CURRENT STATUS OF FELLOWSHIP TRAINING AND OPPORTUNITY IN ASIA PACIFIC

Asia-Pacific Academy of Ophthalmology®
# CONTENT

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDITORIAL</td>
<td>3</td>
</tr>
<tr>
<td>FOREWORD</td>
<td>5</td>
</tr>
<tr>
<td>FELLOWSHIP TRAINING FOR YO DURING THE COVID-19 PANDEMIC</td>
<td>8</td>
</tr>
<tr>
<td>CURRENT STATUS OF FELLOWSHIP TRAINING AND OPPORTUNITY IN ASIA PACIFIC</td>
<td>10</td>
</tr>
<tr>
<td>APAO International Fellowship Program (IFP)</td>
<td>30</td>
</tr>
</tbody>
</table>
As we go through this last month of 2020, one cannot help but look back and wonder how the world we knew in up until 2019, has changed so much. Who knew that an uneventful flu like outbreak in a market in an isolated city in Wuhan will have profound impact on humanity in a global sense?

From a relatively normal beginning of the year, our routine lives came to an almost standstill for a few months, but now gradually we have learnt to continue our lives despite the persistence of the hovering enemy, the Covid-19. New vocabulary in 2020 includes – Social Distancing, Lockdown, Work from Home (WFH) and Contact Tracing Apps. The biggest fashion trend of 2020 has been the facemasks and sanitizers. Social events like weddings, symposiums, annual dinners are all now held via webcast on Zoom, Google Meet, Microsoft Teams and Webex.

Ophthalmology community around the world, has continued to strive and overcome this adversity; to do what we do best: Save sight. With the need to implement social distancing, most of us have turned to the virtual platform to continue to share and obtain knowledge. From tele-consultations to slit lamp and surgical microscope shields, we have been doing everything we can to keep our practice going. Let’s take a moment to celebrate this perseverance that we are blessed with. We would like to take a moment to also pay tribute to the late Dr. Li Wen Liang, an Ophthalmologist from Wuhan who was the earliest to notify us about the deadly Covid-19. His sacrifice enabled us to be better prepared in detection and management of the cases whilst minimizing the exposure to the frontliners. Lets also take a moment to salute the heroic frontliners including doctors from the Ophthalmology fraternity, who at times have worked long hours, experienced shortages of PPE, suffered social stigma and mental stress while performing their duties.

When we look particularly at young ophthalmologists, the year 2020 saw numerous young minds who had to put a brief halt to their training and career. With closure of borders between nations, many fellowships were deferred or cancelled. Cancellation of elective surgeries and reduction in clinic/walk in patients, impacted most fellows and trainees, as we were unable to fulfil the requirements to complete the training. Examinations were unfortunately postponed. Lectures and seminars were forced to be on a virtual platform and major ophthalmological conferences had to be cancelled. For many who started this year with great enthusiasm, it quickly felt as if, dark clouds set in to prevent the sunshine from reaching us. Martin Luther King Jr. correctly pointed out that, “only in the darkness, can you see the stars”. The extraordinary circumstance brought out the astonishing talent, determination and compassion in the ordinary us. Let’s continue to be hopeful for things to take a positive turn in the year 2021.

With that in mind, we have decided to request representatives from countries in the Asia Pacific region, to write up about subspecialty training opportunities in their respective countries, highlighting training and fellowship opportunity for international fellows and also provide insights to...
EDITORIAL

innovative ways for continuing education during this pandemic. We hope that this compilation of information and ideas would inspire and encourage young ophthalmologists in this region to continue to strive towards excellence despite this challenging times.

We also hope that this newsletter will act as a comprehensive resource for young ophthalmologists seeking training and fellowship opportunities beyond their borders in the Asia Pacific region. We intend to extend our efforts beyond this newsletter and our team will be available to help you in training related queries through email as well.

Let’s hope that our steadfastness and the promising news that vaccine is already on its way, propel us to continue this journey in attaining knowledge with the common goal, “to restore vision”.

Editors 2nd APAO YO Newsletter

Dr Sudhashini CHANDRASEKARAN, Malaysia
Email: sudhashini@gmail.com
(APAO YO Standing Committee Members)

Dr Diva Kant MISRA, India
Email: divakant@gmail.com
(APAO YO Standing Committee Members)
Dear Readers,

Thank you for your time reading this newsletter.

