryopexy
  - Complications
• Vitrectomy
  • 3 Port Pars Plana Vitrectomy
  • Vitreous Base Dissection
  • Scleral Depressed Peripheral Vitreous Shaving
  • Air Fluid Exchange
  • Endolaser Photocoagulation
  • Scleral Depressed Endolaser photocoagulation

3. Complicated Retinal Detachment
  • Proliferative Vitreoretinopathy
    • Membrane Dissection
    • Illumination & Wide Field Viewing
    • Use of PFO
    • Silicone Oil
    • Gas
    • Role of retinotomy and buckle

• Diabetic Tractional RD
  • Dissection techniques
  • Role of anti-VEGF and laser

• Giant Retinal Tear -
  • Role of gas v/s silicone
  • Role of buckle
  • Management of fellow eye

3. Macular Surgery
  • Macular Hole Surgery
    • ILM peeling techniques
    • Stains
    • Gas tamponades

• Epiretinal Membrane & VMT
  • Peeling techniques
  • Stains

4. Endophthalmitis
  • OPD based management
  • Role of vitrectomy
5. Management of Lens Complications
   - Retained Lens Fragments
   - Dislocated & Subluxated IOL

6. Vitrectomy Fluidics & Techniques
   - 23 G
   - 25G+
   - 27G and high-speed cutters
   - Chandelier Lights

**BOOKS**

**Medical retina**
   - Principles and Practice of Ophthalmology - Albert Jakobiec’s
   - Basic and Clinical Science Course. American Academy of Ophthalmology
   - Ryan’s Retina - Andrew Schachat
   - The Retinal Atlas - K. Bailey Freund
   - Gass’ Atlas Of Macular Disease - Anita Agarwal
   - Macular Edema: A Practical Approach - Gabriel Coscas

   - Choroidal Disorders - Jay Chhablani, Jorge Ruiz-Medrano
   - Retinal Pharmacotherapeutics - Nguyen, Q.D
   - Retinal Pigment Epithelial Detachment: Differential Diagnosis and Therapy - Maria-Andreea Gamulescu

**Surgical retina**
   - Vitreoretinal Surgical Techniques - G.A. Peyman, S.A. Meffert, M.D
   - Surgical Techniques In Ophthalmology Series: Abdhish Bhavsar
   - Retinal Detachment Surgery and Proliferative Vitreoretinopathy - Zoran Tomic, Diego Ruiz-Casas
   - Practical Handbook for Small-Gauge Vitrectomy - Spandau, Ulrich, Heimann, Heinrich
   - Vitreous Micro surgery - Steve Charles
   - Retinal Prosthesis - A Clinical Guide to Successful Implementation - Humayun, Mark, Olmos de Koo, Lisa

**Imaging**
   - Handbook Of Retinal OCT: Optical Coherence - Jay S. Duker
   - Retinal and Choroidal Imaging in Systemic Diseases – Jay Chhablani
• Optical Coherence Tomography Angiography Atlas: A Case Study Approach - **Julie A Rodman**

• Ryan's Retinal Imaging and Diagnostics - **Stephen Ryan**

**Ultrasound**
• Ophthalmic Ultrasound- **Sandra Byrne and Ronald Green**
• The Sankara Nethralaya Atlas of Ophthalmic Ultrasound – **Muna Bhende**

**Websites**
• [https://www.asrs.org/sections/fellows-in-training/fellows-reading-list](https://www.asrs.org/sections/fellows-in-training/fellows-reading-list)
• [https://eyetube.net/retina/](https://eyetube.net/retina/)
• [https://esaso.org/education/course-textbooks](https://esaso.org/education/course-textbooks)
• [http://www.octnews.org/category/1/ophthalmology/](http://www.octnews.org/category/1/ophthalmology/)

**RETINA NEWSLETTER**
• [https://](https://)
  [www.retinalphysician.com/newsletter](http://www.retinalphysician.com/newsletter)
• [https://](https://)
  [www.reviewofophthalmology.com/newsletter/retinaonline](http://www.reviewofophthalmology.com/newsletter/retinaonline)

• [https://vrsi.in/vrsi-newsletter/](https://vrsi.in/vrsi-newsletter/)
• [http://eophthalmologyreview.org/newsletters.html](http://eophthalmologyreview.org/newsletters.html)

**PODCASTS**

**OPHTHALMOLOGY BLOGS**
• [https://blog.feedspot.com/ophthalmology_blogs/](https://blog.feedspot.com/ophthalmology_blogs/)

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_H e c a n b e r e a c h e d a t drawaneesh@gmail.com_
Ophthalmology has evolved in a way that subspecializing is almost essential for career development. A fellowship represents the only official way for obtaining a subspecialization in ophthalmology, and training in vitreo-retina continues as one of the most highly sought-after branches.

A fellowship’s duration is limited and therefore the fellow should be prepared to work hard in order to make the most of it. Of course, the final expectations are primarily surgical and clinical proficiency at the end of the fellowship. It is imperative to remember that the fellowship will guide you towards your future professional development and it is important to be productive and have a keensness and aptitude for learning. Also, it is advisable to be involved in research and produce scientific results.

Majority of the residency programs are well-structured in the form of didactic lectures, clinics and reading schedules. In contrast, a fellowship program is usually quite flexible and self-directed, and overwhelming to a great extent. These facts are hard to appreciate unless you are in the thick of it, and once you are in it, the experience is surprising, exciting and challenging at the same time. The initial part of the training passes very quickly, due to the sheer volume of work that we face. Always remember to be like a sponge, take it in as much as you can.

Being up to date with current body of literature is indispensable for a successful fellowship and a fruitful career. During our routine clinics and operating rooms (OR), much of what we learn as fellows is what our attendings say, based on their experience and their opinions about certain things, which occasionally may be different from what we read about. Knowledge about the latest happenings in the field of retina through online resources will help us gain a different perspective and improve our decision-making capabilities. Here is a list of online resources which can be a potential source of knowledge and information for a vitreo-retina trainee.
The AAO ONE network provides access to probably the world's largest compilation of educational material in Ophthalmology at https://www.aao.org/clinical-education. It gives full access to journals such as Ophthalmology, American Journal of Ophthalmology, Survey of Ophthalmology, International Journal of Retina and Vitreous and so on. The ONE homepage can be personalized to see the latest news in just your vitreo-retina subspecialty, from the month's top journal studies to a rundown of the week's top medical stories appearing in the popular media. It is the O.N.E. source to access tools for life-long learning such as diagnostic challenges, image collections, focal points, podcasts, masterclass videos and free courses. Additionally, it provides multiple self-assessment tools. There is an Editors' choice section that provides expert summaries of recent clinical studies, which gets updated every week. It is the O.N.E. source to review standards of care with the Academy's library of practice guidelines at https://www.aao.org/guidelines-browse?subspecialty=retina-vitreous. One biggest advantage is that the ONE Network can be accessed for free if you are an AIOS member through the AIOS website www.aios.org . It can be accessed through the ONE network link in the Member zone section of the website.

All India Ophthalmological Society (AIOS):

Apart from access to the AAO ONE Network, the AIOS website, www.aios.org provides additional academic materials in the form of webinars and AIOS YouTube channel. The webinars cover diverse range of topics in Retina and other subspecialties. These is also a subsection on surginars which are surgical educational programs for the trainees. Additionally, member can access the Indian journal of Ophthalmology (IJO) journal through the website.

American Society of Retina Specialists (ASRS):

As the world's largest retina society, the ASRS offers an unparalleled global network of leading retina specialists, world-class meetings and resources to help members stay at the
forefront of developments in the field and delivery of highest quality care. Online access to academic material is restricted to members only at https://www.asrs.org/. Nonetheless, the members have exclusive access to an array of products, services and publications such as webinars, journal clubs, Vitreoretinal Fellowship Reading List, Wills Eye Hospital Conference Series, spotlight cases, retina image bank and annual meeting archives. Series of educational videos offers fellows and those new to practice with a bird's-eye view and expert instruction on some of today's most common retina procedures through their 'Surgical Retina Video Learning Library' and the 'Innovative Retina Surgical Video Series'. The 'Best Clinical Retina Practices' section is a growing collection of statements offering definitive guidance on what the Society deems to be the current gold standard for clinical retina practice. We can also access the annual Preferences and Trends Survey (PAT) which measures member preferences on a wide range of medical, surgical and socioeconomic topics and the Global Trends in Retina Survey examining retina practice trends worldwide. Additionally, free access is provided to the Journal of VitreoRetinal Diseases (JVRD) and Retina Times.

**International Council of Ophthalmology (ICO):**

The ICO has got an e-learning module on their website www.http://www.icoph.org/ . It includes The Ophthalmology Webinar Network which shares live and archived lectures from training programs around the world, Online Courses and the Atlas of Ophthalmology. They also have a subspecialty section to provide international guidelines for management of vitreoretinal diseases. It also gives access to the World Ophthalmology Conference resources through the website www.woc.conference2web.com . This covers free access to more than 1000 talks and webinars of the past WOC meetings.

**Healio Ophthalmology:**

The Healio is an educational website which covers all branches of modern medicine at https://www.healio.com/. In ophthalmology, the Education lab is available at https://www.healio.com/ophthalmology/education-lab that features the industry's best news reporting, dynamic multimedia, question-and-answer columns, CME and other educational activities in a variety of formats, quick reference content, blogs, peer-reviewed journals and a full line of popular book titles. The website provides free access to most of the contents, including the
journal Ophthalmic Surgery, Lasers and Imaging Retina. Retina CME is part of this website that provides specific access to educational materials such as articles, clinical cases, expert videos, surgical videos, lectures and self-assessment tools at https://cme.healio.com/retinacme.

Medscape:

Medscape is a leading online educational website offering the latest medical news and expert perspectives; essential point-of-care drug and disease information; and relevant professional education and CME at https://www.medscape.com/ophthalmology. It provides free access to educational materials such as CME, videos, detailed description of all retinal diseases, procedures, cases, slideshow collections, details of drugs and latest clinical guidelines.

The Royal College of Ophthalmologists:

The Royal College of Ophthalmologists is a paid professional membership body for medically qualified ophthalmologist (https://www.rcophth.ac.uk/). Through the website, we can gain access to the journal Eye, Focus articles which provide succinct topical information around important issues for clinical practice and updated clinical guidelines to identify the best medical evidence, set standards of patient care and ensure patient safety, providing a benchmark for outcomes within which high quality Ophthalmology can be practiced (https://www.rcophth.ac.uk/standards-publications-research/).

EyeWiki:

EyeWiki is the Eye Encyclopedia written by Eye Physicians & Surgeons (https://eyewiki.org/Main_Page). It has got excellent subspecialty articles which gets updated at regular intervals (https://eyewiki.org/Category%3ARetina/Vitreous). The website also has an option for individual members to revise the content from time to time as new evidence gets added in the literature.
Eyetube:

Eyetube is ophthalmology’s leading source for high-quality, full-narrated ophthalmic surgical videos (https://eyetube.net/retina/). Eyetube’s video library is highly organized to help you find the surgical technique or product demonstration that you want to watch. It also has archived content from the latest webcasts, symposia, and roundtables focusing on ocular health and practice management.

YouTube:

Similar to Eyetube, YouTube has vast amount of videos available ranging from surgical, educational, archives of conferences, and so on (www.youtube.com).

Straight from the Cutter’s Mouth:

It is a Retina Podcast in an informal space where host Jayanth Sridhar, MD, from Bascom Palmer Eye Institute in Miami invites retina specialists to discuss the latest in vitreoretinal therapies. It is a weekly broadcast at the website is http://www.retinapodcast.com/.

Vit-Buckle Academy:

Vit-Buckle Academy, is a web-based educational portal designed for vitreoretinal surgeons and trainees. The curriculum is comprised of educational along with high quality videos and figures. It is amongst Vit-Buckle Academy is amongst the first step-by-step video-based curriculum of how to perform vitreoretinal surgery. The portal also includes resources such as retinal detachment case discussions; a surgical video library; an instrument gallery; a surgical reading list; and more. (https://vitbucklesociety.org/vit-buckle-academy)
The Retina Channel Podcast:
The podcast is a journal club to review recent journal articles in the field of retina. The target audience are retina specialists and other healthcare professionals who want to stay up to date with the latest publications in the field of retina. It can be accessed at http://theretinachannel.libsyn.com/.

eOphtha:
This is an Indian based portal which is very helpful for trainees (http://www.eophtha.com/index.html). The highlights of eophtha are e-journal section, ophthalmology powerpoint section, interesting reads about retinal diseases, landmark studies and trails, learning about fundus drawing including colour coding, and blogs by experts in the field.

Online Retinal Publications:
There are numerous online retinal publications that can be accessed for free. Most notable of these include the Retinal Physician (https://www.retinalphysician.com/) and Retina Today (http://retinatoday.com/). These publications provide in-depth coverage of the latest advances in medical retina, retinal surgery, vitreous, diabetes, retinal imaging, pediatric retina, posterior segment oncology, and ocular trauma. They put into perspective what the scientific developments mean to today’s practice and discusses ramifications of new studies, treatments and patient management strategies.

Young Ophthalmologists society of India (YOSI):
The YOSI is created by young ophthalmologists belonging to India as a platform to share ideas and knowledge in all specialties of ophthalmology (http://www.yosi.in/home.html). For the young trainee, it offers numerous educational tools such as the YOSI flash notes, YO Times that contains articles that pertain to requirements of the young ophthalmologists in the modern era, YouTube which is the official you tube channel of YOSI that aims to serve as a preferred medium of education for Young Ophthalmologists globally (https://www.youtube.com/channel/UC7c0oitsACPG0ug2gMi_StQ), and Yo Central that consists of eBooks, CME
series, landmarks articles, powerpoint presentations, AAO syllabus and AAO preferred practice patterns.

**Mobile Apps:**

In today’s era of smartphone, no list of online resources is complete without a mention of mobile apps. They are very handy and can be utilized on the go in the busy retina clinic or the OR. I would recommend all trainees to get the apps of the aforementioned online resources such as ASRS, AIOS, Medscape, Healio, Eyetube, and so on. Few additional apps that can be especially handy for a vitreoretina trainee would include PubMed, eye emergency manual, Ophthalmic practice app (OCT imaging), Ullman Indirect (Smartphone fundoscopy app for capturing fundus photographs) and Amsler Grid app.

The above was a list of few online resources which I feel may help to supplement the learning during your vitreo-retinal fellowship. Attaining comprehensive knowledge is paramount for successful completion of vitreo-retinal training. My advice would be to avoid looking at things through tubular vision and approach your fellowship like an open slate: Work hard, mould yourself and develop into something great.

Remember the words of James Lendall Basford *“Fill thy mind with useful knowledge and thou shalt avoid empty words.”* All the best!

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The Fellowship of All India Collegium of Ophthalmology (FAICO) Examinations, are conducted by the All India Ophthalmological Society once a year. They were instituted in the year 2010 as a way to urge individuals to ascertain their merit in their subspecialties of choice and to gain an additional degree which would recognise their competence in the same. To do a general background on the examination, it is to test yourself on your own knowledge on the subspecialties in Ophthalmology following your post-graduation and though in no ways mandatory, does help validate one’s efforts in pursuing a certain subspecialty.

A lot of us following our post-graduation are often in a quandary as to whether we should consider pursuing fellowships in certain subjects to hone our skills in them, but not everyone gets the opportunity to pursue one or their ophthalmology post-graduation program has been so comprehensive for their particular subject that perhaps they feel they don’t need to go through another grueling course to be qualified as that particular specialist.

So, if you have an interest in a particular subspecialty and haven’t had the opportunity or inclination to go in for a full time fellowship, or if you have completed a fellowship and are looking to get your skills tested, you can consider giving this exam to test your mettle with a group of individuals who are leaders in their fields and serve as examiners for this group of exams.

The exam is conducted once a year in the following subspecialties:

- Glaucoma
- Retina & Vitreous
- Cornea
- Comprehensive Ophthalmology
- Refractive Surgery
- Uvea
- Cataract/Phaco
As a candidate you may apply for only one examination at a time, and a total of two examinations in your lifetime to be considered as specialists in those fields.

Eligibility criteria includes:

- Must be an AIOS member
- Basic post graduate qualification in ophthalmology recognized by Govt. of India (DO/ DNB/MD/ MS/ any recognized foreign qualification)
- Minimum one year experience after post graduation
- Should have at least one year practical experience in the specialities

The forms are available on the website www.aios.org, and the last date for application is generally in August that year.

The exam pattern consists of three stages:

- **Stage I**: One hour theory online exam - 60 MCQ Questions, Pass marks: 70%. The questions for this stage are prepared by the International Council of Ophthalmology to help uphold a certain standard for questions.
- **Stage II**: OSCE - Cut off 50%
- **Stage III**: Viva voce

The Stage I exam is an online exam which is conducted in September or October every year at pre-decided centers for which you can give a preference. It is difficult to guide how to study for this exactly, but my recommendation from personal experience would be to brush up on all the basics of your subject, things like percentages for the binding of fluorescein with protein in FFA and indocyanine green with protein in ICGA. Things which are very basic and which tend to slip your mind. There may be questions on clinical applications of imaging, and possible diagnosis, questions on trials which may be long forgotten. All aspects of a particular subject are covered e.g. in retina imaging, diagnostics, dystrophies to retinal vascular diseases. My recommendation would be to approach it like you did your practical exam for your post-graduation. For subjects other than retina my guidance would be similar, since 50% of the questions in the exam are easy, and we need just 10% more from the moderate to hard questions.
The OSCE and Viva voce generally takes place at AIIMS, New Delhi with faculty from the institute and other prestigious members of AIOS serving as examiners. Ten fairly straightforward and standard questions ranging from pictures and their management to electrodes of electrophysiology, which are timed and that you have to write down.

Based on your written answers, you will be called in for a viva voce at two tables and maybe asked to elaborate on those answers, or you may be asked some related questions as an addendum.

So if you are good with your subject, have a good grasp of how to manage patients and have a basic good comprehensive understanding you may come out with flying colours.

The online MCQ examination, requires a pass percentage of 60% and has no negative marking, but 25% of the questions are hard and from what I have seen around me, has been a hurdle which most individuals have found difficult. I cannot stress enough on the importance of reading for this before going, because sometimes the difference between a pass and a fail maybe one mark. For a quick refresher before you enter your hall, spending just one day looking at your notes from your post-graduation exam concerning that subject should be fine. No extensive literature reviews or searches needed but a quick revision of facts is a must. For retina, when a colleague and I were going over all the questions that we remembered, we figured out that some questions were very similar in their options and how just a quick review of just the retina aspect of the textbook on clinical ophthalmology by Kanski, might have been adequate. If you haven’t read it and have focused on other texts, maybe FAQ’s in ophthalmology by the Aravind group might be adequate. Any text book that you have focused on for your post graduate examination should be adequate. I do not want to specify which to read, as everyone will have a different way of going about things. Do go over numbers, because often they might be where we miss out and that can be the difference between a pass and fail.

At the end of this discussion you might be of the opinion, why do I need to give another exam anyways?

It always feels good to be appreciated by one’s peers in the field, all the more so when they come with such an illustrious background.
Often when we have been working as senior residents or fellows, we take our knowledge in the subject for granted as we don't have structured examinations at the end of those. Taking an exam to gauge one’s own ability is always good, because at the end of the day you are responsible for you own knowledge and the way you apply it in your day to day practice in terms of your patients. Holding yourself accountable to your practice in terms of taking an exam though not exactly necessary, would be perhaps good form and a validation of your beliefs.

With that information in mind, I wish you good luck, whether you give the exam or not, keep learning!

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Getting straight to the point – **FAICO written test is the major hurdle to passing the whole exam.** The FAICO VR practical is a breeze for most people because it mostly is about answering 10 OSCEs and elaborating about the same with the examiner.

So how do we prepare for a FAICO written test. We know that it has 60 questions and requires 70% marks to acquire a pass. The questions range from simple, moderate to difficult.

There is only so much reading that can be done FOR the exam itself. The questions can be majorly answered by being alert during your daily work as a fellow and reading the latest in literature. **We had MCQ questions on combined hamartoma of retina and RPE, bilateral diffuse uveal melanocytic proliferation, macular telangiectasia type 1, FEVR.** These cases are not uncommon in a high-volume vitreoretinal setup and can be answered if you have seen these cases during fellowship. Since you cannot really prepare for such questions, because we spend our time reading about common disorders like diabetic retinopathy, choroidal disorders and vascular disorders; **it is important that during fellowship you actively seek out interesting cases of the day by talking to your colleagues and seniors.** At the end of the day, make it a point to jot down in a small notebook all the interesting cases of the day and read about them. For example- CRAO may have had an *Amalric sign*, a case of colonic cancer may have been seen with pigmented ocular fundus lesions (POFLs), reticular pseudodrusen may have been noted in a routine dry AMD. It is your job to be totally updated about all that you see in the clinic and make note atleast mentally! It really helps if you have a couple of like - minded colleagues who are enthusiastic in discussing concepts and imaging features of everyday cases and newer disease terminologies too. **Acute macular neuroretinopathy** (AMN), paramacular acute middle maculopathy (PAMM) were the hot new terminologies in 2017 and sure enough we had two questions, one each on AMN and PAMM. It was possible to answer those questions mainly because I had seen those cases and looked at the OCTs closely.

Know the landmark trials and studies like the back of your hand. Know all the trials that established practice patterns. DRCR protocols- especially the very latest ones and the older landmark
ones, trials establishing efficacy of various anti VEGFs in DME, RVOs and wet AMD must be read again and again and committed to memory because these trials changed the way we manage these common disorders. Reading only the abstracts, seeing the figures and tables at the last minute will jog your memory and serve as good revision tools.

It is also important to have a bit of practice with answering MCQs. The best sources for MCQs are

**SELF - ASSESSMENT ONE NETWORK:**

It is good to have an AAO ONE network account. There are about 150-200 questions on retina and vitreous which cover all the important topics. There is also a section called **“Diagnose this”** on the website that showcases some interesting and rare cases with relevant MCQs.

![Image](https://www.aao.org/clinical-education)

It is a great source of MCQs and gives good practice because it gives you your score at the end of the test and recommended additional reading material at the bottom of questions you got wrong. So basically, your weak areas are strengthened.
DIGITAL JOURNAL OF OPHTHALMOLOGY - DJO HARVARD:

This has a section called grand rounds, which is a huge repository of questions arranged according to specialty. The questions are all case based. Typical cases like VKH, PDR and CRVOs have multiple MCQs to each and make up for any lacunae you may have.

MRCOPHTH.COM/CHUA:

This website is the mecca of sorts for all exams. There are questions for practice for FRCS, MRCOphth and many others. There are picture galleries, trivia questions, questions on trials and studies, common ancillary investigations, surgical instruments and so much more. Get on the website and scoop out all the retina questions.
BOOKS:

**AAO BSCS BOOKS** – At the end of the vitreoretina and Uvea volumes there are a few questions that can help assess yourself. They cover a wide range of clinical topics.

Another great book with 150 questions in vitreoretinal - makes for good practice. An especially good book because each of the options are a source of information. The explanations include why an option is correct/ most appropriate with sound reasoning.

**Massachusetts manual** is a slightly tougher book to sift through if you have less time on your hands before the exam. The questions and options are a slightly differently framed. Each option must be answered as true/ false. So, reading through this manual is a tad tedious.
A lot of people in this YO times issue have recommended that you read Ryan, Gholam Peyman, Michels, Steve Charles and other comprehensive textbooks in their entirety. Although I agree that it is ideal to do so and these books are beautiful, I myself haven’t read these books cover to cover. I tried reading some chapters and found that although wonderfully compiled and written, they are not exhaustive sources of information and outdated by the time they are printed sometimes.

**REVIEW ARTICLES**

A simpler hack to go through life is to discover review articles on each topic instead.

Review articles are these little beauties ranging from 25-45 pages long, that cover the historical aspects to the latest in the treatment for a disease-entity. Most topics in retina have excellent review articles that one can read, to grasp the essence and be updated about a topic.

Apart from review articles, important articles defining certain clinical characteristics, classifications can be sought out from a good literature search.

Make a folder for all these articles and read them regularly to revise about common conditions that you see in your clinic. Maybe your consultant suddenly talks about CRORA and iRORA and they may not have the time to explain fully. There are many articles you will find online that you can devour in your free time. If you spend
about an hour reading what you saw in the clinic, theoretical aspects about the technicalities of a surgical step or something novel in the OR, you are bound to have a very solid foundation by the end of fellowship.

Writing case reports, photo essays and review articles during fellowship is a great way to delve deeper into retinal diseases.

WHAT ABOUT THE FAICO PRACTICALS?

Like I said previously, the practicals are simple. Our OSCEs were an image of APROP, small vein occlusion with macular edema (OCT and colour photo), a chandelier, OCTA of a case of Macular telangiectasia, ICGA image of a case of PCV, wide field angiography of PDR, FFA of a case of vasculitis, HP slide showing Flexner wintersteiner rosettes, an image of an exudative RD in melanoma and a panfundoscopy lens. The images were accompanied by 2-3 questions pertaining to the spotter/instrument. The questions were also simple.

It is important to give a standardized exam at the end of your fellowship. In Karnataka, there is a university (RGUHS) exam that must be passed in order to obtain the fellowship degree. These are just theory papers and a simple practical exam. However, FAICO exams have set the bar high and are a very good test of your knowledge. It validates your fellowship and experience in the subspecialty. It is highly recommended that you give this exam as you'll know where you stand at least in terms of knowledge, after completing your fellowship.

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Fellowship Awards in Super-Specialities:

- Glaucoma
- Retina & Vitreous
- Cornea
- Comprehensive Ophthalmology
- Refractive Surgery
- Uvea
- Cataract / Phaco
- Pediatric Ophthalmology & Strabismus
- Oculoplastic Surgery

Important Dates:

- 31st August: Last Date of Receipt of Application Form
- 24th October: Online Written Test
- 15th Nov 2019 onwards: OSCE & Viva
- December 2019: Final Result

Collaboration with ICO for fellowship in subspecialty of Cornea, Retina and Vitreous, Paediatric Ophthalmology, Glaucoma, Uveitis, Oculoplasty & Cataract
(There will be one common written MCQ examination for ICO subspecialty and FAICO)

Examination Fee (Per candidate per subject):

- Candidates applying for both ICO and FAICO, fees is Rs. 24,500/
- Candidates applying for AIOS FAICO, fees is Rs. 5000/-
  (DD in favour of “All India Ophthalmological Society”) Payble at Delhi.

Examination Centers:

- Online Written Test: New Delhi, Mumbai, Kolkata, Chennai, Bangalore, Hyderabad
- OSCE & VIVA: Detail shall be available on AIOS website: www.aios.org

Click here for the official guidelines: https://aios.org/article-66-about-faico.php
Click here to download the form: https://www.aios.org/pdf/FAICO-Form.pdf
A 37 year old female presented with gradual painless vision loss in her right eye since 3 months. She was diagnosed to have choroiditis elsewhere and was treated with tapering doses of oral steroids for 2 months. However, her vision deteriorated and she developed exudative retinal detachment (RD). The left eye was essentially normal. At this time her visual acuity was counting fingers at 1metre along with absence of anterior segment and vitreous cells. Fundus photograph (FP),
autofluorescence (AF), swept source optical coherence tomography (SS-OCT) line
scan and fundus fluorescein angiography (FFA) are shown in Figure 1(A,B,C,D).

FP shows multiple discrete hypopigmented (blue arrows) and hyperpigmented (red
arrow) lesions over the posterior pole with inferior exudative RD (Figure 1A and
inset). AF and FFA images highlight the “**leopard skin appearance**” of these
lesions- alternating hypo and hyper lesions (Figure 1B and D). SS-OCT scan shows
grossly thickened choroid with loss of choroidal architecture, “lumpy-bumpy
appearance” of the surface of the choroid, presence of subretinal fluid and multiple
areas of retinal pigment epithelium (RPE) loss (red arrow) and RPE hyperplasia
(blue arrow, Figure 1C).

A clinical diagnosis of unilateral diffuse uveal melanocytic proliferation (DUMP) was
made. Radiological imaging of the chest revealed a mass lesion in the upper lobe
of the right lung, which turned out to be adenocarcinoma on FNAC.

**Nugget**: Leopard-skin appearance on AF or FFA is seen in:

1) **Hypertensive choroidopathy**
2) **Uveal effusion syndrome**
3) **Primary/secondary vitreo-retinal lymphoma**
4) **Bilateral/unilateral diffuse uveal melanocytic proliferation**

**CASE 2**

A 7year old girl presented with sudden decrease in vision of her left eye since 4
days. Best corrected visual acuity (BCVA) was 6/12 and 6/24 in the right and left
eye, respectively. Pupillary reactions and anterior segment examination was
unremarkable in both eyes. Fundus examination revealed multiple yellowish
deposits in the macular and extramacular area in both eyes (blue arrows) along
with subretinal hemorrhage in the left eye (yellow arrow, Figure 2 A and D).

AF imaging showed these yellow deposits to be hyperAF while the subretinal
hemorrhage was hypoAF (red arrow, Figure 2 B and E). SS-OCT line scan passing
through the fovea revealed hyperreflective structure in the subfoveal area of the
right eye, corresponding to the yellow deposit on FP (green arrow, Figure 2C). The
left eye OCT revealed elongated and shaggy photoreceptors (blue arrows) while
both the eyes had hyporeflectivity of the subretinal space (red arrows, Figure 2F).
A clinical diagnosis of bestrophinopathy with left choroidal neovascular membrane (CNVM) was made. Electro-oculogram (EOG) revealed Arden’s ratio of 0.4 in the right and 0.5 in the left eye, thus confirming the diagnosis.

**Nugget:** Vitelliform subretinal deposits are diagnostically hyperAF in the following conditions:

1) Best’s disease  
2) Autosomal recessive bestrophinopathy  
3) Adult-onset vitelliform macular dystrophy
CASE 3

A 33 year old doctor presented with complaints of juxtafoveal scotoma in her left eye since 10 hours. She was diagnosed to have dengue fever (IgM positive) 8 days earlier and was afebrile since 2 days. BCVA was 6/6 in both eyes and the right eye was essentially normal. Anterior segment of the left eye was normal and the fundus was also unremarkable (Figure 3A). SS-OCT line scan passing through the fovea showed a normal foveal contour with linear hyperreflectivity involving the inner and middle retina, just nasal to the fovea (red arrow, Figure 3B).

A diagnosis of paracentral acute middle maculopathy (PAMM) secondary to dengue was made. Optical coherence tomography angiography (OCTA) of the left eye revealed flow void areas in the superficial capillary plexus (SCP) and deep capillary plexus (DCP), nasal to the foveal avascular zone (blue arrows, Figure 3C), confirming the diagnosis. 2 weeks of oral steroids led to restoration of flow in the SCP and DCP on OCTA and disappearance of scotoma (green arrows, Figure 3D).
**Nugget:** Hypo lesions on OCTA are seen in:

1) True absence of flow
2) Slow/sluggish flow
3) Blockage of light- RPE/ fibrosis/ blood/ tumors

**CASE 4**

38 year male presented with sudden painless decrease in vision of her right eye of 4 day duration. His visual acuity (VA) was counting fingers at 2 metres and he had 2+ anterior chamber reaction in the right eye. Fundus of the right eye showed vitreous cells with a creamy yellow retinitis lesion inner to the inferior arcade with subretinal fluid at the fovea (Figure 4A). Left eye was normal. SS-OCT passing through the fovea and the retinitis showed hyperreflective cells in the posterior vitreous, disorganization of the retinal architecture with increase in retinal thickness (blue arrow) and subretinal fluid at the fovea (red arrow, Figure 4B).
A clinical diagnosis of toxoplasma retino-choroiditis was made and the patient was treated with two injections of intravitreal clindamycin (1mg/0.1ml) and dexamethasone (0.4mg/0.1ml). At 10 days follow-up, his VA improved to 6/36 with decrease in size of the retinitis lesion on FP and restoration of foveal anatomy on OCT (Figure 4 C,D). At 15 days although the retinitis further decreased in size, there was presence of subretinal hemorrhage surrounding it (green arrow). The SS-OCT scan passing through the bleed did not show subretinal hemorrhage or fluid. Development of inflammatory CNVM was suspected and OCTA showed presence of a hyperreflective membrane in the DCP with normal outer retina and choriocapillaris slabs (Figure 4J). On closer inspection of the SS-OCT, the inner retinal layers were seen to be dragged towards the RPE, most likely due to perilesional fibrosis of the healing retinitis (blue box, Figure 4E). Hence, the increased network of flow seen in the DCP on OCTA was considered to be an artifact due to inferiorly pulled vasculature of the SCP and the subretinal hemaorrhage was presumed to be secondary to contraction of the fibrosed retinitis lesion. The patient was observed and over a period of 3 months the retinitis healed, subretinal hemorrhage resolved (Figure 4G,H,I) and the OCTA showed no change in size of the hyperreflective membrane in the DCP (Figure 4K).

**Nugget**: Hyper lesions on OCTA are seen in:

1) Telangiectatic or new vessels
2) CNVM

3) Unmasking of the choroidal vessels due to loss of overlying RPE

4) Artifacts- projection of vessels from overlying structures

DR MOHIT DOGRA MS is an Assistant Professor in Ophthalmology at PGI Chandigarh. He has 52 publications in indexed, peer reviewed journals and is the author of 16 chapters in various Ophthalmology books/e-books. He has several papers presentations and invited talks to his credit. He is an associate editor of Indian Journal of Ophthalmology and reviewer for several others. He is the Co-founder of “COS Youth Forum” in 2014, under the aegis of Chandigarh Ophthalmological Society. He has several academic awards to his credit including Best Video award at Asia Pacific Vitreoetina Society Annual Conference held at Seoul, South Korea 2018, 2nd runner up in the Young Ophthalmologist Symposium held during the Asia Pacific Vitreoetina Society Annual Conference held at Seoul, South Korea in December 2018, International Heroes of Ophthalmology Award at AIOS annual conference held at Indore, 2019 and Best of IJO Award at AIOS annual conference held at Indore, M.P.
There has been a tsunami of ophthalmic conferences & CMEs in India & in locations all over the world encompassing the whole spectrum of ophthalmology. While great conferences provide attendees with the opportunity to connect with like-minded individuals, learn the best tips & latest ophthalmic innovations from the professionals & boost their clinical & surgical acumen. The wrong ones can be a sheer waste of precious time.

Ophthalmologists in training & early in their careers have limited time & resources and they should be very careful in choosing the conferences they attend. The expectations from a conference at this stage should be realistic, but if planned appropriately the right conference can be a real boost to ones career.

SO, HOW DO YOU CHOOSE CONFERENCE TO ATTEND?

Get Enlightened: If this is your first attempt at attending conference you need to get enlightened. There are various resources on the internet where you can find a list of International & National events planned for the calendar year (ICO: http://www.icoph.org/events.html AIOS: https://www.aios.org/aios-events1.php ). There you will also find the links to the websites of these conference, which you can visit to get detailed information about the event. You should acquaint your self with the various deadlines and other important details of these events. This will help you to align your interests with the main focus area of the various conferences or vice-versa.

Make an informed decision: When you are aware of all the details of conferences that are happening around you then you are in a position to take an informed decision. For example, If you working on a specific project or thesis then you can chose a conference of that sub-speciality. It will help you tremendously in enhancing your knowledge base and you will find an appropriate platform to present your research as well.
International v/s National Conferences: Indian conferences are being conducted in a very professional manner and are no way inferior to their international counterparts. But, there is always something extra, something different you will find when you attend an International meet. You get to meet with international experts and innovators, you get to network at an international level, which becomes very valuable when you are looking for collaborations and opportunities abroad. All the pain that you take to attend an international meet is a reflection of your commitment towards academics and looks good on your resume as well.

Sub-specialty v/s General Conferences: While in residency, it might make more sense to attend general conferences (AIOC, APAO, AAO, State Conferences etc) which cover all specialities. A resident can attend talks on basic topics of different specialities, present paper of any speciality and interact with peers and seniors of all sub-specialities. But, while you are in fellowship or have finished one it might be more prudent to go for sub-speciality conferences (ASRS, EURETINA, APVRS, VRSI etc). You have better chances of your paper being accepted, its a wonderful opportunity to interact with people of your speciality and there is a lot of focused learning.

Beware of Predatory Conferences: Predatory Conferences are are not organized by scholarly societies. Instead, they are conferences organized by revenue-seeking companies that want to exploit researchers' need to build their vitas with conference presentations. They have a science-free, zero peer review process. You can find a list of predatory conferences at https://beallslist.weebly.com. The original website has been brought down due to legal issue but this blog maintains a cached version of the website and is still useful. You should always carefully see the website and see who is organising the conference. It should be an internationally recognised society or body. When ever in doubt consult your colleagues and seniors, training period is a very valuable time and should not be wasted on bogus meetings.

Presenting to attend or Attending to present?: Your own presentation at the conference is of utmost importance and should be the focus of your efforts. Having said that, one should completely avoid presenting fake data & research just to be a part of the event. Nothing beats presenting your genuine hard work and getting a constructive feedback form peers and seniors.

Early in the carrier one of the biggest barriers that you might face in attending a national or international conference are the finances. But, thankfully there are ways of financing your trips.
SO, HOW DO YOU ATTEND A CONFERENCE FOR FREE?

The answer is travel Grants. Here is a list of various travel grants available for ophthalmologists you can avail.

**State best Papers** : All winners of state best papers are awarded a travel grant of upto 10,000/- and waiver in registration fees for the next AIOC.

**AIOS ARC Young Researchers Thesis Award** : The winner of the best thesis competition held every year during AIOC is given a grant of 1,00,000/- towards attending an international conference.