2020 has been an unusual year. We have faced a lot of difficulties due to the COVID-19 pandemic, and many of us are still struggling to adapt. Though the situation remains uncertain, we are now finding new and innovative approaches to cope with these challenges and managed to continue advancing our work at Young Ophthalmologist (YO) Standing Committee.

This issue of newsletter features the themes that we now eagerly need to discuss and share, including, current status of subspecialty training in each AP country, training opportunities for international YOs in each AP country and innovative ways for continuing education during the pandemic.

As the President of the Asia-Pacific Academy of Ophthalmology, I realize that in challenging times like this, our YOs in the region, more than ever, need our support and guidance. Everyone at the YO Standing Committee has been working really hard to provide the support needed through this platform. Their commitment and efforts in offering and sharing these informative and inspiring newsletters are of great value at this time.

Enjoy reading this issue of newsletter!

Kind regards,

Ningli WANG
President, Asia-Pacific Academy of Ophthalmology
FOREWORD

Ophthalmic training and education, in particular for our younger ophthalmologists, have always been right at the heart of all that APAO has been striving to achieve. And there is no more critical time to focus on training and education than in the midst of a global pandemic, when elective clinical ophthalmic services, as well as international travels and exchanges, are widely disrupted.

We are very grateful to the APAO Young Ophthalmologists Standing Committee, under the able leadership of Dr. Seng Kheong Fang from Malaysia, to spearhead our persistent efforts in supporting top-notched general ophthalmic and subspecialty training, for both local and overseas trainee surgeons, throughout our member countries and regions, during this unprecedented pandemic. We wish Dr. Fang and his team, and all our Young Ophthalmologists in the Asia-Pacific region, every success in this invaluable endeavours!

Clement C THAM
Secretary General & CEO, Asia-Pacific Academy of Ophthalmology
Welcome to the 2nd Edition of our APAO YO Newsletter! I thought I would like to update you all on the recent activities of the YO in this Newsletter. The COVID 19 pandemic has brought most activities around the globe to almost a standstill. Our first newsletter published in May 2020 gives us details on how the pandemic has affected the YO’s in the Asia Pacific region. This issue will focus on the current status of subspecialty and fellowship training in each country, how it has been affected by the pandemic and how to overcome this. We had our first Virtual Standing Committee meeting on 22nd August 2020 and we have shared many issues which I will give a brief summary here. Firstly the YO’s still remained connected to each other via the WhatsApp group created by Dr Diva Kant Misra and Dr Marcus Ang. Here we share information with each other including educational opportunities such as Webinars. Secondly we have updated and added our Standing Committee to representatives who are keen to participate and contribute to the YO activities. A note of thanks to the previous YO representatives from each country who have stepped down and indeed your previous contributions has been well appreciated. Thirdly for communication we are publishing regular newsletters and setting up a private Facebook page. Fourthly we have come up with our own YO logo which you can see in this Newsletter. The fifth activity is that we have helped several countries to set up their own YO chapter or Interest groups, namely Philippines, Indonesia, Malaysia and Bangladesh. We are also planning to set up various subcommittees, namely:

a. Advocacy and Education
b. YO Information and Editorial Board.
c. Communications
d. Fellowship and Mentorship

Once we can meet face to face, we will resume our various educational and social activities during the Congress. Hope you would enjoy the Newsletter!

Seng Kheong FANG
APAO YO Standing Committee Chair
FELLOWSHIP TRAINING FOR YO DURING THE COVID-19 PANDEMIC

The global outbreak of the coronavirus disease of 2019 (COVID-19) has led to unprecedented challenges for Young Ophthalmologists (YO). The need for infection control and social distancing measures have drastically reduced patient and surgical volumes. YO in fellowship training or those who have made plans to begin their fellowships have been disproportionately affected. Although patient volumes have largely returned to pre-COVID levels in many countries, current fellows may feel a need to extend their fellowships to compensate for downtime during the height of the pandemic. Air travel and border restrictions have led to YO having to postpone fellowship plans and some have had to abruptly discontinue their fellowship training to return home. Many institutions continue to impose restrictions on accepting new fellows. These measures create a pent up demand for fellowship positions and are likely to have a detrimental downstream effect on YO.

There is thus an urgent need for ophthalmological societies and institutions to brainstorm and reinvent the way fellowship training is conducted. With the increasing adoption of digital technology and online teaching platforms, it may be possible to shift fellowship training onto virtual formats. “Virtual” fellowships can overcome geographical boundaries, and potentially allow a larger number of fellows to be trained at the same time and within a shorter duration.

Virtual Classrooms
Teaching rounds are a staple feature of fellowship programmes, including grand Rounds, daily ward rounds, clinical rounds, tutorials, didactic lectures, journal clubs and research presentations. These rounds can immediately be moved onto a virtual format, using the popular Zoom and Microsoft Teams apps. Many institutions have already transitioned to these online formats which can be recorded and archived into a rich database of educational resources for future fellows.

Telemedicine and imaging clinics
There has been a global push towards telemedicine clinics during the pandemic and these clinics have proven to be an effective substitute for face to face consultations for many, but not all patients. For those patients that require essential investigations, dwell time in hospitals can be reduced with short visits to “imaging clinics” where patients can receive ocular imaging like slit lamp photography, fundus photography, optical coherence tomography and visual fields. Such clinics provide the opportunity for “virtual fellows” and faculty to review and discuss imaging findings, examine patients over the online consultation process, and formulate management plans together without the need for a traditional brick and mortar consult room.

Virtual surgical training
Restrictions on the number of elective surgical cases necessitate optimizing the “fellow in operating room time” (FORT). FORT can be optimized in several ways. For example, a team led by A/Prof Marcus Ang from the Singapore National Eye Centre have developed online teaching modules for Descemet’s Membrane Endothelial Keratoplasty (DMEK). These modules combine didactic teaching with detailed surgical instruction videos to help learners gain a deep understanding of the surgical procedure before
stepping into the operating room, thus maximising their learning experience when they perform the actual procedure. Simulation-based training, such as with the Eyesi Surgical Simulator, have also proven to help learners reach the required level of competency without the need for a high surgical volume. 3D surgical visualization systems in ophthalmic surgery have allowed learners to view surgeries “live” and in high definition from outside the operating theatre, with the surgeon providing real time, detailed explanation of surgical steps. Conducting post-surgery review of surgical videos with fellows will further augment the learning experience.

**Shift towards competency based training paradigm**

Lastly, the pandemic has also generated discussion among academic institutions to assess competency rather than numbers of procedures performed or time spent in a clinical rotation. This may be a great opportunity to consider a shift towards a competency based training paradigm, provided that a consensus is made on what these competencies are and what standards are expected of fellows before they are deemed to have successfully completed their training. Faster learners may require a shorter duration to achieve these competencies, potentially freeing up precious fellowship positions and allow a greater number of YO to be trained during these challenging times.

In conclusion, the pandemic has challenged the ophthalmic community to innovate and break tradition in order to provide a high quality training experience for YO in their critical fellowship training years. Digital technology and a willingness to embrace innovative formats for the delivery of fellowship training will be invaluable for our YO in these extraordinary times.

Chee Wai WONG
Surgical Retina Consultant and Deputy Director of Undergraduate Education,
Singapore National Eye Centre
Assistant Professor, Duke-NUS Medical School
Thankfully most of Australia and New Zealand have had very few COVID cases. Victoria unfortunately has experienced a second lockdown which has affected elective surgery but restrictions are easing. Happily, the rest of the states and territories in Australia and New Zealand have been able to resume normal training. However, unfortunately the Australian border is not open to international trainees currently.

To continue education during this pandemic, RANZCO has arranged a series of Webinar sessions which have been very well received. This series included 11 different presentations on various subspecialty topics open to all trainees and fellows. This also included an interactive component for questions. In addition, there has been a whole day Oculoplastics seminar with an excellent array of speakers. Globally, all meetings and seminars have transitioned to Zoom or online platforms which has actually increased accessibility.

In Bangladesh, subspecialty fellowship training is offered at 4 institutes - Ispahani Islamia Eye Institute & Hospital, National Institute of Ophthalmology and Hospital, Bangladesh Eye Hospital & Institute, Chittagong Eye Infirmary and Training Complex. Most of the institutes have subspecialty training for long term, short term or both. Entry into long term fellowship programs are usually bi-annual starting from January or July and are usually 12 or 18 month in duration.

During the Covid-19 Pandemic, fellowship programs are still running though there was limited admission into the institutes for the July 2020 session. However, applications are now open for January 2021 as per usual.