**AIOS YOSI Writing Competition** : The winners of AIOS YOSI writing competition are awarded travel grant of upto 10,000/- and waiver in registration fees for the next AIOC. http://www.yosi.in/aios---yosi-writing-competition-2019.html

**APAO Prof Yasuo Tano Travel Grant** : The APAO in memory of Prof Yasuo Tano awards 10 travel grants of 1000$ for attending APAO Congress. http://www.apaophth.org/travel-grant-awardees/

**APVRS Tano Travel Grant** : The APVRS in memory of Prof Yasuo Tano awards 5 travel grants of 500$ for attending APVRS Congress. http://2018.apvrs.org/travel-grant/


**Indian Council of Medical Research (ICMR)** : ICMR has an international travel support scheme : https://www.icmr.nic.in/content/international-travel-non-icmr-scientists

**Science & Engineering Research Board (SERB)**: SERB offers international travel support for deserving candidates. http://www.serbonline.in/SERB/HomePage

Dr. Diva Kant Misra, DO, DNB, MNAMS is working as a Vitreo-Retina Surgery fellow at Sri Sankaradeva Nethralaya. He holds the post of General Secretary, Young Ophthalmologists Society of India & Chief Editor, Young Ophthalmologists Times. He is the recipient of various Ophthalmic awards like APAO Achievement Award, Bangkok 2019, Best of IJO Award 2017-18, Ophthalmic Hero of India 2017 & 2018, KOS International Travel Grant 2019, Busan, The Yasuo Tano Award from Asia Pacific Academy of Ophthalmology, Singapore in 2017 and The APVRS Tano Award 2018, Malaysia Singapore and other national & state level awards. He has published extensively (26 publications (Indexed & Non Indexed) and book chapters) and has presented in conferences held at various international and national forums. He can be reached at divakant@gmail.com
RETINA CONFERENCES : 2019-2020

+ **20TH ANNUAL ADVANCED VITREORETINAL TECHNIQUES AND TECHNOLOGY SYMPOSIUM**
  Aug 23 - 25 | Chicago, Illinois

+ **19TH EUROPEAN SOCIETY OF RETINA SPECIALISTS**
  Sep 05 - 08 | Paris, Ile-de-France

+ **THE RETINA SOCIETY 2019 ANNUAL MEETING**
  Sep 11 - 15 | London, England

+ **UVEITIS SOCIETY OF INDIA**
  Sep 22-23 | Bangaluru, India

+ **INTERNATIONAL SYMPOSIUM ON OCULAR PHARMACOLOGY AND THERAPEUTICS CLINICAL, RETINA CHAPTER**
  November 7-9 | Valencia, Spain

+ **INHERITED RETINAL DISEASES - BENCH, BESIDE AND BEYOND**
  Dec 04 | London, England

+ **VITREO-RETINAL SOCIETY OF INDIA**
  DEC 5-8 | Lucknow, India

CLICK ON TITLE FOR CONFERENCE WEBSITE
**OPHTHALMIC IMAGING: OPTICAL COHERENCE TOMOGRAPHY (OCT) TECHNOLOGIES COURSE**
Dec 07, 2019 | Palm Beach, Florida

**24TH ANNUAL AMERICAN UVEITIS SOCIETY WINTER SYMPOSIUM**
Jan 18 - 20, 2020 | Park City, Utah

**20TH ANNUAL RETINA FELLOWS FORUM**
Jan 24 - 25, 2020 | Chicago, Illinois

**ANGIOGENESIS, EXUDATION, AND DEGENERATION**
Feb 08, 2020 | Miami, Florida

**43RD ANNUAL MACULA SOCIETY MEETING**
Feb 19 - 22, 2020 | San Diego, California

**48TH ANNUAL ASPEN RETINAL DETACHMENT SOCIETY MEETING**
Feb 29 - Mar 04, 2020 | Snowmass, Colorado

**8TH ANNUAL VIT-BUCKLE SOCIETY MEETING**
Mar 26 - 28, 2020 | Miami Beach, Florida

**WORLD ROP CONFERENCE**
2020 | DUBAI

CLICK ON TITLE FOR CONFERENCE WEBSITE
EARLY BIRD
DELEGATE REGISTRATION
OPEN NOW

CLICK HERE TO REGISTER NOW

Regards,
Dr. Shobhit Chawla
Chairman - Organising Committee
VRSI 2019

Dr. Mohit Khemchandani,
Organising Secretary
VRSI 2019

http://2019.vrsi.in/delegate-registration/
35TH SINGAPORE-MALAYSIA JOINT MEETING IN OPHTHALMOLOGY
in conjunction with
1ST ASIA-PACIFIC OCULAR IMAGING SOCIETY MEETING

17-19 JANUARY 2020
ACADEMIA SINGAPORE

YOUNG OPHTHALMOLOGISTS’ (YO2020) PROGRAMME HIGHLIGHTS

• YO Travel Grants reserved for YO attendees.
• Free paper, poster and surgical video presentations with Awards for best YO presentations.
• YO Social to network with international and regional YO and YO society leaders.

• Featuring renowned YO speakers from AAO, APAO, SOE and other international YO Societies.
• Debates on ‘innovations in Ophthalmology’ with an engaging format to update YO on latest trends and technology advances.

REGISTRATION

For more information on registration and abstract submission, please visit www.asophth.org/sso-apois2020
National Institute of Ophthalmology, Pune in Association with Armed Forces Medical College Present's Pro Retina League 2019 under the aegis of Poona Ophthalmological Society

Block Your Date | 29th September

Hotel Deccan Rendezvous

Timing - 8:00am to 4:00 pm

Registration Rs. 500/- (Free for PG Students)

Guest Speakers

Dr. Shobhit Chawla
Dr. Unni Nair
Dr. Subhendu Boral
Dr. Rupak Biswas
Dr. Maneesh Bapaye
Dr. Shrinivas Joshi
Dr. Sabyasachi Sengupta

Course Co-ordinators

Dr. Aditya Kelkar
(Head - National Institute of Ophthalmology)

Dr. Brig. Poninder Kumar
(H.O.D Armed Forces Medical College)

Dr. Suvarna Joshi
(President - Poona Ophthalmological Society)

Dr. Baban C Dolas
(Secretary - Poona Ophthalmological Society)

POS Dignitaries

For Additional Details :-
1) Sachin Adhao : 8600005527
2) Anup Vengurlekar : 9579795558
Congratulations my dear colleague and welcome to the club. Finally; years of your formal medical education, a rigorous post - graduation and a hard earned Vitreo- Retina fellowship has finally come to an end. Now that you are ready and eager to showcase your talent and also hungry to be financially independent, multiple ideas come to mind as to ‘how’. There are very few who are absolutely clear in their planning and execution for establishing an independent retina practice. Many, like me are confused and take few years to finally realise their dream.

This article takes on the challenge of opening your own retina practice ‘heads-on’ by looking into the finer details and its logistical issues. Hopefully this article will attract many non-believers of private practice to change their sides.

WHERE DO YOU WANT TO START YOUR PRACTICE: METRO CITY V/S TIER 2 OR 3 CITY ?

The most crucial point before you jump into private practice is to decide your area of work. Although a bigger metro has its own advantages, getting early recognition is not easy and it takes years in what could have been a lesser time if started somewhere else. The financial burden in a metro is also higher when compared to a smaller city. So for those planning to have their own set up in a bigger city are advised to initially get attached to few bigger hospitals, ophthalmic setups, work for 2 years and then open your own. Even after having your own setup, its advisable to continue being attached to few of the previous commitments: this will not only help to weather the initial financial burden but also be socially and politically right.

Remember, Vitreoretinal practice depends a lot on referral, hence a healthy amicable relationship is a necessary evil. Starting a practice in a tier 2 or 3 city has lesser financial pressures, recognition and personal growth is also faster. Tier 2/3 cities having less VR surgeons is a thing of the past. But, the most important thing to realize is that there are enough patients for all, so no mater how many VR surgeons keep coming in the area you practice, you will have work provided you continue an ethical practice. Apart from your work, family will also play an important part when deciding the place. Choose a city which will provide an ample balance between your work and a pleasure of being closer to your dear ones.
PROS OF OPENING IN TIER 2 OR 3 CITY
   a) Faster and Early work recognition
   b) Better revenue generation
   c) Larger patient referral

CONS OF OPENING IN TIER 2 OR 3 CITY
   a) Less opportunity to attend local CME( weekly / monthly CME more common in metros)
   b) More time to get recognized at a national level
   c) Quality of life( individual perception) is less when compared to metros

DO YOU GO SOLO OR JOIN A GROUP PRACTICE?
Each has its own merits and demerits and its upto an individual to decide whats best for him. While being in a solo practice means you are your own boss, it also means taxing yourself with multiple non clinical work. Group practice helps in dividing the duties and is less of a hassle. Although a group practice is better in the current scenario, finding the right group is the challenge. Just being buddies DOES NOT mean you can have a good and successful practice. An ideal group should comprise of doctors with a common goal, common purpose, excellent understanding but different subspecialties. Having said that; group of same subspecialties working under the same roof can work wonders too, but it’s much rarer specially in India. When joining an already established group(as a VR surgeon as is common)make sure that your duties are well defined. As long as your role helps you to LEARN, accept it. No matter how many surgeries you might have done in your fellowship, VR takes time to master and is an ever learning process, so BE HUMBLE, BUT NOT A FOOL. Never join a group where the next generation of the owners are being groomed to take your place. Most important talk to VR surgeons of the group or those who have left, that might give you an insight as to what you may expect. When new into practice, CHOOSE a GROUP WITH MORE WORK rather than more MONEY.

Solo practice avoids all the above hassles but is more advisable when a certain section of the society where you want to practice knows you. Before you are ready to begin with your own clinic be sure of the following
a) That you have an existing patient base
b) That local ophthalmologists, at least few know about your work
c) That you are mentally prepared to have less patients in the initial period
d) That you are financially sound to weather off the first year.

Now that you are have finalized the city and have decided to go solo, its time to select a place to practice

**DO YOU RENT OR BUY YOUR OWN PLACE?**

Buying your own place is always advisable. Although renting may be less economically taxing, in the long run its not profitable. Clinic of any size will need considerable interior designing which in a rented place will seem a waste of money. If your own house has a small space, that too can be utilized. Although there are no fixed measurement for owning a place, 900-1200 square feet is an ideal space to begin with. Cities like Mumbai have independent clinics even smaller. Remember it’s all about starting, doesn’t matter how big or small it is. You can always shift to a larger space as and when you develop your practice.

**FOLLOWING ARE THE MINIMAL REQUIREMENTS FOR SETTING UP A VITREO-RETINAL CLINIC:**

1) **Reception area:** will need a table to accommodate a computer and peripherals. The same space needs area to house multiple cabinets.

2) **Patient waiting area:** The space should allow at least 10-15 chairs. The waiting area can be square or rectangular depending on the space.

3) **Optometrist work up area**

4) **Doctor’s chamber**

5) **Investigation area**

6) **Washroom**

7) **Operating Room**

**DO I INVEST IN OT NOW OR LATER?**

The most foxing question! To begin with and specially if new to an area i’ll suggest just to invest in a medical retina set up. You can take your patients elsewhere for
surgery where depending on mutual understanding a specific day can be fixed for your surgeries. Before investing in any machine: surgical or medical look into the following aspects.

a) **After sales service:** This is the most important aspect before buying any machinery. The best machine with excellent images but with poor after sales service is **NOT AN OPTION**. Remember after sales service varies from region to region, so enquire in your regional area about the company’s services.

b) **Talk to your colleagues** in the area who have a similar machine. Enquire the price at what your colleague got the machine. You may be surprised at what he may add

c) **Always take a demo** before buying

d) **Avoid refurbished machines.** Company people may offer you or lure you to buy a machine at a very low price and hide its refurbished nature. If in any doubt **CHECK THE SERIAL NUMBER ON THE MACHINE.**

e) **Negotiate and Negotiate.** Prices quoted by companies may be different, depending on how well your negotiation skills are. For example when buying a vitrectomy machine negotiate on the number of free cassettes, when buying laser negotiate on providing free lenses( focal or PRP lens). **BE RUTHLESS WHEN NEGOTIATING.**

f) Be clear about **AMC** (annual maintenance charge). Some companies just charge horrendous AMC, avoid them.

g) You **need not buy top of the end machines.** Look for alternatives, enquire about them and then purchase

h) When ordering any machines, ask whether a **new variant** of the existing machine is in the pipeline. If yes, then whether the existing ones are upgradable. Company representative may hide the fact of a new variant.

i) **Enquire about payment options.** Many companies may offer deferred payment options. Stretch to maximum possible limit of deferred payment. This of course is not applicable when you are super rich.

j) If possible, **buy instruments at conferences** where you get the best deals.

k) Finally, **document all deals in writing.** All verbal deals become useless once you pay the money
LET'S LOOK INTO THE BASIC EQUIPMENT'S NECESSARY TO START A BASIC VITREO-RETINA CLINIC

MEDICAL RETINA SET UP
(The author has no financial interest)

1) **SLIT LAMP**: Minimal 1 for yourself. Slit lamp for optometrist although is desirable, can be updated later. A way around saving money on a separate slit lamp is to use the slit lamp of the laser. You don't need a ‘5’ step , a simple ‘3 step’ is sufficient. Choose between Top-Con or Appasamy Associates although many other are also available.

2) **Refraction Unit (Minimal 2) with Eye chart**: The most common available units are from Plantech (provided by Top Con) and Appasamy Associates.

3) **Indirect Ophthalmoscope (minimum 2)**: Heine or Keeler are amazing, but friend what you see with them can also be beautifully seen through Appasamy wireless indirect. The newer models are at a fraction of the cost of its expensive companions.

4) **Lenses**: 78D, 90D, 20D. One of each.

5) **Laser (532 green)**: When buying laser you will be spoilt for choices. Buy the one following the above guidelines. I personally use the newer Appasamy Green single spot green laser. Buy the one which can be moved around (to OT or ROP screening). It is advisable to buy both the slit lamp and LIO attachments.

6) **Lenses for laser**: Focal and PRP lens. If you are a good negotiator, both these are be obtained free when buying the laser. Insist on the company to provide the same. This will save a minimal of 1,00,000 INR.

7) **Optical Coherence tomography (OCT)**. Just like while buying laser, buying OCT can be tricky. My advise will be to invest in one which also has inbuilt fundus photo. This will save money on procuring a separate Fundus photo machine. Current machines which have the same are from Nidek and Topcon.

8) **Autorefractor with Keratometer**: 1 that can be placed in the optometrist room.
9) **Goldman Applanation tonometer:** Again, if you are a good negotiator, you may get it free with your slit lamps. Avoid NCT( if not planning to see 100 patients a day) and save money

10) **Miscellaneous** : Trial frames( minimal 2: one for you and one for the optometrist), Trial set box, Ishihara Chart etc

**SURGICAL SET UP**

1) **Operating microscope:** Options are between Top-Con, Zeiss, Leica, Appasamy. Go for the one which best suits your pocket

2) **Vitrectomy machine:** Now all of us want a Ferrari, but Maruti will still take you to your destination. Although in my personal opinion Constellation( Alcon Technologies) is one of the best , its way outside reach for most of us. It is ideally suited in practices where there are multiple surgeries with a rapid turn-over. Hence, look out for other options where the running costs are low, cassette are reusable and if possible can be run on compressed air rather than nitrogen. Retikare Vitrectomy (Icon Medicare) with its newer machine is a workhorse. Not only is it available at a fraction of the cost of others, its running costs are low too. Appasamy too has great reviews and if believed are coming out with a system with inbuilt laser (similar to constellation) later this year. Again it is my own opinion and readers are encouraged to buy what suits them the best.

3) **Viewing system:** This depends entirely on how you were trained in your fellowship. Some may opt for contact whereas others may opt for non contact system( BIOM, Resight, EIBOS etc). Choose which delivers the best results in your hands

**STERILIZATION SYSTEM**

When running a OR, its advisable to have both **ETO( Ethylene oxide)** and **steam sterilization.** If cost is a prohibitive factor, a formalin chamber can be used for cassettes and other instruments, although it’s not the preferred method. Whatever method employed, it **SHOULD NOT COMPROMISE** the quality of eye care. Autoclaving silicone oil/ PFCL are some of the practices that should be absolutely discouraged.
ROUGH COST FOR SETTING UP A VITREORETINAL SET UP:

The following table provides a rough estimate for setting up a Retina practice.

<table>
<thead>
<tr>
<th>Medical Retina Equipments</th>
<th>Cost (INR): Minimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Refraction Chair unit</td>
<td>1,15,000</td>
</tr>
<tr>
<td>2 Slit lamp</td>
<td>1,15,000</td>
</tr>
<tr>
<td>3 Applanation Tonometer</td>
<td>42,000</td>
</tr>
<tr>
<td>4 Indirect Ophthalmoscope</td>
<td>44,000</td>
</tr>
<tr>
<td>5 78D lens</td>
<td>22,000</td>
</tr>
<tr>
<td>6 90 D lens</td>
<td>22,000</td>
</tr>
<tr>
<td>7 Green Laser</td>
<td>13,50,000</td>
</tr>
<tr>
<td>8 Focal lens (Volk/ Ocular)</td>
<td>45,000</td>
</tr>
<tr>
<td>9 PRP lens (Volk/ Ocular)</td>
<td>45,000</td>
</tr>
<tr>
<td>10 OCT machine with peripherals</td>
<td>21,00,000</td>
</tr>
<tr>
<td>11 Autoref/ Keratometer</td>
<td>3,00,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42,00,000</strong> (Forty two lacs)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surgical Retina equipment</th>
<th>Cost (INR): Minimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Operating Microscope</td>
<td>18,00,000</td>
</tr>
<tr>
<td>2 Viewing system (non contact, BIOM) with inverter</td>
<td>10,00,000</td>
</tr>
<tr>
<td>3 Vitrectomy Machine</td>
<td>15,00,000</td>
</tr>
<tr>
<td>4 Sterilization: Steam with ETO</td>
<td>5,00,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48,00,000</strong> (Forty eight lacs)</td>
</tr>
</tbody>
</table>

The above table is just a rough estimate. Cost can be upgraded or downgraded as per requirement. For example surgeons may prefer a contact viewing system whereby the cost reduces by almost 7-8 lacs. Similarly a BIOM from different companies have different cost which can alter the final cost.

FINANCE:

Majority will need a loan to help start your dream. While looking for a loan look for those with minimal interest. Choosing between private/ nationalized/ local corporate banks will depend on various factors.
a) Obtaining loan from **nationalised banks** can be extremely tedious and frustrating

b) When choosing amongst **private banks**, look for the minimal interest and period of moratorium (period during which you need not pay the EMI)

c) **Local corporate banks**, which varies with regions can be an excellent place to take loans. They have a generous moratorium period sometimes extending to an year

d) When taking loan, be **realistic**. Don’t take exorbitant loans which may affect you mentally and physically. The excessive loan with excessive EMI may force you to do unethical work, so take what's necessary to begin with. **You can always invest later as and when your practice starts flowing.**

Apart from above mentioned points, you will need to hire few people to run your clinic. A **optometrist**, a **receptionist** are the minimal requirements. Pay well to attract the best and encourage multitasking at least initially. Investing in an electronic medical records cannot be over emphasised. Similarly, don’t forget to have your own **website**. Digital PR skills are an absolute necessity.

Setting up an independent Retina clinic may appear strenuous and frightening, but **let me assure you that the struggle is just in the initial few years**. In the long run, sky is the limit with excellent recognition and financial returns.

Don’t compare with other colleagues, don’t invest in unethical work and most important **DON'T** be slaves to the Pharma companies. **Be Affable, Be Approachable, Be Available** and most important **Be Affordable** and let the world take care of you!

---

**DR BIKRAMJIT P PAL** DNB,DO,FMRF,FE CF,FICO completed his basic post graduation( D.O) from the oldest eye centre in India and the second oldest eye centre in the world: Regional Institute of Ophthalmology Egmore, Madras Medical College. After completing his D.O he then did his DNB Ophthalmology from Aravind Eye Care Tirunelveli.

*It was in Sankara Nethralaya Chennai where he received his formal training in Vitreoretina. With a training in retina, he further received his Eye Cancer ( Ocular Oncology ) training after getting selected through Eye Cancer Network: New York. He spend seven months learning about eye cancer from the premier eye cancer centre of Europe situated in Helsinki under guidance of Professor Tero Kivela.*

*After returning to India, Dr Pal set up the eye cancer centre at Sankara Nethralaya, Kolkata where he was a consultant looking into cases of both Retina and various eye cancers. After leaving Nethralaya Kolkata, he has been actively associated with development of department of Retina and eye cancer at HM Diwan Eye Foundation Kolkata where he is still actively associated. Dr Bikramjit has recently opened his Retina and Eye cancer unit at Ranchi, called as Pals Retina Care*

He can be reached at eyecancer.awareness@gmail.com
BEST COMEBACKS TO THINGS PEOPLE SAY TO WOMEN IN VITREORETINA: A COMPREHENSIVE MANUAL

- DR APOORVA AYACHIT

Since school, girls have been told to choose painting, singing and crafts over karate, soccer and tabla lessons. There are a million stereotypes we fight since we are kids and the challenges only seem to increase as we grow older. In medicine, we were told to choose ophthalmology, skin and anaesthesia and not surgery or orthopaedics. We entered ophthalmology and to our utter shock, here too, Vitreo-Retinal surgery apparently is not very suited for women. The reasons given for propagating these stereotypes range from being illogical to downright ridiculous.

The following scenarios and random comments are to bring these thought processes to the forefront. These "Comebacks" as I call them will probably help us all give calm, mature responses to questions and comments.

**SCENARIO 1**

At fellowship interviews-

Random comment (RC) 1- Why Vitreo-Retinal surgery? It’s not feasible for women. The surgeries take long and are back breaking. How will you manage?

**Answer**- During residency, the HOD/ senior consultant was a woman. Even for complex VR surgery, she took an hour and a half maximum. I also saw many amazing surgical videos and presentations by women in national and international conferences. These women inspired me to get into VR surgery.

RC 2- What if you move to a place with your husband after fellowship where there is no setup for VR?

**Answer**- We’ll work it out somehow. I am sure my husband will consider a place that allows my career growth too. It’s between us.
SCENARIO 2

Men talking about women VR surgeons in groups/ social gatherings-

RC 1- She’s good in medical retina. Just many publications. I’ve heard she is not a surgeon.

Answer- I think whether someone is good in surgery depends on the type of cases he/ she takes up. Retinal surgeries are complex, and recurrences are common even with male surgeons operating. Not right to comment on anyone’s skills without witnessing first- hand. All second- hand information is just hearsay and subjective.

RC 2- She’s a taskmaster and expects everyone to complete assignments in no time. Gives everyone grief for incomplete work. Doesn’t get along with anyone. Everyone hates her in the department.

Answer- Oh well I think any man in her place would be described “no-nonsense”, “strict”, “focused” and “extremely professional”. Unfortunately, smart, confident and ambitious women must bear other adjectives.

RC 3- Why doesn’t she have a child and focus on her family also? Career is optional for women. Families suffer because of such women who spend all their time immersed in VR.

Answer- How thoughtful of you to care so much about her family! Maybe if you cared this much about your own wife and kids, your life would be more pleasant and free from negativity.

RC 4- Yeah before marriage and kids, she used to be good and prominent in every conference. Now she is on a break for family. Doesn’t come for any conferences or anything. She is not very focused or ambitious now.

Answer- Yeah lucky for your male privilege that you are getting to go to conferences because the women chose to have family. Now finally you can call yourself accomplished because the women made sacrifices and opted out of the workforce.
RC 5- Yeah Dr. female surgeon ma’am told me its PCV and not CSC and told me to inject anti-VEGF. But I just asked Dr. “same-age-same-experience” Sir also just to be doubly sure. Patient also wanted opinion of a “doctor” (*snigger*).

Answer- So wise of you to get sir to “mansplain” for the patient. Very cool of you to propagate the notion of women not being “doctor-enough” for patients. I don’t know if you are updated on your reading, Dr. Female surgeon published about PCV masquerading as CSC years ago. She is an authority on choroidal disorders.

RC 6- I don’t know why she goes on and on about minute things in imaging that don’t even matter. In real world practice, it just matters if there is swelling or not. Inject or don’t. Simple. Why obsess about details that don’t even matter! Annoying!

Answer- Weren’t you praising the VR guy’s deep knowledge yesterday because he knew what outer retinal tubulations were? Well, VR girl told us about ORTs in 2017.

RC 7- She just has the “female-factor” working for her. People invite her for conferences because she is pretty and adds charm.

Answer- Oh please forgive her for being smart AND good-looking. How dare she right!

RC 8- I will include Dr. XY for my instruction course (knowing he is a terrible surgeon and has no concepts of surgery), not Dr. XX because well usually women are not good VR surgeons.

Answer- Pity your fellowship full of women mentors taught you nothing about the level of competence women surgeons possess. I in fact think women surgeons have an edge over male surgeons.

Although it is politically correct to say “Any resemblance to actual persons, living or dead, is entirely coincidental”, my venture is to call out sexism in the Vitreo-Retinal world. Women in VR are increasing in number and are the smartest, brightest and the most talented in India and the world. The objective of this write-up is to emphasize that it is not ok to let these comments slide. It is to encourage more
women to do Vitreo-Retina and flourish and not listen to regressive narratives about women in VR surgery.

Both men and women have said at least one of these things to a woman in VR. I hope it will make us question our thought processes and reflect on the biases against women.

DR APOORVA AYACHIT MS, DNB, FICO, FVRS, FAICO is a vitreoretinal consultant at M M Joshi Eye Institute, Hubballi. She finished her residency at Maulana Azad Medical college, Delhi and obtained medical and surgical vitreoretina training at M M Joshi Eye Institute, Hubballi. She has multiple publications in the field of vitreoretina. Her areas of interest include- retinal imaging and VR surgery. She is the assistant editor of the Medical retina section in the Indian journal of ophthalmology. She has been closely associated with YOSI and YO times since 2014. In her spare time, she likes to read and write about varied topics.

She can be reached apoorva.ag@gmail.com
As young ophthalmology students, fledgling fellows and sometimes even as established practitioners, we all tend to struggle with differential diagnoses of two similar disorders which may have entirely different treatment paradigms. The idea of this section is to place two closely related differentials in the same ring and pit them against each other, with an in depth analysis as to how we can differentiate the two based on imaging and clinical acumen.

Wars are often waged with the concept of creating peace, much the same as DD wars hopes to quell some of our lingering doubts and give us some much needed clarity. For those without doubts, it is about time we create some.

“Dubium sapientiae initium” (Doubt is the origin of wisdom)
- René Descartes

A picture speaks louder than words, and here we hope we can use both these outlets of expression to their optimal capacity for a learning experience that is superlative. A pearl of wisdom encouraged by one of the finest mentors as a fledgling fellow that I have had the chance to learn from, “Never stop learning”.

As always, Happy learning!
• 65/F
• Asymptomatic
• No systemic disorder
• Under review for ocular disorder for the past thirty years

NAEVUS OR MELANOMA?

Images courtesy

Dr William R Freeman and Dr Michael Goldbaum
Shiley Eye Institute
University of California
San Diego

Complied By: Dr. Mahima Jhingan
Moderated by: Dr. Jay Chhablani
<table>
<thead>
<tr>
<th></th>
<th><strong>NAEVUS</strong></th>
<th><strong>MELANOMA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HISTORY</strong></td>
<td>Asymptomatic</td>
<td>May be symptomatic due to SRF encroaching the fovea, or another associated neoplasm, photopsias</td>
</tr>
<tr>
<td><strong>CLINICAL EXAMINATION</strong></td>
<td>Pigmented lesion shows presence of surface drusen, insignificant orange pigment, <strong>HALO present</strong></td>
<td>Large dome shaped lesion with orange pigment, associated exudative RD, margins near disc, and absence of surrounding halo</td>
</tr>
<tr>
<td><strong>USG</strong></td>
<td><strong>Echodense, minimally vascular, shallow solid regular lesion, high reflectivity.</strong></td>
<td>A-scan - medium to low internal echoes with smooth attenuation. Vascular pulsations within the tumor can also be seen by this mode. Angle kappa prominent.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B-scan - three classic features of choroidal melanoma are: an acoustically silent zone within the melanoma, choroidal excavation and shadowing in the orbit</td>
</tr>
<tr>
<td><strong>FFA</strong></td>
<td><strong>Mixed hyper and hypo-fluorescence</strong></td>
<td><strong>Dual circulation, profuse leakage, hot spots at the level of the RPE</strong></td>
</tr>
<tr>
<td><strong>ICGA</strong></td>
<td>Better defined dark lesions on ICGA, no intrinsic vessels</td>
<td>Dark better defined lesions with intrinsic vascularity</td>
</tr>
<tr>
<td><strong>OCT</strong></td>
<td>Photoreceptor loss (50% of cases), absolute scotoma, retinal atrophy and thinning, and pigment epithelial detachment (15% of cases)</td>
<td>Serous retinal detachment, debris on back of retina, retina of normal thickness, and intact photoreceptors</td>
</tr>
<tr>
<td><strong>FAF</strong></td>
<td>No significant patterns</td>
<td>Hyperautofluorescence in the region of the orange pigment</td>
</tr>
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**PERIPHERAL**

<table>
<thead>
<tr>
<th>Location</th>
<th>Pattern of Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ZONE I OR POSTERIOR ZONE II</strong></td>
<td>Loops and shunts</td>
</tr>
<tr>
<td><strong>Dichotomously branching</strong></td>
<td>Flat new vessels, on the surface of retina and can be found anywhere in Zone I or Zone II</td>
</tr>
<tr>
<td>Develop at junction of vascular and avascular retina, grow vertically into the vitreous</td>
<td>Pattern of neovascularization</td>
</tr>
<tr>
<td>Well defined and easy made out on clinical examination</td>
<td>Junction of vascular and avascular retina</td>
</tr>
<tr>
<td>Responds well to laser</td>
<td>Response to treatment</td>
</tr>
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</table>

Treatment failures might occur despite adequate treatment.
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<td>Dr Jeeyun Ahn</td>
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<th><strong>36. US Fellowship experience</strong></th>
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<td>Dr Aniruddha Agarwal</td>
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<th><strong>37. International Fellowship Programme in Hong Kong</strong></th>
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<td>Dr Lawrence Pui-Leung IU</td>
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<tr>
<th><strong>38. Fellowship Experience in Hong Kong</strong></th>
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<tr>
<td>Dr Ahmed Al Satrawi</td>
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<th><strong>39. Vitreoretina Training &amp; Working in Germany : An Overview</strong></th>
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<tr>
<td>Dr Aditya Sudhalkar</td>
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<tr>
<td>Dr Sahil Bhandari</td>
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<tr>
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<tr>
<td>Dr Sahil Bhandari</td>
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<td>Dr Prerna Shah</td>
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The International Council of Ophthalmology (ICO) is building a World Alliance for Sight, working with ophthalmologic societies and others to enhance ophthalmic education and improve access to the highest quality eye care in order to preserve and restore vision for the people of the world.

About the ICO

The history of the ICO goes back to 1857, when 150 ophthalmologists from 24 countries met in Brussels, Belgium, for the first International Congress of Ophthalmology, which is nowadays known as the World Ophthalmology Congress (WOC).

Since the early days the ICO is committed to

- Enhancing ophthalmic education, particularly training of ophthalmologists and other eye care personnel to meet public needs in developing countries
- Stimulating and supporting communication and collaboration among ophthalmologic societies and ophthalmologists globally and their involvement in initiatives to preserve vision
- Defining and disseminating standards and guidelines in order to enhance eye care
- Stimulating research to eradicate preventable blindness
- Raising awareness worldwide of the economic, social and personal impact of vision loss and advocating for increased funding and other support for preservation and restoration of vision.
In order to reach these challenging aims the ICO offers the following programs:

- The World Ophthalmology Congress (WOC), which is held every two years in a different region of the world.
- ICO Exams (initiated in 1996)
- ICO Three Month/One Year Fellowships (initiated in 2001)
- ICO International Clinical Guidelines
- International Standards For Vision, Eye Care and Ophthalmology
- Research Agenda for Global Blindness Prevention
- Various ophthalmic educational initiatives

About the ICO Fellowships Program

In 2001 the International Council of Ophthalmology (ICO) Fellowships Program was organized by Prof. Balder Gloor from Zurich, Switzerland, to help promising young ophthalmologists from low-resources countries improve their practical skills and broaden their perspectives of ophthalmology. ICO Fellows are expected to bring the acquired knowledge and skills back to their home countries and take part in programs to preserve vision and prevent blindness.
The ICO offers training (mainly classified as observerships) in more than 20 subspecialties at more than 130 ICO Training Centers in 34 countries. Since 2001 more than 1200 ICO Three Months Fellowships were granted. Favorite subspecialties are Vitreoretina, Cornea and External Diseases, Pediatric Ophthalmology and Cataract Surgery.

Clinical opportunities with three months and one year duration are available. Please find out more on http://www.icoph.org/refocusing_education/fellowships.html

- ICO Three-Month Fellowships (among these opportunities offered in collaboration with subspecialty societies as The World Glaucoma Association, The Retina Society or the International Uveitis Study Group)

- ICO-Children's Eye Cancer Foundation (KAKS Germany) Three-Month Retinoblastoma Fellowship

- ICO-Eye Cancer Foundation (ECF) Six-Month Fellowships for Diagnosis and Therapy of Retinoblastoma

- ICO-Retina Research Foundation One-Year Helmerich Fellowships

- ICO-Fred Hollows Foundation One-Year Subspecialty Fellowships
Eligible candidates have passed their Specialist in Ophthalmology degree, have completed their residency training and look back on a considerable amount of experience in their subspecialty. Ideally they come from a public services and/or a teaching position. Successful candidates are highly motivated and their training has a high impact to their home institute.

Women are strongly encouraged to apply for an ICO Fellowship award.

ICO Exams are recommended and considered in the assessment for an ICO Three Month / One Year Fellowship. Please find out more on www.icoph.org/exams.

During the application process ICO candidates explain to and discuss with their hosts their motivation, their expectation and the impacts they wish to gain from their training. This allows an individual addressing of the candidate’s recurring questions and challenges they face in their daily work.

The most favorite subspecialties are Vitreoretina (23%), Pediatric Ophthalmology and Strabismus (15%), Cornea and External Diseases (12%), Glaucoma (9%), Medical Retina (9%), Oculoplastic (9%) and Cataract Surgery (8%).

The ICO offers training in Retina (Vitreoretina and or Medical Retina) at more than 75 collaborating host institutes around the world, almost all of these are university institutes or national referral centers.
Evaluation

Since December 2016 the ICO does a survey on the impacts of the ICO Three Month / One Year Program for the individual Ophthalmologist. More than 93 % of the respondees said that they learned new techniques in diagnosis, treatment and surgery. 95 % would recommend their colleagues to apply for one of the ICO Fellowship opportunities. About 75 % of the former ICO Fellows have installed regular teaching events in their home institutes as they have seen them in the host centers. With training on individual level the program meets individual needs of the ICO Fellows, it does not offer curricula that should be completed. The program proved to be sustainable through training teachers so there is strong benefit from the multiplier effect. The program is highly efficient and attractive for hosts and fellows because of intercultural and professional exchange.

Another result from our evaluation was that three months proved to be a reasonable, long enough, time for an observership. This duration allows ICO Three Months Fellows to easily take leave from home institute and families, on the other hand it is enough time to integrate well in the medical team at the host institute. More results will be published later this year.

Sponsorship

ICO Three Months Fellowships go with a grant of US$6000 to support the ICO Fellow’s expenses for return travel and student-style living expenses. One Year awards go with a grant amount of US$ 24000 resp. US$ 25000. Grants can be spent as needed.

The ICO gratefully recognizes grants, gifts, and pledges to the ICO Fellowships Program. Support ICO Fellowships by contributing to the ICO, ICO Foundation, or the International Ophthalmological Fellowship Foundation (IOFF), which was formed in Germany to support the ICO Three Months Fellowships.

Funds come from Industry, from NGO’s like the Fred Hollows Foundation or CBM, from Subspecialty Societies like the World Glaucoma Association or the International Uveitis Study Group, from Private Donors and National Ophthalmological Societies like the German Ophthalmological Society, the Taiwanese Ophthalmological Society or the Chinese Ophthalmological Society.

The ICO invites industry, Ophthalmological Societies and NGO’s to collaborate in order to support the ICO Three Months / One Year Fellowships Program.
The ICO-Allergan Advanced Research Fellowship

The ICO-Allergan Advanced Research Fellowship allows one young ophthalmologist to continue basic or clinical research at a chosen university, preferably in a foreign country to where they live. Applications will be accepted for research work in the following subspecialties: Glaucoma, Neuro-Ophthalmology, Pediatric Ophthalmology, Retina, Tumors, Uveitis, Dry Eye, and Cornea.

Please find out more about this opportunity on http://www.icoph.org/refocusing_education/fellowships/fellowships_more_information.html#ICO-Allergan.

Cordula Gabel-Obermaier from Munich, Germany is Executive in charge of the ICO Fellowships Program. Since her start 10 years ago she has arranged about 900 ICO Three Months Fellowships and more than 30 one year fellowships. She is actively involved in developing new opportunities and new collaborations. Contact the ICO Fellowships office at fellowship@icoph.org.

Prof. Dr. Berthold Seitz from Germany served a one year Research-Fellow in Cornea and Refractive Surgery at the Doheny Eye Institute, University of Southern California School of Medicine, Los Angeles/USA (Peter J. McDonnell, MD) in 1995 before he became full professor and chairman of the Dept. of Ophthalmology at Saarland University in Homburg/Saar, Germany in 2006. Since 2011 he is Member of the German Academy of Sciences Leopoldina. He is member of the ICO Exams Committee and Head of the ICO Fellowships Program.
FICO EXAMS & ICO FELLOWSHIPS: MY EXPERIENCE

- DR CHINTAN J DEDHIA

The International council of Ophthalmology (ICO) represents and serves professional associations of ophthalmologists throughout the world. ICO offers Standard examinations (Visual sciences, Optics & Refraction and Instruments and Clinical Ophthalmology) and Advanced examination. Recently, ICO has also started Foundation assessment and subspecialty examinations.

I took my first step of Basic sciences and Optics & Refraction (usually clubbed together) in second year of residency (April 2013), second step of clinical sciences in third year (April 2014) and final step of ICO Advanced in October 2014 immediately after my residency. (Group discount of 40-50 percent in exam fees can be availed if there is a group of 3 or more candidates from a local ICO exam co-ordinator)

WHY TO APPEAR FOR ICO EXAMS?
Taking the ICO exams during our residency helps in the preparation for our post-graduation examinations. The probability of getting the grant (scholarship award) for ICO fellowships increases if one has cleared the ICO exams (Though few colleagues of mine with very impressive CV have got the grant even without giving a single ICO exam). After clearing ICO Advanced exam, we can use postnominal acronym FICO as an international degree.