For foreign ophthalmologists, Ispahani Islamia Eye Institute and Chittagong Eye Infirmary Training Complex offer regular long-term fellowship in all subspecialty and Bangladesh Eye Hospital & Institute offers only Cataract Refractive fellowship which are available for both long term and short term.
In China, subspecialty training is available to ophthalmologists who have obtained the standardized training certificate of ophthalmologists. Through the study of fundus diseases, uveitis, glaucoma, ocular surface and corneal diseases, optometry, strabismus and amblyopia, orbital diseases and other subspecies, the trainees are well able to diagnose and treat common ophthalmic diseases in this subspecialties and have basic experience in surgical skills, diagnosis and treatment of rare or difficult ophthalmic diseases. The objectives of basic ophthalmological training is to have good professional ethics and professional qualities; to be proficient in the diagnosis and treatment of common ophthalmic diseases; to be proficient in various ophthalmic auxiliary examinations; to master basic ophthalmic surgery skills; to be able to complete outpatient and emergency ophthalmic operations independently; to complete part of ophthalmic three-level operations under the guidance of superior doctors; to be able to teach junior doctors; to have professional foreign language reading ability and clinical research ability. The complete training lasts 3 years where during the final year, focused training will be conducted according to the selected subspecialty. Every year, comprehensive evaluation on the medical ethics, clinical ability, teaching ability, and clinical research ability of the trained specialists is conducted. Those who fail to pass the assessment shall not be included in the training plan for the next year. After the three-year training, the trainees will accept the unified assessment organized by Provincial Training Committee, and those who pass the examination will get corresponding certificates. Training for international fellows is implemented according to the standards of each province and university.
The major subspecialties in Hong Kong include anterior segment, posterior segment, glaucoma, oculoplastics and paediatric ophthalmology. Individual hospitals also provide subspecialized training in neuro-ophthalmology. Trainees are given opportunities to rotate around these subspecialties in their 6 years of residency. Majority pursue subspecialty training near the end of residency. They are required to perform an audit report or a self-initiated research project with publication before admission to subspecialty team in some hospitals. They take subspeciality emergency calls, participate in subspecialty clinics and perform surgeries under supervision during training. The training continues until the trainees become fully competent for all independent subspecialty services.

Overseas ophthalmologists are welcome to pursue fellowship in The Chinese University of Hong Kong (CUHK) and The University of Hong Kong. The CUHK has international fellowship programmes in cataract, cornea & external eye diseases, glaucoma, medical retina & uveitis, surgical retina, neuro-ophthalmology, orbital & oculoplastic surgery, pediatric ophthalmology, ocular imaging and basic sciences. These programmes are generally one year in duration but other durations can also be approved. International fellows will participate in different clinical services and research projects with supervisors.

In the COVID-19 pandemic, almost all continuous medical education (CME) activities have been moved online. Webinars and grand rounds are usually arranged at 7 – 8 pm local time to allow all ophthalmologists in Hong Kong to attend in the comfort of their own homes or offices without the need for further travel. Online tests are available afterwards. There are also online surgical skills demonstration workshops. Eye models for surgical practice will be sent to participants and they are encouraged to record their videos while practising for trainers to review and comment. CME points are awarded to trainers for taking part in these teaching activities.
The COVID-19 pandemic had an immense impact on the residency and sub-speciality training in India. As the lockdown was lifted and COVID numbers began to go down, the training programs are limping back to normalcy.

To give an overview of the fellowship training programs, India has approximately 400 long term fellowships in 45 institutions.

- **Anterior segment/Cornea**: 120+ long term fellowships in 35+ institutions
- **Retina**: 90+ long term fellowships in 35+ institutions
- **Short term Phacoemulsification fellowships**: in 48 institutions
- Many more short term fellowships or observerships in 100+ institutions

Many of these programs accept international fellows in limited or full capacity.

For any assistance in seeking fellowship opportunities in India you may take benefit of the YOSI (Young Ophthalmologists Society of India) Fellowship Help Desk. ([https://yosi.in/yosi-fellowship-helpdesk/](https://yosi.in/yosi-fellowship-helpdesk/))

Important Links:


Please feel to get in touch for any queries [divakant@gmail.com](mailto:divakant@gmail.com) / [secretariat@yosi.in](mailto:secretariat@yosi.in)
The ophthalmology subspecialty education in Indonesia will soon be divided into two kinds of programs. The first is the short-term hands-on fellowship, with a duration of three to six months. This program has been held for decades in several institutions in Indonesia. The second one is the long-term subspecialty training program that takes one to two years. The latter is still in development at this time. For now, both of the programs are limited to Indonesian ophthalmologists. Most of the institutions providing the ophthalmology subspecialty education are the national referral hospitals, so there’s a high volume of patients with a wide variety of cases. As a result, fellowship participants would get a tremendous opportunity to learn and to enhance their skills. The enthusiasm of the Indonesian young ophthalmologists in continuing ophthalmology education through fellowship is high. About 40 percent of more than 250 young ophthalmologists participating in our survey have already experienced fellowship training, and the rest are interested in joining the training program in the future.

Some of the Indonesian YO projects aim to boost the motivation to take fellowships, including through our newsletters, “Perdami YO-Share”, and our fun YO online meeting named “Tinder YO” focusing on fellowships. Experience-sharing between YOs has a huge impact on YOs’ motivation for taking a further education, help them choose their preferred subspecialty, and even give the clear “how-to” clue to take the program.

Two editions of our newsletter focusing on fellowship
The covid-19 pandemic has presented great challenges in fellowship training. However, several things could be done to optimize the training process. Lectures, and cases or research discussions are effectively held through online platforms without compromising the essence of direct meetings. With good operating room management, proper safety protocols, and commitment from the trainers, fellows are still having a huge opportunity to advance their skills. This pandemic situation has undeniably proven that many things can be done differently and even more effectively, and make us better appreciate every hands-on opportunity.
COVID-19 has put unprecedented pressure on health systems all around the world. Health services not ready for this pandemic encountered insufficiency of personnel and equipment, including personal protective equipment (PPE). Patient visits and surgical operations have decreased dramatically to allocate resources to handle COVID more efficiently. The medical education system has also suffered restriction to reduce the chance of disease spread among healthcare workers. Therefore, medical students, residents and fellows all are more affected by this pandemic in comparison to non-medical students.

Ophthalmology fellowship programs divided into several sub-speciality are mainly based on learning by doing clinical works. Moreover, ophthalmology fellowship programs are usually limited to one year. Many international fellowship programs have also been cancelled due to national restriction on visa issues. Consequently, COVID-19 has been a massive barrier to fellowship learning. It is even more demanding to find solutions to sort out obstacles of fellowship programs considering a limited number of fellows for each sub-speciality with various requirements and difficulties.

Fellows are more concern about their surgical skill training which is affected by a substantial decrease in the number of elective operations. Additionally, the cornea fellowship program is adversely affected by a drop in the availability of the corneal donor tissue. Nevertheless, less busy operating rooms provide more time for both trainers and trainees to concentrate more on each surgical case. Educational points can be discussed meticulously without time pressure in operating rooms. Video recording is also a valuable tool to give feedback to trainers afterwards. Surgical rubrics for different surgical procedures can formulate and facilitate surgical skill transfer. Surgical simulation has helped training of new surgical skills from a few years ago. The current situation has increased need and motivation for the development of simulation projects for facilitating surgical skill acquisition in ophthalmology fellowships.

Limitation in clinical visits is another adverse effect of COVID-19 on ophthalmology education. Fellows may have less chance to diagnose and treat medical cases. Fellows should receive all educational points from each clinical cases with appropriate discussion. Archives of uncommon and essential medical cases should be employed for further education. Jointed virtual case-report meetings are another way to boost knowledge of managing medical cases.

Although most educational classes are cancelled to prevent the spread of COVID-19, virtual media has provided an exceptional opportunity for education. It is also straightforward to organize an international meeting thorough cyberspace. Therefore, the development of local and international virtual classes and meetings has been the positive side of COVID-19. It seems that we will utilize this helpful possibility more in the post-COVID era.

Fellowship curriculum is a valuable tool to evaluate each fellow performance. It may occasionally be necessary to postpone the termination of the fellowship program. Additionally, fellows should be supported more after graduation by a chance of attending operating rooms, outpatient clinics and virtual meetings if they want. On the other hand,
current circumstances have put a tremendous amount of stress over the young generation of ophthalmologists. They are worried about their education and future carriers. It is a thoughtful responsibility of fellowship directors and mentors to support them as much as feasible. The unwanted challenge of COVID-19 can help us to reform fellowship programs.

After completing mandatory two-year basic clinical training, residents start their training as ophthalmologists. The number of ophthalmology residents has been capped by the Japanese Medical Specialty Board. Four years of training (at medical institutions that meet the standard program standards set by the Japanese Ophthalmological society [JOS]) is required to become a specialist (board certified ophthalmologist in Japan). To take the specialist test, there are several qualifications set by JOS; for example, a trainee is required to take part in more than 100 surgeries and to make at least two presentations at national conferences. As a next step, subspecialty training is provided under the guidance of senior specialists at major hospitals or university-affiliated hospitals which possess the resources, manpower and the annual number of surgeries.