WHY TO APPLY FOR ICO FELLOWSHIP?
ICO offers eight different types of fellowships: the most popular one is ICO Three-months fellowships (Grant of 6000 USD) (more details on www.icoph.org/refocusing_education/fellowships.html) ICO fellowships offer us the opportunity to work in prestigious eye institutes globally, with access to latest management protocols, techniques, research, and renowned experts in their respective fields to broaden one`s horizons. An alternative approach need
not always be better, but it definitely adds to our armamentarium. We get to learn a lot of surgical pearls and refine our surgical techniques just by observing these pioneers in their operating rooms. We have read their scientific accomplishments and have always heard them in conferences or on webinars, but interacting with them on a one to one basis is a different experience altogether. The amount of chair time they give and the way they explain the disease pathophysiology and counsel about the treatment options and prognosis, really has a positive impact on doctor-patient relationship. Also, there is extensive research carried out at these institutes and one has an opportunity to get innovative ideas from it and even actively take part in it. Apart from Ophthalmology, it helps in grooming our personality as well.

WHEN TO APPLY?

Though we are eligible to apply for the ICO funded fellowship anytime, the chances of acceptance and award of grant are greatest after clearing all FICO exams. It would be ideal to do this fellowship after acquiring your basic medical/surgical skills of your subspecialty in our home country, like just after completion of our fellowship so that we can refine ourselves and inculcate minute modifications in our algorithms. The whole procedure takes a long time, so timely advance planning is important (Deadlines being 31st March for the slots from next September to next March and 30th September for the slots from...
next April to next September). I had applied a year before in March 2018 for the slot of January- March 2019. You may get an ICO award/grant of 6000 US dollars to cover your travelling and student style living expenses.

WHERE TO APPLY?
The application process is online, and straightforward. There is a long list of institutions in different parts of the world (most of them are in Europe or in United states); the whole application process is explained in detail on the official ICO website www.icoph.org. Most of your queries will be addressed in the FAQ section, but if you still have queries, you can mail them to fellowship@icoph.org; Ms. Cordula Gabel-Obermaier (ICO fellowships co-ordinator) will revert back immediately with a satisfactory response. I had short-listed 3 choices to apply for medical retina:

1. Dr David Sarraf (UCLA, USA)
2. Dr Frank Holz (Bonn, Germany)
3. Dr Giovanni Staurenghi (Milan, Italy)

MY ICO FELLOWSHIP EXPERIENCE!
I had applied and luckily got the opportunity to do Three-month ICO fellowship in Medical Retina at one of the most highly regarded Ophthalmology centers in the world, Jules Stein Eye Institute (JSEI), University of California, Los Angeles (UCLA) under the supervision of Dr David Sarraf, who is a world-renowned medical retina physician. It was a state of the art learning experience to work in close association with him.

During my tenure, I used to shadow the attendee (terminology for “consultant
faculty”) - Dr. David Sarraf, Dr. Michael Gorin and Dr. Colin McCannel in their medical retina clinics days. I had the opportunity to attend Fluorescein conferences (medical retina grand rounds) moderated by Dr. David Sarraf every Tuesday, Ophthalmology grand rounds every Wednesday, Surgical retina grands rounds moderated by Dr Allan Kreiger and Dr Jean-Pierre Hubschman every Friday. I also got a chance to attend retina journal clubs and local retina CMEs, and operating rooms whenever feasible. I was really lucky to get an opportunity to attend 2 prestigious international meetings: Pacific retina club 2019 and International Retina Imaging Symposium (IntRIS) 2019 conducted at UCLA (March 2019).

Currently, I am working on a paper with Dr Colin Mccannel, which hopefully will be published soon. I also got an opportunity to shadow Dr Narsing A. Rao, Co-Director, Roski eye institute, USC (University of southern California) in his Uveitis clinic for a day. During my stay, I got an insight of their preferred practice patterns as well as alternative approaches of patient management. This fellowship gave me an indepth understanding of the subject and also helped me in refining my diagnostic and imaging skills especially in the interpretation of advanced retinal imaging including spectral domain OCT (both cross sectional and enface OCT), OCT angiography, fundus autofluorescence and dye-based angiography. I learnt, updated and upgraded myself to a great extent in many aspects. We were 5 international fellows with Dr Sarraf (all from diverse backgrounds and from different parts of the world), so I had a chance to interact with them and learn about their practice of Ophthalmology. I found the overall work...
environment very friendly and approachable. They follow evidence-based approach in treating patients.

BEYOND OPHTHALMOLOGY AND ACADEMICS:

I had gone with my wife who also got an Observership for the same duration in the department of Dermatopathology at UCLA. As an additional bonus, we planned every weekend to tour different destinations in California such as San Diego, San Francisco, Yosemite national park, Santa Catalina island, etc. Los Angeles is truly known as La La land because of its crazy nightlife, fine-dining restaurants, variety of Art museums, numerous beaches and tourist attractions such as Universal studios, Disneyland theme park, etc. We also visited Las Vegas, Grand Canyons national park.

In nutshell, It was a great memorable and an all-round enriching lifetime experience. As we all are lucky enough to have this opportunity, I strongly recommend this fellowship for young ophthalmologists (eligible to apply below 40 years age).

DR. CHINTAN JETHALAL DEDHIA completed his MBBS (2005- 2011) from Seth GS MC and KEM hospital, Mumbai followed by MS Ophthalmology (2011-2014) from GMC, Bhavnagar. Subsequently, he did his senior residency at TNMC (Nair Hospital), Mumbai and GSMC, Mumbai (2014-2015). During this period, he cleared 3 grades of ICO Examinations including the Advanced exam (2014) and also passed DNB Ophthalmology examinations (2015). He then went ahead to do long term clinical fellowship in Vitreo-retina from LVPEI, Hyderabad (2015-2017) and also Cataract and Community Ophthalmology fellowship from Sankara Nethralaya, Chennai (2017). Thereafter, he served as a Consultant Vitreo-retinal surgeon at Sadguru Netra Chikitsalaya, Anandpur, M.P. (2018). He then went ahead to do ICO three-month fellowship in Medical Retina at Jules Stein eye institute, UCLA (Jan-March 2019). Currently, he is working as a Consultant Ophthalmologist and V-R surgeon at Shree Ramkrishna Netralaya, Thane. He has to his credit various paper and poster presentations at the national and state level and various peer reviewed publications in indexed journals. He also has co-authored a chapter on “Instruments in Vitreo-retinal surgeries” in the book “Ophthalmic surgical instruments” (Jaypee). His special areas of interest are macular disorders and diabetic retinopathy. He keeps himself updated by regularly attending various CMEs, scientific meetings, conferences, etc. Apart from Ophthalmology, he has special interest in music and indoor sports.
It is a great honor for me to have a chance to write about my experience as a Vitreo-Retinal fellow in Korea and I would like to thank the Young Ophthalmologist Society of India and Dr. Diva Kant Misra for giving me the opportunity. It has been about 9 years since I trained as a fellow and in truth, I never had much of a chance to reflect on those times since it was always about looking ahead, busy with my clinic, writing research grants as well as papers. I have a lot of good memories and I learned a great deal, and without YOSI I wouldn’t have had a chance to give thought to those years. So, thank you once again!

Before I start, I should orient the readers on the medical school and resident training system in Korea. Unlike the US, we enter medical school directly after graduating from high school. Medical school is comprised of 2 years of pre-med and 4 years of medical school. During pre-med, we have a chance to take courses that are not necessarily associated with medicine, such as liberal arts, foreign languages, economics, etc. When we transition into medical school, the first 2 years are usually spent learning basic anatomy and science such as biochemistry, histology and pathology. The last 2 years are spent out in the field observing on first hand outpatient clinics, surgeries and patient rounds, also getting a taste of conferences and learning how to write up patient charts and reading medical images.

Next up is 1 year of internship at the end of which, you choose which field you want to major in and apply for residency. After that, you receive 4 years of training and then, you’re ready to become a fellow! So, in total, it would take 11 years before you start working as a vitreoretinal fellow in Korea. In Korea, men are required to complete compulsory military service of 2 years which people usually get out of the way before residency, so for men it can take 13 years.
I received my Vitreo-Retinal fellow training under professor Kyu Hyung Park in 2010 at Seoul National University Bundang Hospital (SNUBH) one of the 3 branch hospitals of Seoul National University. In 2010, there were 2 Retina Professors in total, Professor Park and Professor Se Joon Woo. I was professor Park’s first fellow and although the specific rules for training had not yet been laid at that time, professor Park allowed me to get a very balanced taste of both clinical and research work and enabled me to get the necessary training needed to embark on my journey ahead as a retina specialist.

Fig 1. Group photo of the retina team taken in November 2010. Front row, from left to right, professor Se Joon Woo, professor Kyu Hyung Park, and I.

In Korea, the retina specialty is not divided into medical or surgical retina. A retina specialist is required to do both and hence an important part of fellow training is learning to do surgery. Coming out from 4 years of residency, I had about 20 cataract surgery experiences under my belt and although I had much experience having assisted vitrectomies and buckles surgeries, I hadn’t had any experience doing retinal surgeries by myself. That is usually the case for many Korean residents, so in the beginning, we start out with buckle surgeries. SNUBH is notorious for the large number of emergency rhegmatogenous retinal detachment
(RRD) surgeries. It might be related to its geographic location, being in the southern part of Bundang, a satellite city located about 40 minutes out from Seoul.

Nonetheless, I was able to dive into buckle surgery within a few weeks from starting my fellowship. Also, one of the advantages I had was being the only fellow. Currently, professor Park has 3-4 fellows and SNUBH has 4 retina professors, so the retina specialty itself has multiplied in size over the years. Being the only fellow meant that I was the go-to person for residents to call for emergency RRDs and I was able to experience diverse types of RRD and realise that there are limitless ways in which scleral buckling can be done. You can be very imaginative! As for vitrectomy training, it was done more in a step-by-step manner. I started out doing core vitrectomy for professor Park and Woo’s surgeries, after that doing endolaser, filling in the area that professor Park would outline for me to do. Then, learning to use forceps, grasping epiretinal membrane flaps professor Park had lifted up for me to hold and also using the Ocutome to segment and delaminate traction membranes. Having the chance to observe and learn from 2 surgeons was also a major plus since professor Park and Woo both had very different styles and approach to surgery. Over time, I was able to integrate both professor’s styles, add some of my style to finally make it my own.
As for medical retina training, I had my own outpatient clinic twice a week and about once or twice a week, I would observe either professor Park or Woo’s clinic. As a resident, I already had experience of both professor’s clinics, but during that time, I had more or less acted as a passive typist writing down patient’s findings, putting in orders in the electronic medical charts, having little understanding of the complex medical decisions being made around me. As a fellow, I was able to see directly how each professor approached different diseases, how treatment decisions were made and also ask questions about cases that puzzled me. Surgery itself was very dynamic, but the outpatient clinic was also an excellent learning ground for a beginning retina specialist.

Research was also a large part of my fellow experience. Both professor Park and Woo are very active in research, in both clinical and basic areas. During residency, I had some exposure to clinical research since residents are usually expected to publish 1-2 SCI papers, usually retrospective case reviews, so I had a basic idea of how clinical research and paper writing is done. During my fellow years, I also had numerous clinical research topics and managed to publish a few. I think the most exciting and invigorating part of my fellow years was learning the basic steps of doing translational research. I started out by writing research grants about 2-3 weeks of my first day and putting into words the whys and hows of the related research. This was something very new, hard at first, but very educational, since grant funding is an essential part of doing research. Professor Park and Woo also collaborated with numerous researchers and I was able to get involved in genetics, drug delivery, OCT imaging, proteomic research projects, all very interesting and hot topics in retina, even today.

After one and a half year of fellowship, I was lucky enough to be offered a position as an assistant professor at one of the other branch hospitals of Seoul National University, SMG-SNU Boramae Medical Center, and started working there from September 2011. Looking back at my fellow years, I realise how balanced my training was, from learning the ABCs of surgical techniques, to seeing patients in the outpatient clinic, setting the groundwork for new translational research and setting ideas in motion, reaching out to researchers for collaborative work and seeing the fruits of research in forms of patents and papers. Both professor Park and Woo were always supportive and dedicated to seeing me grow and I am and always will be deeply thankful to them for giving me such both an educational and fun experience.
As for anyone who is interested in doing a Vitreo-Retinal fellowship in Korea, I think the best way is to directly contact the professor you would like to work with. There have been international fellows in other subspecialties at Seoul National University hospital who have spent 1-2 years in Korea and I believe the specific training systems varies from hospital to hospital. I am not clear on what level the international fellows can be involved clinically but seeing or performing surgeries would be technically difficult due to the language barrier, but I am sure observing in the outpatient clinic and the operating room are basically available options. As for research, there would be no boundaries and it would be up to the professor to decide up to what length he/she would involve the international fellow. If you have any questions, please feel free to email me at autre24@gmail.com or treu24@snu.ac.kr.

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US FELLOWSHIP EXPERIENCE

- DR. ANIRUDDHA AGARWAL

When I completed my residency in Ophthalmology at Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India, I had felt a calling to visit foreign shores and learn something new and exciting. Like most of us, I was satisfied with my residency training program which had the usual ups and downs. I could have continued with my super-specialty training in India at that point. I reckoned that I would be the happiest and most satisfied in the specialty of Vitreo-Retina and uveitis. In India, luckily for us, we have several excellent retina training programs spread throughout the country, including my alma mater, PGIMER. Therefore, deciding between staying back and learning from the masters in India versus going to a different country and starting afresh was very difficult.

At a young age, during residency or just fresh out of a post-graduate program, we all yearn for a mentorship that can give us the early push in our careers. Prof. Amod Gupta, and Prof. Vishali Gupta at PGIMER provided me that mentorship support early during my residency, and encouraged me to explore and see the outside world. Overall, I would rate my international experience a life-changing one in a very positive way. In 2014, when I stepped out to spend the next three years of my life with Dr. Quan Nguyen and Dr. Diana Do, I had no clue how things would fall in place. The path seemed long and tiring, and full of obstacles related to visas, licensing, USMLE, family, and finally, settling down.

When a junior colleague asks me how to go about an international experience, I ask them the following questions – How interested are you (half-hearted or fully motivated)? Are you interested in a long-term career abroad? What are you looking to gain from the stint outside? Do you have family/someone special also traveling with you? These questions may not have easy answers. My experience may help you answer some of these questions.
How does one apply to a foreign fellowship?

Broadly, if you are thinking of applying to the US, be prepared for a long-term commitment. With increasing number of applicants and competition among peers, Professors in US universities are looking for candidates who can spend a minimum 2 year period with them in research positions, before moving on to a clinical position (residency or a fellowship). A big caveat - these positions may not be paid initially (though eventually your mentor may be able to obtain funds for you).

To begin applications, it is best to contact the individual ophthalmologists you are looking to spend time with. Contacting administrative staff and coordinators may be mandated by certain faculty, who do not wish to receive emails from prospective students. Either way, it is best to establish contact and demonstrate willingness to work in the field of interest of your prospective mentor. It is always best to apply to as many places as possible. With over 100 Universities and programs, searching and networking may be a daunting task, so it is better to start early. It is a big help if your mentor in India has a strong professional relationship with US faculty. This will help the US faculty to assess the candidate better, and be sure of his/her future plans. So if you are not fully motivated, and not prepared to spend a few months...
without salary, it is unlikely that a mentor will accept your candidature. It is not difficult to distinguish a motivated worker from a “window shopper”. My advice would be to apply broadly and widely.

Candidates fear that their lack of publications may be an important factor for getting rejections. I shared a similar fear since I did not have more than 2 published manuscripts at the time of my application. During my interviews, I realized that the mentors were looking for a candidate with a mindset to publish, rather than an established author. From my mentor, I realized the importance of the term, Clinician scientist. An aptitude of asking questions, reasoning out, hypothesizing and doing an in-depth patient-related analysis will make you a winner in any interview. Also, during the interviews, a candidate who has chalked out a career plan taking into consideration his/her passion and calling will definitely fare well. My sincere advice to all potential applicants: it is best to plan your life well in advance as these applications begin early and the process of contacting Professors and the subsequent paperwork may take a year or more.

Personally, I feel that spending more than 2 years in a foreign institution has several advantages. In my experience, the initial few months fly past quickly while you adjust to the corridors of the hospital, new apartment, cooking food (it was my first time!), and the local culture. Your mentor will also trust you with larger projects.
and impactful manuscripts once you have demonstrated competence will smaller tasks such as case reports and book chapters. With increasing number of researchers world over, submission and manuscript review takes many months, and it may not be until a year (or more) before you finally see your manuscript proofs. When I completed my first six months into the fellowship, I realised that I could not publish a single manuscript, though I had contributed pieces in several ongoing projects. However, after 18 gruelling months, I was finally working on several proofs and accepted manuscripts, much to my satisfaction. All of us go through this initial lag phase, which should not dishearten us.

These manuscripts and papers will win you lecture invitations, faculty invitations, and bring you recognition in your field.

We all like to gain clinical experience in a foreign country. If you are looking for a proper US clinical experience, I would highly recommend USMLE (yes, all three steps). There are international fellowships in certain parts of US and Canada that do not mandate USMLE, but the amount of clinical exposure they provide is questionable. These fellowships are usually unregulated, and to my mind do not count more than a “hands-on Observership”. As a candidate, it is best to search and browse these online by visiting University websites.
The current fellows and past students of the university will always help if you shoot them an email. USMLE scores and medical education credentialing can get you a paid clinical fellowship through “the match”. If you plan a long-term stay, you could directly apply for a residency spot and apply for Board certification. I would recommend visiting www.sfmatch.org for more details, as these programs and requirements are regularly updated.

**What did I gain from my US experience?**

In terms of clinical skills, I gained immense knowledge regarding retinal imaging, especially because of my association with the Image Reading Center and Lab. I learnt “which drug when”; this is often not evidence-based but driven by logistic issues and personal opinions in India (due to various factors such as patient affordability, or marketing/packaging issues). I learnt all the know-hows of running a clinical trial, right up to applying for US FDA approvals. I learnt the art of effectively communicating with the patients and answering their questions. I was fortunate to work in a busy clinical environment in US, which taught me nuances of slit-lamp examination, ultrasonography, setting up a electrophysiology laboratory, and meticulous record keeping. For a prospective applicant, if you choose a mentor/fellowship program which lays emphasis on clinics and surgeries, there would be no dearth of clinical material. Gradually, as you demonstrate your competence, your mentors will be very happy to hand over independent charge and patient care. In my experience, I found the hospital staff and patients very forthcoming and friendly in the US, despite my foreign background and medical school training in India. I was happy to learn that world over, Indian doctors are greatly respected!

My journey in the US was fruitful for me in all aspects – clinical, research and education. The three years I spent have given me adequate training and recognition in the field. I could interact with US residents and fellows, teach them and learn from them. My fellowship gave me the opportunities to apply for prestigious NIH grants, International Research Projects, learn collaborative research, winning awards, talk directly to machine makers (the big companies!), present papers in various forums, travel the world and see different continents, meet people from different cultural backgrounds, and find my soulmate. I have made a number of friends in different countries, and strong ties with my mentors who are now like my family members.
I would strongly recommend my colleagues to enrich their knowledge by thinking out-of-the-box, try new adventures, and take the path less traveled. Ultimately, I believe that one can always choose where one wants to settle down in life. Your time is NOW, you only need to go and get it!

Dr. Aniruddha Agarwal MS, FRCS is currently working as a Clinical Vitreo-Retina and Uveitis Fellow in the Department of Ophthalmology, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India. He has completed his Clinical Research Fellowship (sub-specialty of Vitreo-Retina and uveitis) in the Stanley M. Truhlsen Eye Institute, Omaha, Nebraska, USA (2014 to 2016). He did his ophthalmology residency at the PGIMER, Chandigarh, India. He is the recipient of prestigious awards such as the Bayer Global Ophthalmology Association Project (GOAP) Fellowship at Royal College of Surgeons UK, Carl Camras Best Researcher Award, J.M Pahwa Award by Vitreo-Retina Society of India (VRSI), Narsing Rao Award by Uveitis Society of India (USI), and the Carl Herbort Award by the USI. In 2015, he was felicitated by the Hon. Prime Minister of India (Kataria Gold Medal Award). He has authored more than 150 publications and 36 book chapters. His areas of interest include uveitis, as well as medical and surgical diseases of the retina. He is an expert in ocular imaging, and has numerous international presentations and collaborations for the same. He can be reached at aniruddha9@gmail.com
It is my great pleasure to introduce the retina fellowship programme in Hong Kong. Thank you very much YOSI for the kind invitation. The Chinese University of Hong Kong (CUHK) offers an International Ophthalmology Fellowship Programme for overseas ophthalmologists in various subspecialties. Two of them are related to retina: (1) Surgical Retina Fellowship and (2) Medical Retina & Uveitis Fellowship. Fellows will be involved in clinical services and research projects in Hong Kong Eye Hospital (HKEH), Prince of Wales Hospital (PWH) of Hong Kong and the teaching hospital of the CUHK. The fellowship is intended be 1 year in duration, but duration other than 1 year can be arranged. Normally only 1 to 2 fellows are accepted in each period.

The Surgical Retina Fellowship Programme Director is Dr. TSANG Chi Wai, Consultant of HKEH. Surgical Retina Fellows will have up to 4 surgical retina clinics, at least 1 surgical retina operating list and 1 surgical retina imaging session every week. Fellows will be given opportunities to lead surgical retina research projects and they are expected to be Principal Investigator of at least 1 project during the fellowship. The Medical Retina and Uveitis Programme Director is Dr. Marten BRELEN, Clinical Assistant Professor of CUHK. Medical Retina and Uveitis Fellow will have 3 outpatient clinics including Medical Retina Clinic, Uveitis Clinic and Diabetic Macular Edema Clinic and 1 session of electrophysiology every week.

The fellowship programmes accept only applicants who are under the age of 45 and have completed residency in general ophthalmology. Preferences are given to those who have completed full subspecialty fellowship, with good references from supervisors and with strong track record in research and publications. Fluency in written and spoken
English is a prerequisite. The selection process includes an online interview.

**Dr. Ahmed Al Satrawi** from the Kingdom of Bahrain is our present Medical Retina & Uveitis Fellow. You will find his fellowship experience in the next article. If you are interested, you can find details of the programme and the application procedure in the website of Department of Ophthalmology and Visual Sciences of CUHK at: [https://www.ovs.cuhk.edu.hk/training-and-education/cuhk-hkeh-pwh-international-ophthalmology-fellowship-programme](https://www.ovs.cuhk.edu.hk/training-and-education/cuhk-hkeh-pwh-international-ophthalmology-fellowship-programme).

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**Dr. Lawrence Pui-Leung IU** is an Associate Consultant in the Department of Ophthalmology & Visual Sciences, Prince of Wales Hospital, Hong Kong and an honorary Clinical Assistant Professor at the Chinese University of Hong Kong. Additionally he is a Council Member of the Hong Kong Ophthalmological Society and member of the Hong Kong Young Ophthalmologists group.
FELLOWSHIP EXPERIENCE IN HONG KONG

-DR. AHMED AL SATRAWI

In general, the application process was similar to many other international fellowship programs except for one major advantage. The CUHK-HKEH-PWH International Ophthalmology Fellowship Program application process is open during the whole year and applicant can submit his/her papers anytime. This was very helpful in my case because I had a very long delay in processing my fellowship and sponsorship papers back home and this logistical delay is common for many fellows. To be honest, some of my sponsorship papers are still pending.

During any application and submission, it is very crucial to have a direct and continuous communication with the program director and luckily the CUHK-HKEH-PWH International Ophthalmology Fellowship Program had it in its best. I can say with no hesitancy that one of the important reasons why I am here today in Hong Kong training at this high international standard fellowship despite many obstacles I faced back home was the outstanding and supportive communication with the program directors and their high level of understanding.

The program directors and supervisors showed a high degree of flexibility when I requested to delay the starting date of my fellowship training for a few months, because at that time I had some personal and financial issues that made starting the fellowship almost impossible. It is well known to many new ophthalmologists and fellows that most fellowship programs are rigid especially for something related to dates and calendar.

Honestly, I do not know much about the details of selection process or the exact qualities that favored my selection. However, I can assure all future applicants that it was professional and it depends mainly on the record of your academic and clinical work provided in your CV, good references from your home supervisors, dedication and
commitment in your cover letter and the interview. In my case was very convenient because it was done through internet (skype).

It is worthwhile to mention here that the only difficulty I faced was getting the training visa and the limited medical registration and it was purely related to the process of collecting the required documents and certificates and notarizing them with the exact standards needed by both authorities in Hong Kong. However, to be fair, I had no difficulty the visa process and the medical registration, and it was only a matter of 6 to 8 weeks to receive them both. I am mentioning this because, 5 years back I had the pleasure to do a clinical attachment at ICARE Eye Hospital in Noida, India for around 1 month, and the visa process and permission to see patients and perform surgeries was much simpler compared to Hong Kong.

It has been now 4 months since I have started the one-year fellowship in the field of medical retina and uveitis. In the past few months, I was thrilled with the amount of clinical exposure available in the Hong Kong healthcare system. The beauty of this fellowship is in its richness, fellows will be exposed to a wide variety of patients and cases. They will attend and manage cases in both the public and private sectors which helps to understand how the healthcare system operates and how each sector has its own advantages and limitations.

Having a well-established fellowship program supervised by a recognized university differs 180 degrees from a simple clinical attachment in a hospital. In both scenarios, fellows will have a good hand-on clinical experience; however, in the former the academic and research yield is so great that you would feel you are only a service doctor in the latter.
In general, the medical retina and uveitis fellowship program includes seeing, evaluating, diagnosing and managing patients in the subspecialty clinic. Having hand-on laser and intravitreal sessions, exposure to the most common and advanced imaging and diagnostic procedures available in ophthalmology e.g. OCT, OCTA, ERG, EOG, VF, microperimetry, FFA, ICG, B-scans etc. If a fellow has special interest in surgical retina like me, sessions to the operating theatres might be arranged. I feel myself lucky because my direct supervisor Dr. Marten Brelen is a VR surgeon so he adds a touch of surgical retina to my fellowship. This is important for me because I have been working in the past 3 years as a medical and surgical retina specialist in the Kingdom of Bahrain but because of the urgent need of my country for a uveitis and medical retina specialist I had applied and joined this amazing fellowship.

Fellows will be involved in researches and clinical trials at the CUHK Ophthalmic Research Center and they will have assigned sessions to work on these. There is also continuous medical education in the form of weekly grand rounds, wet lab courses, external speakers and experts, Eyesi surgical simulator (available at the CUHK Center) and plenty of other opportunities for education and keeping the knowledge up to date.

There were two obstacles I had face when I started my fellowship in Hong Kong. One was language problem because only few patients in Hong Kong could speak English. Fortunately, all the colleague doctors and staffs were more than helpful to help me overcome this obstacle. After a couple of weeks, I started to feel that language is no longer a problem. The second was the cost of living in Hong Kong, mainly the accommodation. Hong Kong has a very high rental rates. Some online reviews classify it as the highest in the world. Other costs of living such as food, transportation, entertainment etc. were reasonable and similar to that in Bahrain or even cheaper.

Overall, during the past 4 months, I think I have started to gain subspecialty training with clinical enhancement of high international standards and this is the major objective of my fellowship.

DR. AHMED AL SATRAWI hails from the Kingdom of Bahrain and is a Medical Retina and Uveitis Fellow enrolled in the CUHK-HKEH-PWH International Ophthalmology Fellowship Programme
The Federal Republic of Germany has a universal health care system comprising of statutory (Gesetzliche Krankenversicherung) and private health insurance (Private Krankenversicherung). The insurance system in Germany is patient-oriented and largely very easy to access, with little if any restrictions in place.

Insofar as health-care is concerned, the German Government allows direct access to specialists without having to subject oneself to the rigmarole of visiting a general practitioner first (as mandated by the NHS in the United Kingdom). This considerably reduces treatment times and ensures targeted delivery of therapy.

Notwithstanding, it is certain that Germany will face a shortage of health care professionals in the next two decades. The German Government, has, in anticipation of a breakdown in the system eased the rules for studying and practicing medicine in Germany. Given that the esteemed readership of this publication comprises mainly of ophthalmologists or ophthalmologists-in-training, this article shall focus primarily on Ophthalmology in Germany, and how fruitful can training and working in Germany be.

Observerships through the International Council of Ophthalmology (ICO) are readily available and are a great way to familiarize oneself with the German health care system, vastly different that it is from the Indian way of practice. The most popular destinations are Regensburg, Münich, Hamburg and Berlin among others.

Thanks to a universal insurance system, practicing in Germany is based strictly on scientific guidelines and the rules laid out by the Kassenärztliche Vereinigung (Association of Physicians and Insurance Firms). This makes day to day practice straightforward, given that money has been taken out of the equation. One must add that physicians are very well compensated for the years they spend in training and for their skills. This a far-throw from places like India, where money is central to health care and a physician’s popularity and OPD numbers are often determined by the number of ‘packages’ and ‘incentives’ that he or she has on offer.

The current state of affairs in India is testimony to the apathy demonstrated by successive governments, who prefer to erect understaffed and underequipped civil hospitals and focus on delivering (or claiming to deliver) ‘free’ health care to patients without ever attempting to liberalize and modernize the health-care system by allowing poor patients access to the latest technology and techniques. Whereas there are several regional centres of excellence throughout India, competent healthcare in India is largely the privilege of the urban
Training in Germany can begin at the undergraduate or postgraduate level. It must be borne in mind that German universities have a very high standard of training and certification, regardless of specialty, and fewer than 60% of students successfully complete their tenure at the university. On the whole, it is advisable to apply for post-graduation in Germany rather than undergraduate studies or fellowships. It must also be made clear at the outset that good to excellent command over German (*Deutsche Sprachkenntnis*) is a prerequisite. Doctors are expected to present, upon arrival, a certificate that demonstrates sufficient knowledge of German (the B2 level certificate at the very least; preferably C1).

This corresponds to the fourth level of competence (*Beherrschung*) out of the six levels of knowledge of language as laid out in the *Europäische Referenzrahmen* (European Framework for Language Competency). The different grades of knowledge range from A1 (beginner) to C2 (expert). The certificate must be obtained either from the Goethe Institute (the only available option for Indians in India) or the *Volksschule* in Germany (popularly known as Telc). It is not necessary to attend the training courses offered by these institutes; one can directly take part in the examination held on predetermined dates as an external candidate. Most universities in India seem to have a
German department, and there are several private coaching centres in most Tier 1 and 2 cities across India that offer very good training.

The second vital step towards practicing in Germany is obtaining Approbation. This is the German equivalent of M.B.B.S. and can be achieved in two ways: a) taking the Gleichwertigkeitsprüfung ‘equivalence exam’ or b) having a Gutachter(appraiser) evaluate your medical curriculum and declare ‘equivalence of education’.

The equivalence examination is generally an oral test and identical to the final M.B.B.S Viva voce that every Indian medical student goes through; the candidate will be presented with a patient(medical or surgical) and he or she will be asked to document the Anamnese(history) and examine him in much the same way that one would do during a final MBBS surgical/medical practical examination(in German selbstverständlich). The viva voce will then proceed accordingly. Fallbuch Innere Medizin and Fallbuch Chirurgie are popular books for preparation for the examination. The examination will take place 6-12 months from the date you apply for the examination(schriftliche Beantragung) at the Senatorium (Medical Council); there is a long queue!
Having the curriculum appraised is easier but more expensive; the average cost of translation can vary between 4000 and 6000 euros. Additionally, one has to make several rounds of the clerk’s office at one’s medical college to first obtain in writing a detailed report of how many hours one spent in learning each subject (such as Anatomy or Forensic Medicine) and what sub-topics were covered under the curriculum. Additionally, the appraiser will charge you a fee for the appraisal process. Rarely, the appraiser can judge you to have inadequate knowledge of a particular subject (Surgery, for instance) and ask you to appear for the equivalence exam.

Germany also requires you to pass a Fachsprachenprüfung or professional linguistics examination wherein one needs to demonstrate adequate knowledge of German medical terminology (which is based entirely on Latin terms) and of the vernacular terms for various organs and their afflictions. The candidate then must know both the Pankreas and Bauchspeicheldrüse (the German layman’s term for the pancreas). The primary focus is on your comfort with the German language and the secondary objective is to test your knowledge of medicine. The Fachsprachenprüfung must be taken by all candidates regardless of whether they get the medical curriculum approved or choose to take the equivalence examination.

Students with an MBBS degree become eligible at this point in time to pursue residency in Germany; the process is somewhat similar to the USA, wherein you may be required to apply to several universities before receiving an affirmation. Many private clinics are authorized to train residents as well and there is only one postgraduate degree that one can obtain: The Masters’ Degree. This process can be considerably shortened by enlisting the services of one of several agencies who help medical students find a Stelle (residency) in a teaching hospital or private clinic.

For doctors who wish to immigrate to Germany after completion of post-graduate studies, the situation becomes a little more complex. They will still be expected to take the equivalence and professional linguistic examinations and attend a residential programme for at least a year before they can become eligible for the Ophthalmology examination. An exception is people who have a diploma in Ophthalmology (DNB is generally considered to be equivalent to a diploma) may be expected to complete 5 years of residency in Ophthalmology much the same way as an MBBS graduate.

Fellowships in Germany are generally not worth their while because German postgraduate students themselves must wait several years after completion of residency before they
can start off with surgeries. Ironically, surgeries are not a part of the curriculum in any surgical discipline in Germany; this is a ruse to stifle competition. A retinal surgeon in Germany is the first among all doctors in terms of remuneration; the financial benefits are enormous. Logically, then, fellowships in Germany can rarely offer students the surgical training and insights into a particular ophthalmic subspeciality that one gains through fellowships in India. Obtaining surgical privileges in Germany is the domain of a select few and one can be granted entry into the ‘big circle’ based on something as frivolous as the student being the professor’s future son-in-law! Our personal equation with the head of department has a bearing on our success as a doctor in Germany. Conversely, residency in medicine or allied branches can be immensely fruitful as it eliminates dependence of surgery as a source of income. Additionally, a konservativ doctor (without operative privileges or training) can generally earn much more than an employed (and salaried) retinal surgeon in India; the minimum estimate would put the financial worth of the German medical ophthalmologist at three times that of the Indian retinal surgeon.

Overall, the process of qualification is considerably shorter than what one might have to undergo in the USA or the UK. The German thought process supersedes the English or the American one and is far more liberal and accepting. Learning German might seem at first sight to be the biggest stumbling block in our path but is far easier than negotiating commissions and kickbacks with errant and voracious colleagues. One can look forward to a life untouched by caste and religion. With reservations in universities closing in on 100% of available seats, future generations can look to free schooling and university education in a country which has been continuously the home of influential and successful scientists, inventors and entrepreneurs.

Dr. ADITYA SUDHALKAR obtained his Masters’ Degree in Ophthalmology from the M & J Western Regional Institute of Ophthalmology in Ahmedabad and followed it up with a fellowship in Vitreoretinal surgery at the LV Prasad Eye Institute, Hyderabad. He furthered his training with short term fellowships with Dr Carl Claes in Antwerp, Belgium (for complex rhegmatogenous retinal detachments) and Priv. Doz. Dr Thorsten Böker in Dortmund, Germany (for radial buckling surgery). He divides his time currently between his family clinic in Baroda, Gujarat, India and a private clinic in Bremen, Germany (Land: Bremen). He has a keen interest in research and has 32 publications in peer-reviewed journals to his credit. He has presented various papers at several national and international conferences. He has received the prestigious Kreissig Travel Grant for EURETINA (Nice 2015) and the Keshmahinder Singh Travel Grant for APVRS (Kuala Lumpur 2017). He has sat on advisory boards for Bayer and Allergan. His areas of interest are diabetic tractional retinal detachments and endophthalmitis. When not at work, he enjoys traveling, swimming and reading the history of the world. He can be reached at adityasudhalkar@yahoo.com
Singapore National Eye Centre (SNEC) is the designated national eye centre within the public sector healthcare network in Singapore. SNEC spearheads and coordinates the provision of specialised ophthalmological services with emphasis on quality education and research, with a faculty of close to 80 ophthalmologists. SNEC is part of the Singapore Health Services (SingHealth) academic cluster of four hospitals, five national specialty centres, eight primary healthcare polyclinics and three community hospitals. Since its opening in 1990, 11 subspecialties have been established to provide a full range of eye treatment from primary to tertiary levels for the entire spectrum of eye conditions.

**Clinical Service**

SNEC offers 11 major subspecialties, a range surpassed by few centres in the world. It provides specialist eye care to more than 50 per cent of patients in the public sector and is ranked among first-in-class for its clinical excellence, the enduring legacy of founding Medical Director, the late Professor Arthur Lim.

SNEC is one of the few institutions in the world that records every single major operation for teaching and monitoring of surgery to ensure high standards and outcomes. The impact has been tremendous. At SNEC, the success rate of cataract surgeries is about 99% (visual outcome of 6/12 or better).
Objective Of The Surgical And Medical Retina Fellowships

1. The Surgical Retina Fellowship aims to produce mature, experienced, knowledgeable, Vitreo-retinal surgeons who are capable of advanced level competency in the diagnosis and management of patients with retinal and vitreous diseases. The Medical Retina fellowship training will focus on the diagnosis and treatment of non-surgical retinal diseases and the candidates will participate in medical retina clinics, diabetic retinopathy clinics and laser clinics.

2. As such the training program exposes and involves the clinical fellows in all aspects of the patient care with retinal diseases. Our aim is to train competent ophthalmologists in the respective surgical and medical retinal expertise. We also provide exposure to ongoing clinical research in retina area in SNEC and Singapore Eye Research institute.

Minimum Entry Requirements:

- MMed (Ophthalmology), FRCS or its equivalent and would have completed 2 years of advance training rotations in general ophthalmology.
- Must be experienced in most aspects of clinical ophthalmology.
- A demonstrated familiarity with principles of clinical research studies
- Leadership qualities to work independently and to multi-task
- A good command of English
Surgical Retina Training components:

Clinical Exposure

- Exposure in clinical teaching which includes patient care, examination, investigation, treatment, and discussion of a broad variety of retinal and vitreous disorders
- Rotate through clinics and operating theatres of all surgical retina faculty members
- Opportunity to diagnose and manage diseases, e.g. retinal tears, lattice degeneration, retinal detachment (simple and complex, e.g. GRT), proliferative vitreoretinopathy, proliferative diabetic retinopathy, etc
- Understand the principles of fluorescein angiography, including supervised independent interpretation of angiograms
- Hands-on experience with FFA as well as ICG Angiography with state-of-the-art equipment
- Perform electrophysiology testing, CT scan and MRI interpretations
- Training in both vitreous and retinal surgery
- All fellows will be placed on an on-call roster

Surgical Exposure
• Fellows will be able to perform procedures, e.g. Intravitreal injection, air-fluid exchange, laser (direct and indirect), cryopexy, scleral buckle, pars plana vitrectomy with intraoperative and postoperative tamponade as appropriate under supervision.