There are no training Opportunities for international YOs in Japan. In my personal opinion, this is mainly due to the language barrier. Basically, most patients are Japanese and Japanese medical licensure is required to see patients.
2020 has been the year that everyone has been forced to adjust to a new-normal, one that no one has ever experienced before. Korea was hit with a high number of positive cases early on, mostly due to an outbreak in the city of Daegu, which was the site of the first major outbreak outside of China. However, after the outbreak in Daegu, the COVID-19 pandemic has been relatively well contained, with most people wearing masks, and hospitals have been able to operate as usual. The Korea Centers for Disease Control and Prevention has also aggressively tracked down any potential positive cases by performing meticulous contact tracing with an Immediate Response Team which is deployed within hours of a large potential local outbreak. From late February and upto April, when little was known about the coronavirus, many patients were indeed apprehensive about visiting the hospital and skipped their appointments, but as more data was gathered, and an approximate case fatality rate was determined, patients found the confidence to visit the hospital. Subspecialty clinical fellowship and resident training have hence been able to continue routinely. We do not wear face shields either in the outpatient clinic or in the operation room but only wear masks. Since there is not a single patient who does not wear a mask, and no one is allowed entrance into the hospital without one, we have found that even if retrospective contact tracing reveals a coronavirus positive patient having visited the outpatient clinic, there have been no secondary infections. Mask wearing really works!

As for training opportunities for international YOs in Korea, most major hospitals offer clinical observership/fellowship programs for doctors from abroad, although most programs are currently temporarily suspended due to the COVID-19 pandemic. If YOs are interested in pursuing a subspecialty program in Korea, the quickest way would be to refer to the list of websites below, or directly contact the supervising subspecialist under whom he/she wants to train under, to see if a position is available. Fund sponsorships also vary from hospital to hospital, so directly contacting the supervising physician would be the fastest way to get the most accurate details for conditions under which you will be staying.

https://covid19.who.int/region/wpro/country/kr
List of websites:

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<tr>
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<tr>
<td>Yonsei Severance Hospital</td>
<td><a href="https://yigh.yuhs.ac/yigh/international/physician.do">https://yigh.yuhs.ac/yigh/international/physician.do</a></td>
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With vaccinations already starting in some parts of the world, I do hope that the year 2021 brings back the old-norm. Until then, I sincerely hope that everyone stays safe.
Ophthalmology sub-specialties in Malaysia are well developed although more sub-specialists are needed to cater for the growing population with different ocular problems. Currently, in Malaysia, we have a 3-year national sub-specialty training program in the fields of glaucoma, pediatrics, neuro-ophthalmology, medical retina, cornea and external disease, oculoplastic and vitreoretina. Candidates eligible for the sub-specialty training are general ophthalmologist with 2 years of clinical experience and registered with the National Specialist Register. Within these 3 years, depending on the field of sub-specialty, fellows may either fully complete the training locally or may pursue a one year hands-on overseas fellowship in reputable training centers to gain a wider exposure in the relative field. At the moment, there is opportunity for international YO’s to undergo training in Malaysia. The College of Ophthalmologist / Academy of Medicine is currently formalising the Ophthalmology chapters of the college to enable overseas YO’s to choose respective sub-specialty fields and also the training centre of choice in Malaysia. This year saw a tremendous challenge to the sub-specialty training due to the Covid 19- Pandemic. During the first half of the year, the training program had to be halted for a few months to facilitate services and manpower to combat the Covid 19 pandemic. Although candidates were technically not in the training program during this period, they were strongly encouraged to engage in non clinical work such as research, publication and self learning. Teachings, weekly seminars, and continuous education were conducted via webinars. Surgical training exposure was limited during this time, but is now slowly stepping up. However, a new paradigm in surgical training is employed where the emphasis of surgical training has changed from “quantity to quality matters”. Despite the shortcomings, the current fellows are motivated with a positive outlook in their training program.
Majority of ophthalmologists in Myanmar are comprehensive ophthalmologists. In recent years, the dynamics of local training has changed from general to subspecialty training through two main processes: scheduling regular traineeship for young ophthalmologists (YOs) in subspecialty clinics and providing more opportunities for training abroad. Residents and YOs are scheduled to rotate in the subspecialty clinics every 3 months as part of their training program. There are in-house subspecialty fellowship trainings in glaucoma, paediatric and vitreoretina offered by Sight-for-all, Australia. Some YOs are currently undertaking clinical fellowship training in Singapore National Eye Centre.