Medical Retina Training components

• A broad variety of retinal and vitreous disorders including macular diseases, retinal vascular disease, oncology, degenerative hereditary disease and infectious retinal diseases.

• The principles, interpretation and hands-on experience with fluorescein and indocyanine green angiography and optical coherence tomography using state-of-the-art equipment.

• The principles, interpretation and hands-on experience in electrophysiology such as age-related macular degeneration (AMD), diabetic retinopathy, various types of uveitis.

• The fellow will gain an in-depth exposure to both diagnostic and therapeutic approaches to all types of medical retinal problems including retinal vascular disorders, macular degeneration, posterior uveitis, intraocular tumours, and inherited retinal degenerations.
This will include the comprehensive evaluation of patients as well as the review of ancillary tests, such as angiography, ultrasonography and electrophysiology.

- Competency in the use and interpretation of fluorescein and ICG angiography, optical coherence tomography (OCT), ultrasonography, and visual function tests will be achieved during this training. In addition to evaluation and management of patients in the clinic, the fellow will gain expertise in intraocular injection therapy, retinal lasers, ultrasonography, and retinal imaging. The fellowship is structured to provide the fellow with maximal responsibility in the performance of clinical and medical retina procedures, depending on the skill level of the fellow.

**On Call:** During the fellow’s attachment at retina clinics, diabetic retinopathy clinics and laser clinics in SNEC, he/she will be on a rotating call schedule with the other Vitreo-Retinal fellows.

**Number of fellows per year:**
One to two fellowship trainees will be offered in both Surgical and medical retina fellowship per year.

**Funding Support:**
Selected candidates would receive stipend for the duration of the training and the funding will be determined after the confirmation of the selection and it will depend on the educational and years of practice in Ophthalmology, previous subspecialty fellowship and MRCOph etc.

**SNEC-AIOS-ARC-Fellowship (SAAF) program**

This is a fellowship exchange program we have collaborated with All India Ophthalmological Society (AIOS) and we will be launching a yearly fellowship application under this scheme to invite suitable young ophthalmologists to apply to our fellowships. More information will be announced once we launch the new one year SAAF program. Those interested could write to us separately if they wish to get more information on this scheme or how to apply to our fellowships directly.
DR T JAYABASKAR (MBBS, MSc (Public Health), MSc (Healthcare Industries Management)). Since he joined Singapore National Eye Centre (SNEC) in 2012, he has been working to improve the educational and training programs at the fellowships, nursing and allied health portfolios. Apart from other achievements, Dr T Jayabaskar has worked with the AIOS and SNEC leadership to develop a bilateral fellowship exchange between the two entities and established a new pathway for developing ophthalmic speciality excellence between the 2 countries.

For SNEC Fellowship related inquiry, Please contact:

Ms Esther Teo
Executive, Educational Development Unit
Training & Education (Fellowship)
Singapore National Eye Centre
Email: esther.teo.w.y@snec.com.sg
Fellowship in an eye care centre of international repute is a dream of every Ophthalmologist. ARC (Academic and Research) wing of All India Ophthalmologist Society, the second largest Ophthalmic society across the globe, has for the first time started a fellowship exchange program with Singapore National Eye Center. For the information of YO’s (Young Ophthalmologists) who are in the beginning of their career, ARC wing of AIOS actively conducts many different educational activities. ARC wing is chaired by DR. PARTHA BISWAS & under his guidance ARC has reached its zenith and is continuously engaged in some remarkable activities. The basket of ARC is filled with educational support like CME series, fellowships grants, young researcher award; leadership programs like LDP, teachers in Ophthalmology and many others substantially impressive programs.

SNEC-AIOS-ARC fellowship is a once in lifetime opportunity for Young Ophthalmologists and everyone who completes their fellowship in India should aim for SNEC-AIOS-ARC Fellowship program to polish their skills and advance the depth of their knowledge. The program has been started in three sub-specialties Uvea, Neuro-Ophthalmology and Medical Retina. I was fortunate that AIOS-ARC selected me for Uvea fellowship. I would like to share my experience of the interview which was conducted in Kolkata on 2nd December 2018.

The application for the AIOS-SNEC fellowship has to be submitted online. In order to get shortlisted, you need to make sure that your resume is worth the spot. This will begin from your residency days and probably reach a plateau by the end of your fellowship. So better make the best use of the time and make your profile strong both clinically and academically. The application submission is straight forward and answers to few questions should be well thought in advance. I suggest that well written answers in the application will give an extra edge. Once shortlisted, you will receive a mail which will provide
you the date of interview. Further details about the interview venue will be communicated to you a little later.

Since the program is a fresh start, interview pattern and details were not very well known to any of the candidate. Keeping this into mind, I have jolted down the details of the interview. The panel comprised of office bearers of AIOS, zonal ARC members, Uvea specialist and Retina specialist. Interview comprised of questions ranging from subject specific to general ones. The list of questions has been mentioned below. Subject specific questions were like:

a. A 40 year old male with right eye pain and headache with FFA showing pin point hyperfluorescent leak. What will be the differential diagnosis?

b. A neurological disease which can cause vitritis also?

c. A drug that can cause keratitis?

d. Typical Features of viral uveitis?

e. A case of ARN – how to treat and evaluate. Where will we take the sample for serology from? (ans: aqueous > vitreous)

f. Etiologies for scleritis?

g. Other name for Wegener granulomatosis?

Although interview comprised of subject specific questions, but it started with questions related to previous experience and exposure in Uveitis. This was followed by queries related to future plans and commitments. The questions were as follows:

a. How much uvea exposure I have had previously?

b. Why did I leave AIIMS, Jodhpur?

c. What are my plans / outlook for next 5 years?

d. How will I establish VR and uvea setup in the charitable organization which I have joined?

e. How will I contribute to research?

f. How will I contribute to academics?
g. What will I give back to AIOS after coming back?

h. What level of commitment can I give to ARC?

i. What all ARC activities I know of?

j. Have I been a part of any ARC activity previously?

k. Importance of my alma mater (RIO-GOH)?

Answers to these questions are variable as per the candidate’s present and past scenario. I am sure that clinical questions will not be difficult for a uvea person but proper well thought answers to the general questions are equally important and more difficult than subject specific questions. Imagine yourself answering the question “What are your plans for next 5 years”. If you start stuttering or blabber that I will do this or that then nothing will make sense, rather it will backfire. Either you say clearly that you will join an institute, start your own, join private chain, prefer government setup or start group practice. Anything you answer should be clear. I personally prefer that you can tell that you have not planned anything yet.

Knowledge of the organization i.e. AIOS and the wing i.e. ARC is also important. It is important to know what the AIOS-ARC wing has been doing in the field of academics and research. If you have organized or participated in any ARC event then certification of the same will give you an extra edge. In contrast, if you have previously in some ARC event like LDP (Leadership development program) or any academic activity and you have not pursued it further with zest and zeal then that will reflect negatively. Remember, if ARC is giving you opportunity to excel or upgrade yourself, then you have to make sure that you will be able to fulfill their commitments in future.

Apart from the questions, the way you answer or present yourself is also a key factor. Be crystal clear in your answers and also make sure that you are audible to other judges also, not just the one person who is asking you questions.

Now comes the big thing: My limitation! Before answering this I will give a brief of my professional situation at the time of interview. When I applied for the fellowship I was working as a Senior Resident in AIIMS Jodhpur and at the time of interview, I had recently left AIIMS and joined a trust organization. From academic point of view, shifting from an academic institute of national repute and joining a secondary eye care center is little on the negative side of the graph. Therefore, answering to questions like how will I contribute to academics etc was dilemmatic for me. What I preferred was answering the questions which I had some clarity to, rest I mentioned that I can remain and fulfill the commitment required by AIOC-ARC and give priority to such academic and research activities.
In conclusion, it is important to understand that interview of such sort can have all type of questions and you need to be prepared to answer them boldly and clearly. The competition for such fellowships will always increase only and you need to stand out with your resume and answers. Resume needs to be improved from the residency days. Your resume is first thing that will get you shortlisted. So it’s time to expand your reach in both academic and research. It’s time to start looking farther and plan your career course well in advance. All the best and stand out from the rest.

DR SAHIL BHANDARI, a Senior Consultant and Vitreo Retinal surgeon at Guru Hasti Chikitsalya, Pipar City (Jodhpur) is an eminent academician cum clinician. He did his under graduation from Stanley Medical College & completed his Diploma in Ophthalmology from Regional Institute of Ophthalmology, Chennai, & Diplomate of National Board from Aravind Eye Hospital. After completing his DNB, Dr Sahil did his VR fellowship from the same Institute and then joined All India Institute of Medical Sciences (AIIMS) Jodhpur. During his training he published 12 papers in peer reviewed journals, bagged first prize at AIOS-SUN PHARMA Quiz, stood second at ERUDIO quiz, received IIRSI-APACRS travel grant, gave 25+ presentation at various state and national level conferences. Presently he is a part of Executive committee of YOSI and has been an invited Faculty at AIOC 2019 and AIOS-YOSI session. In addition to his academic interest ,he has also shown his administrative skills in organising AIIMS AKSHICON, an annual conference of AIIMS Jodhpur.
GLIMPSES OF SNEC-AIOS-ARC-FELLOWSHIP INTERVIEW
Since its foundation in 2000, the annual EURETINA congress has provided a forum for discussion and dissemination for retinal specialists. Approximately 5000 delegates participate every year and EURETINA welcomes individuals with different backgrounds and clinical experience who share enthusiasm for retinal research.

The purpose of Young Retina Specialists (YOURS) is to provide a platform for young (< 40 years) members of EURETINA to ensure that issues and focus points of interest to this demographic are voiced. As part of this initiative, young ophthalmologists can apply for a free YOURS membership. As an added benefit, YOURS membership comes with a free EURETINA membership for three years.

During each annual EURETINA congress, exciting YOURS program sessions are of special interest to young retina specialists as it offers content and form that are unique from the rest of the congress. Examples include mystery cases, in-depth discussions on breaking news in research and future treatment options, and a Science Slam for early career scientists to explain their research projects in an unorthodox and exciting fashion. Every year, the Ophthalmologica Lecture is given by a prominent young clinician or scientist who has made significant or highly promising contributions to retinal research.

However, our platform is more than just the annual program session during the EURETINA congress. The YOURS initiative also features a fun reception, open to all, which allows us to meet other young ophthalmologists and get social! At our social event, you are among fellow young and aspiring retinal specialists from all over the world and can share thoughts about building your experience and career as a retinal specialist. Many enduring friendships have been formed at the YOURS Social. We look forward to seeing you future EURETINA/ YOURS conferences.

For further information, please visit [http://www.euretina.org/about-us/yours.asp](http://www.euretina.org/about-us/yours.asp)
General ophthalmology is a well-recognised medical specialisation in all over the world, but Master’s degree programmes to provide further training and education are not yet fully developed. More often ophthalmology graduates wishing to specialise, need to find an institution or hospital that can offer them facilities for research or on-the-job training. Others may want to pursue a fellowship programme, but these are usually only available to US graduates.

ESASO was founded in 2008 to address both this challenge and the specific further education needs of training and practising clinicians, drawing on the skills of colleagues worldwide and the support of various universities. It seeks to facilitate the dissemination of new and effective ophthalmological learning and expertise through a dynamic combination of in-depth exposition of topics and direct face-to-face training, where experts show students how to deal with practical situations and problems, according to the most recent Evidence Based Medicine, and help them to achieve their careers inside an international panorama. ESASO’s mission is to provide post-graduate education and disseminate new and effective learning and expertise to improve the clinical and surgical practice of specialists in ophthalmology.

The School is based within the ESASO Training Centre (ETC), Lugano Campus, Switzerland. Due to the difficulties for Asian doctors to reach the European headquarters of ESASO, in 2010 was decided to open an Asian Campus, located in Singapore, in order to meet the various needs of Asian ophthalmologists.

ESASO aims at improving the clinical and surgical practice of specialists in ophthalmology by helping them develop and enhance their professional skills. Through the promotion of training courses, fellowship opportunities, MODULES and other courses ESASO improves scientific knowledge within the ophthalmic.
community, hence improving outcomes for all patients with eye conditions worldwide.

ESASO offers theory classes as well as practical training, where constant interaction between internationally renowned faculty members (which includes approximately 260 experts from over 35 countries) and participants is enhanced by debates, and concepts are always illustrated with clinical cases to make the sessions very dynamic.

The School’s activities cover all subspecialties such as medical and surgical retina, cornea and refractive, cataract, glaucoma, uveitis, oculoplastics, pediatric ophthalmology and strabismus.

**ESASO’S EDUCATIONAL PROGRAMME OFFERS:**

1. Modules: Full ophthalmologists only
2. 3D & Simulator training: Residents, full ophthalmologists or other professionals
3. Wet lab Residents: full ophthalmologists or other professionals
4. Preceptorships: Residents, full ophthalmologists or other professionals
5. Executive Training Courses: Residents, full ophthalmologists or other professionals
6. Congresses: Residents, full ophthalmologists or other professionals
7. Retina forum: Residents, full ophthalmologists or other professional
8. ESASO days and forums: Residents, full ophthalmologists or other professionals

Recently a great success is coming from all activities concerning the medical and surgical modules on retina.

The modules generally have a duration of five days, The Medical Retina, is a purely theoretical module, offers every day different topics, with illustrations of clinical cases and how to approach them with a session on surgical techniques. The Surgical retina, on the other hand, is structured on two levels, basic and advanced. In addition to the theory, it offers two days divided between wetlab and drylab with the possibility of practicing on a 3D simulator.

The laboratories are equipped with the most advanced equipment and are supervised by specialised trainers.
THEIR GOALS ARE:

1. To provide the method for the correct application of the guidelines for the diagnosis and treatment of retinal diseases, and the unique opportunity to take advantage of the extensive clinical experience made available by leading experts in the field.

2. To identify the surgical indications and to train the participant to face the surgical pathologies of simple or high complexity in a correct and rational manner.

A particular module aiming to help the surgeon to highlight the essential elements to read the specific characteristics of a surgical pathology, to choose the most suitable surgical approach, to foresee and face possible difficulties and complications and to manage the response to treatment.

PROGRAMME ACTIVITIES OFFER:

A different topic each day with clinical cases illustrating the disease in all its clinical variables: how to provide a prognosis, how to choose the most suitable therapeutic approach, how to identify all types of response to treatment and its possible complications

• A session on para surgical techniques (Laser, Intravitreal Injection Therapy, etc.) to present the treatment of retinal diseases
• Imaging courses with technical explanation of clinical engineers about the correct use and potential of the most up-to-date instrumentation
• Practical instruction carried out in laboratories on wet lab stations fully equipped with the most up-to-date equipment
• Technical improvement carried out in virtual reality on dry-lab stations that allow the perfect reproduction of surgical techniques in the anterior chamber and vitreous-retinal space
• Clinical engineers explaining the operation and optimal use of machinery and surgical instruments
• Execution of different surgery techniques on pig eyes.
In 10 years ESASO has contributed to the education of about 4000 ophthalmologists from all over the world.

Furthermore, ESASO will continue to dynamically optimize and adapt to the changing educational needs of its students and partners. It looks forward to fruitful collaborations and partnerships to reach the next level of excellence in post-graduate ophthalmology training.

As part of the educational programme structure, ESASO started publishing the full teaching syllabus in the ESASO Course Series volumes in order to make part of the modules’ content available to a wider public.

Last but not least, the new specific courses for companies have extended the ESASO learning experience to industry professionals future managers.

New research projects are on going for the best practice in ophthalmology.

### ESASO Events 2019

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<td>May 13-17</td>
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<td>ESASO Module: Intermediate &amp; Advanced Surgical Retina</td>
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<tr>
<td>ESASO Module: Intermediate &amp; Advanced Surgical Retina</td>
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<tr>
<td>ESASO Module: Cornea and corneal refractive surgery</td>
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<td>Milan Drives Europe: Pediatric Ophthalmology Updates</td>
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<td>Special Programme Lublino</td>
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<td>ESASO Module: Basic Cataract and intraocular refractive surgery</td>
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<tr>
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### ESASO Events 2020

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<td>January 27-31</td>
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<td>ESASO Module: Intermediate &amp; Advanced Surgical Retina</td>
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<td>ESASO Module: Basic Surgical Retina</td>
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<tr>
<td>ESASO Module: Orbital, Lacrimal &amp; ophthalmic plastic surgery</td>
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<tr>
<td>ESASO Module: Medical Retina</td>
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<td>ESASO Module: Intermediate &amp; Advanced Surgical Retina</td>
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<tr>
<td>ESASO Module: Cornea and Corneal refractive surgery</td>
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<td>ESASO Module: Basic Cataract and intraocular refractive surgery</td>
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<tr>
<td>ESASO Module: Intermediate &amp; Advanced Cataract and Intraocular Refractive surgery</td>
<td>December 14-18</td>
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SIMULATOR TRAINING - ETC LUGANO

Training courses with ophthalmic surgical simulators enhance technical skills of participants and hands-on experience in vitreoretinal and cataract surgery through the use of dry lab equipment, instruments, and technologies. Thanks to simulators’ software and sensors, every phase of surgery is reproduced in an extremely realistic way, allowing participants to improve their surgical ability.

3D & SIMULATOR TRAINING - ETC LUGANO

Training courses with ophthalmic surgical simulators and 3D visualisation system enhance technical skills of participants and hands-on experience in vitreoretinal surgery through the use of dry lab equipment, instruments, and technologies. Thanks to simulators’ software and sensors, every phase of surgery is reproduced in an extremely realistic way, allowing participants to improve their surgical ability. Training courses with 3D visualisation system give participants the opportunity to try a new way of working.

For more information please see www.esaso.org

DR MARIO TORO DiSSO, FEBO is an honorary lecturer and a senior clinical researcher at the General Department of Ophthalmology with paediatric service of SPSK1 hospital in Lublin (PL), directed by Professor Robert Rejdak.

His Department is now regarded as the most known and with higher standards of ophthalmological cares in Poland, and one of the European Referential Centres for the treatment and diagnosis of rare ocular diseases (EYE-ERN).

His main interestes are the vitreoretinal and cataract surgeries.
GOAP FELLOWSHIP AWARD:
MY EXPERIENCE

- DR PRERNA SHAH

WHAT IS GOAP AWARD?

Global Ophthalmology Award Program From Bayer is a mentored award program that allows you to pursue research in the field of retina by providing the necessary platform to do the same. Their aim is to encourage ophthalmologists to develop skills and to support future thought leaders and to improve treatment outcomes and patient quality of life through management of retinal diseases.

A GOAP grant could enable a recipient to make significant contributions to research in ophthalmology by furthering experiments, contribute to tangible benefits for patients with retinal disorders, improve patient access to high-quality eye care and also increase disease understanding and dissemination of scientific knowledge through publications.

There are two types of award, either a Fellowship Award or Research Award. Applicants applying for the Fellowship Award should demonstrate commitment to becoming a retinal specialist. The Research Award is an award supporting clinical and/or basic research projects. The duration of the award is for 1 year and the grant is upto 50,000USD.

The research focus changes every year. The year 2019 being biomarkers and phenotyping for retinal disease progression, 2018 about retinal dystrophies, 2017 as biomarkers for wet ARMD etc.

APPLICATION PROCESS

An application process is vetted by a group of eminent healthcare professionals from the field of ophthalmology (Grant review and Award Committee) with an aim to encourage young ophthalmologists and aspiring clinical scientists to pursue careers as retinal specialists. The awards program is helping to ensure that the next generation of patients has access to high-quality eye care by funding cutting-edge research that may lead to new therapies.
The application is a step wise process that begins at the beginning of the year. It starts with submission of Letter-of-Intent which is then reviewed by the GRAC. The selected applicants are then informed and requested to submit a Full Proposal according to preset proforma. From these submissions the final awardees are selected and funding is provided.

PROJECT

The fellowship award I applied for was titled - *Ensuring healthy eyes in premature infants using tele-screening for Retinopathy Of Prematurity in community* with an aim to set up a customised tele screening protocol using a portable 3nethra Forus NeoCamera to screen preterm babies in their hospital, to provide diagnosis by connecting to a Vitreo-Retinal specialist through tele ophthalmology and to decide for urgent treatment or deferred referral.

This project for ROP screening has been planned for the district of Madurai, Tamil Nadu, India and additional districts of Sivagangai and, or Virudhunagar, both districts in the state of Tamil Nadu, India. An existing project by Arvind Eye Hospital with the NICUs in Madurai entails sending trained ophthalmologists from the Vitreo-Retinal Services for screening.

Under the programme being proposed, one year will be divided as follows – the preparation period, the training period, and the screening period. The one month allocated to preparation includes obtaining oral permission/approval written letters from NICUs, making screening protocol, and preparing, distributing IEC material and for acquiring equipment, software on a laptop, updating the ADRES software to the base hospital.

RECEIVING THE AWARD FROM PROF. BANDELLO
Within the second month, I will be trained by my mentor to screen babies at risk with 3Nethra Forus Neocamera during which images will be collected, assessed by my mentor but not run through software. In months three and four, all screened babies will have their fundus photographed by me and images sent to base hospital by telecommunication. They will be assessed by my mentor, and referral or management may be advised. The months five and six would be utilized in training technicians by me with the use of the 3nethra Forus Neo Camera for capturing images with the use of mannequin, uploading images to be evaluated by base hospital and communicating to the NICU, the need for referral and management strategies offered by base hospital for each baby.

The next six months will be spent screening babies from the NICUs using photographs taken by technician and uploaded, to be analyzed by me at base hospital. Once analyzed by me and also with the modified ADRES software, need for treatment either in form of laser or intravitreal injection, referral either to base hospital, or review with NICU will be conveyed to the respective parents. The last month of the project will be used for data analysis and report writing.

**BENEFITS**

This project may be important in decreasing the attrition of the babies reaching ophthalmologist after they have been advised screening and, giving a chance to all those babies whose systemic condition does not allow their check up at distant hospitals.

By screening babies with the camera at their own NICU, there are multiple benefits. The babies remain in the healthy environment of the NICU, their systemic condition is well monitored, travelling is prevented, thereby reducing risk of exposure to infection. The neonatologist/paediatrician is involved in the whole process, allowing them to modulate treatment processes. Also, photographs taken by the camera area available for comparison, decreasing the measure of error.

Our current reach for diagnosis and treatment for retinopathy of prematurity is as low as 30% of the desired outcome, which means that there is an urgent need to address the growing issue of ROP associated blindness. This programme will give an additional benefit of alleviating the necessity of trained ROP specialist’s visit to the NICU, thereby increasing the utility and productivity of the services at the hospital and screening at NICUs without time hindrance.
TIPS AND SUGGESTIONS

Have a clear idea of what you want. Define the problem statement so that there are no uncertainty. Put forward plausible definitions. Have an easy and achievable success criteria and adhere strictly to deadlines. Identify your benefits on how you can maximize on the grant by expanding the research question. And always ask for help. When I wrote the full proposal, apart from my mentor Dr. Renu Rajan and co-author Dr. Sanjana Naik, the inputs for the proposal came from our Chief medical Officer, Dr Kim Ramasamy and Chief of Paediatric Ophthalmology, Dr. P. Vijayalakshmi. It is with the wisdom of many, and hard work of few that I have had the privilege to be awarded with the GOAP award.

DR. PRERENA SHAH, MBBS, DNB FICO FVRS, is a medical officer at Aravind Eye Hospital, Madurai, TamilNadu. She has presented at various conferences at state, national and international level. She is one of the 12 clinicians who received a grant of $50,000 as part of Bayer India’s Global Ophthalmology Awards Program - an initiative by Bayer India to promote research and development in Ophthalmology for the year 2018. She can be reached at preranashah89@gmail.com
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INSTITUTE WATCH

SENIOR RESIDENCY

45. GNEC, New Delhi
46. PGI, Chandigarh
47. McH Vitreoretina, PGI, Chandigarh
48. RP Centre, AIIMS, Delhi

FELLOWSHIPS

49. Aditya Jyot Eye Hospital, Mumbai
50. Aravind Eye Hospital, Madurai
51. Centre for Sight Eye Institute, New Delhi
52. Chaithanya Eye Hospital And Research Institute, Thiruvananthapuram
53. C.H. Nagri Eye Hospital, Ahmedabad
54. C.L. Gupta Eye Institute, Moradabad
55. Dr. Shroff Charity Eye Hospital, New Delhi
56. Eye Foundation, Coimbatore
57. Giridhar Eye Institute, Kochi
58. Haji Bachooali Charitable Ophthalmic & ENT Hospital, Mumbai
59. HV Desai Eye Institute, Pune
60. Indra Gandhi Eye Hospital, Lucknow
61. LV Prasad Eye Institute
<table>
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<tr>
<th>No.</th>
<th>Institute Name</th>
<th>City</th>
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<tr>
<td>62</td>
<td>ROP Training, LVPEI, Hyderabad</td>
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<tr>
<td>63</td>
<td>MGM Eye Institute, Raipur</td>
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<td>64</td>
<td>Minto Eye Hospital, Bangaluru</td>
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<td>65</td>
<td>MM Joshi Eye Hospital, Hubbali</td>
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<td>Nandadeep Eye Hospital, Sangli</td>
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<td>Narayana Nethralaya, Bangaluru</td>
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<td>68</td>
<td>National Institute of Ophthalmology, Pune</td>
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<td>69</td>
<td>Nethradhama Super Speciality Eye Hospital, Bangaluru</td>
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<td>Raj Eye Hospital, Gorakhpur</td>
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<td>72</td>
<td>Retina Foundation, Ahmedabad</td>
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<td>73</td>
<td>Retina Hospital, Rajkot, Gujarat</td>
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<td>74</td>
<td>Retina Institute of Karnataka, Bangaluru</td>
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<td>75</td>
<td>Sadguru Netra Chikitsalaya, Chitrakoot</td>
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<td>76</td>
<td>Sankara Eye Hospital</td>
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<td>Sankara Nethralaya, Chennai</td>
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<td>Shanti Saroj Netralay, Miraj</td>
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<td>Shri Ganapati Netralaya, Jalna</td>
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<td>80</td>
<td>Sri Sankaradeva Nethralaya, Guwahati</td>
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<tr>
<td>81</td>
<td>Susrut Eye Foundation &amp; Research Centre, Kolkata</td>
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Super specialty training in ophthalmology in India is synonymous with fellowship programmes. Although, the ideal Vitreo-Retina training may be a long-term fellowship course, however the quality and training module varies from one institute to the other. At the same time, Senior Residency in Vitreo-Retina at Guru Nanak Eye Centre, Maulana Azad Medical College, New Delhi, which is one of the premier medical colleges of the country equipped with the latest technology is also a great platform to pursue super specialty training in retina.

Guru Nanak Eye Centre (GNEC), New Delhi is the largest Delhi Government operated hospital offering medical and surgical Vitreo-Retinal services to patients across north India free of cost. GNEC offers senior residency posts to candidates with a recognized ophthalmology degree (MS, DNB, Diploma) for a duration of 3 years. The retina unit is incharge of the Vitreo-Retina services at GNEC and usually consists of three senior residents, one for each year of residency. The senior resident posts for the institute are advertised on a yearly basis in the second quarter (July- August) of the year at www.health.delhigovt.nic.in. The number of seats depend on the number of third year senior residents completing their course, which usually would consist of one vacancy in the retina unit. The selection process is a two-step process which includes a written comprehensive ophthalmology entrance test, which is common for all candidates followed by an interview for the candidates who score more than 50% in the written test. A strong curriculum vitae with academic work and participation at national and international platforms, along with a good knowledge of ophthalmology gives a candidate an edge over the others. The final list of selected candidates is for the institute rather than a particular specialty; however, the candidates may mention their preferred specialty, which is usually taken into consideration at the time of allotment of units. The date of joining may vary anywhere between August – March depending on the completion date of the outgoing senior resident.
The Retina clinic at GNEC offers medical retina services including investigative procedures and therapeutic retinal lasers. It is well equipped with Fundus photography (Zeiss Visucam, Germany), Fundus Fluorescein Angiography (Zeiss Visucam, Germany), Indocyanine green angiography (Zeiss Visucam, Germany) and Spectral domain Optical Coherence Tomography (OCT) with Enhanced Depth Imaging (EDI) mode and OCT Angiography (Nidek RS3000 Advance 2, Japan). Both slit lamp delivery and laser indirect ophthalmoscopy are available for single spot Nd-Yag laser (Zeiss Visulas, Germany), along with a multi spot Nd-Yag laser system (Lumenis, Israel) and Yellow micropulse laser (Iridex IQ 577, Germany). With the available imaging devices, one gets trained to perform diagnostics for various vitreo-retinal pathologies, including uvea. GNEC is also the ROP referral center for Delhi and Central Government hospitals. ROP screening as well as laser treatment is routinely done at the retina clinic, however, surgical treatment facility for ROP is not available. During residency, one can expect to perform over 100 ROP lasers and well above 1000 retinal lasers.

The surgical vitreo-retina armamentarium at GNEC consists of Zeiss OPMI Lumera T surgical microscope with Zeiss Resight 500 viewing system. The hand-held Volk wide angle viewing system and irrigating contact lens are also available. Among vitrectomy systems, the Stellaris PC (Bausch and Lomb, USA) and megaTRON S4...
HPS microsurgical system (Geuder, Germany) are available with 23-gauge equipment. All vitreoretinal forceps and scissors are available in 23-gauge, chandelier illumination system is however, not yet available. Scleral buckling equipment with cryotherapy is available, along with anesthesia backup for pediatric vitreoretinal surgeries. During residency, one gets to perform scleral buckling procedures and vitrectomies for various retinal disorders, including macular surgeries and complex vitrectomies both supervised and independently. There is a great deal of hand-on retinal surgical exposure during residency training, with an average number of over 200 surgeries at the end of 3 years. Intravitreal injections are also routinely given.

Being an academic and tertiary care research institute, emphasis is always on various academic activities at the institute and as a senior resident research publications and active conference participation is always motivated and encouraged by the institute. The senior residency tenure does not include any rotation in the other units or any peripheral centres and there are no compulsory commitments with the institute after completion. Post senior residency, one may consider one of the international fellowships to enhance their skills and get a global perspective, which I personally feel is an asset in one’s super specialty training.

Apart from the training aspect, a lot of other factors are important in the practical world, especially when considering a long-term course after post-graduation. During senior residency, the salary provided by the Delhi government varies from 1.1 lakhs to 1.3 lakhs per month depending on the year of residency. One is also entitled to about 30 leaves per year, excluding the various national holidays in a year. As a professional at a government institute, one is also eligible for the academic grants provided by the government research authorities for their academic activities. Apart from training in a specific specialty, during senior residency there is also exposure to comprehensive ophthalmology and one also performs cataract surgeries on a regular basis, which is almost indispensable for an ophthalmologist in the practical world. At the completion of senior residency, a teaching certificate is provided by the institute, which is a prerequisite for anyone considering a teaching job at a government medical college in future.

As a GNEC alumnus, I owe my professional knowledge and skills to my alma mater. Exposure to a large number and variety of clinical cases, helped me enhance my clinical skills under the guidance of my consultants. Vitreoretinal surgeries are very demanding and can be very unpredictable with some potentially devastating complications, even with the most experienced surgeons. The
importance of a good hands-on surgical exposure during our vitreo-retinal training cannot be undermined. It helped me nurture my microsurgical skills and be a confident retinal surgeon capable of managing my cases and complications independently.

I hope with this article, the aspiring vitreo-retina young ophthalmologists have an understanding of the training module and experience during senior residency at GNEC and it helps them in opting for their preferred training institute. If anyone has any questions and queries regarding this, they can contact the following present/past senior residents from GNEC.

Dr. Bhumika Sharma : sharmadrbumika@gmail.com
Dr. Kirti Jai Singh : dr.kirtijaisingh@gmail.com
Dr. Ketaki Rajurkar : k.rajurkar25@gmail.com

The academic department for any queries at Guru Nanak Eye Centre can be reached at gnecdir@gmail.com or 011-23230033.

DR. ANIKA GUPTA is a Vitreoretina and Cataract surgeon, currently working at Centre for Sight, New Delhi as Vitreoretina consultant. She is an alumnus of the prestigious Maulana Azad Medical College, New Delhi where she pursued her MBBS, MS and Senior residency training in Vitreoretina (GNEC).

YO tiMES | AUG 2019
SENIOR RESIDENCY IN VITREO-RETINA AT PGI, CHANDIGARH

-Dr. SAMENDRA KARKHUR

Senior Residency (SR-ship) at PGI is one of the most sought-after training programs in ophthalmology in the country. More so, if it is in the department of Vitreo-Retina and Uveitis. The department is not strictly compartmentalized into separate Medical Retina, Surgical Retina & Uvea and follows a unit system. The SR is usually assigned to a particular consultant in one of the several units. Most faculty in the department of VR practice all aspects of the specialty like, medical/ surgical retina, uvea, ROP and paediatric retina. Rotation among different consultants may be possible.

There no fixed number of seats but roughly speaking 3 to 5 seats may be filled every year. Exact details need to be looked at the PGIMER website for vacancies, written test and interview dates. Please also look at the qualification criteria for SR-ship at PGI on the website and MCI guidelines, especially if you are a DNB in Ophthalmology. The duration is 3 years. Completion makes you eligible for recruitment in any state/central institution for faculty position.

Exposure to research is tremendous and if one shows inclination and interest; you can complete the program with a good number of publications in reputed journals with unrestricted ‘first authorship’ depending on your contribution. Number of surgeries, lasers and injections are adequate for becoming a confident and well trained surgeon. Stipend is as per the central government guidelines. There is however no compulsory bond or compulsory commitment after the program.

Entire training program is completed at PGIMER, Chandigarh and there is no peripheral or satellite centre rotation as of now. Advanced Eye Centre, PGI has recently started Mch. Program in VR, which is an MCI recognized 3 years super-specialty degree parallel to SRship with compulsory thesis program. Details of Mch program can be looked at the website of one is interested in facing another competitive exam and 3 years of exhaustive grilling☺
PGIMER is a highly rated and prestigious central government institution with exhaustive work-hours, tremendous patient load and infinite opportunities for learning by doing. It a personal limit that decides how much one can absorb from the high quality training, up for grabs.

All the best!

Dr. SAMENDRA KARKHUR MS, DNB, FICO, FAICO (UVEA), MNAMS, is presently appointed as an Assistant Professor in Ophthalmology, AIIMS Bhopal, Madhya Pradesh. He has completed his training in Vitreo-Retina, ROP & Uvea from PGI, Chandigarh. He is a visiting instructor at Byers Eye Institute, Stanford University School of Medicine, Palo Alto, CA, USA.

He can be reached at karkhurs@gmail.com
Recently a super speciality course **M.Ch. Vireo-retina** has been started in PGIMER, Chandigarh, an established Central government institute. The course consists of 3 years duration with rotational postings in Medical retina, Surgical retina and Uveitis.

Being a tertiary care institute, there is significant footfall of patients and also referral of diagnostically and surgically challenging cases thereby providing ample opportunity to master clinical skills and surgical experience.

There is a passing exam after 2 1/2 yrs and one also needs to submit a thesis at the end of second year of residency.

**Application and selection process**

To be eligible, a candidate should have:

a) Passed the required MD/MS, or its equivalent qualification, recognised by the Medical Council of India (MCI).
b) Must be registered with Central /State Medical Registration Council.
c) Must be within the prescribed age limit as on/before 31st December for January and 30th June for July session respectively as detailed below:
   - For general category candidates: 35 years
   - For OBC candidates: 38 years
   - For SC/ST candidates, Ex-Servicemen and Commissioned Officers: 40 years
   - For Deputed/Sponsored candidates: No age limit

**Entrance examination:**

Selection of candidate for D.M./M.Ch. courses is based on Theory examination consisting of a paper with two parts (Part
1 – General, and Part 2 – Specialty), each with 40 marks. Part 1 will consist of 40 multiple choice questions, each with four options and a single most appropriate response. The questions will be from the subject corresponding to the candidate’s postgraduate qualification. Part 2 of the paper will consist of 40 multiple choice questions related to the specialty for which the candidate has applied, each with five options and single/multiple correct response(s). Total duration of the theory examination is 90 minutes.

The exam is held twice a year for January and July session.

Chandigarh experience:

Located at the foothills of Shivalik mountains, Chandigarh (The City Beautiful) provides a peaceful abode to study, work and enjoy. A morning stroll at the Sukhna Lake or an evening hang out at the Elante with friends provides rejuvenation from hectic work schedule. The people are homely and helpful.

Stay: One can choose hostel facility provided by the institute in lieu of house rent allowance or take paying guest accomodation from numerous options available nearby.

DR. ATUL ARORA MS, is pursuing his Mch in Vitreo-Retina from PGI chandigarh. He can be reached at atul1691@gmail.com
1. Number of seats of various long and short term Retina training programs?

Variable, 1 to 5 biannual

2. Duration of fellowship/training?

3 years

3. Exposure to research and expectations by the institute in research?

Excellent opportunities for research. Centre is equipped with ultra modern instruments, state of the art diagnostic and therapeutic modalities and above all has immense patient load all conducive for research.

4. Probable number of surgeries, lasers and injections one might expect?

A good number of surgeries are made available during the course of senior residency. The initial 6 months or so are mainly focused on learning about the diseases and surgical training by assistance. Thereafter an average of around 3 retina surgeries are made available each OT day.

Laser procedures of the retina are taught and performed under supervision for about a month or so then independently for the rest of the course.

A significant number of intravitreal Injection are administered on days allotted, the procedure is taught under supervision for initial months then performed independently.
5. Names & positions of Medical retina and VR Faculties?
   • Available on Website

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Selection procedure comprises of two steps. First being 80 multiple choice question which is followed by a round of interview of the eligible candidates. Exam is conducted every 6 months. Probably in the months of June and December

7. Most important points that you consider in a CV?
   • Number of surgeries performed
   • Experience
   • Academic research/publications

8. Stipend
   Salary is as per the government norms. It is more than sufficient to cover for expenses.

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Apart for medical and surgical retina, the course also offers a vast exposure to Uvea and ROP. Residents are trained in ROP lasers under supervision. In addition there is also a fair exposure to Ocular oncology.