Unfortunately, there is currently no training program for international YOs in Myanmar. However, international medical students can apply for observership in Ophthalmology department, University of Medicine 1, Yangon, Myanmar.

YOs face several challenges to continue their training during this pandemic. Clinics practice telemedicine for non-urgent cases and elective surgeries have been deferred. Thus, YOs get limited in-person experience. This pandemic encourages YOs to incorporate innovations to medical practices (from bed-side to web-side). Residents in Myanmar offer telehealth as their rotation during this pandemic season. They determine necessary follow-up physical examinations and document their telemedicine visits. As a consequence, the residents improve on their communications skills and decision-making abilities. For learning, they are enhancing their microsurgical skills through online courses, virtual conferences, webinars, and zoom lessons. After the pandemic is over, they are expected to provide prestigious medical care and immediately work on their skills that can only be learned in-person.
For the Pacific Eye Care Society (PacEYES), ophthalmology training in the region is currently being carried out at the Pacific Eye Institute (PEI) in Suva, Fiji and at the University of Papua New Guinea (UPNG) in Port Moresby, PNG. Island countries including Tonga, Samoa, Vanuatu, Solomon Island, Papua New Guinea, Cook Island, Tuvalu, Kiribati, Federated States of Micronesia, Timor, and Fiji have continued to send doctors, nurses and technicians to be trained mostly at PEI.

There is currently no formal ophthalmology subspecialty training in these 2 institutions. However, 4 ophthalmologists, who are graduates of PEI, had their first of its kind subspecialty training in vitreoretinal and oculoplastic from July 2018 to June 2019. The participants included 2 ophthalmologists from the Solomon Islands and 2 from Fiji. This was funded by the Commonwealth Eye Health Consortium for 1 year. The grant was given to the Royal Australian and New Zealand College of Ophthalmologists (RANZCO) and they also provided preceptors. The training used an “in-country” model due to difficulties of trainees to get medical registration for hands-on experience in Australia and New Zealand.
Eleven months into 2020 and almost 400,000 COVID-19 cases later, the young Filipino doctors selflessly and courageously continue to fight the biggest battle of their lives. Despite their gallant effort, the battle is far from over and the end nowhere in sight.

The practice of Ophthalmology as well as the training programs are particularly impacted by the pandemic. Currently, the following are the subspecialty training programs offered in the Philippines: Advanced Cataract (1 institution, 1 slot); Refractive Surgery (1 institution, 4 slots); External Disease and Cornea (2 institutions, 3 slots); Glaucoma (5 institutions, 7 slots); Medical and Surgical Retina (10 institutions, 21 slots); Neuro-Ophthalmology (1 institution, 1 slot); Orbit, Plastic and Lacrimal Surgery (2 institutions, 2 slots); and Pediatric Ophthalmology and Strabismus (4 institutions, 5 slots). These distinctions were blurred, however, when residents and fellows were pulled out of their service areas and were tasked to man COVID triage areas, the emergency rooms, COVID wards and intensive care units, when the country’s healthcare manpower was overwhelmed during the peak of this pandemic.

Despite the willingness to care for, serve, and attend to patients in the face of personal risks, fellowship training has not proceeded at par with pre-pandemic standards. There are simply not enough cases to learn from. Most patients choose to stay home because they fear contracting the virus and partly because of limited transportation options. As a result, 66% of training programs had decided to extend their training duration to meet the requirements of the program, while a few others are still evaluating the need to do so. Subsequently, acceptance of new applications for the year 2021 have been put on hold, except for 1 institution. Within clinics, the pandemic has also forced subspecialties to challenge their treatment norms. The pandemic has also forced subspecialty clinics to adopt treatment strategies that minimize risk of exposure for both patient and doctor while providing optimum care.

To compensate for the physical limitations, such as travel ban and physical distancing placed on learning by the pandemic, the local and international medical communities had explored various online platforms for the exchange of information, which the various fellowship programs have adopted. This technology allows training programs to hold departmental, inter-hospital, and case conferences and gives the trainees access to international meetings and webinars.