    All latest surgical and diagnostic equipments are available

11. Any post fellowship International exposure?
    There is no provision for post fellowship International exposure. But attending International conferences is encouraged.

12. Any bonds or compulsory commitments with the institution after completion?
    No bonds or mandatory commitments after completion.

13. Any peripheral centres for compulsory rotation and duration of the same?
    Rotational duties are put up for peripheral centres like Jhajjar and Ballabgarh for maximum of 45 days.
Aditya Jyot Eye Hospital has more than two decades of services with more than 100 years of combined experienced hands in eye care. Aditya Jyot offers medical retina as well as surgical retina fellowship courses. We are proud to have successfully trained over 60 doctors under the guidance of Prof. Dr. S Natarajan and team of well known retina surgeons. We are one of the very few hospitals with all the specialities of eye care under one roof making cross consultation easy and seamless. All eye disorders including the most complicated ones are treated here with utmost precision and compassionate care.

Fellows can get exposure to a variety of retinal disorders like diabetic retinopathy, retinal vein occlusions, macular degeneration, hereditary retinal dystrophies, ROP, etc. They are encouraged to participate in conferences and CMEs, and take part in research activities. Additionally, also organise and take part in community eye care camps in conduction with our Aditya Jyot Foundation for Twinkling Little Eyes (AJFTLE).

Aditya Jyot Eye Hospital also have DNB seats and is the first NABH Accredited eye hospital in Mumbai.
1. Number of seats of various long and short term Retina training programs?
   - Long term retina fellowship - 4
   - Short term retina fellowship - 2

2. Duration of fellowship?
   - Long term - 18 months
   - Short term (Medical Retina) - 12 months

3. Exposure to research and expectations by the institute in research?
   There are a lot of research opportunities. Various collaborations with researchers from all over the world.

4. Probable number of surgeries, lasers and injections one might expect?
   - Lasers and injections - > 100 in a duration of 18 months.
   - Surgeries - variable.

5. Names & positions of Medical retina and VR Faculties?
   - Dr. S. Natarajan - Chairman and Managing Director
   - Dr. Jaydeep Walinjkar - Vitreo Retina Consultant (To Join From 15th June 2019)
   - Dr. Amit Jain - Vitreo Retina Consultant
   - Dr. Ritu Shah - Adjunct Vitreo Retina Consultant

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Send in your CV to the fellowship director (prof.drsn@gmail.com). You will be asked to fill in a fellowship application form and an interview will be scheduled. No fixed date of interview or joining.

7. Most important points that you consider in a CV?
   - Surgical exposure
   - Publications
   - Recommendations

8. Stipend
   30,000/-

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Average

    - Zeiss Cirrus SD 500 OCT machine
    - Zeiss FF450 Plus Fundus camera, FFA, ICGA
    - Compact Touch B Scan machine
    - Zeiss Visulas 532 laser machine
    - Appasamy JERICHO 532 laser machine
    - Alcon Constellation vitrectomy machine
    - Resight & Oculus Viewing system
    - Various retinal instruments including advanced instrumentation for the management of IOFB - pellet.

11. Number of permitted leaves
    23 casual leaves in a span of 18 months.
    Academic leaves - yes, depending on academic presentations, posters, papers, research, etc.

12. Any post fellowship International exposure?
    Encouraged to apply for international fellowships like APAO fellowship, etc.
13. Any bonds or compulsory commitments with the institution after completion?

No compulsory bonds / commitments

14. Any peripheral centres for compulsory rotation and duration of the same?

Yes. On rotation basis at various centres. Various camps conducted by Aditya Jyot Foundation for Twinkling Little Eyes(AJFTLE) - in Mumbai and also outside Mumbai.

15. Contact details (Phone & Email) of the academic department.

Mr. Joseph Thomas - 9819997978 - josephthomas.ajeh@gmail.com, prof.drsn@gmail.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr. Sonali Verma - 9755778322
dr.sonaliverma@gmail.com

Dr. Chaitali Bhavsar - 9850061323
drchaitalibhavsar@gmail.com

Dr. Mohd. Anash Pathan - 9799710786
anash_pathan@yahoo.com

Young Ophthalmologists Times is highly indebted to Dr S. Natarajan for providing us the above information.
Aravind Eye Hospital was founded in 1976, by Dr. G. Venkataswamy, a man known to most of us simply as Dr. V. In an eleven bed hospital manned by 4 medical officers, he saw the potential for what is today, one of the largest facilities in the world for eye care. Over the years, this organization has evolved into a sophisticated system dedicated to compassionate service for sight. The Aravind Eye Care System now serves as a model, for India, and the rest of the world.
1. Number of seats of various long and short term Retina training programs?

The Retina department at Aravind eye hospital offers a 2-year long term surgical fellowship in vitreous and retina (4 candidates every 6 months) and a 1-year long fellowship in medical retina (1 candidates every 6 months). The department also offers a 1 month long short-term training in retinopathy of prematurity (one candidate every month) and a 2 month long short-term training in lasers for diabetic retinopathy (2 candidates every month).

2. Duration of fellowship?

Mentioned Above

3. Exposure to research and expectations by the institute in research?

The department provides ample opportunity and resources for research in the both the fields of surgical and medical retina. Every candidate undergoing the long-term fellowship is expected to be actively involved in research based on his / her own original ideas and scientific questions. Such activities are periodically monitored and feedback and expert advice are provided. Average retina OPD at Aravind eye hospital, Madurai is more than 600 per day which provides a very good exposure to the candidates.

4. Probable number of surgeries, lasers and injections one might expect?

Every candidate undergoing the long-term fellowship has one operation theatre day every week throughout the entire course of the fellowship and they are trained systematically and stepwise in surgical procedures by the medical officers in the department. Similarly, every fellow has one day posting in lasers every week where they get to do an average of 20 lasers per day.

5. Names & positions of Medical retina and VR Faculties?

Please look at our website.

6. Selection procedure in brief including probable dates (Interview & Joining)?

The selection of long term fellows happens twice a year (January and July). Interested candidates can apply through the online portal of Aravind eye hospital. Selection will be based on a written test (MCQ) followed by an interview.

7. Most important points that you consider in a CV?

Candidates’ knowledge and passion in the subject, previous academic achievements (publications, Awards, thesis, number of conference papers) and surgical exposure will also be taken into account.

8. Stipend

Selected candidates are eligible for a stipend of Rs.20,000 during the first year and Rs.27,000 during the second year.

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

The candidates are posted in the uvea department for one entire month where they are exposed to an extensive range of uveitis and related conditions and their management modalities. The candidates are also posted on ROP and retinoblastoma posting where they receive hands on training in the examination, diagnosis and management of these conditions.


The department is well equipped with advanced and extensive state of art instruments in both lasers and surgical operating systems including pattern yellow and green lasers like PASCAL, 3D operating system (NGENUITY) and high-end vitrectomy systems. The
hospital wetlab also has a simulator to train for VR surgery (Eyesi).

11. Number of permitted leaves

15 days per calendar year

12. Any post fellowship International exposure?

Nil

13. Any bonds or compulsory commitments with the institution after completion?

Nil

14. Contact details (Phone & Email) of the academic department.

Central Office
Email: aurovikasonlineapp@aravind.org
Phone: 0452 4356500
Retina department:
Aravind Eye Hospital
1, Anna Nagar
Madurai
Phone: 0452 4356100
Fax: 0452 2530984
Email: uma@aravind.org

Young Ophthalmologists Times is highly indebted to Dr Naresh Babu for providing us the above information.
I am a Primary DNB candidate, and during my residency I was convinced that I wanted to pursue a career in Vitreo-Retina. Coming from a high volume center (Sadguru Netra Chikitsalaya, Chirakoot) during DNB most of my options included Institutions with a high volume setup and good academics.

Everyone and anyone even sparsely related to Ophthalmology has heard about the Prestigious Aravind Eye Hospital. Hence, I applied for a Vitreo-Retina fellowship there through their website.

Even though my practical result had not come out, eventually I did have my result before the interview. I received a confirmation e-mail by Mrs. Uma and I went for the interview at Madurai in May 2019.

They had invited applications for 2 seats in Madurai and 1 each for the centers at Pondicherry and Tirunelveli. The application form is exhaustive and one is required to upload all the documents before hand, including MBBS marks card, degree certificate and registration among others.

Upon reaching the center, the interview was exclusively for Retina fellowship at the Retina department. There was an MCQ exam, which included 15 image based one-word answer type questions and 35 MCQ. All images and most questions were retina and uvea based. This was for about 1 and a half hours. After that, they invited all the participants for the interview. It was conducted by Dr. R. Kim (Chief Medical Officer) and Dr. K. Naresh Babu (Head of Department). They were extremely warm and welcoming. They asked me a range of question varying from my personal choices in life to my involvement in various research activities at our Institute. They also judged me based on the amount of work I had in my residency. I was asked about some basics of laser and few vitreo-retinal procedures. They also asked me about my future aspirations and if I would be able to live in Madurai. My interview went on for about 45 minutes. At the end they told me that they would inform me 1 week later.

I received an email about 4 days later, informing me about my selection at Madurai and I was given about a month’s time to decide and send my confirmation.

It was pretty smooth and simple. They are basically judging your passion and your hard work throughout the 3 years of your post graduation. It would be advisable to brush up on your research work and a few publications and real interest in the subjects really helps.

All the Best!!

DR. TANYA JAIN, MBBS, DNB, FICO is a Vitreo-Retina fellow at Sadaguru Netra Chikitsalaya, Chitrakoot. He can be contacted at tanyajain_t@yahoo.com
Centre for Sight Eye Institute (CFSEI), Dwarka, Delhi is a premier eye care facility where the most well-known names in Ophthalmology engage in teaching, research and patient care.

- The institute offers you an exposure and training into the ever-expanding world of retina both as a 4 month short term medical retina fellowship and as 2 year long term Vitreo-Retina fellowship.

- The aim is to mature a suitably knowledgeable and experienced Vitreo - Retina surgeon who possess advanced level competency in the diagnosis and management of varied Vitreo-Retinal diseases or through the short term program provide a broad and extensive exposure to medical retina as a basis for pursuing a subsequent career as a comprehensive ophthalmologist.

- The program provides an opportunity to obtain both clinical and evidence-based experiences. Clinical training will focus on retinal diseases such as Diabetic retinopathy, Age related macular degeneration (AMD), Retinal vascular diseases, ROP, Various types of uveitis and diagnostic approaches to genetic retinopathies and maculopathies etc.

- The use of retinal imaging for clinical diagnosis and as follow up tools will be emphasised upon during the program. Long term fellows will get an opportunity to train in varied procedures eg. Intravitreal injections, Laser (direct and indirect), cryopexy, scleral buckling, pars plana vitrectomy (both simple and complex) as appropriate under supervision.

- The program will also try and stimulate the minds towards epidemiological research (both retrospective and prospective) and toward publications in academic journals.
1. **Number of seats of various long and short term Retina training programs**
   - One seat for long term fellowship every six months (April and October)
   - One seat for Short term fellowship Every 4 months April, August, December

2. **Duration of fellowship**
   - Long term fellowship – 2 Years
   - Short term fellowship – 4 Months (3 months medical retina + 1 month surgical retina Observership)

3. **Exposure to research and expectations by the institute in research**
   CFSEI, Dwarka, being optimally equipped and staffed, is the home-ground for multiple ongoing international and national clinical trials. In an effort to train the fellows in research protocols and methodology, fellows are actively engaged in these trials and have to complete one research project during their tenure. All projects are ethically approved by the Centre for Sight Institutional Ethics Committee (CFS-IMEC).

4. **Probable number of surgeries, lasers and injections one might expect**
   Though a lot of these numbers depend on the initial skills and the grasping speed of the fellow, but as a thumb rule we expect the fellows to perform around
   - 150 VR surgeries,
   - 150 retinal lasers
   - at least 500 intravitreal injections.

5. **Names & positions of VR Faculties**
   1. Dr. Lalit Verma
   2. Dr. Dinesh Talwar
   3. Dr. Avrindra Gupta
   4. Dr. Ritesh Narula
   5. Dr. Arindam Chakravarty
   6. Dr. Saurabh Arora
   7. Dr. Chitralekha De

6. **Selection procedure in brief including probable dates (Interview & Joining)**
   - The selection will be based on a two-step process involving a MCQ paper followed by an interview with the Board of Consultants. The written test, generally conducted in (March and September) and will constitute of 50 multiple choice questions, each question having four choices to choose from. Each correct answer will fetch the candidate one mark and each wrong answer will have a Negative marking of one mark.
   - A merit list consisting of Five times the number of seats in the concerned specialty will be prepared and displayed at the examination centre. These candidates will be eligible to appear for the interview.
   - The interview board will unanimously prepare a merit list consisting of double the number of candidates as the vacancies. Call letters will be sent to the successful candidates and wait listed candidates, instructing them to deposit the fee/security deposit and confirm acceptance of
admission at least 10 days before the start of the course, so that in case of a vacancy, the next wait listed candidate can be called.

- The admission to short term fellowship will be on “First come, First Served” basis. A list to this effect will be maintained and all candidates opting for that particular specialty will be asked for their willingness to join and the receipt of acceptance and course fee will confirm the admission.

7. 3 most important points that you consider in a CV

a) Academic Excellence
b) Capacity to put in long hours unhindered by personal commitments and responsibilities
c) Background in Research & Publications

8. Stipend

- Long Term fellowship :- Rs 30,000/- p.m. First year; Rs 40,000/- Second year. (All inclusive, 10% TDS will be deducted)
- Short term fellowship – Fee based, a fee of Rs 50,000/- per course (Subject to change without notice)

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

The Occuloplasty department, headed by Dr Vikas Menon has all facilities to provide exposure to the latest diagnostic and treatment modalities for the same.


a) Zeiss Lumera I with Resight
b) Constellation Vitrectomy System
d) Endolaser
e) Heidelberg Spectralis FFA, ICG & OCT
g) Optivue Avante with OCT Angiography
h) Appasamy USG-B Scan and UBM

11. Number of permitted leaves

- One and a half days Privilege leave per month, which cannot be used in the first and last months of the fellowship.
- More than 6 days leave will not be sanctioned at a time.
- 7 days of Academic leave to attend conferences at their own expense (only for oral paper.)

12. Any post fellowship International exposure?

NA

13. Any bonds or compulsory commitments with the institution after completion?

No bond or compulsory commitment post completion.

14. Any peripheral centres for compulsory rotation and duration of the same

Can be posted to other centres of Centre for Sight as independent consultants and for surgical procedures.
15. Contact details (Phone & Email) of the academic department.

CFS Training, Cell Centre for Sight Eye Institute

Plot No 9, Sector 9, Opp. R D Rajpal School, Dwarka, New Delhi- 110075
Tel- +91 9958956838, 1800 120 0477, +91 11 40022955
E-mail fellowship@centreforsight.net
www.centreforsight.net

16. Names and Contact details of 3 past (within 2 years) or present fellows.

a) Dr Mithun Thulasidas : mithun.thulasidas@gmail.com
b) Shraddha R Pawar : shraddharpawar@gmail.com
c) Rupin Dang : rupindang@yahoo.com

Young Ophthalmologists Times is highly indebted to Dr Tarun Choudhury for providing us the above information.
VR FELLOWSHIP INTERVIEW EXPERIENCE AT CFS
-DR SHRADDHA PAWAR

After completion of MS, I was serving my 1 year compulsory PG bond as speciality medical officer. During the last few months there was a big question….what next?? I Started searching for various fellowship programs in various institutes. And came to know that Centre For Sight, New Delhi has decided to start the Fellowship teaching programme. I immediately sent my CV to Dr. Tarun Chaudhary, co-ordinator of fellowship training programme and very soon got the reply from him. We were asked to fill the form with basic information.

The candidates were called at CFS Eye Institute, Dwarka, New Delhi for the further process. Our documents were verified. Selection process comprised of 2 parts. In the first part all candidates were asked to give MCQs examination which contained 50 questions to be solved in 1 hour. After 1 hour results were declared and amongst all candidates only few were declared as qualified for the second part of selection process i.e interview. I was one of those selected candidates. Felt very joyous and proud after hearing my name in those selected candidates.

The interview was conducted in the board room. The panel members were Dr. Mahipal Singh Sachdev, MD and Chairman of CFS, Dr. Harsh Kumar, Dr. Ritesh Narula, Dr. Ritika Sachdev and Dr. Keya Barman.

I was made very comfortable as soon as I entered the board room. It was the first time when I personally talked to the legend himself DR. Mahipal sir. He was very humble and kind towards all the candidates. The questions asked in the interview started with general ophthalmology, and then mainly related to VR. I was also asked about my family and my future plans and settlement. Once the interview was over, on the same day at the end the selected candidates were called again in the board room and were told about the selection. We were given time of few days to decide and were asked to send the conformation letter by email. After conformation we were given time of 1 month to join the institute. The day spent in CFS was very memorable. Especially, the whole process of selection was conducted very well and all the candidates were treated very nicely by the staff of CFS.

Before giving any fellowship interview it is very important to be clear about the sub-speciality you are more interested in and also about the future plans.

I am very thankful to DR Mahipal Sachdev Sir and team CFS for making me part of such a great institute.

DR. SHRADDHA PAWAR, MBBS, MS is a Vitreo-Retina fellow at CSFEI, New Delhi. She can be contacted at shraddharpawar@gmail.com
CHAITHANYA EYE HOSPITAL AND RESEARCH INSTITUTE – Vitreo-Retinal services
Chaithanya Eye Hospital and Research Institute is a reputed NABH certified tertiary care eye hospital at Thiruvananthapuram, Kerala. This institute is the parent organization which now has sister concerns in 5 districts in Kerala.

Recognizing that advancement in eye care can proceed only with a multifaceted approach, the Institute started the Chaithanya Vitreo-Retinal service unit in 1997 as an exclusive speciality centre. This unit serves as a major referral centre for the diagnosis and treatment of Vitreoretinal diseases for the adjacent 5 districts. It is the first fully established and functioning speciality unit in this region. It is a fully integrated and independent unit equipped with all diagnostic and therapeutic modalities related to management of all retinal diseases. The hospital has an exclusive Diabetic Retinopathy screening program, AMD Clinic & Macula clinic. The clinics are involved in medical and surgical management, clinical research and serves as a reading centre for retinal imaging in patients with various retinal and choroidal diseases. Our surgical retina team manages all vitreoretinal surgical conditions and is equipped with one of the best surgical units in the state.

The hospital besides being a training institute for DNB residents, runs a strong academic program awarding fellowships in many specialities. Over 23 medical and surgical trainees have benefitted from the academic program run by the Vitreo-Retinal services and are successfully in practice in various parts of the country and abroad. Regular classes, web lectures, debates, video sessions and journal clubs are part of the Retina fellowship training programme. The hospital has an independent ethics committee and has been part of many multi-centric drug trials and clinical research. The clinical research at the Vitreo-Retinal services has won appreciation in the form of various awards at state and national meetings.
1. **Number of seats of various long and short term Retina training programs?**
   - Medical retina fellows; 4/year,
   - Surgical retina fellows; 2/year

2. **Duration of fellowship?**
   - Medical retina fellowship; 1 year,
   - Surgical retina fellowship; 1.5 years

3. **Exposure to research and expectations by the institute in research?**
   Fellows have to present papers/posters at the state and national meeting compulsorily. Fellows are required to be part of the clinic based research trials and studies.

4. **Probable number of surgeries, lasers and injections one might expect?**
   - Surgeries- 20 independent procedures, 30 assisted procedures
   - Lasers- at least 100 procedures
   - Injections- at least 100 procedures

5. **Names & positions of Medical retina and VR Faculties?**
   - Dr Unni Nair- Medical Director and Senior Vitreoretinal Consultant
   - Dr Manoj S- Coordinator Fellowship Program and Senior Vitreoretinal Consultant
   - Dr Srilekha- Consultant Medical Retina
   - Dr Rejina Mohan- Consultant Vitreoretinal Surgeon
   - Dr Padmanaban- Consultant Medical Retina
   - Dr Rahul Menon- Consultant Vitreoretinal Surgeon
   - Dr Sheera- Junior Vitreoretinal Surgeon

6. **Selection procedure in brief including probable dates (Interview & Joining)?**
   Selection of candidates is based on interview. Candidates with MS/ DNB Ophthalmology and DO with at least 2 years experience will be shortlisted from the applications for the interview. Opening for fellowship is open in April each year for surgical fellows. Medical retina fellowship recruitment happens during April (2 candidates) and September (2 candidates) each year. Interview will be held at Trivandrum within the hospital premises. A basic assessment on the aptitude, knowledge and skill of the candidates will be assessed.

7. **Most important points that you consider in a CV?**
   - References from faculty where last studied/ worked
   - Academic awards and citations
   - Research background/Publications

8. **Stipend**
   - Medical retina fellow- 35000 Rs
   - Surgical retina fellow- 35000 Rs

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**
   The clinic runs a robust ROP telescreening programme spread over 4 districts in Kerala with NICU based visits on a regular basis. Also OPD based ROP consultation does happen. Candidates will have an opportunity to participate in this program and will be involved in treatment including laser and intravitreal anti VEGF injections.
   The clinic is also involved in management of Retinoblastoma with Retcam based documentation and works in close consultation with the Regional Cancer Institute for chemotherapy and Sree Chitra Tirunal Institute for Medical Sciences & Technology for intraarterial chemotherapy. Candidates will have an adequate exposure in this area.
   Our uvea clinic was started in 2008 to manage the growing number of patients with uveitis. The uvea faculty presently includes an internationally trained specialist. The clinic coordinates with a well-equipped pathology/Immunology clinic and with Sankara Nethralaya Referral Laboratory specifically to analyze tissue fluids and samples which help in arriving at specific aetiological
diagnosis. A new PCR lab is expected to function within the premises shortly with an in house microbiologist. Candidates will therefore have an adequate exposure in this area.


- Hiedelberg HRA2- FFA, ICG, OCTA, Multicolour Imaging, Fundus Autofluorescence, Infrared imaging, OCT unit with multiviewing port facility.
- ELLEX Ultrasonogram with UBM facilities
- Rolland Electrodiagnostics including ERG, EOG, Pattern VEP, pattern ERG, flash ERG, flash VEP.
- 2 IRIDEX laser systems with micropulse delivery module, indirect laser delivery
- IRIDEX Transpupillary thermotherapy
- Photodynamic therapy with Visudyne
- CONSTELLATION vitrectomy unit with endolaser, 23/25/27 gauge instruments, bimanual surgical instruments, BIOM
- Cryotherapy
- Video archiving software

11. Number of permitted leaves

1 day leave for every completed month of fellowship.

Compensatory duty off for camp/ Sunday duties.

12. Any post fellowship International exposure?

NIL

13. Any bonds or compulsory commitments with the institution after completion?

NIL

14. Any peripheral centres for compulsory rotation and duration of the same?

An opportunity to work at the other sister concerns of the hospital
Day visits to Diabetic screening centers, Military hospital service

15. Contact details (Phone & Email) of the academic department.

Retina Vitreous Services, Chaithanya Eye Hospital & Research Institute, Trivandrum
0471 2955500 (ext 6001)
academic@chaithanya.org

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr Asmita Indurkar 9561592153
Dr Anshuman Gehlot 9810958562
Dr Sheera Arun 9447315236

Young Ophthalmologists Times is highly indebted to Dr Unnikrishna Nair for providing us the above information.
I had been looking for VR fellowship for a couple of months after my post graduation, and had submitted my CV along with letter of recommendation at this institute a couple of weeks ago. I got a phone call from the fellowship coordinator and was informed about the upcoming interview in a humble voice. I was afraid I may not be able to attend the interview because I was informed only two days in advance. The journey from my hometown in Rajasthan would take at least 24 hrs if I managed to get the first train and first flight towards the destination. But I was relieved when I came to know that the interview will be conducted telephonically. So I picked the time slot of my choice among the available slots. Now I could brush up my concepts and prepare for the interview with peace of mind without worrying about the hassles of travelling.

On the day of interview I was comfortably seated in my backyard enjoying the December Sun. I got a call at an expected time and it was the same person again, she asked me whether I am ready and I said yes. The next voice was of Dr. Unni Krishnan Nair, Medical Director of the Institute. He asked me more about my educational background, probably looking at my CV at the same time as few questions regarding my publications and presentations followed. He asked me about my previous experience in retina and my future plans. The talk went on for 15-20 minutes. He was very friendly and made me comfortable whenever I was not able to answer a question he had asked. I was told that the results will be announced in a couple of days.

Surprisingly, the next day I received a call from Prof. Dr. Y Chingsui who had been my guide and mentor during my post graduation and had written the letter of recommendation for me. He said he had received a call from Kerala from Dr. Nair. That’s when I knew I was being seriously considered for the fellowship.

The next day, I had fingers crossed when I was informed about my selection and given a date to join. I was very happy and thanked Mrs. Shalini, the lady with a humble voice.
C. H. Nagri Eye Hospital is an exclusive eye hospital, research and training centre located in the heart of the Ahmedabad city. Its mission is to provide excellent and equitable eye care services to all the sections of people of Ahmedabad city and Gujarat since more than 40 years by now. This eye hospital is affiliated to Smt. N.H.L. Municipal Medical College and Sheth K,M. School of post graduate Medicine and Research, V.S. General Hospital and recognized by Gujarat University for undergraduate and post graduate teaching. C.H. Nagri eye hospital has been working continuously for prevention of blindness and treatment of eye diseases since 1963. Approximately 200 patients daily in the O.P.D. and 5000 surgeries are carried out annually.
1. Number of seats of various long and short term Retina training programs?
   2 seats per year of long term VR fellowship

2. Duration of fellowship?
   1 year

3. Exposure to research and expectations by the institute in research?
   1 compulsory study topic which has to be published and presented at the end of the year. Candidate can present papers and posters wherever and whenever he/she wants

4. Probable number of surgeries, lasers and injections one might expect?
   2 surgeries per OT day during the last 6 months. Prpc, grid laser, laser barrage from 2nd 3rd month of the fellowship. Intravitreal injections in patients of endophthalmitis from the very beginning of the fellowship

5. Names & positions of Medical retina and VR Faculties?
   - Dr. Tejas Desai (Superintendent And HOD - C.H. Nagri Eye Hospital)
   - Dr. Shaileen Parikh (Retina Consultant)
   - Dr. Usha Vyas (Honorary Retina Consultant)

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Entrance examination (McQ test) followed by interview on the same day. Examination held around 2nd or 3rd week of August. Date of joining 21st August. 21st August to 31st August - observership. 1st September onwards - commencement of the fellowship.

7. Most important points that you consider in a CV?
   - Performance at the entrance exam and interview,
   - Dedication towards the institution,
   - No. of publication and research

8. Stipend
   15,000/ per month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Splendid experience in diagnosis and management of uveitis.
   ROP services not available at present

    OCT, FFA, USG, LIO, SLE Mounted laser machine, Constellation machines for V.R surgeries

11. Number of permitted leaves
    15 leaves

12. Any post fellowship International exposure?
    Nil

13. Any bonds or compulsory commitments with the institution after completion?
    Nil

14. Any peripheral centres for compulsory rotation and duration of the same?
    Nil

15. Contact details (Phone & Email) of the academic department.
    Dr. Tejas Desai (Program Head), 9327004888, dr_tejasdesai@yahoo.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.
    Dr. Prakriti Khetan - +91 9131139695
    Dr. Dhaval Patel - +91 7002202613
    Dr. Unnati Shukla - +91 7874889197
    Dr. Ashka Shah - +91 9904003711
After completing my M.S. Ophthalmology examination in the year 2017, I started searching for options for pursuing fellowship in Vitreoretinal Surgery. I applied at all the possible places for july session examination and interviews.

The examination for VR fellowship at Shankar netralaya Chennai and C.H. Nagri Eye hospital Ahmedabad was held on the same day. I was in a Dilemma as whether to appear for S.N. examination or NERF(Nagri eye research foundation) examination. Since Nagri hospital was in my hometown, fellowship was of one year duration and interview was held only once a year, I opted to appear for NERF examination.

The examination was held in the 3rd week of August at Nagar School of Optometry Campus. There was M.C.Q examination of 40 marks followed by interview. After completion of the interview, the candidates were made to sit in the waiting lounge. Within half an hour, shortlisted candidates were called in for the interview. There was a panel of 3 consultants. They asked very basic questions regarding retina and assessed candidate's inclination towards the field of retina.

By evening 5:00 pm I received an Email from NERF foundation that I was selected for the VR Fellowship at NERF.

They asked me to join as an observer from 21st August to 31st August. The fellowship is of one year starting from 1st August every year.
At times post graduation in Ophthalmology does not address the need and the precision required in the sub specialties and an ophthalmologist who is passionate to pursue the dream usually finds oneself in two minds on the decision of further education and experience.

With a limited number of institutes offering the fellowship courses there are many aspiring candidates who kill their dream of pursuing further experience and settle in their lives. Long wait period of fellowships also play a role in this. We are affiliated to L V Prasad Eye Institute, Hyderabad and aim to provide quality care to the patients and try to maintain same thing in our fellowship programmes also. C L Gupta Eye Institute (CLGEI) provides a blend of academics and clinical exposure so that the candidate on completing the fellowship can look forward in the right and desired direction.

Apart from having a Vitreo-Retina fellowship CLGEI also offer paid short term observership in medical retina.
1. Number of seats of various long and short term Retina training programs?
   Variable

2. Duration of fellowship?
   The fellowship is of 24 months duration with rotational posting with different consultants in retina department. Last 6 months of fellowship, candidate will have independent OPD & OR. We also expect them to share institutional responsibilities like OPD & OR coverage for other consultants.

3. Exposure to research and expectations by the institute in research?
   A candidate has to work on research projects, analyse data and write papers for publication and presentation. The institute expects each candidate to complete at least one original study during the fellowship tenure.

4. Probable number of surgeries, lasers and injections one might expect?
   Depends upon the efficiency of the candidate, we start giving surgeries in steps initially and when the candidates are confident enough, they are given a free hand.

5. Names & positions of Medical retina and VR Faculties?
   - Dr. Abhishek Varshney, Consultant Vitreo-Retina.
   - Dr. Rohini G Agrawal, Consultant Vitreo-Retina.
   - Dr. Upma Awasthi, Consultant Vitreo-Retina.

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Interview based selection. Probable dates are December and June for interviews and January and July for joining.

7. Most important points that you consider in a CV?
   - Candidate should be hard-working and sincere.
   - Candidate should have keen interest to learn.
   - Tissue handling should not be an issue for the candidate.

8. Stipend
   Total emoluments of Rs. 30000 per month in the starting 18 month and 40,000 in the last 6 month.

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Candidate will have exposure in ROP (screening and laser), Uveitis and its management. No exposure in ocular oncology.

    Zeiss laser, Visucam 450 (Fundus camera), Constellation vitrectomy system, Accurus vitrectomy system, Reticare VR, Purepoint laser for OT, Zeiss Lumera operating microscope with BIOM 4.

11. Number of permitted leaves
    The candidate is permitted for 24 days leave during your fellowship.

12. Any post fellowship International exposure?
    Nil.

13. Any bonds or compulsory commitments with the institution after completion?
    The candidate is required to submit your original documents at the time of starting fellowship and these will be retained by the institute till the time period of two years, for the purpose of security.
14. Any peripheral centres for compulsory rotation and duration of the same?

No

15. Contact details (Phone & Email) of the academic department.

Dr Abhishek Varshney
drabhishek@clgei.org,
doctorabhishekvarshney@gmail.com,
info@clgei.org
Phone Numbers: +91 9873364157,
+91 7599270961

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr Priyanka Chaudhary, Consultant Vitreo-Retina, Maharaja Agrasen Medical college, Agroha, Haryana Pin 125047.
Email: dr_priyanka411@yahoo.in

Dr Upma Awasthi, Consultant Vitreo-Retina, C L Gupta Eye Institute, Ram Ganga Vihar Phase 2 (Ext.), Moradabad, Uttar Pradesh PIN 244001.
Email: upma.awasthi2@gmail.com

Young Ophthalmologists Times is highly indebted to Dr Abhishek Varshney for providing us the above information.
Before starting with my learning experience in CL Gupta eye institute, I need to tell that I have worked under one eminent vitreo-retina surgeon for approximately 2 years. Thereafter I worked as independent vitreo-retina surgeon in Delhi-NCR and there I did lasers and handful of vitreo-retina cases in 1 and 1/2 years. When my family started thinking of shifting to Moradabad in 2018, it was the time when I started searching options and I found C L Gupta Eye Institute as the best option.

I got the appointment with the director Dr Pradeep Agarwal and there he discussed about my vitreo- retina exposure in the past. Then I met the HOD of retina department Dr Abhishek Varshney and he asked me about the practical questions related to daily retina practice and what I have not done till date. Keeping all my background in mind, I was offered 1 year fellowship. This was commendable as no other institute consider your past experiences.

In this one year, I had lot of exposure in OPD with daily free discussion with consultants. I did variety of surgeries ranging from uncomplicated RhegRD, glued IOL/SFIOL, traumatic RD, endophthalmitis with or without IOFB as well as macular holes. These surgeries I have not done in my private practice. Last few months of my fellowship, I had my independent OPDs and OTs also, which have boosted my confidence level.

I would say that my experience is little different from others. There was no formal interview but they considered my background and customized my fellowship program. And I can say for sure that any person joining this institute in any department will learn a lot and can start his or her own practice independently after fellowship.

DR UPMA AWASTHI is a consultant Vitreo-Retina Surgeon at C L Gupta Eye Institute she can be reached at upma.awasthi2@gmail.com
DR. SHROFF CHARITY EYE HOSPITAL, NEW DELHI

DR. SHROFF CHARITY EYE HOSPITAL Daryaganj, New Delhi provides a 6 months clinical research fellowship followed by long term Vitreo-Retina fellowship for 2 years during which the fellows work independently in the last six months, when they perform independent clinics and Vitreo- Retinal surgeries. They perform laser photocoagulation, Fundus Fluorescein Angiography, ICG, B- SCAN, UBM, Optical Coherence Tomography, OCT-A, FAF and intravitreal injections.

They are posted in clinics where they see a variety of medical and surgical retina patients.
1. **Number of seats of various long and short term Retina training programs ?**

   2 seats per year of long term VR fellowship

2. **Duration of fellowship ?**

   2½ years (clinical research + VR)

3. **Exposure to research and expectations by the institute in research ?**

   One prospective study to be completed during fellowship and expected to have 5 peer reviewed publications during the fellowship.

4. **Probable number of surgeries, lasers and injections one might expect ?**

   50 vitreoretinal surgeries (independent but supervised, more than a 100 lasers and intravitreal injections)

5. **Names & positions of Medical retina and VR Faculties ?**

   - Dr. Manisha Agarwal - Head of Vitreoretina Services
   - Dr. Shalini Singh - Senior Consultant
   - Dr. Rahul Mayor - Senior Consultant
   - Dr. Lagan Paul - Consultant
   - Dr. Ankita Shrivastav - Consultant

6. **Selection procedure in brief including probable dates (Interview & Joining) ?**

   Written test and interview, May and November

7. **Most important points that you consider in a CV ?**

   - Exposure to retina during post graduation
   - Post VR fellowship planning to serve an area where VR- services are not available
   - Interest in Research

8. **Stipend**

   19,000/ per month (which increases every year)

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   Exposure to ROP - regular screening of babies in NICU+ laser & intravitreal injections are performed
   Exposure to uveitis in the uvea clinic

10. **Brief overview of VR equipments available in the Institute.**

    OCT (Cirrus), OCT-A (Angioplex), ICG (Zeiss), FFA (Topcon), UBM (Appasamy), B SCAN (Appasamy), FAF (Zeiss), Constellation Vitrectomy Machine, Zeiss Microscope, BIOM, Iridex and Zeiss laser machines.

11. **Number of permitted leaves**

    24 leaves in 2 years

12. **Any post fellowship International exposure?**

    Nil

13. **Any bonds or compulsory commitments with the institution after completion?**

    Nil

14. **Any peripheral centres for compulsory rotation and duration of the same ?**

    Yes

15. **Contact details ( Phone & Email) of the academic department.**

    Ms. Kalpana Gupta, training@sceh.net, 011-43528888

16. **Names and Contact details of 3 past(within 2 years) or present fellows.**

    Dr. Deepa Sharma-9968050005
    Dr. Ankita Shrivastav- 9560073529
    Dr. Prachi Gaurav- 8800642841

*Young Ophthalmologists Times is highly indebted to Dr Manisha Agarwal for providing us the above information.*
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT SHROFF CHARITY EYE HOSPITAL, DARYAGANJ, NEW DELHI

DR. ANKIT GARG

After considering many options throughout the country and even beyond, and having applied to many respected institutions, i was lucky to get selected for a Vitreo-Retina fellowship at Shroff Charity Eye Hospital, Daryaganj New Delhi.

The website may not be routinely updated so calling the HR is a better option to stay in touch regarding the dates for session intakes. They usually take fellows every 6 months, the duration of the fellowship is 2.5 years with initial few months focussed on research orientation.

They conduct an MCQ exam followed by an interview on the same day itself. I found the pattern of MCQs similar to those of other institutions such as LVPEI and SNC Chitrakoot. I found reading MCQ oriented books very helpful, almost all the questions were image based. The interview for fellowship exams tends to be very unconventional at times and there is no set standard and pattern for it.

My interview started with questions on common pathologies such as DR, CRVO and then they focussed on my thesis topic. It was followed by a few questions regarding my experience in retina so far and also a few questions regarding my current job profile. They also asked why i chose this institute among so many others and what are my expectations from this fellowship.

I think its important to be honest here, at the same time u need to focus on why you are joining for the right reasons and would be a valuable addition to the institute. the examiners usually try to get an idea about the attitude of the candidate and want to make sure that the fellow would demonstrate a strong work ethic and be willing to attach with the institute for a long productive duration. The institute lays special focus on research and shows preference towards candidates who are more inclined towards it. i was asked about my previous experience in research, however the lack of it did not seem to be an issue.

There is no bond required to be served after finishing the tenure although they might ask if you would be willing to join one of their secondary centres after finishing the fellowship. They announce the results within 2 weeks or less. And generally joining is within 1-2 weeks.

The work atmosphere at the institute is healthy, however punctuality and sincerity is something that is not compromised on. regular academic activities are conducted and fellows get ample time for research and academic discussions.

DR. ANKIT GARG, MBBS, DO, DNB is a Vitreo-Retina fellow at SHROFF EYE HOSPITAL, NEW DELHI. He can be contacted at garg.ankit085@gmail.com
THE EYE FOUNDATION, COIMBATORE

The Eye Foundation, Coimbatore is an ultra-modern eye care facility, founded by Dr. D. Ramamurthy. The eye hospital has a track record of nearly three decades, treating more than a million patients located in the districts of Coimbatore, Tirupur, Nilgiris and nearby areas.

Always at the cutting edge of technology the institution has to its credit several firsts in the field of Ophthalmology in the country. It is situated at the heart of the city and conducts a robust academic program,
1. Number of seats of various long and short term Retina training programs?
   - Medical retina: 2 seats per year (January and July session)
   - Surgical Vitreo-Retina fellowship: 2 seats per year (January and July session)

2. Duration of fellowship?
   - Medical retina: 6 months
   - Surgical Vitreo-Retina fellowship: 24 months (18 months + 6 months as Vitreoretina adjunct faculty)

3. Exposure to research and expectations by the institute in research?
   - The Eye Foundation, Coimbatore has a robust and enthusiastic research environment and has its own in house DCGI approved Ethics Committee. Our institute has been part of many global multi-centric trials and has been an active contributor in the field of research at a global level.

4. Probable number of surgeries, lasers and injections one might expect?
   (As per log book of outgoing long term fellow)
   - Intravitreal injections: 630
   - PRP Laser: 427
   - Barrage laser: 350
   - Focal laser: 10
   - VR surgeries: 38

   Surgical opportunities entirely depends on the capabilities & performance of the candidate and discretion of the VR consultants.

5. Names & positions of Medical retina and VR Faculties?
   - **DR. JATINDER SINGH** - SENIOR CONSULTANT, VITREORETINA AND UVEA SERVICES
   - **DR. ASHRAYA NAYAKA** – CONSULTANT, VITREORETINA AND UVEA SERVICES
   - **DR. PARVEZ BHAT** - CONSULTANT, VITREO-

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Last date for submission of application form - 12 June 2019
   Entrance examination – 16 June 2019 (MCQ based written entrance test followed by Interview of selected candidates)
   Deceleration of results- 23 June 2019
   Date of joining – 01 July 2019
   Dates for subsequent sessions will be available on the website www.theeyefoundation.com two months prior to the entrance examination.

7. Most important points that you consider in a CV?
   - Interest and passion for the subject
   - Attitude
   - Basic skills and knowledge

8. Stipend
   - Rs. 35,000 per month.
   - Free single accommodation

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   - Our practise involves full range of management modalities for all cases of uveitis and ROP.

    - **OPD-Heidelberg Spectralis** – Autofluorescence, FFA &ICG, Optovue wide field, SD OCT, Zeiss green laser, B scan
    - **OR- MIVS -Constellation Vision system, Iridex green laser, Zeiss Resight, Sony 4k surgical video recording**

11. Number of permitted leaves
    - 15 days, If greater leaves than the permitted allowance are availed, the candidate is required to complete the
12. Any post fellowship International exposure?

No

13. Any bonds or compulsory commitments with the institution after completion?

No

14. Any peripheral centres for compulsory rotation and duration of the same?

Compulsory peripheral posting- 2 months

15. Contact details (Phone & Email) of the academic department.

Landline: 0422-4242000

Email: fellowship@theeyefoundation.com

Website: www.theeyefoundation.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr. Swarnima Saxena (Surgical Vitreoretina fellow) - 9677773856
Dr. Abhishek Das (Surgical Vitreoretina fellow) - 7757841988
Dr. Jayachitra (Medical Retina fellow) - 9566195021

Young Ophthalmologists Times is highly indebted to Dr Gitansha Sachdeva for providing us the above information.
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT EYE FOUNDATION, COIMBATORE

DR. ABHISHEK DAS

Like others, I was also at a dilemma for the simple reason being that nowadays ample of Institutes in India provide vitreo retina fellowships; few with Uvea also. The Eye Foundation came into limelight through one of my colleague’s father. Then I scrolled through it’s website and found out that the course was of 18 months and Dr. Jatinder Singh (HOD, VR dept) and Dr. Jayashree leading the department. The process was simple. Just I had to download the application form, fill it and send them back along with CV. They replied promptly and gave dates for the interview.

Then came the interview day, where after reaching the Institute I had to meet the HR dept, then she took me to the concerned faculty of the respective department. Then I had to sit for a MCQ test. The questions were focused on vitreo retina only, few being from uvea also. Other department fellowship interview was also on the same day. After the test, then individual interview was there where they asked few questions from the subject and few from non academic part. Finally I had a meeting with the chairman of the Institute, Dr. Ramamurthy. He was mainly asking about the future plans and the working pattern of the Institute. And that’s it!!

Finally I like to comment on the current scenario in short. The Vitreo retina course is of 2 years now; Dr. Jayashree is no longer working there. Dr. Ashraya Nayaka has replaced her. Dr. Gitansha Sachdev is the academic coordinator. On the interview day, you will have a MCQ exam mostly of 50 marks which comprise of 50 questions. Then there will be the interview in the board room in the form of OSCEs and questions related to the subject along with recent trials.

The results will be announced within 1-2 weeks and they will send you in your mail along with the joining date. What I have learned is that you should have interest in the subject you are choosing and know the recent things which are happening. Good luck!!

DR. ABHISHEK DAS, MBBS, MS, FVRS is a Pediatric Retina and Ocular Oncology fellow at Aravind Eye Hospital, Coimbatore. He can be contacted at abdas.78@gmail.com
The Vitreoretinal Fellowship at Giridhar Eye Institute is a two year program devoted to clinical training in the evaluation, diagnosis, and medical and surgical management of vitreoretinal diseases. Training is done with the individual retina faculty on a schedule that allows the first year fellow to begin all aspects of medical/surgical procedures, and gives a more intense surgical experience in the second fellowship year. Our surgical volume is among the highest for academic fellowships, and our fellows have extensive exposure as primary surgeon to the most complicated cases. One of our key strengths is the breadth of training and experience of our faculty, which provides the fellows with a unique opportunity to learn a variety of surgical techniques and approaches. We support our fellows to submit their research for presentation to national and international conferences and our expectation is for the fellows to pursue meaningful research projects and develop the skills needed to have dynamic careers as leaders in the field of retina. Fellows are part of the teaching staff and are expected to take an active role in teaching the residents and medical students who rotate through our service.
1. Number of seats of various long and short term Retina training programs?
   Surgical Retina: 3 every year
   Medical Retina: 1 every month (Course fee 40,000)

2. Duration of fellowship?
   Surgical Retina: 2 years
   Medical Retina: 2 months

3. Exposure to research and expectations by the institute in research?

   There is a tremendous opportunity to conduct research at the Institute. We have a huge patient load with exposure to variety of cases and latest Imaging. So it’s a great opportunity to initiate prospective studies and also perform retrospective studies with the existing dataset under able guidance of Dr. A. Giridhar and Dr. Mahesh G. You will be expected to get sufficient number of publications in peer reviewed journals.

4. Probable number of surgeries, lasers and injections one might expect?

   Expect to take part in at least 450-500 surgeries (Assisting + independent), 500-700 lasers (Focal, PRP; We have our own PDT machine too) and around 1200-1500 intravitreal injections.

5. Names & positions of Medical retina and VR Faculties?
   - Dr. A. Giridhar: Medical Director
   - Dr. Mahesh G: Head of Vitreoretinal Services
   - Dr. Anubhav Goyal: Consultant
   - Dr. Indu VP: Consultant

6. Selection procedure in brief including probable dates (Interview & Joining)?

   Based on the performance in the entrance examination (theory + Viva) followed by personal interview.

   Email detailed CV with a recent photograph, expressing interest (Email: giridhareye@gmail.com)

   Interview in July/August and course commences in September.

7. Most important points that you consider in a CV?
   - Exposure to VR in post graduation
   - Research Experience including any publications
   - Practical application of knowledge

8. Stipend

   Rs. 40,000/- per month

   Accommodation is provided at Rs. 5,000 per month (Room with basic amenities – food not included).

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

   There is sufficient exposure to ROP as we are one of the leaders ROP screening in Kerala and have dedicated staff for the same. We also have Dr. Sandhya N, who is our Uveitis specialist. We do not deal with ocular oncology.


    We have 2 Heidelberg Spectralis (OCTA, ICG, DFA, SD-OCT, Multicolor), Zeiss Fundus camera, Iridex laser (Multi spot, Yellow, Micropulse), Green laser, Diode laser machine, 2 Alcon Constellation Machines, One Acurus, One Geuder Vitrectomy machine, BIOM viewing system.

11. Number of permitted leaves

    12 annually

12. Any post fellowship International exposure?

    The fellowship provides abundant opportunities to present at national and international conference with financial
13. Any bonds or compulsory commitments with the institution after completion?
Nil

14. Any peripheral centres for compulsory rotation and duration of the same?
Nil. However the fellow is expected to go for ROP screening during the second year of fellowship.

15. Contact details (Phone & Email) of the academic department.
Mr. Murukan:
murukan@giridhareye.org,
Ph- 8129311899

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr Jay Sheth
Email: drjay009@gmail.com,
Mob: 9961167200

Dr Prashant Jain
Email: dr_prashantjain@yahoo.com
Mob: 9690502727

Dr Rutul R Patel
Email: rutul_nhl@yahoo.co.in
Mob: 9624722995

Present: Dr Aarti Jain
Email: aarti.jain41@gmail.com
Mob: 8940570017
VR Fellowship Interview Experience at Gridhar Eye Institute

- DR. AARTI JAIN

Interviews are never easy and especially when they are taken by the stalwarts, adds on to the anxiety and nervousness. Sharing my interview experience of Vitreo-Retina fellowship in Gridhar eye hospital may help the budding ophthalmologists to prepare themselves.

The fellowship test comprised of two sessions:

The first session consisted of 60 multiple choice questions which had to be solved in 45mins. The bulk of questions were from retina, a very few from general ophthalmology as well. Majority of the questions were simple and tested the basic theory knowledge provided one has read well. But a few questions were tricky. Out of the four options two could be ruled out easily but the other two were quite close. One should solve the questions with calm mind and do not spend too much time on a single question which you are not able to answer in the first go as you have limited time.

The second session consisted of 2 interviews one with Dr. Gridhar, the medical director of Gridhar eye institute and the other with Dr. Mahesh, head of department, Vitreo-Retina. The interview mainly focused on the clinical skills of the candidate. Questions consisted of clinical scenarios and their diagnosis and management. Candidates were also evaluated on the basis of their experience in various procedures like laser photocoagulation and intravitreal injections. A common question that was asked to all was why they wanted to pursue fellowship in Vitreo-Retina. Though it sounds to be a very easy question, many people fumble while answering it. Your answer should clearly justify your interest and zeal in the field. Since Gridhar eye hospital holds a special interest in research and publications, basic statistical knowledge of a few candidates was also ascertained. A special consideration was given to candidates who had publications, presentations in conferences and keenness in research.

So, a candidate is assessed in every aspect. A few tips to crack an interview along with having a sound knowledge are speak with confidence, be clear in what you say, show your interest in the field and resolution to work hard.

DR. AARTI JAIN, MBBS, DNB is a Vitreo-Retina fellow at Gridhar eye hospital. She can be contacted at aarti.jain41@gmail.com
We at Haji Bachooali Eye & ENT hospital offer long-term surgical Vitreoretina fellowship of 2 years duration, along with a short term Medical retina fellowship of 1 year duration. These courses are designed in such a way to offer a systematic and a comprehensive approach to managing varied vitreo retinal conditions with precision. These courses help the fellows to take advantage of the vast array of clinical cases available at the institute which pose not only a diagnostic challenge but also management difficulties. We offer comprehensive training in managing various vitreoretinal conditions including Retinopathy of prematurity and uveitis. The department is fully equipped with state of the art machines like FFA, ICG, USG B scan, Green LASER, Yellow LASER, Diode LASER, Micropulse with pattern scan LASER, Retcam etc. The fellowship offers a hands on approach to using these instruments and interpreting their results along with their successful application to patient management. The surgical training includes step by step methodical approach on one of the best Alcon Constellation system with BIOM optical system. The training involves a 1:1 trainee mentor ratio which not only offers a personal touch but also helps the trainee to sharpen his surgical acumen by being under constant observation and guidance of the mentor while he performs his surgeries. The fellow during his tenure is also encouraged to undertake clinical research activity and publish papers along with actively participate and present papers in various CMEs and conferences.
1. **Number of seats of various long and short term Retina training programs?**

   Surgical Retina 1 seat

2. **Duration of fellowship?**

   Surgical Retina : 2 years

3. **Probable number of surgeries, lasers and injections one might expect?**

   50-75 surgeries a year
   500 lasers in a year
   500 injections a year

4. **Names & positions of Medical retina and VR Faculties?**

   • Dr Anand Subramanyam
     HOD
   • Dr Sarvesh Tiwari
     Consultant
   • Dr Gaurav Shah
     Honorary Consultant

5. **Selection procedure in brief including probable dates (Interview & Joining)?**

   Interviews held every year in JUNE AND JOINING BY JULY.

6. **Most important points that you consider in a CV?**

   • MS/DNB trained candidate
   • Inclination for research
   • Positive attitude with an eagerness to learn

7. **Stipend**

   Rs. 15,000/- per month

8. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   Yes

9. **Brief overview of VR equipments available in the Institute.**

   FFA, ICG, USG B scan, Green LASER, Yellow LASER, Diode LASER, Micropulse with pattern scan LASER, Retcam, constellation vitrectomy with BIOM optical system

10. **Number of permitted leaves**

    12 annually

11. **Any post fellowship International exposure?**

    No

12. **Any bonds or compulsory commitments with the institution after completion?**

    No

13. **Any peripheral centres for compulsory rotation and duration of the same?**

    No

14. **Contact details (Phone & Email) of the academic department.**

    kbhb@rediffmail.com

15. **Names and Contact details of 3 past(within 2 years) or present fellows.**

    Dr Abhishek Heranjal Ph: 9833426774
    Dr Prajakta Patil Ph: 7718913117
    Dr Mamta Gurav Ph: 9930339917
H V DESAI EYE HOSPITAL, PUNE

H V DESAI EYE HOSPITAL, offers 2 types of full time fellowships (research/clinical) in Vitreo-Retinal surgery, with the aim of developing clinical and research skills pertaining to medical and surgical Retina.

- Fellows get to learn from 3 medical retina specialists and 3 Vitreo-Retinal surgeons and the clinical exposure is wide, ranging from management of diabetic eye diseases, retinal detachments, posterior segment trauma, ARMD, macular surgeries, uveitis, retinopathy of prematurity, endophthalmitis and many rare diseases.

- Fellows participate in all the clinics, handle diagnostics on a rotation basis and assess and get to discuss and plan their management with the consultants. In last 6 months of fellowship, they get to handle clinics independently.

- They are exposed to a wide variety of medical retina related procedures including lasers and intravitreal injections of all types.

- They also participate in surgery, both as the independent operating surgeon or the assistant, depending on the complexity of the case.

- H. V. Desai Eye Hospital runs one of Maharashtra’s biggest ROP program. Here fellows have a unique exposure to ROP through a dedicated team in screening, management including ROP lasers in which they are trained and also perform abundant number of individual ROP lasers, antiVEGF treatments in the tenure. They also get to assist in numerous ROP surgeries.

- Regular classes are also conducted in which fellows present medical and surgical cases and power point presentations on various retinal disorders.
1. Number of seats of various long and short term Retina training programs?

- 2 year long term VR Research fellowship - 1 seat per year
- 1.5 year long term fellowship – 1 seat per year
- 1 year medical retina + phaco fellowship -1 seat per year
- 6 months medical retina fellowship – 1 seat every 6 months
- 2 months laser training fellowship 2 seats per month

2. Duration of fellowship?

- 2 years (VR+ Research fellowship)
- 1.5 years (VR fellowship)

3. Exposure to research and expectations by the institute in research?

- Fellows are expected to participate in ongoing research projects during the term of their fellowship
- They also get to attend classes to improve research skills (Preparing a project proposal, ethics in medical research, skills for literature search, basics of biostatistics etc)

4. Probable number of surgeries, lasers and injections one might expect?

- Lasers- > 10 (assisted), >100 (Independent)
- ROP lasers- > 5 (assisted), >15 (independent)
- Intravitreal Inj- >5 (assisted), >50 (independent)
- VR surgeries- > 150 (assisted), >15 (independent)

We also expose VR fellows to cataract surgeries (SICS) which helps in improving their basic surgical skills (they get to do about 60-70 SICS surgeries during their tenure).

There are many factors that influence the number of surgeries that a VR fellow would get such as – sincerity and dedication, pre-existing surgical skills, leave taken during the tenure etc.

5. Names & positions of Medical retina and VR Faculties?

- Dr SUCHETA KULKARNI DNB, MSc (Public Health for Eye Care) (Medical retina and ROP)
- Dr VIMAL PARMAR MS, FVRS (Vitreo - Retina)
- Dr NIKHIL BEKE MBBS, MS, (Vitreo-Retina & Uvea)
- Dr ASHWINI SONAWANE MBBS, DOMS, (Medical retina and ROP)
- Dr SMRITI MISRA MBBS, MS, FVRS (Vitreo - Retina and ROP)
- Dr ATUL HEGDE MBBS, DOMS (Medical Retina)

6. Selection procedure in brief including probable dates (Interview & Joining)?

Candidates are required to appear for interview at H V DESAI EYE HOSPITAL where candidates approach towards case diagnosis and management and knowledge of retinal diseases is tested. They are administered a short questionnaire before interview to gauge their experience, clarity of thoughts and attitude.

7. Most important points that you consider in a CV?

- Previous academic achievements
- Qualifications
- Attitude and motivation which is assessed in written questionnaire
- We give importance to where (Hospital/city/place) the fellow would finally work after the fellowship (It gives us insight into how the fellowship training would get utilised ) We give priority to those who would be working in areas lacking Vitreo retina surgeons
- Research aptitude of the candidate
- Conference presentations and publications

8. Stipend

15000 /month (accommodation charges deducted, if applicable)
9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

They get exposed to Uvea and ROP quite extensively and in a limited way to Retinoblastoma and Ocular Oncology. We have a separate department of oculoplastics and ocular oncology.


We have regular state of the art equipments at our institute. They are as follows-
1) 2 laser machines (Multispot (Luminous) and iridex)
2) Fundus camera (Zeiss and Trinethra classic) (New camera with ICG will be procured by August 2019)
3) Ziess OCT
3) Microperimetry, mfERG (Electrophysiology)
4) Constellation Vitrectomy machine with various other surgical instruments
5) Reticare posterior vitrectomy
6) Ultrasound B scan
7) Pediatric digital wide field cameras (Retcam as well as Forus Neo)

11. Number of permitted leaves

There are 8 fixed leaves during the long term fellowship. Fellows are encouraged to be regular and take minimum leaves during the period.

12. Any post fellowship International exposure?

There is no specific international exposure linked to the fellowship program. However we help connect the fellows to any program they would like to pursue through our extensive international network. We encourage them for international training programmes by giving strong recommendation letters as per their calibre.

13. Any bonds or compulsory commitments with the institution after completion?

No

Young Ophthalmologists Times is highly indebted to Dr Sucheta Kulkarni for providing us the above information.
After completion of my M.S. university (MUHS) theory exams I had a month’s time before practical exams during which interview processes of most of South Indian institutes were scheduled. I had made up my mind about speciality of choice as Vitreo-Retina Surgery by then. I began collecting information about institutes which should be preferred from acquaintances, web domains like RxPG, e-ophtha. Contrary to popular belief/recommendation of a South India fellowship, I was hopeful of getting fellowship in or near-by my home-town, Pune. I e-mailed application for fellowship to hr@hvdeh.org and received a reply within a fortnight scheduling appointment on one of the three allotted days of first or last week of July as per applicant’s logistics convenience. They also acknowledged vacancy for 1 VR (18 months) and 1 research cum VRS (24 months) fellowship seats.

The Interview: On first of the 6 allotted days, 4 applicants had reported. All of us were seated in the library and were given a questionnaire to fill. It had questions about general information about qualification, journal publications, and future plans like where do you see yourself in next five years, and the reason for selecting this fellowship. All non-academic questions. This was followed by a small break during which the interviewers analysed our forms, following which each candidate was interviewed individually by Medical Director and head of retina and ROP department, Dr Sucheta Kulkarni and senior retina consultant Dr Atul Hegde. I was asked about my mentioned publications, few clinical questions using a case scenario. Interview lasted for 15 minutes. The questions varied for each applicant, few academic and few non-academic. All candidates were told at the end of interview that selected candidates would be notified on the last interview day via e-mail.

I received an e-mail notifying the selection for research cum VRS fellowship, stating duration of 2 years and stipend of Rs.15,000 and was given a date within 1 week to report and get documents verified, failing which the next wait-listed candidate would be called.

It is undoubtedly one of the best institutes in Maharashtra with a decent medical and surgical retina exposure and a good ROP exposure, with 1 cataract case per week to keep brushing your cataract skills. I would suggest revising the speciality subject, being formal and carrying print-outs of your publications, if any, might help. A clear thought process about your future plans so that you can commit for a long-term fellowship is essential. All the best!
Established in 2008, the hospital is housed in a rented building located in the Qaisar Bagh area of Lucknow. As a top-of-the-line Tertiary care hospital, it can carry out the entire range of eye care procedures, including refractive error correction, cataract surgeries, glaucoma, retinopathy, cornea care and paediatric eye care. It also hosts post-graduate Fellows, provides hands on training to optometrists and trains Mid Level Ophthalmic Personnel (MLOP). On an average, the hospital screens over 500 patients daily and conducts over 150 surgeries daily. Since inception, IGEHRC Lucknow has screened over 1.5 million persons and carries out nearly 2 lakh sight restoring surgeries. It also is one of the very few eye hospitals in North India to have a dedicated patient counselling cell.

The Lucknow hospital covers a population of approximately 35 million (Census 2011) across Bahraich, parts of Bara Banki, Basti, Faizabad, Farrukhabad, Gonda, Hardoi, Lakhimpur Kheri, Lucknow, Sitapur and Unnao where it organizes rural eye camps. It is also the referral hospital for Amethi. Patients from all over Uttar Pradesh and beyond come to this hospital for advanced eye care problems.
1. **Number of seats of various long and short term Retina training programs?**
   - 2 seats for long term vireo retina

2. **Duration of fellowship?**
   - 2 years

3. **Exposure to research and expectations by the institute in research?**
   - Adequate exposure is given

4. **Probable number of surgeries, lasers and injections one might expect?**
   - Depends on the surgical acumen of the candidate, but adequate exposure is provide,

5. **Names & positions of Medical retina and VR Faculties?**
   - Dr Shireen Pandey
   - Dr Rajesh Agarwal

6. **Selection procedure in brief including probable dates (Interview & Joining)?**
   - Based on oral interview, as per need basis.

7. **Most important points that you consider in a CV?**
   - Prior exposure to VR procedures,
   - Knowledge of retinal conditions
   - Publications/presentations.

8. **Stipend**
   - Rs. 35,000/- per month

9. **Brief overview of VR equipments available in the Institute.**
   - The institute has most state-of-the-art equipment for medical, imaging and surgical retinal work

10. **Number of permitted leaves**
    - 15

11. **Any post fellowship International exposure?**
    - None

12. **Any bonds or compulsory commitments with the institution after completion?**
    - None

13. **Any peripheral centres for compulsory rotation and duration of the same?**
    - None

14. **Contact details (Phone & Email) of the academic department.**
    - Details can be found on the website [http://www.igehrc.org](http://www.igehrc.org)

*Young Ophthalmologists Times is highly indebted to Dr Rajesh Agarwal for providing us the above information.*
L V Prasad Eye Institute (LVPEI), a World Health Organization Collaborating Centre for Prevention of Blindness, is a comprehensive eye health facility. The Institute offers comprehensive patient care, sight enhancement and rehabilitation services and high-impact rural eye health programs. It also pursues cutting-edge research and offers training in human resources for all levels of ophthalmic personnel.

L V Prasad Eye Institute aims to make an ophthalmologist competent in the field of Vitreoretina and Uveitis through their fellowship program. The institute offers 2 kinds of retina fellowships currently. A Medical retina and Uvea fellowship and a Surgical retina fellowship. The duration for both of these fellowships is 2 years.
1. Number of seats of various long and short term Retina training programs?

LVPEI offers short term observer ship of 3 months – 6 seats per year
Long term retina fellows - 12 per year
Medical retina and Uvea fellowship – 6 per year

2. Duration of fellowship?

2 years

3. Exposure to research and expectations by the institute in research?

For research related activities we encourage fellows to do guided research along with the Principle Investigator. Scope of research ranges from a prospective randomised study to a case report or a photo essay. Currently, retina fellows 6 months into their fellowship are expected to present one case report every month and dedicated faculty is available to guide them for the case reports apart from other projects.

4. Probable number of surgeries, lasers and injections one might expect?

Currently, we do not work on a model where ‘x’ number of surgeries, ‘y’ number of lasers or ‘z’ number of injections are allotted. Opportunities keep increasing depending on the performance of the fellows.

5. Names & positions of Medical retina and VR Faculties?

The information can be found at this link http://www.lvpei.org/about-us/our-team

6. Selection procedure in brief including probable dates (Interview & Joining)?

The selection procedure includes 3 rounds –
1. Qualifying online exam: This happens approximately 1 month before the interviews.
2. Multiple choice question round – this happens for the candidates qualified through the online round. This would be on the same day as the interview and qualifiers would go to the final round.
3. Panel interview – This is the final step.
The interviews are at the end of 3rd week in the month of May and November.

7. Most important points that you consider in a CV?

Honesty in details, attitude and publications.

8. Stipend

Currently the stipend is 25,000 in first 18 months and 30,000 in last 6 months.

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

Yes, complete exposure to ROP and Uveitis services.
Ocular oncology is not a part of VR fellowship in LVPEI currently.


Basic VR set up including vitrectomy machines, OCT, OCTA, FFA, AF, Lasers are available. Novel equipment’s include guided lasers, 3D Visualization System. We also have a complete electrophysiology lab.

11. Number of permitted leaves

19 per year

12. Any post fellowship International exposure?

Nil
13. Any bonds or compulsory commitments with the institution after completion?

Yes 2 years of service agreement across network - it would be up to the discretion of the institute to make an offer or not.

14. Any peripheral centres for compulsory rotation and duration of the same?

Yes. 2 months of peripheral rotation in our secondary centres.

15. Contact details (Phone & Email) of the academic department.

Email: education@lvpei.org, Phone: 04030612167

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Past fellows
Dr Ketan Saoji - 8369758057
Dr Deven Dhurandhar - 9820223760
Dr Anup Kelgaonkar - 8087540324

Young Ophthalmologists Times is highly indebted to Dr Avinash Pathengay for providing us the above information.
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT LVPEI

DR. PRABHJOT KAUR

Long-term fellowship interviews at LV Prasad Eye Institutes (LVPEI) happen every 6 months - January session and July session. The location of interviews varies between Hyderabad, Bhubaneswar, and Vishakhapatnam – the three tertiary centres of LVPEI, that run fellowship programs in different subspecialties. The seat structure varies depending on the requirement of fellows in the department across network. All the details are made available at our website regarding the application process and its deadline. Once the application forms are filled out which requires attachment of our resume along with the application form and a demand draft (details of which are available online) and sent via post and e-mail, the candidates are notified regarding the further process via e-mail.

The selection process is similar more or less every time, and details of which are updated on our website. It’s a very clear and fair process and has been divided into 3 steps as follows-

Step 1- Online MCQ exam

Details of this test are mailed to every candidate along with user ID and password ahead in time of an aforementioned date on which the exam is scheduled. It includes 30 MCQs with single best responses.

After the step-1 is cleared, short-listed candidates are notified about the same and will be eligible for on-campus written exam

Step 2- Written MCQ test

30 minutes MCQ test which includes questions based on comprehensive ophthalmology. Selected candidates are further notified for the interview which is conducted on the next day

Step 3- Sub-speciality interview

This is a direct interview by the experts in the desired sub-speciality. The candidate should be prepared with basic knowledge of the subject along with their expectations from the institute. The interviewers consider not just the academic knowledge, but also the long-term goals, attitude towards work and integrity of candidate! An important factor is the candidate’s ability to have utilised the opportunities that were available during post-graduation.

Overall experience of the fellowship interview process is a great one! And one should be extremely clear in mind as to what are their expectations in life and from the institute and how can they make the best use of what this incredible place offers to you!

DR. PRABHJOT KAUR, MBBS, DNB is a Vitreo-Retina fellow at LVPEI, Bhubneshwar. She can be contacted at pmultani2008@gmail.com
ROP training at LVPEI is four weeks program where you get a very detailed supervised exposure to clinical and surgical aspects of ROP.

Application Process:

You can apply for the course online through their website (http://www.lvpei.org/services/education/training-programs) which provides the details of the training and course fee. The application request has to be sent to education@lvpei.org. The tuition fee for Indian doctors is INR 65,000/- . Personal logistics are to be taken care by the candidate. A twin shared guest house at INR 24,000 per month can be provided by the institute which is subject to availability. For obvious reasons they take limited number of candidates every month. So, there is usually along waiting period (5-6 months). If you are planning on doing this course you should apply considering these factors.

Selection Criteria:

To my understanding they prefer candidates who are confident in indirect ophthalmoscopy and can do a good contact/ non contact slit lamp biomicroscopy. An added advantage would be if you know laser indirect ophthalmoscopy. Lodging facilities are not provided.

My Experience:

LVPEI being a tertiary eye care centre and a leading name in ROP treatment gets referral from all over India. So, a wide range of cases are available for trainees at all times. From day one I saw paediatric cases and ROP in particular with my mentor Dr. Subhadra Jalali. It was a wonderful learning experience as almost all the ROP cases are seen by the trainee first and findings confirmed by the mentor. They also provide us with a good collection of reading material on ROP as a soft copy and library is open 24*7. All consultants are open to discussion. A day is allotted for diagnostic learning where you can see the B
scans and Retcam images of these babies. Outside compound you are taken to other hospitals (NICU) for screening of admitted babies. Usually a consultant and a fellow accompanies.

It is an advantage if you have a good hand in LIO. As soon as you are confident in doing laser in these premature babies you can do the entire case individually. Initially lasers are fully supervised so that you can understand the mistakes in focusing laser, burn intensity, spacing and handling the baby. You can also observe Intravitreal anti VEGF injection administration.

If you are interested you can also do a preoperative workup (along with the fellow posted with the mentor) of these babies so that you understand what are the requirements prior to surgery in these babies. Also this gives you a better understanding of what to do in a particular case than just observing the surgeries in OT(Scleral Buckle or Vitrectomy +/- Lensectomy). If you are confident in Vitreo-Retinal surgeries you might get a chance to do few steps in surgeries too. There is a visual rehabilitation centre specially for rop babies where you can learn the methods and techniques by the trained staff. Apart from ROP one hour morning
class is also quite educational. Working hours are long, 7 am in the morning to 7 pm in the evening and on days of OT it may extend to midnight as well. It's a dedicated team work and the enthusiasm is quite palpable in the mentor. She is very approachable and always ready to take up queries. She goes out to NICUs after OPD hours on her way back to home. This dedication is very impressive and something to learn from specially if you are preparing to take a step towards treating these fragile beings.

In just one month of training period I got good hands-on laser, a thorough insight on clinical aspects of ROP and great deal of surgical pearls, which I will cherish for life.

Dr. Smriti Misra MS, FVRS is a Vitreo-Retina & ROP consultant at HV Desai Eye Hospital, Pune. She completed her Vitreo-Retina training from Aravind Eye Hospital Madurai and ROP training from LV Prasad Eye Hospital, Hyderabad.

She can be reached at dr.smritimisradixit@gmail.com
MGM Eye Institute, a tertiary eye care institute was established in Raipur the capital of Chhattisgarh in November 2004 with a mission to provide high quality comprehensive eye care services to all including the economically underprivileged in an equitable manner. The fellowship consists of training fellow in the surgical and medical management of retina and vitreous disorder. The program provides an intensive, broadly based clinical experience in retinal and vitreous disease with the goal of training the fellow to pursue a career in an academic environment.

In the first year, the fellow is fully integrated into all aspects of medical and surgical treatment of patients on the Vitreo-Retinal services. The fellow will be rotated among the retinal consultants every 3 months and accompany them in OPD and OT on scheduled days. He will also get extensive ROP screening and laser exposure during his tenure. In last 6 months, there is greater emphasis on surgical proficiency. Apart from this he will have to present cases, seminars and journal club as per academic schedule. He will also have to publish 2 research articles in indexed journals.
1. Number of seats of various long and short term Retina training programs?

- Long term fellowship: Medial and Surgical Retina (18 months): 1 candidate/year
- Short term fellowship: Medical Retina (3 months): 2 candidates/year
- Retinopathy of Prematurity (3 months): 2 candidates/year
- Fellowship offered through International Council of Ophthalmology (ICO): Vitreo-retina (3 months): As per ICO application

2. Duration of fellowship?

- Long term: 18 months
- Short term: 3 months

3. Exposure to research and expectations by the institute in research?

We expect the fellow to publish at least 2 articles in indexed journals apart from 2 oral presentations at national conferences.

4. Probable number of surgeries, lasers and injections one might expect?

We expect fellow to perform at least 40-50 independent major retinal surgeries, more than 100 retinal lasers and more than 100 intravitreal injections by the end of his tenure.

5. Names & positions of Medical retina and VR Faculties?

- Dr Anil Gangwe, MD (AIIMS) Consultant, Vitreo-Retina and Neuro-Ophthalmology Services, MGMEI
- Dr Swapnil Parchand, MS (PGI), FAICO (Retina) Consultant, Vitreo-Retina and Uvea Services, MGMEI
- Dr Gitumoni Sharma, DNB Consultant, Vitreo-Retina Services, MGMEI

6. Selection procedure in brief including probable dates (Interview & Joining)?

We receive applications for VR fellowship in months of October, November. We plan interview in second week of December.

Fellowship at our institute begins on 1 January of every year.

7. Most important points that you consider in a CV?

- Subject knowledge
- Practical experience
- Prior research exposure

8. Stipend

As per institute policy

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

We have full functional ROP programme that is covering 6 district of Chhattisgarh. On an average we screen around 100 babies/week and around 8-10 ROP lasers are performed. We also have Uveitis Services where we seen on an average 200-250 new uveitis patients each year.


Two Alcon Constellation vitrectomy machines, One Accurus 400VS vitrectomy machine, Carl Zieess Operating microscope OPMI Visu 210 equipped with Sony camera and recording system, Iridex green laser, Iridex diode laser, Cryo machine. Wide range of retinal lenses for visualization during surgery that includes BIOM, Volk surgical contact lenses, and irrigating contact lenses. Diagnostic setup includes...
Fundus camera (Carl Zeiss FF450 plus),
HRA 2 (Heidelberg Engineering),
Carl Zeiss Humphrey visual field 7501,
Ziemss cirrus HD OCT,
Carl Zeiss Visulas 532 Frequency
Doubled NdYAG Laser with LIO
attachment
Ocular ultrasound (Sonomed Escalon),
VEP, ERG and EOG facility.
Carl Zeiss Slit lamp SL 130 with
Visupac 131
Carl Zeiss Hand held slit lamp
We have total 9 OPD examination
rooms totally dedicated to retina
department and they all are well
equipped with Haag Streit Slit lamps
and indirect ophthalmoscope.

11. Number of permitted leaves

Total 18 days

12. Any post fellowship International
exposure?

Can be arranged

13. Any bonds or compulsory
commitments with the institution
after completion?

None

14. Any peripheral centres for
compulsory rotation and duration of
the same?

No

15. Contact details (Phone & Email) of
the academic department.

Dr Samrat Chatterjee
Mobile: 9893336785
Email: samrat@mgmeye.org

16. Names and Contact details of 3
past(within 2 years) or present
fellows.

Dr Tripti Saraogi
MGMEI, Raipur
Email: triptisaraogi@gmail.com

Young Ophthalmologists Times is highly indebted to Dr Swapnil Parchand
for providing us the above information.
MINTO OPHTHALMIC HOSPITAL, BENGALURU

The long term fellowship programme in Vitreo-Retina at Minto Ophthalmic Hospital, which is the Regional Institute of Ophthalmology for south India, aims at training Ophthalmologists who have completed residency MD/MS/DOMS, to impart skills in recent advances, diagnosis & management of VR diseases. The fellowship programme is affiliated to RGUHS. The duration is for 18 months, session commences every year during August -September with an intake of 4 fellows / year. The Course curriculum includes training in Clinical aspects like Indirect Ophthalmoscopy, Fundus bio-microscopy, Diagnostics like Fundus Photography, Fluroscopy, Ultrasonography , OCT, Laser for treatment of retinal disorders, ROP Screening & Bimonthly diabetic retinopathy Screening camps; Surgical training for procedures like vitrectomy, Scleral buckling, Secondary IOL implantation, Intravitreal Injections; Handling Ocular emergency like trauma ,IOFB, Endophthalmitis, Macular threatening diseases. The academic aspects includes weekly seminars, case presentations, Journal club; Paper & Presentations at National & State conferences; authentic research work & Publications in indexed Journals; The VR department conducts an annual CME meet for the benefit of the fellows & residents. A 3 monthly retina meet is conducted cases.

Hence, this fellowship programme provides intensive training in both clinical as well as academic aspects, thereby aiming at moulding an Ophthalmologists into capable, independent Vitreo- Retinal specialists.
1. Number of seats of various long and short term Retina training programs?
   3

2. Duration of fellowship?
   One and half year (Medical & Surgical Retina)

3. Exposure to research and expectations by the institute in research?
   According to RGUHS, 2 papers/publications expected

4. Probable number of surgeries, lasers and injections one might expect?
   No of surgery- 10 to12 /wk
   No of laser- around 60-70/wk
   No of injection-10-15/wk

5. Names & positions of Medical retina and VR Faculties?
   • Prof Dr.B.N.Kalpana Head of the VR Department FRCS (Glasgow), FMRF (S.N), WHO VR Fellowship (AIIMS) DNB, DOMS
   • Dr.Shilpa YD, Asst.Professor MS, FVR (RGUHS)
   • Dr.Ravi B, Asst.Professor MD (AIIMS), DNB, FAICO, SR At VR Dept (AIIMS)
   • Dr.Hemalatha B C, Asst.Professor MS, FMRF (S.N)

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Yearly intake
   Application notification updated in RGUHS website (july-sept)
   Joining time, 1 week after selection in September

7. Most important points that you consider in a CV?
   • Masters/ DO with 2-3 yrs clinical experience
   • Publications
   • Gold medals/Awards

8. Stipend
   30,000/month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   ROP- screening done with IDO & Retcam at Vanivilas Hospital NICU;
   Treatment done with diode laser
   Ocular oncology, Uvea- in common with Retina clinic.

    Diagnostic equipments:
    -B-scan Ultrasound
    -OCT
    -OCTA
    -FFA
    -Retcam
    Therapeutic equipments
    Well equipped OT dedicated only for VR surgery
    -Alcon Constellation
    -Two OT tables: Zeiss Lumera, Haag-streit
    -Monitoring facility
    -ETO Sterilization
    OPD
    -Yellow and Green laser
    -Red laser for ROP
    -ILO

11. Number of permitted leaves
    2 leave per month

12. Any post fellowship International exposure?
    Personal

13. Any bonds or compulsory commitments with the institution after completion?
    No.
14. Any peripheral centres for compulsory rotation and duration of the same?

Community Diabetic Retinopathy Screening camp

15. Contact details (Phone & Email) of the academic department.

Prof. Dr. B N Kalpana
Email id- badamikal@gmail.com
Mobile no. 9448040627

16. Names and Contact details of 3 past (within 2 years) or present fellows.

Past Fellows
Dr. Ramprakash 9972047611
Dr. Sonali 9632377563
Dr. Sadiq 9986200803
Dr. Shylaja 9980205896

Present Fellows
Dr. Shivsagar 7337779878
Dr. Kavitha 9448797062
Dr. Bhavna 9731168677

Young Ophthalmologists Times is highly indebted to Dr. B. N. Kalpana for providing us the above information.
M. M. Joshi Eye Institute is an NABH accredited tertiary eye institute in north Karnataka. With a large volume of patients and state-of-the-art infrastructure, the retina services cater to a large population in Karnataka, Goa, parts of Maharashtra and Andhra Pradesh. The retina fellowship was initiated in 2005 and has trained students in the field of vitreoretina from all over the country and abroad.
1. Number of seats of various long and short term Retina training programs?

A 6-monthly review is done for fellowship vacancies. Based on the need of the institute, one to three fellowship positions are filled every 6 months.

2. Duration of fellowship?

24 months

3. Exposure to research and expectations by the institute in research?

Research in MMJEI is mandatory for all fellows. Each fellow is encouraged to take up at least one project. They are frequently encouraged to submit case reports, case series of interesting clinical cases and assist seniors in data acquisition, literature review and manuscript writing.

4. Probable number of surgeries, lasers and injections one might expect?

All fellows assist in the OT on rotation, twice a week. 6-8 surgical cases are posted on an average daily, of which junior fellows are given surgical steps based on their skill and progress. By 8-12 months into the fellowship, senior fellows start doing vitrectomies, scleral buckling and SFIOLs independently. In all, the fellows assist about 300 cases, operates under supervision in about 150 cases (steps as well as entire surgeries combined). At the end of the fellowship, fellows are competent in medium to complex cases include membrane surgeries. Lasers - About 300-500 lasers and more than 1000 intravitreal injections.

5. Names & positions of Medical retina and VR Faculties?

- Medical Director and Head of the Department- Dr. Guruprasad A. S. FVRS.35 Years of Experience in Vitreoretina.
- Shrinivas M Joshi- FVRS (Toronto, Canada)
- Dr. Apoorva Ayachit MS, DNB, FICO, FVRS, FAICO
- Dr. Suresh Babu N MS, FVRS

6. Selection procedure in brief including probable dates (Interview & Joining)?

The written test is usually held in the second or third week of June and December. The test consists of 60 questions spanning all specialties of ophthalmology. All students are then interviewed which carries 40 marks. Term starts on July 1st/January 1st. Selected fellows are required to report within one week.

7. Most important points that you consider in a CV?

- Number of cataract surgeries performed – to assess overall competence in ophthalmic surgery. Those who have performed less surgeries are encouraged to first learn cataract surgeries before starting a full-fledged retina fellowship.
- Curriculum vitae - Interest in research is mandatory. Prior publications and paper presentations are viewed favourably. Having passed post-MS DNB FICO, FRCS steps are noted. Extra-curricular activities like music, arts and sports are also looked at.
- Clinical knowledge is assessed with questions about a few clinical scenarios.
8. **Stipend**

Stipend is 30,000 pre month for 18 months. 40,000 for months 19-21. 60,000 for months 21-24.

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

Exposure to ROP and uvea is very high. We treat all pediatric retina cases and uveitic conditions. Oncology exposure is limited because of limited preclinical and paraclinical support.

10. **Brief overview of VR equipments available in the Institute.**

   Topcon TRX 50x fundus camera, Spectralis HRA 2 (Heidelberg)- includes SD-OCT, (with EDI), autofluorescence (short and long wavelength), infrared photography, multicolour imaging, FFA, ICGA and OCT-A, Retcam- Clarity, Iridex (577nm- yellow laser) platform for slit lamp delivery and LIO, PASCAL 532 nm, Appa LIO, Lumeira 700 with Zeiss rescan and integrated intraoperative OCT, Ngenuity Heads up 3D monitor (ALCON) with integrated video recording, Visu 160 with Zeiss rescan, Constellation LXT (1) and Constellation TT (1); Sony PMW MD10 cameras for recording. Roland Consult for electrophysiology.

11. **Number of permitted leaves**

   One leave per month. 12-15 leaves per year.

12. **Any post fellowship International exposure?**

   None as of now. If fellows show interest, observerships in Toronto or Hong Kong can be arranged.

13. **Any bonds or compulsory commitments with the institution after completion?**

   Nil

14. **Any peripheral centres for compulsory rotation and duration of the same?**

   Once a month visit to OPD and OT in Goa, VR OPD in Hospet and Bijapur. Cataract surgeries in camp once in a month.

15. **Contact details (Phone & Email) of the academic department.**

   Dr. Guruprasad A S - asgprasad@gmail.com
   Dr. Shrinivas Joshi – shrinivasmjoshi@gmail.com
   Dr. Apoorva Ayachit - apoorva.ag@gmail.com
   Ms. Deepa – Office co-ordinator- 9739922121, Landline- 08362228431/2/3

16. **Names and Contact details of 3 past(within 2 years) or present fellows.**

   1. Dr. Akshata Pattanshetti- aks99mgp@gmail.com
   2. Dr. Nishita Yadav- nshtyadav4@gmail.com
   3. Dr. Mridula Sekar- mridhula.sekar@gmail.com

Young Ophthalmologists Times is highly indebted to **Dr. Apoorva Ayachit** for providing us the above information.
I was always interested in doing Vitreo-Retina fellowship after my MS Ophthalmology. I came to know about MM Joshi Eye Institute a few years ago when I had come to attend Eye2Eye, the intensive 3 day PG refresher course for exam goers with my senior. Looking at the quality of teaching, I had shortlisted this institute for my fellowship. I kept periodically checking the website for fellowship announcement and applied with an online application as soon as it was put up.

Based on the application candidates were called for a written test and an oral interview. We were a total of 160 candidates that gave the exam. Based on the preferences for fellowship we had given we were shortlisted. 10 for VR. 10 for Cornea and a few candidates for the other sub specialities. The written exam was in MCQ format with a 120 general ophthalmology questions to answer in 1 hour. The questions were based on the MS Ophthalmology syllabus. I did not have to read any other content other than the MS portions.

The VR interview was conducted by Dr. A.S.Guruprasad, HOD Dept of Vitreo-Retina. My interview was not much of a subject oriented one. I was asked to elaborate on my thesis topic which I had done in MS and about surgical exposure at my previous institute. I was asked about how I developed interest in retina being from an institute that did not much of a retina set up. I answered these questions to the best of my ability. Three days after the interview I received the appointment letter.

In my opinion, the selection exam at MM Joshi Eye Institute is one of good standard and challenging.

DR. MRIDULA SEKAR is a Vitreo-Retina fellow at MM Joshi Eye Hospital. She can be contacted at mridula.sekar@gmail.com
NANDADEEP EYE HOSPITAL

Nandadeep Eye Hospital is established in 1980 and is a renowned super specialty eye hospital in western Maharashtra with 7 branches spread in districts of Sangli and Kolhapur. The educational activities available at Nandadeep include:

1. CPS Post graduation in Ophthalmology
2. Long term Fellowship in Phacoemulsification
3. Short term training programs in Phaco and SICS
4. Long term comprehensive Ophthalmology and Retina Fellowship
5. Optometry Fellowship

Our hospital caters to more than 50000 patients per year and over 6000 surgeries are done every year. Since year 2011 our hospital started various educational activities as stated above. We have trained more than 50 ophthalmologists from India and abroad. Dr Sourabh D Patwardhan FRCS, MD(AIIMS) FICO honouree scholar is head of fellowship programs. He focuses on personal mentoring. Fellowship programs include training on clinical skills as well as didactic lectures. Fellows work is supervised and are also given opportunity to handle independent OPD. Development of required communication skills is also given importance. Research is encouraged and fellows are given study projects.
1. **Number of seats of various long and short term Retina training programs?**

   There is 1 seat every year for Long term Retina plus Phaco fellowship. This is a unique program as the fellow gets adequate exposure to cataract surgery as well. Nandadeep also provides 18 months advanced phaco fellowship and 3 years comprehensive anterior segment fellowship.

2. **Duration of fellowship?**

   3 years for combined Phaco plus retina fellowship

3. **Exposure to research and expectations by the institute in research?**

   Research is encouraged. Study projects are given to fellows. Their presentations in conferences and CME is also encouraged.

4. **Probable number of surgeries, lasers and injections one might expect?**

   Probable numbers retina fellow will get is assisted Retinal surgeries more than 500, Independent Retina surgeries minimum 50, Lasers minimum 50, injections minimum 50, Phaco minimum 200

5. **Names & positions of Medical retina and VR Faculties?**

   - Dr Sourabh D Patwardhan, FRCS, MD(AIIMS) Surgical Retina
   - Dr Madhavi D Patwardhan MD,DOMS  Medical Retina
   - Dr Nidhi S Patwardhan MD, DOMS  Medical Retina

6. **Selection procedure in brief including probable dates (Interview & Joining)?**

   Last date of application 30th April, Interview will be done in 2 weeks time.

   Joining will be from 1st June (1 month extension will be allowed)

7. **Most important points that you consider in a CV?**

   - Institute from which candidate has graduated
   - Surgical and work experience
   - Recommendation from teachers

8. **Stipend**

   - 0-6 Months 15000 pm
   - 7-18 Months 20000 pm
   - 19-30 Months 40000 pm
   - 31-36 Months 60000 pm

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   ROP screening and Laser (as per availability) will be given. Plenty of exposure to Uvea and trauma services.

10. **Brief overview of VR equipments available in the Institute.**

    Constellation Vitrectomy system
    Appasamy Red Laser
    Zeiss Green Laser
    Valon Multispot Laser
    Zeiss FFA/ICG camera
    Eidon widefield camera
    Lumera I with Eibos 2 and Contact lens widefield lenses

11. **Number of permitted leaves**

    1 per month, 1.5 per month in last year

12. **Any post fellowship International exposure?**

    Talks going on.

13. **Any bonds or compulsory commitments with the institution after completion?**

    No compulsory commitment after finishing fellowship.
14. Any peripheral centres for compulsory rotation and duration of the same?

Yes as per need. But speciality fellows will only go for visits and not for stay for longer duration.

15. Contact details (Phone & Email) of the academic department.

Dr Sourabh D Patwardhan
patwardhan.sourabh@gmail.com
9404705777

16. Names and Contact details of 3 past (within 2 years) or present fellows.

Dr Pankaj Deshmukh (phaco fellow)
9923797376
Dr Gaurav Bhati (phaco fellow)
8830650899
Dr Varun Gupta (phaco fellow)
9458076626

Young Ophthalmologists Times is highly indebted to Dr Sourabh D Patwardhan for providing us the above information.
Narayana Nethralaya was started in the year 1982 as an eye clinic at Srirampuram, Bangalore by Dr. K. Bhujang Shetty. Recognizing the need to provide comprehensive eye care to the ever growing number of patients, while at the same time offering the best in ophthalmic sub-speciality services, Dr. K. Bhujang Shetty established the first centre at Rajajinagar in 1993.

Narayana Nethralaya has now expanded to become even bigger and better. The four centres are spread across the city and offer eye care in various specialties and departments, which are fully equipped with state of art diagnostic and therapeutic tools. Ocular health is closely related to many systemic diseases like diabetes, hypertension, heart disease, systemic infections and cancer. Research, both basic and clinical science, is a priority and strength. Narayana Nethralaya a dedicated wing to facilitate this endeavor at our Hosur Road branch. The focus is on applied research in areas such as stem cells, molecular diagnostics, genetics, ocular immunology and infectious diseases.

The National Board of examinations, New Delhi has recognised the hospital for training of candidates for DNB in Ophthalmology with an intake of 6 candidates per year. Our programme gives vast learning experience in terms of clinical, surgical and continuing medical education programs. Narayana Nethralaya offers fellowships, short and long term, in all subspecialties of ophthalmology. The students are exposed to the best in clinical ophthalmology and research.
1. Number of seats of various long and short term Retina training programs?

Three long term fellows at our Rajajinagar branch and one long term fellow for the Hosur Road branch. The fellows may need to rotate between all the four centers if need be. Two fellows will be selected per year on merit basis for the RGUHS certified fellowship, which requires an exit exam at the end of the program (theory and practical). There is no difference in the training between the University and NN fellowships.

2. Duration of fellowship?

2 years

3. Exposure to research and expectations by the institute in research?

NN has several basic, clinical and imaging studies ongoing. Fellows are encouraged to be a part of the research activities, present the same at meetings and publish the data as well. Our previous fellows have presented at national and international meetings and published in several high impact indexed journals.

4. Probable number of surgeries, lasers and injections one might expect?

On an average, there are 10-12 VR surgeries, 15-20 lasers and 20-25 injections performed each day. Depending on the seniority, skill level and confidence, fellows get to do independent procedures.

5. Names & positions of Medical retina and VR Faculties?

**NN 1 — RAJAJI NAGAR**
- Dr Naresh K Yadav
- Dr Priya BV
- Dr Santosh Gopi Krishan Gadde
- Dr Chaitra Jaydev
- Dr Navin Kumar Nayak
- Dr Poornachandra B

**PAEDIATRIC VITREORETINA SERVICE**
- Dr Ramesh Venkatesh
- Dr Vishma Prabhu
- Dr Arpita Pereira

**NN 2 — NARAYAN HEALTH CITY**
- Dr Sherine Braganza
- Dr Thirumalesh M B

**NN 3 — ASHOK NAGAR**
- Dr Prathibha Hande

**NN 4 — BANERGHATTA ROAD**
- Dr Subhashchandra H D
- Dr Aniruddha Tirumalai

6. Selection procedure in brief including probable dates (Interview & Joining)?

An oral interview is held in late June and late December. The sessions begin in January and July. If there are several applicants we have a written assessment to shortlist for the interview.

7. Most important points that you consider in a CV?

- Prior exposure to VR procedures,
- Reasonable knowledge of retinal conditions and their management,
- Publications/presentations.

8. Stipend

Rs. 30000/- per month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

Fellows would have rotations in ROP and Uvea. They can visit the Hosur branch if interested in ocular oncology work.

The institute has most state-of-the-art equipment for medical, imaging and surgical retinal work.

11. Number of permitted leaves

12

12. Any post fellowship International exposure?

Not anything linked to our fellowship, but can be facilitated if needed.

13. Any bonds or compulsory commitments with the institution after completion?

No. But there is a non-refundable fellowship course fee of Rs. 1.25 lakh.

14. Any peripheral centres for compulsory rotation and duration of the same?

As in point 1

15. Contact details (Phone & Email) of the academic department.

Dr. Sriharsha Nagaraj +919632419350
dr.sriharsha@narayananethralaya.org

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr. Shivani Sinha +91 9453100699
Dr. Sabitabh Agarwal +917042147501
Dr Ruchi Vala : +919879527285

Young Ophthalmologists Times is highly indebted to Dr. Chaitra Jayadev for providing us the above information.
National Institute of Ophthalmology (NIO) is a super speciality eye hospital in Pune committed to delivering high quality eye care, where Dr. Shree Kant Kelkar and Mrs. Aruna Kelkar have worked untiringly to bring together state-of-the-art technology and trained experienced personnel.

NIO is the first NABH accredited eye hospital in Pune. Established in 1993, NIO has achieved remarkable growth with the largest pool of highly specialized staff comprising of over 20 eye specialists, and 70 nursing, paramedical, and administrative staff. Having consistently maintained high quality standards for decades, today NIO has become the hospital of choice for patients with eye problems in & around Pune.

Over the years, NIO has expanded into an ultra-modern facility with a full array of subspecialty clinics, well integrated diagnostic, imaging and laser systems, state-of-the-art operation theatres, daycare recovery suites, sophisticated training and education facilities.

With clinical expertise and sophistication of diagnostic and treatment procedures, NIO serves the needs of its patients across a wide spectrum of eye disorders related to Cornea, Retina, Paediatric Ophthalmology, Neuro Ophthalmology and Oculoplasty. NIO carries out advanced eye procedures like LASER treatments and Retinal Surgeries. The hospital annually screens about 75,000 out-patients and performs nearly 6000 surgeries.
1. Number of seats of various long and short term Retina training programs?
   VR training program: 2 per year
   Short term retina training at the institute: Not available

2. Duration of fellowship?
   1 year

3. Exposure to research and expectations by the institute in research?
   Good enough to publish one or two articles in peer reviewed journals.

4. Probable number of surgeries, lasers and injections one might expect?
   Surgery: approximately 50
   Lasers: approximately 100
   Injections: approximately 50
   (Phacoemulsification cataract surgeries are also given to perform if candidate is already performing it independently)

5. Names & positions of Medical retina and VR Faculties?
   • Dr. Aditya Kelkar, Director NIO

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Through Maharashtra University of Health Sciences (MUHS) once a year or via interview directly at the institute, in December every year.

7. Most important points that you consider in a CV?
   • Overall performance in Post Graduation course
   • Publications and surgical exposure during post graduation and
   • Number of memos received if any for indiscipline

8. Stipend
   Rs. 15,000/- per month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Exposure to ROP: 3 months observership training at paediatric hospitals
   Ocular oncology: Not much exposure
   Uvea: Good exposure

    • Alcon constellation table top version
    • Resight 700 viewing system
    • Alcon 23/25 gauge instruments
    • OT viewing camera system for observation and recording of surgeries: 3 chip jd camera
    • Alcon laser machine with LIO attachment
    • Aurolab laser machine with LIO attachment
    • IRIDEX laser machine
    • Triton OCT and OCT angiography
    • Bscan
    • Wireless and wired both indirect ophthalmoscopy viewing systems

11. Number of permitted leaves
    10

12. Any post fellowship International exposure?
    None, but can recommend to suitable candidates willing to go self funded

13. Any bonds or compulsory commitments with the institution after completion?
    No.

14. Any peripheral centres for compulsory rotation and duration of the same?
    Nil. 2 main centers with rotation training, 6 months each
15. Contact details (Phone & Email) of the academic department.

Phone number: 8600005523
Email: hr@nioeyes.com

16. Names and Contact details of 3 past (within 2 years) or present fellows.

Dr. Hetal Mehta: +91 9869699374
Dr. Akshay Kothari: +91 9007700296
Dr. Swayambhu Ghosh: +91 8582965825

Young Ophthalmologists Times is highly indebted to Dr Aditya Kelkar for providing us the above information.
Nethradhama Super Speciality Eye Hospital is a world-class facility focused primarily on quality eye care with cutting edge technology and highly skilled doctors.

We encourage medical students considering post-graduation and of career in various sub specialties of Ophthalmology. We also regularly conduct continuing medical education programmes. We are affiliated with Diplomate of National Board, New Delhi for post-graduation in Ophthalmology and Rajiv Gandhi University of Health Sciences for post-doctoral fellowship programs. We have a very comprehensive curriculum for the training of our students. This is supported by our dedicated and committed faculty.
1. **Number of seats of various long and short term Retina training programs?**

   Medical retina: 2 seats per year (Walk in Interviews)

   Surgical Vitreoretina fellowship: 2/4 seats per year (January and July session) as per Rajiv Gandhi University of Health Sciences regulations

2. **Duration of fellowship?**

   Medical retina: 3 months & 6 months (Walk in Interviews)

   Surgical Vitreoretina fellowship: 18 months as per as per Rajiv Gandhi University of Health Sciences regulations

3. **Exposure to research and expectations by the institute in research?**

   The Nethradhama Super Speciality Eye Hospital, Bangalore has a robust and enthusiastic research environment and has its own in house DCGI approved Ethics Committee. Our institute has been part of many global multicentric trials and has been an active contributor in the field of research at a global level.

4. **Probable number of surgeries, lasers and injections one might expect?**

   (As per log book of outgoing long term fellow)

   Intravitreal injections: 250
   PRP Laser: 500
   Barrage laser: 250
   Focal laser: 10
   VR surgeries: 30

   Surgical opportunities entirely depends on the capabilities & performance of the candidate and discretion of the VR consultants.

5. **Names & positions of Medical retina and VR Faculties?**

   - Dr. Mahesh Kumar H M - Senior Consultant, Vitreo-Retina
   - Dr. Kadri Venkatesh - Senior Consultant, Vitreo-Retina
   - Dr. Mamatha N – Senior Consultant, Vitreo-Retina
   - Dr. Chinmayi H Vyas – Consultant, Vitreo-Retina

   Fellowship Director
   Dr. Sri Ganesh
   Chairman & Managing Director
   Nethradhama Super Speciality Eye Hospital

6. **Selection procedure in brief including probable dates (Interview & Joining)?**

   Last date for submission of application form - 10th June 2019
   The candidates selection process will be on Interview Basis with Subject Experts
   Declaration of results and date of joining will be informed on the same day of the Interview.

   Dates for subsequent sessions will be available on the website www.nethradhama.com two months prior to the Interviews

7. **Most important points that you consider in a CV?**

   - Interest and passion for the subject
   - Attitude
   - Basic skills and knowledge

8. **Stipend**

   Rs. 40, 000/- per month

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   Fellows would have rotations in ROP and Uvea. They can visit the Hosur branch if interested in ocular oncology work.

- OPD-Heidelberg Spectralis – Autofluorescence, FFA & ICG, SD OCT, Zeiss green laser – (PASCAL), B scan, ZEISS Angioview OCT angiography
- OR- MIVS - Constellation Vision System, Iridex green laser, Zeiss Resight, Sony 4k Surgical Video recording

11. Number of permitted leaves

- 18 days, if greater leaves than the permitted allowance are availed, the candidate is required to complete the same as an extension

12. Any post fellowship International exposure?

- No.

13. Any bonds or compulsory commitments with the institution after completion?

- No.

14. Any peripheral centres for compulsory rotation and duration of the same?

- Compulsory peripheral posting - 2 months

15. Contact details (Phone & Email) of the academic department.

- Landline: 080-26088000 / 26633533
- Email: hrd@nethradhama.org / education@nethradhama.org
- Website: www.nethradhama.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

- Dr. Ravichandra G (Surgical Vitreo-Retina fellow): +91 8008839084
- Dr. Sivarani (Surgical Vitreo-Retina fellow): +91 9943759150
- Dr. Neha Khanna (Surgical Vitreo-Retina fellow): +91 9158926130

Young Ophthalmologists Times is highly indebted to Dr. Mahesh Kumar for providing us the above information.
Prakash Netra Kendra (PNK) is one of the oldest tertiary eye care centre at Lucknow in Northern India. Established in year 1991 by Dr. Shobhit Chawla and Dr. Rajat Dhesi with a vision to provide comprehensive eye care services to each segment of society, it is now one of the most reputed eye hospitals in this part of the country.

We have been providing retina services science inception. We started our vitreoretina (VR) fellowship in year 2001 under the expert guidance of Dr. Shobhit Chawla who is one of the founder member and the current president of Vitreo-retina Society of India (VRSI). We have trained many ophthalmologist in VR sub speciality who are practising in various parts of India.

We have a very good retina work load and referral patients from adjoining states and Nepal. It is our endeavour to acquire, upgrade and utilize the latest technology. We have state of the art cutting edge diagnostic, therapeutic and surgical equipment which are maintained by well trained technicians and paramedics.

We have 5 full time VR consultants taking care of Vitreo-Retinal diseases and various sub specialities like Uveitis, ROP and ocular oncology as well.
1. Number of seats of various long and short term Retina training programs?
   Two

2. Duration of fellowship?
   2 years

3. Exposure to research and expectations by the institute in research?
   We give various VR topics to our DNB students thesis which is done methodologically an can be used.

4. Probable number of surgeries, lasers and injections one might expect?
   Surgery more than 50, lasers and injections as much as they can perform safely.

5. Names & positions of Medical retina and VR Faculties?
   - Dr. Shobhit Chawla - HOD, Medical Director
   - Dr. Mohit Khemchandani - Assistant Medical Director
   - Dr. Saurabh Singh - Sr Consultant
   - Dr. Prabhat Ranjan - Sr Consultant
   - Dr. Dipendra Shukla - Jr Consultant

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Interview is conducted in the month of May each year. After the interview by Medical Directors candidate is asked to join the hospital from June.

7. Most important points that you consider in a CV?
   - Interest in VR,
   - Previous work experience
   - Academic achievements.

8. Stipend
   25,000 /month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   We have fellowship trained Uvea/ocular oncology and ROP specialists.

    - Heidelberg system for Spectral domain OCT/FFA/ICG/FAF/OCT ANGIO
    - Retcam for ROP screening
    - Pascal Laser by Nidek
    - Constellation machines for VR Surgery.

11. Number of permitted leaves
    20 leaves in a year

12. Any post fellowship International exposure?
    Yes at NEI Singapore

13. Any bonds or compulsory commitments with the institution after completion?
    No

14. Any peripheral centres for compulsory rotation and duration of the same?
    No peripheral centres we have one Retina clinic nearby.

15. Contact details (Phone & Email) of the academic department.
    - Dr. Prabhat Ranjan - 9956589746 (raiprabhat_78@rediffmail.com)
    - Konpal Shrivastava - 7668511116 (konpal.s@gmail.com)

16. Names and Contact details of 3 past/within 2 years or present fellows.
    - Dr. Tanu Raja - 9839986044
    - Dr. Dipendra Shukla - 9450592002
    - Dr. Ashish Gupta - 8004966399

Young Ophthalmologists Times is highly indebted to Dr Shobhit Chawla for providing us the above information.
After finishing my MS I was keen to join fellowship in VR and started my research regarding all the institutes across the country. With the help of my various seniors specially Dr. Diva Kant I had spoken to the various current and ex fellows from the respective institutes to know the ground situation about the VR fellowship. Based on that I had considered PNK as one of my top priority institutes for VR fellowship.

I checked all the details from official website and sent my CV along with my application to PNK chief coordinator Mrs Konpal Srivastava. She was very quick in providing all the necessary information and processing my application.

The interview was a single day process for all the applicants, there was no written exam or any MCQs exam. It was done by the Medical Directors of PNK (Dr. Shobhit Chawla and Dr. Rajat Dhesi)

The questions asked were about reasons of joining VR fellowship, academics, working experience, family background and future plans etc. I think they just check your very basic knowledge and your commitment level to sustain the 2 years of fellowship programme

It was very smoothly conducted and confirmation was given by same day. Within 3 days I got the official confirmation email from PNK along with my joining date.

I would say you just have to be thorough with your basics along with clear mindset about your future plans before going through the interview process.

DR MOHIT GUPTA, MBBS, MS is a Vitreo-Retina fellow at PNK, Lucknow. He can be contacted at drmohitgem@gmail.com
RAJ EYE HOSPITAL, GORAKHPUR

Raj eye hospital was established in Jan 1990 with the aim to provide modern, compassionate and quality eye care to all. It is situated in Gorakhpur, 300 KM east of Lucknow, UP, India.

Large number of people visit the hospital every day for consultation, diagnostic procedures and surgical procedures for Femto cataract, Femto Lasik, ICL, IOL, Cataract Surgery [without Stitch, Injection and Bandage], Diabetic Retinopathy, Vitreous Hemorrhage, Retinal Detachment, Glaucoma, Squint, Amblyopia, Ptosis, Eye Problem in Children, Corneal Transplant, Eye Injury, Orbital Tumors, Dacryocystitis, Botox Injection.

Raj eye hospital has department of general ophthalmology, Pediatric ophthalmology, Retina, Specialty of - Refractive Surgery, Orbit and Oculoplasty, Cornea, Glaucoma, Cataract. To serve poor people and educate masses we have department of community ophthalmology. To treat complicated cases we have latest equipments like femto second laser, red, green and blue laser, highest quality surgical and diagnostic gadgets in 5 stories building covering around 24000 sq feet area, at a land of 23000 sq feet , modular operation theatres are equipped with Anaesthesia workstation with ventilator and set for infants, defib, monitors, operating microscopes , computers on lan for recording the patient details.
1. Number of seats of various long and short term Retina training programs?
   1 per year

2. Duration of fellowship?
   2 years

3. Exposure to research and expectations by the institute in research?
   Candidates will be involved in research

4. Probable number of surgeries, lasers and injections one might expect?
   Unlimited as assistant, under supervision and independent cases will be 20+10 (surgeries), 40+30 (lasers), 10+30 (injections)

5. Names & positions of Medical retina and VR Faculties?
   - Dr Shrikant
   - Dr Devesh Maurya

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Interview and 3 days observership

7. Most important points that you consider in a CV?
   - Academic records
   - Presentations and
   - Publications

8. Stipend
   85000 per month with increment of 5000 after every 6 months[completed working days]

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Yes


11. Number of permitted leaves
    12 medical leave and 6 casual leave

12. Any post fellowship International exposure?
    Possible

13. Any bonds or compulsory commitments with the institution after completion?
    No.

14. Any peripheral centres for compulsory rotation and duration of the same?
    One in the same city at present for better exposure

15. Contact details (Phone & Email) of the academic department.
    Dr Anil Srivastava 9935657999, 9415210529

16. Names and Contact details of 3 past(within 2 years) or present fellows.
    Till now we have trained only anterior segment fellows. We will starting VR fellowship now.

Young Ophthalmologists Times is highly indebted to Dr. Anil Srivastava & Dr Simmi Chalwa Sarin for providing us the above information.
RETINA FOUNDATION AND EYE RESEARCH CENTRE, AHMEDABAD

RETINA FOUNDATION, offers a full time 2 year fellowship in Vitreo-Retinal surgery, with the aim of developing clinical and research skills pertaining to medical and surgical Retina. There are exposed to three Vitreo-Retinal surgeons and the clinical exposure is wide, ranging from acute management of retinal detachments and posterior segment trauma, to macular surgeries. The fellows are also taught about the management of common uveitis diseases. Fellows participate in all the clinics, handle diagnostics on a rotation basis and assess and get to discuss and plan their management with the consultants. They are exposed to a wide variety of medical retina related procedures including lasers and intravitreal injections of all types. They also participate in surgery, both as the operating surgeon or the assistant, depending on the complexity of the case. Regular classes are also conducted in which fellows present medical and surgical cases and power point presentations on various retinal and uveal disorders.
1. **Number of seats of various long and short term Retina training programs?**
   - 4 seats

2. **Duration of fellowship?**
   - 2 years

3. **Exposure to research and expectations by the institute in research?**
   - Fellows are expected to participate in ongoing research projects during the term of their fellowship

4. **Probable number of surgeries, lasers and injections one might expect?**
   - There is no present number for any procedure for a fellow. These numbers would vary on basis of the type of cases to the competence of the fellow as he/she evolves through the fellowship period

5. **Names & positions of Medical retina and VR Faculties?**
   - **Dr.P.N.Nagpal** MS, FACS (USA), FDAAD (West Germany)
   - **Dr Manish Nagpal** MBBS, MS (Ophthalmology), FRCS (Edinburgh, UK)
   - **Dr Navneet Mehrotra** MBBS, DNB (Ophthalmology), FRF

6. **Selection procedure in brief including probable dates (Interview & Joining)?**
   - Candidates are required to do a 5 day observership program prior to selection for the fellowship. In this period the consultants get to meet the applicant and visa versa to get an idea about their aptitude and interest in the fellowship program

7. **Most important points that you consider in a CV?**
   - We look at the following points while assessing the CV:
     - Previous academic achievements
     - We give importance to where (Hospital/city/place) the fellow would finally work after the fellowship (It gives us insight into how the fellowship training would get utilised)
     - We give priority to those who would be working in areas lacking Vitreo retina surgeons.
     - We ask for a five days observership to see how the candidate with the fellow colleagues.

8. **Stipend**
   - 15000-18000 /month plus accommodation

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**
   - They get exposed to Uvea quite extensively and in a limited way to ROP and Ocular Oncology. We have a Visiting Oculoplasty surgeon who handles ocular oncology and exposes the fellows to the same

10. **Brief overview of VR equipments available in the Institute.**
    - We have regular state of the art equipments at our institute. We have both Indirect and PASCAL lasers, fundus camera, Heidelberg OCT and FA, Microperimetry, OCT angiography, and Constellation vitrectomy machines apart from various other tools

11. **Number of permitted leaves**
    - There are no fixed leaves during the fellowship. Fellows are encouraged to be regular and take minimum leaves during the period.
12. Any post fellowship International exposure?

There is no specific international exposure linked to the fellowship program. However we help connect the fellows to any program they would like to pursue through our good offices with international colleagues.

13. Any bonds or compulsory commitments with the institution after completion?

No

14. Any peripheral centres for compulsory rotation and duration of the same?

Fellows visit a charitable centre two hours away twice a month by rotation to screen and treat vitreo retinal cases.

15. Contact details (Phone & Email) of the academic department.

Ms Meera
meera@retinafoundation.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr. Pranita Chaudary
pranita.janvi@gmail.com
+91 9727765729

Dr. Jayesh Khandelwal
khandelwaljayesh@yahoo.com
+91 9220545496

Dr. Gayathri Mohan
gmohan145@gmail.com
+91 8007185115

Young Ophthalmologists Times is highly indebted to Dr Manish Nagpal for providing us the above information.
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT DR. NAGPAL’S RETINA FOUNDATION, AHMEDABAD

-DR GAYATRI MOHAN

During my third year of residency I was looking into institutes offering VR fellowship programs. After my research and enquiry about the same, I got to know about RF from a professor of mine who was an ex-fellow. Once I narrowed down to RF from all my options, I got in touch with the institute via Mrs. Meera Zala, the secretary, through e-mail. She promptly responded telling me that I had to do a 4 day observership, where I shall observe the working and practice patterns of RF. She asked me to send in my CV and she got back to me with allotted days for observership, which was in two months. The institute takes in one observer at a time.

During the period of observership, I was posted in the OT in the morning and thereafter in the OPD or investigation room. I was also allowed to attend classes with the other fellows. Even though I was an observer, the consultants encouraged active participation in academic discussions. The fellows were very helpful and they gave me an insight on the working pattern of the institute. During the observership, I was also allowed to attend OPDs with Dr. P.N. Nagpal sir. During OPDs with Dr. Navneet Mehrotra, he used to ask clinical questions related to cases in the OPD. Once the 4 days were over, I had a discussion with Dr. Manish Nagpal and Dr. Navneet Mehrotra. The topics covered were mainly regarding why I chose VR fellowship, interest in academics, research and about my future plans. They then told me that they would decide and revert back to me.

I got an e-mail in a week saying that I got into the program and that I could join after 6 months i.e after completion of my final MS exams.

The entire process was well co-ordinated and organised. In my opinion, the biggest advantage of the observership is the applicant gets an insight and first hand experience to how the fellowship programme is, which is really helpful to the candidate.

DR GAYATHRI MOHAN, MBBS, MS is a Vitreo-Retina fellow at Dr. Nagpal’s retina Foundation, Ahmedabad. She can be contacted at gmohan145@gmail.com
Retina Hospital, Rajkot, Gujrat

Retina Hospital, Rajkot was established in March 2008 by Dr Mukesh Porwal. The training program at Retina Hospital involves exposure to all aspects of a VR practice, right from the initial examination of the patient to seeing old patients on their follow-ups. Trainees & Fellows get a good hands-on experience not only in all aspects of Medical Retina including Intravitreal injections but also in Surgical Retina closely supervised by Dr Mukesh Porwal, who now has 21 years of experience in the field of Retina. All cases are discussed with the Fellows before, during and after their management in the OPD as well as in the OR. Not only the clinical & surgical aspects but the trainees get a good exposure to the counselling of patients as well as to the monetary and charity aspects of Retina work. The fellows are given graduated surgical steps, progressing quickly to independent full depending on their grasping abilities. Scientific, practical & ethical VR practice in a private set-up is seen first-hand by the trainees without any restrictions. The aim of the fellowship is to transfer the tough early years of VR experience to the newcomers in the field, including the nitty-gritties of setting up & upgrading a Retina practice.
1. **Number of seats of various long and short term Retina training programs?**

   Two per year, usually one every 6 months

2. **Duration of fellowship?**

   2 years for freshly passed out MS or DNBs

   1.5 years for those who have worked in a Retina Unit earlier

   1 year for those who have done a Retina Fellowship already

3. **Exposure to research and expectations by the institute in research?**

   Being a small institute with a single solo Retina-only practice, the emphasis on research is not much but Fellows are encouraged to collect data & present & publish papers & cases.

4. **Probable number of surgeries, lasers and injections one might expect?**

   Depends on the skill level and clinical competence of the candidates.

   On an average: more than 100 surgeries, 250 lasers & 50 injections per year.

5. **Names & positions of Medical retina and VR Faculties?**

   - Dr. Mukesh Porwal, MS, FRF, FICO Director & Senior VR Consultant

6. **Selection procedure in brief including probable dates (Interview & Joining)?**

   We receive applications through email, need 2 good references from recent work Selection done based on CV, references & telephonic interview from the applicants

7. **Most important points that you consider in a CV?**

   - MS/DNB in Ophthalmology (Not DOs) with good knowledge
   - Interest & a rough road map for future work in Retina
   - Any previous Retina work/research or publication

8. **Stipend**

   Starts with Rs 30000 per month Raised by Rs 10000 every 6 months

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   Regular ROP screening in referred babies, with some NICU visits.

   Regularly scattered Uveitis cases in the OPD on daily basis. Occasional

   Melanoma, Retinoblastoma & Lymphoma cases, not many.

10. **Brief overview of VR equipments available in the Institute.**

    - Alcon Constellation Vitrectomy machine
    - Leica M822 Operating Microscope
    - Oculus BIOM IV wide angle viewing system
    - Retina Lasers:
      a) Nidek Pattern Yellow Retina Laser with Slit Lamp Delivery
      b) Appasamy Green Laser with Indirect Ophthalmoscopic delivery
      c) Dedicated Green Laser with Endoprobe delivery for surgery
    - Zeiss Visucam 524 Fundus camera for FFA, FAF & Fundus photography
    - Optopol Copernicus Revo NX SD-OCT with OCT-Angiography
Ocular Ultrasound machine with 10 MHz probe with Vector A-Scan

11. Number of permitted leaves

Flexible, depends on the genuine need of the candidates, not very strict.

12. Any post fellowship International exposure?

Have a few friends in US they are free to visit but no formal arrangement.

13. Any bonds or compulsory commitments with the institution after completion?

Nil

14. Any peripheral centres for compulsory rotation and duration of the same?

No, only participation in some outreach/ screening programmes from time to time.

15. Contact details ( Phone & Email) of the academic department.

Phone: +91-281-2456 500/600, Mobile: +91-94262 29442 (Dr. Porwal)
Email: fellowships@retina-hospital.in with a CC to mukesh.porwal@gmail.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Can be seen on this webpage: http://www.retina-hospital.in/academics-training.php

Young Ophthalmologists Times is highly indebted to Dr. Mukesh Porwal for providing us the above information.
Vitreo-Retinal surgery fellowship in RIK is a 18 months program devoted to clinical training in the evaluation, diagnosis and medical and surgical management of Vitreo-Retinal diseases. The overall goal of the fellowship program is to train clinicians who will become the next generation of leaders, and our program is structured with this goal in mind. The depth and breadth of our faculty affords access to the best in medical and surgical retina training, and our fellows work side-by-side with pre-eminent leaders in the field. Our fellows are exposed to the most advanced Vitreo-Retinal surgical techniques.

We also have a medical retinal fellowship of 6 months duration.

Our fellowship program is registered with the Rajiv Gandhi University of Health Sciences and meets guidelines set by the RGUHS.
1. **Number of seats of various long and short term Retina training programs?**

   Surgical retina – 2 candidates per year, Medical retina – as per requirements (3-4 per year)

2. **Duration of fellowship?**

   18 months, Medical retina – 6 months

3. **Exposure to research and expectations by the institute in research?**

   We encourage our fellows in doing retrospective and prospective studies for many vitreoretinal conditions and treatment. We always support them in doing these academic activities and publications.

4. **Probable number of surgeries, lasers and injections one might expect?**

   During the training, our fellows get access to do lot of lasers and injections. Surgical training depends on his/her skills and abilities.

5. **Names & positions of Medical retina and VR Faculties?**

   - Dr N S Muralidhar (President)
   - Dr Hemanth Murthy (Medical Director)
   - Dr B L Sunitha (Medical Retina and Uvea)
   - Dr Kavitha S Rao (Senior VR Consultant)
   - Dr A M Sumanth Kumar (VR Consultant)
   - Dr Manjula (Junior Consultant in Medical Retina and Uvea)

6. **Selection procedure in brief including probable dates (Interview & Joining)?**

   Surgical retina fellowship selection has a written test (MCQs) and personal interview. Medical retina fellowship selection is based only on personal interview. Courses start in January and September.

7. **Most important points that you consider in a CV?**

   - Institution background
   - Presentations/publications
   - Experience in the field of Vitreo-Retina.
   - Motivation to continue in the field of Retina

8. **Stipend**

   - Surgical retina – 25,000/month
   - Medical retina – 20,000/month

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   During the training, our fellows are exposed to screening for ROP and diagnosis and management of uveits.

10. **Brief overview of VR equipments available in the Institute.**

    Zeiss fundus camera, Topcon swept source OCT (with AF, FFA and OCTA), HRA for FFA/ICGA, PDT, Zeiss and PASCAL laser delivery systems with volk quadrespheric and Mainster contact lenses. We are equipped with 2 constellation vitrectomy systems, Zeiss Lumara microscope with resight in one OT and BIOM 5 in second OT, and wide angle viewing systems (contact and non-contact). Both OTs have 3 chip cameras for recording and viewing.

11. **Number of permitted leaves**

    1 leave per month

12. **Any post fellowship International exposure?**

    No.

13. **Any bonds or compulsory commitments with the institution after completion?**

    No.
14. Any peripheral centres for compulsory rotation and duration of the same?

No.

15. Contact details (Phone & Email) of the academic department.

Contact Number: (080) 22410106, email: retinakarnataka@gmail.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr Sweety from Maharashtra, recently successfully completed her surgical retina fellowship (8857990661)

Dr Arun Bhatti from Ludhiana, pursuing his surgical retina fellowship (9646900978)

Dr Sonia Singh completed her medical retina fellowship (7760772233)

*Young Ophthalmologists Times is highly indebted to Dr. Manjula Shankar for providing us the above information.*
Vitreo – Retina Fellowship at Sadguru Netra Chikitsalaya, Chitrakoot provides a good all round medical and surgical exposure to retina. The two courses being 2 year exclusive retina fellowship and the 3 year comprehensive fellowship (with cataract training). Being a tertiary care referral centre, the clinical exposure is extensive with a large number of outpatients. Fellows get to perform lasers and intravitreal injections. Surgically, the fellows perform scleral buckles in the initial phases with steps of VR surgery. By the end of the tenure, fellows perform independent surgeries. Uvea exposure is very good with a variety of cases. The OT has the Constellation vitrectomy system and the latest equipment. Academics are stressed upon with regular presentations and the fellows are expected to take up research projects during the course of the fellowship.
1. Number of seats of various long and short term Retina training programs?
   Variable: between 1 to 3

2. Duration of fellowship?
   2 years exclusive retina, 3 years comprehensive retina (with cataract training; 50:50 breakup of fellowship duration)

3. Exposure to research and expectations by the institute in research?
   Research output and multiple publications expected during the course of fellowship training

4. Probable number of surgeries, lasers and injections one might expect?
   Scleral buckles in the initial phase, steps of VR during the course with independent VR surgeries by the end of the tenure

5. Names & positions of Medical retina and VR Faculties?
   • Dr. Alok Sen – HOD
   • Dr. Shubhi Tripathi
   • Dr. Sachin Shetty
   • Dr. Samendra Karkhur
   • Dr. Tina Agarwal

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Interview in July and January with joining in August and February respectively. Initial MCQ’s followed by interview

7. Most important points that you consider in a CV?
   • Academics
   • Surgical exposure
   • Previous training

8. Stipend
   1st year - 25000
   2nd year - 35000
   3rd year - 45000

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Basic exposure to Uvea and ROP.

    OCTA
    FFA/ICGA
    LIO
    & other state of the art surgical equipments.

11. Number of permitted leaves
    20 leaves per year

12. Any post fellowship International exposure?
    Nil

13. Any bonds or compulsory commitments with the institution after completion?
    Variable

14. Any peripheral centres for compulsory rotation and duration of the same?
    Exclusive Retina - Yes
    Comprehensive Retina - Yes

15. Contact details (Phone & Email) of the academic department.
    Mr. Kamlesh Shukla - 9165462997

16. Names and Contact details of 3 past(within 2 years) or present fellows.
    1. Dr Pratik Shenoy, drpratikshenoy@gmail.com
    2. Dr Aman Khanna, dramanrkhan@gmail.com
    3. Dr Rashmi Kashikar, Kashikar rashmi@gmail.com

Young Ophthalmologists Times is highly indebted to Dr. Samendra Karkhur for providing us the above information.
In the big ocean of opportunities out there, we all seem lost. After post graduation, decision of choice of faculty is simple, like for me it was Vitreo–retina; but the when, where and how are difficult questions left unanswered in our stream of ophthalmology. There are the traditional ways which I followed, calling up fellows who were in their tenure of fellowship at various places and then took to finding dates of interviews of respective institutes online. For me the most suited options were the ones which held interviews around June-July.

Sadguru Netra Chikitsalaya was one place I was aware by word of mouth. It is an ophthalmology dedicated institute at Chitrakoot in Madhya Pradesh. The facts about the place were all mentioned at their official website. It stated regarding the fellowship programme & its tenure. It also mentioned the date of interview and the contact details of the course co-ordinator Mr.Kamlesh Shukla. Application procedure was to mail them my CV .

I was very well guided by Mr.Shukla about the nearest station and even regarding transport facilities. At Chitrakoot it is always better to come in a day prior to the interview. All applicants were provided accommodation on campus. The interview was a day long procedure starting from 8am with MCQ test. The MCQ test paper had a column right at the top to be filled regarding your choice of faculty. As the test ended it was followed by interview. There was a panel which included the Medical Superintendent & HOD of Vitreo-Retina Dept (Dr. Alok Sen) and HOD’s of the other concerned departments.

They were aware of my details from my CV. The interview began with a picture projected at the screen related to retina. The academic part of the interview was mostly conducted by Dr.Sen. The questions were based upon my choice of faculty. While a few questions regarding choice of VR & future plans were taken up by the other panellist. A part of the interview also covered recent updates in VR. Other candidates were interviewed in a similar manner with different slides and different questions pertaining to their choice of faculty by their respective HOD’s.

I was told that I would be called in again after lunch break and the results would be declared the same day. I was called upon again and asked about my take at dedicating time to the institute in future. They declared the results the same day and an appointment letter was mailed in 7 days working time. The scheduled start of the session was from 1st August as per every year.

From my experience at centres I had applied, recent advances and various studies is something every candidate must be aware in his/her subject.

DR AMRUTA MORE, MBBS, MS is a 2nd year Vitreo-Retina fellow at SNC, Chitrakoot. She can be contacted at dramrutavmore@gmail.com
The fellowship would provide well-rounded exposure to both the clinical and academic sides of medical and surgical retina along with ocular oncology. The Sankara Eye Foundation India Training Program in retina is a highly regarded VR fellowship program in India. Its longstanding reputation derives from its association with state-of-the-art facilities, a full range of clinical and surgical hands-on experiences, and, most importantly, the sincere commitment of the faculty towards fellowship training. Fellows are selected amongst those who have completed their post-graduation in ophthalmology from any of the centres recognized by the Medical Council of India.

The VR fellowship program in Sankara eye hospital is one of a kind, as they are trained under great mentors. With a great community health set-up, every fellow gets a great opportunity to serve the under-served. During training, fellows learn to acquire not only surgical skills but also observational skills, communication skills, great moral and ethical values, presentation and publication skills. Sankara Eye Foundation gives a great platform for research and innovational ideas. The goal of the program is to train highly competent and ethical ophthalmologists who can contribute to the field and help reduce the burden of curable blindness in the society.
1. Number of seats of various long and short term Retina training programs?

**Bangalore:** 2 long term surgical VR fellows every 6 months
1 medical retina fellow every 6 months

**Guntur:** 1 long term surgical VR fellows every 6 months
1 medical retina fellow every 6 months

**Shimoga:** 1 long term surgical VR fellows every 12 months
1 medical retina fellow every 6 months

2. Duration of fellowship?

18 months – medical and surgical retina

3. Exposure to research and expectations by the institute in research?

Good exposure to several ongoing in-house and multicentric trials and innovations

Great scope for publications during the tenure of fellowship

Mandatory publication for successful completion

4. Probable number of surgeries, lasers and injections one might expect?

**Surgeries:**
- Observed: 1000 – 1500
- Assisted: 600-800
- Individually performed: 80-100

**Lasers:** 500-700

**Intavitreal inj:** 400-500

5. Names & positions of Medical retina and VR Faculties?

**Bangalore:**
- Dr Mahesh P Shanmugam: HOD – Retina and Ocular Oncology
- Dr Minija C K: Consultant - Medical Retina And Uvea
- Dr Rajesh R: Consultant

**Guntur:**
- Dr Madhu Kumar: HOD Surgical Retina
- Dr Jayamadhuri: Consultant – Medical Retina
- Dr Ashok K: Consultant

**Shimoga:**
- Dr Ravi Shankar: HOD Surgical Retina
- Dr Pradeep Sagar: Consultant

6. Selection procedure in brief including probable dates (Interview & Joining)?

Twice a year (every 6 months)

**Notification:** Usually April & October

Exam (MCQ test) and Interview: Usually 1st or 2nd week of June & December

**Joining:** January 1st week & July 1st week

7. Most important points that you consider in a CV?

- Letter of reference
- Surgical skills
- Managerial skills and soft skills

8. Stipend

35,000 INR/month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc

Fellows get to go for ROP screenings, lasers; Assist ROP surgeries

Tremendous exposure to intraocular tumors of all kinds: training in diagnosis, investigations and planning of tumor management; assisting brachytherapy, PDT and TTT for various tumors.

Good exposure to uvea and ocular immunology.

**Diagnostic:**
- B scan USG, FFA, ICG,
- Autofluorescence (Flash based and SLO based), Swept source OCT, OCT angiography
- Transillumination scope for tumor diagnosis
- ERG, EOG, VEP

**Therapeutic:**
- Lasers – Pascal Yellow laser (577 nm)
  - Green LIO (532 nm)
  - Diode laser (810 nm)
- Transpupillary thermotherapy (PDT)

**Surgical equipment:**
- 4 vitrectomy machines
- Non-contact wide angle viewing systems (BIOM and MERLIN)
- Endolaser
- Cryoprobe
- Endocryoprobe
- All essential VR surgical instruments

11. Number of permitted leaves

1 day leave per month

12. Any post fellowship International exposure?

NIL

13. Any bonds or compulsory commitments with the institution after completion?

No mandatory bonds.

But if you are willing, there is a scope/oppurtunity in various branches of Sankara across the country.

14. Any peripheral centres for compulsory rotation and duration of the same?

Nil

15. Contact details (Phone & Email) of the academic department.

Radhika
- Mobile: 9666677505
- Email: radhika.hr@sankaraeye.com

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr Pradeep Sagar:
- pradeepsagarbk@gmail.com

Dr Sriram:
- sri1589@gmail.com

Dr Payal Shah:
- n.payalshah@gmail.com

Young Ophthalmologists Times is highly indebted to Dr Mahesh P Shanmugam for providing us the above information.
VR FELLOWSHIP INTERVIEW EXPERIENCE AT SHANKARA EYE HOSPITAL, BANGALORE

-DR. DEVASHISH DUBEY

The time just after completion of post-graduation is complex in any graduate’s life and I was no different. With clarity as to which branch I wanted, but not knowing where I wanted it. I had a clear thought about what I was looking for in the institute where I wanted to pursue my fellowship. The most important thing I was looking for was guidance and mentorship apart from an academic environment and surgical exposure. After speaking to my seniors and the people who I look up to, I decided to try for Shankara. I specifically wanted the Bangalore campus because of Dr. Mahesh Shanmugam sir, who apart from being a clinician and surgeon par excellence is also the best teacher one can come across.

Bangalore being a metropolitan city, is well connected to every part of the country, so reaching here wasn’t a problem. The examination process here was divided into two parts, the first is the multiple choice question and the second being an interview with the faculty. On the day of the exams all of the candidates were asked to sit in a hall room where we were given an introduction to the Shankara academy of vision, its history and its mission. We also had an interactive session with few of the faculty members which was really helpful in easing our nerves. This was followed by the MCQ examination which comprised of questions from all subspecialties, these question were not straight forward one liners but thought provoking case scenarios. After the MCQ examination got over we were asked to join the faculty for some tea and snacks where we could directly interact with them whereas they could get to know us and our expectations from the fellowship program.

This was followed by the one on one interview where all of us were divided up into groups depending on the subspecialty we applied for. The interview was in the academic board room by a panel consisting of Dr. Mahesh Shanmugam, Dr. Ravi Shankar, Dr. Rajesh R and Dr. Divyansh Mishra. The interview wasn’t only restricted to academic and subject based questioning but they were also keen on knowing more about us, our interests and overall personalities. The questions covered both surgical and medical aspect of Vitreo-retina. We were also asked about our aspirations, our future plans and our expectations from the fellowship program.

The exam was conducted in an extremely transparent and fair manner and the results were put up on the notice board after lunch. The individual candidates were ranked according to different subspecialties they applied for and were called rank wise to make a choice between the different centres of Shankara Academy across the country. We were given our joining letters on the same day and asked to stay back for the two-day induction program. The accommodation and food was taken care of by the institute. The induction program was extremely useful as it apart from helping us understand the pattern of work also helped all the candidates to get introduced to each other before joining into different subspecialties. It was important for us to attain clarity about the institute, its way of functioning, what it had to offer us and what its expectations were from us.

In conclusion, personally I would say I was completely satisfied and content with the process that Shankara follows for recruiting its fellows and am still in awe of its way of functioning and its mission.

DR. DEVASHISH DUBEY, MBBS, MD is a Vitreo-Retina & Ocular Oncology fellow at Sankara Eye Hospital, Bangalore. He can be contacted at devashishdubey17@gmail.com
VR training program is one of the most successful retina training programs in the country.

We take immense pride in mentioning that 80% of practising VR surgeons in India have been trained by us.

Our program is very comprehensive and includes exposure to all aspects of retina- imaging, diagnostics, surgery etc.
1. **Number of seats of various long and short term Retina training programs?**
   - VR Clinical: 6 seats (2 years)
   - Medical Retina: 2 seats (1 year)
   - Uvea + Medical Retina: 1 seat (1.5 years)
   - Research + clinical VR: 2 seats (2.5 years)
   - The intake is every 6 months.

2. **Duration of fellowship?**
   - Mentioned Above

3. **Exposure to research and expectations by the institute in research?**
   - All fellows are involved in Clinical research and are expected to present in meetings and also publish.

4. **Probable number of surgeries, lasers and injections one might expect?**
   - It varies but the number is large. None of our VR fellows have had to struggle after leaving SN. At the end of the fellowship they are able to handle Routine VR cases with relative ease.

5. **Names & positions of Medical retina and VR Faculties?**
   - Please look at our website. We are 19 consultants in Chennai.

6. **Selection procedure in brief including probable dates (Interview & Joining)?**
   - Available at our website. Usually involves a theory exam and interview. 1st April and 1st Oct.

7. **Most important points that you consider in a CV?**
   - Any previous record of publication helps

8. **Stipend**
   - 25,000/ per month

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**
   - Yes. Fellows get 1 month of Uvea posting and 3 months of Intraocular tumor posting.

10. **Brief overview of VR equipments available in the Institute?**
    - We have almost everything that is available for clinical use.

11. **Number of permitted leaves**
    - 14 days per calendar year

12. **Any post fellowship International exposure?**
    - Nil

13. **Any bonds or compulsory commitments with the institution after completion?**
    - Nil

14. **Any peripheral centres for compulsory rotation and duration of the same?**
    - No

15. **Contact details (Phone & Email) of the academic department.**
    - N Sivakumar
    - nsk@snmail.org

*Young Ophthalmologists Times is highly indebted to Dr Vikas Khetan for providing us the above information.*
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT SANKARA NETHRALAYA, CHENNAI

DR. DHAIVAT SHAH

During the torment of MS Ophthalmology, my interest in the subject of Vitreo-Retina slowly grew its own wings. Hence, post MS result, I applied at Sankara Nethralaya Chennai, the place where the finest in the country today have been trained. The application process was quiet lucid, which comprised of posting CV along with the online fellowship form to the institute. A week later, I had a mail in my inbox, stating the date, time and location for the exam and interview.

When I stood outside an institute that is considered as the “Temple of Eye” in India, alongside the greatest minds in the country, a whirlpool of thoughts ran through my cranium. I followed the one and only advice my senior had given to me, to sleep well the previous night, have a scrumptious Idli-Dosa breakfast in the morning and maintain absolute composure.

The process of entrance for the fellowship commenced with a written MCQ test followed by an interview. The question format was not to test how farfetched ones knowledge was, but how well was ones understanding of the subject. The papers were evaluated by lunch time and forty out of the ninety students were called for interview in the noon. The interview to be followed was in three sets, which I thought was very well structured.

The first room interview was conducted by Dr Pramod Bhende (Director, SNC). I was asked regarding my core purpose of joining a VR fellowship, my family background, aspirations post fellowship, and what if this didn’t get through here. I expressed my sole purpose of taking this course was my absolute love for the subject, and nothing else mattered otherwise.

The second one was conducted by Dr Muna Bhende (Deputy Director, SNC). Her questions were oriented towards knowing how well one has done residency. Basics of managing ophthalmic emergencies, routine practices in the operating theatre and keenness regarding research work were some of the topics that were discussed.

The final one was conducted by Dr Parveen Sen (Senior Consultant, SNC), and this one was directed towards retina. Her room was full of Fundus photos, OCTs, FFAs and ERGs. Her idea was not to ask high end stuff regarding the same, but a basic diagnosis and plan of treatment.

After this exploratory expedition, I got a mail a week later that I have cracked the fellowship, and they had attached a joining letter, expecting a reply within a week. Retrospectively, I realized that this “highly talked about” mammoth institute is really about simplicity and conceptual transparency. It doesn’t matter if you have no research work in your hands, or you haven’t gain paramount surgical skills during your residency, or you don’t have a cavernous background. What really matters is the way you converse, how confident your outlook is, and clarity and honesty of your thoughts. I am privileged today to be a part of this foundation, to receive training under true legends, and I believe this is one of the foremost training institutions in the country today.

DR. DHAIVAT SHAH, MBBS, MS, DNB is a Vitreo-Retina fellow at Sankara Nethralaya, Chennai. He can be contacted at dhaivatkshah@gmail.com
SHANTI SAROJ NETRALAY, MIRAJ

Shanti Saroj Netralay established in 2003 is a ISO 9002:2015 certified and NABH accredited eye hospital situated at Miraj, Maharashtra. It is a forerunner in Retina Vitreous services in the surrounding geographical region with an average volume of 2000 surgical retinal cases every year.

The 2 year retina fellowship is MUHS (Maharashtra University of Health sciences) accredited and provides practical skills for the aspiring retina fellow to face the world confidently at the completion of the fellowship. The hospital is fully equipped with the latest armamentarium in medical and surgical retina including HRA, OCT, FFA, ICG & OCT angiography, ocular electrophysiology, Ultrasound, UBM along with micropulse, pattern and traditional laser systems, Alcon constellation vitrectomy and wide angle viewing systems. Stipend and rent free accommodation is provided to all fellows.

The retina fellows are trained under the personal supervision of Dr Sharad Bhomaj who has the experience of 18 years of high volume Vitreo-Retinal surgical expertise. He has 14 publications in peer reviewed journals and has won many awards for his paper presentations in the field of Vitreo-Retinal surgery.
1. Number of seats of various long and short term Retina training programs?
   1 position every 6 months

2. Duration of fellowship?
   2 Years

3. Exposure to research and expectations by the institute in research?
   We encourage fellows to undertake a research project and present or publish the same.

4. Probable number of surgeries, lasers and injections one might expect?
   Surgeries around 100 or more, lasers and injections: countless

5. Names & positions of Medical retina and VR Faculties?
   • Dr Sharad Bhomaj, Retina Consultant

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Submission of CV by email and selection based on personal interview at the hospital

7. Most important points that you consider in a CV?
   • Preferably MS / DNB, though DO candidates aren’t universally refused.
   • Candidates sponsored by hospitals with existing VR setups may be given preference

8. Stipend
   25000 with increment of 5000 every 6 months. Rent free accommodation given opposite hospital.

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Yes

    5 Laser machines, 2 fully equipped VR OT tables with constellation vitrectomy machine and non contact wide angle viewing system, Spectralis HRA, OCT, OCTA, Micropulse, pattern and TTT facilities available

11. Number of permitted leaves
    12 / year

12. Any post fellowship International exposure?
    Yes, if candidates are willing. But most candidates aren’t keen to go abroad as no surgical hands on is available at such places

13. Any bonds or compulsory commitments with the institution after completion?
    NIL

14. Any peripheral centres for compulsory rotation and duration of the same?
    Monthly visit to peripheral centres for OPD and laser work

15. Contact details (Phone & Email) of the academic department.
    Shanti Saroj Niralay, A N Gaikwad road, Miraj 416410, Maharashtra

16. Names and Contact details of 3 past(within 2 years) or present fellows.
    Dr Pathik Baravaliya 9016766304
    Dr Pratik Gandhi 9028851061
    Dr Sagar Petkar 9960073626

Young Ophthalmologists Times is highly indebted to Dr Sharad Bhomaj for providing us the above information.
Shri Ganapati Netralaya is 95 bedded tertiary eye care hospital located in central Maharashtra, which has state of art Vitreoretina department with all latest equipments (eg Angio OCT, FFA, ICG, Micropulse diode laser, Constellation and Reticare vitrectomy unit etc), so fellows get good overall exposure of all vitreo-retinal pathologies. The hospital is empanelled with all government schemes and a percentage of surgeries are performed free for underprivileged section of society. Approximately VR dept performs more than 5000 retina surgeries annually due to which retina fellows get a good exposure under supervision initially followed by independent hands on experience making them confident enough to practise independently once they finish fellowship programme.
1. **Number of seats of various long and short term Retina training programs?**

   3 per year (2 in June session and 1 in Dec session)

2. **Duration of fellowship?**

   2 years

3. **Exposure to research and expectations by the institute in research?**

   For fellows it is mandatory to publish and present at least 1 project in peer reviewed journal and national conferences during their tenure.

4. **Probable number of surgeries, lasers and injections one might expect?**

   No. of Lasers - 2000 approx  
   No. of Injections - 1000 approx  
   No. of Surgeries - 200 approx

   independently following supervision for initial cases. Number varies based on candidate’s capabilities and surgical skills.

5. **Names & positions of Medical retina and VR Faculties?**

   - Dr Rushikesh Naigaonkar, MD  
   - Dr Abhishek Desai Senior VR Consultant  
   - Dr Reetika Saxena Senior VR Consultant

6. **Selection procedure in brief including probable dates (Interview & Joining)?**

   Through interview which includes MCQ test followed by viva

7. **Most important points that you consider in a CV?**

   - Candidate should be a degree holder (MD/MS/DNB)  
   - Number of presentations  
   - Number of Publications

8. **Stipend**

   20,000/ per month

9. **Exposure to other areas like ROP, Ocular Oncology, Uvea etc**

   i) Diagnostic oncology as management part is taken care by Oculoplasty.

   ii) Diagnosis and management of various cases of uveitis and ocular inflammation with the help of various diagnostic modalities eg FFA, ICG, fundus autofluorescence etc

   iii) ROP – being only tertiary eye care hospital in region we get lot of referrals of ROP babies and also we have MOU with local government hospital, paediatric hospitals for ROP screening and management.

10. **Brief overview of VR equipments available in the Institute.**

    Topcon OCT ANGIO, ZEISS FFA, ICG and autofluorescence, Topcon & Iridex laser delivery systems, Constellation Vitrectomy Unit, Oculus BiOM, Zeiss Lumera and Topcon microscopes, Sony HD video recording system in OT.

11. **Number of permitted leaves**

    12 leaves in a year

12. **Any post fellowship International exposure?**

    Nil

13. **Any bonds or compulsory commitments with the institution after completion?**

    Nil

14. **Any peripheral centres for compulsory rotation and duration of the same?**

    Yes, for 2 months.
15. Contact details (Phone & Email) of the academic department.

Interested candidates may apply through email by sending CV and letter of interest, details of which are as follow: admin@netrala.org, academics@netralaya.org

Contact Person:
Dr Abhishek Desai, Consultant VR department, Shri Ganapati Netralaya.
Email: abhishek.desai@netralaya.org
Phone 02482-239001, 2, 3.

16. Names and Contact details of 3 past (within 2 years) or present fellows.

Dr Rashi Taori +91 9765572272
VR consultant, Gomabai Netralaya, Nimach.

Dr Vaibhav Autade, +91 7588797539
VR consultant Dr Agarwals eye hospital Pune.

Dr Shubham Malpani (Current Fellow)
+91 9518710598

Young Ophthalmologists Times is highly indebted to Dr Abhishek Desai for providing us the above information.
Hello friends, I am writing this to share my retina interview experience at Shri Ganapati Netralaya, Jalna. The whole interview process was quite interesting and challenging. There were 2 rounds, the first round comprised of 50 MCQs questions (both case based and one liners). After clearing that we had main interview where a panel of 5 members Dr Rushikesh Naigaonkar (Medical director and Head of Dept Retina, SGN), Dr Abhishek Desai (Assistant consultant Retina and Academic incharge, SGN) and 3 board members and trustee of the institute sat across the table. They were calling our names in order of merit in the theory exam.

In interview, they were asking different kind of questions like they asked me pictorial questions to diagnose various retinal conditions along with ultrasound, OCT images and case scenario based questions to check my approach in diagnosis and management of patients and some non academic questions like why I wanted retina, will I do institutional practice or private startup after completion of fellowship, number of cataracts I did during my PG and some were asked about their thesis as well.

For me some things really helped me a lot in cracking the interview like I did multiple MCQs from Provision series and questions of one network AAO site and for interview ,they check your approach and command towards subject, your confidence level so I would suggest you all to do hard work, have a good knowledge thorough about retina ,do as many MCQs and quiz questions.

Never ever go to any interview without preparation and last but not the least you should know each and every word of your resume.

DR KOMAL KHETWANI, MBBS, MS is a Vitreo-Retina fellow at SGN, Jalna. She can be contacted at komalkhetwani1412@gmail.com
Sri Sankaradeva Nethralaya has emerged as a premier centre for ophthalmic education in ophthalmology. Postgraduate Course in Ophthalmology - DNB (Diplomate of National Board) with affiliation of National Board of Examinations, New Delhi under the Ministry of Health & Family Welfare of Govt. of India, is conducted by the Institute every year. It also offers Fellowships in various subspecialties to Postgraduate students. The Institute got its DNB accreditation in the year 2000 and since then its alumni awarded with DNB have been engaged in the respective departments of the institution as well as in other institutions in India and abroad. The institution is equipped with latest state of the art equipments to manage various ocular conditions and for training purposes.
1. Number of seats of various long and short term Retina training programs?
   Surgical Retina: 2
   Medical Retina & Uvea: 1

2. Duration of fellowship?
   1.5 years

3. Exposure to research and expectations by the institute in research?
   Fellows are required to complete at least one research project during their fellowship period. They are encouraged to publish and time and facilities are provided for the same.

4. Probable number of surgeries, lasers and injections one might expect?
   - Lasers >1,000
   - Intravitreal Inj > 1,000
   - VR surgeries: Though ample amount is given, numbers may vary according to candidate’s acumen.

5. Names & positions of Medical retina and VR Faculties?
   - Dr Harsh Bhattacharjee (Medical Director)
   - Dr Manabjyoti Barman (HOD & Senior Consultant)
   - Dr Hemlata Deka (Senior Consultant)
   - Dr Ronel Soibam (Senior Consultant)
   - Dr Debajit Deka (Medical Officer)
   - Dr Awaneesh Upadhyay (Junior Consultant)

6. Selection procedure in brief including probable dates (Interview & Joining)?
   An oral interview & written test is held in July. The sessions begin in August.

7. Most important points that you consider in a CV?
   - Prior exposure to Vitreo - Retina
   - Knowledge of retinal conditions
   - Publications & presentations.

8. Stipend
   Rs. 30,000/- per month

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   SSN has an active ROP clinic and several screening sessions and camps are held along with further management of ROP babies.
   SSN caters to the Retinoblastoma patients of the North East and beyond and ample exposure is provided.
   SSN has a dedicated Uvea clinic. Though Uvea postings are not part of the VR fellowship program, exposure can be given if the candidate desires.

    The institute has most state-of-the-art equipment for medical, imaging and surgical retinal work.

11. Number of permitted leaves
    21 leaves in 1.5 years

12. Any post fellowship International exposure?
    Not anything linked to our fellowship, but can be facilitated if needed.

13. Any bonds or compulsory commitments with the institution after completion?
    None

14. Any peripheral centres for compulsory rotation and duration of the same?
    None
15. Contact details (Phone & Email) of the academic department.

Dr. Sumita Sharma Borthakur  
Academic Officer  
Sri Sankaradeva Nethralaya  
+919632419350

16. Names and Contact details of 3 past(within 2 years) or present fellows.

Dr. Chintan Desai : +91 9326431464  
Dr. Jitender Kumar : +91 8017210615  
Dr. Diva Kant Misra : +91 9670964875  
Dr. Pushkar Dhir : +91 8510009983

*Young Ophthalmologists Times* is highly indebted to Dr Manabijyoti Barman for providing us the above information.
VITREO-RETINA FELLOWSHIP INTERVIEW EXPERIENCE AT SRI SANKARADEVA NETHRALAYA, GUWAHATI

DR CHINTAN DESAI

I was looking at various options to pursue a Vitreo-retina fellowship post the completion of my DNB. I came to know about SSN from various acquaintances, and also spoke to previous and current VR fellows from the institute regarding the same. Based on my research, I had listed SSN as one of my top three choices for the fellowship. Once the decision was made, I checked the official website for the interview dates and application process, and also got in touch with the academic co-ordinator Dr Sumita Sarma. She was prompt with her replies, and the application process was fairly simple wherein I just had send a mail with my CV and letter of recommendation attached.

The interview was a single day process. No written exam/MCQ’s. All speciality interviews were held on the same day and were conducted one speciality at a time. A bunch of us were seated in the resting area and were made to feel comfortable till our turns arrived. The interview area was the boarding room, where a panel of 5-6 members sit across the table; and comprises of Dr Harsha Bhattacharjee (Medical Director, SSN), Dr Kasturi Bhattacharjee (Academic Director,SSN), HOD of the concerned Department (Dr Manab Jyoti Barman for VR), the academic co-ordinator Dr Sumita Sarma, and also board members and trustee of the institute.

The questions asked in the interview varied from academic and subject based questions to various non academic issues. They also varied from one candidate to the other. Whereas I was mainly asked academic VR related questions for the major part, my colleague was asked to elaborate on his army background and future plans with very few ophthalmology questions. Although already mentioned in the CV, I was not questioned about my research and publications, or the lack of it either. There was emphasis on future plans, my background, and the reason for my interest in pursuing a fellowship in VR. Once the interview was over, we were told that we would be informed about the result via email in 2-3 working days. I received the email with a list candidates selected and also the waitlisted candidates. We were given 10 days to join the programme after receiving the mail.

I would say, the interview process was fairly smooth. It would be wise to brush up on the subject before coming for the interview. At the same time, it is also important to have a clear mind about the future plans and whether we can commit to work for the hospital post the completion of the programme. From 2019, a written test will also be conducted along with interview.

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In the year 1998, Dr. Sunil Chandra Bagchi and Dr. Ratish Chandra Paul founded Susrut Eye Foundation & Research Centre with a vision to eradicate blindness and make this world a beautiful place to those who are still in darkness. They realized the necessity of a team, an organization to overcome the insurmountable load of blindness in our country. Today, we are a leading non-profit organization dedicated to providing eyecare and rehabilitate people of all ages suffering from ophthalmic problems. In this journey, Susrut Eye Foundation has proved itself as one of the best tertiary eye care institutes in Eastern India and a leader in ophthalmic education.
1. Number of seats of various long and short term Retina training programs?
   - Fellowship in surgical & medical retina at Susrut eye foundation and research centre

2. Duration of fellowship?
   - 2 years

3. Exposure to research and expectations by the institute in research?
   -

4. Probable number of surgeries, lasers and injections one might expect?
   Depends on the skill level of the candidate. Adequate opportunity for hands on training

5. Names & positions of Medical retina and VR Faculties?
   - DR ANIRUDDHA MAITI (CHIEF)
   - DR PROSENJIT MONDAL
   - DR SANGEETA ROY
   - DR UTSAV PAN
   - DR SANTOSH KUMAR

6. Selection procedure in brief including probable dates (Interview & Joining)?
   Quarterly in a year (dates available in susrut website & on enquiry mail to susrut36@gmail.com)
   Candidate has to send complete CV with passport size photograph

7. Most important points that you consider in a CV?
   -

8. Stipend
   1st year 40,000
   2nd year 60,000

9. Exposure to other areas like ROP, Ocular Oncology, Uvea etc
   Fellow will get exposure to ROP patients examination and its laser.

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11. Number of permitted leaves
    15 days in year

12. Any post fellowship International exposure?
    No

13. Any bonds or compulsory commitments with the institution after completion?
    2 years mandatory post-fellowship consultancy bond with attractive salary

14. Any peripheral centres for compulsory rotation and duration of the same?
    Compulsory peripheral posting- 2 months

15. Contact details (Phone & Email) of the academic department.
    Miss Munmun Das
    +91 9874892609

16. Names and Contact details of 3 past (within 2 years) or present fellows.
    Dr Santosh Kumar 9402756267
    Dr Priyanka Ahuja- 95821 38616
    Present fellow - Dr Soumabha Mandal 7501716671

Young Ophthalmologists Times is highly indebted to Dr Aniruddha Maiti for providing us the above information.
After completion of my post graduation (DNB) at Susrut Eye Foundation & Research Centre kolkata, I was bit confused about my future plans. As I was actively practising general ophthalmology at various small peripheral centres(mainly cataract based) I was in a dilemma whether to continue this or to upgrade to any subspecialty as recent trend is like that only. My only choice was vitreo-retina and I had not searched for other institution fellowship schedules as surgical exposure at my mother institution is great in comparison with so called premium institutions. And my preference while choosing surgical branch is always surgical exposure rather than academics as you have to upgrade academics by yourself.

So, I have mailed my CV to HR person (Ms Munmum Das) and date and time of interview was replied to me. On the day of interview almost 20-25 candidates for all specialities came and seated in our seminar room. Lunch was provided on behalf of institution. Interview was based on academic and non academic questions and consultants from all subspecialties were present on the day of interview. As there was strict bond of 2/3 yrs(VR-2 yrs course+2 yrs bond/ others 1 yr course+ 3 yrs bond) everybody was questioned about their willingness to stay for that much long period or not. Academic questions were related to general ophthalmology largely and few about particular subspecialty. Successful and unsuccessful candidates were mailed within 2 weeks. Except 1 or 2 most of successful candidates joined the institution.

After joining I have asked other candidates about their experiences regarding interview and the replies were positive. Overall satisfactory interview experience in Susrut Eye Foundation and Research Centre.

DR SOUMABHA MANDAL is a Vitreo-Retina fellow at Susrut Eye Foundation, Kolkata. He can be contacted at +91 7501716671
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