As the country shifts back to the new normal, we persevere to give the best possible care for our patients, while keeping them, ourselves, and our families safe from this virus. And while COVID-19 is definitely a formidable opponent, the Filipino fighting spirit and resilience are simply stronger.
Post-COVID organizational chart.
Photo credits: John Philip T. Lim, MD
(East Avenue Medical Center)

Retina fellow performing vitrectomy using plastic barrier modifications at the height of the pandemic.
Photo credits: Kristine Pormida, MD
(East Avenue Medical Center)

Fellow examining a patient using a slit-lamp with acrylic shield.
Photo credits: Billie Jean Cordero, MD
(Philippine General Hospital)

Adapting to COVID-19: Acrylic boxes are used for ROP screening.
Photo credits: Chester Pataray, MD
(Jose Reyes Memorial Medical Center)

Fellows in action: Retina fellow operates during the pandemic.
Photo credits: Michael Fernandez, MD
(University of Santo Tomas Hospital)

Adapting to COVID-19: Fellows and residents hold Glaucoma virtual clinic.
Photo credits: Victor Paulino, MD
(St. Luke’s Medical Center)
In Singapore, subspecialty training was severely disrupted since February 2020 with deferment of all but the most urgent surgeries for sight threatening conditions. Because the amount of time spent by healthcare workers and patients in the operating theatre had to be kept to a minimum, it was difficult for fellows to participate in the surgeries as well. Patients with non-urgent eye conditions were also asked to postpone their appointments, resulting in a significant decrease in patient load within the subspecialty clinics. Some of our local fellows were deployed to satellite clinics or to the frontline to care for COVID-19 patients. For a period of time, all teaching sessions were also suspended. All of these factors contributed to a negative impact on subspecialty training during the height of the pandemic in Singapore.

Despite these challenges, all our fellows have stepped up to help take good care of patients despite the challenges posed by COVID-19. With the pandemic abating in Singapore, clinical and surgical subspecialty training has largely resumed since August. While patient load has returned to normal, the number of surgeries that can be performed per session are still limited. There are considerations to extend the duration of fellowships affected by the COVID pandemic but for international fellows, such an option may not always be possible, either because of ministry guidelines, their own commitments back at home, or because there is an incoming fellow for the next training cycle. Local fellows may have their training extended, depending on their head of department’s recommendation.

The entry to Singapore for international fellows is subject to Ministry of Manpower’s approval and in compliance to the prevailing border and health control measures. These fellows will be required to take a COVID-19 PCR test before departure and to serve a Stay-Home Notice (SHN) at a dedicated facility for 7 – 14 days.
Sri Lanka has a comprehensive training program in training Ophthalmologists and Sub-specialists to meet the national requirements. The program includes five years of training within the country and one year of training in a well recognised overseas institute with hands on experience. Both these components are compulsory to practice as an ophthalmologist in Sri Lanka.

In the initial three years of training period as a pre MD trainee (initial one year basic training followed by four six-monthly rotations), the trainee would be working under five different consultant Ophthalmologists. During this period, the trainee would be tested on three different components, namely, Basic sciences, Optics and refraction and final theory and clinicals. This would be followed by a further one year of training in general ophthalmology before they could select Subspecialties. Currently we have four subspecialties including Vitreo-retinal, Cornea, paediatric ophthalmology and orbit and oculoplasty. Trainees are allowed to select subspecialties based on their merit in module 4 final exam. Subspeciality training include one year of training under a local consultant in the relevant field and further one year of oversees training in the same field. Trainee is expected to maintain a logbook and a portfolio and complete a research project in their field of subspecialty interest.

At the end of successful completion of six years of comprehensive medical and surgical training related to Ophthalmology, trainee would be board certified as a sub-specialist in the relevant field and thereafter he/she can work as an independent practitioner under ministry of health.

Unfortunately, we do not have any structured fellowship program for international fellows in Sri Lanka. However, College of Ophthalmologists of Sri Lanka is happy to start one in the near future so that we can help in training of ophthalmologists in Asia Pacific region. Sri Lanka has the capacity to open training posts for international trainees in Cornea and external disease, Orbit and oculoplasty, vitreo-retinal and paediatric ophthalmology in the National Eye Hospital of Sri Lanka(NEH), Colombo and the Lady Ridgeway hospital for children, Colombo. These include either observational posts or hands on training posts and the choice would be based on trainee’s prior experience and level of training. NEH is a tertiary care teaching hospital which is dedicated to patients with eye diseases and has the highest number of daily ophthalmic patients visits and inward patients in the country. It also serves as the main training centre for local Ophthalmic trainees.

Currently second wave of covid-19 has badly affected the health care system, and as a result training programs have been changed with regard to their schedule on clinical rotations, and clinical exams. However, to overcome this we can use distance learning methods such as Zoom, so clinical demonstrations and classes can be done from home. Surgical simulator application can be developed, so that the trainee can learn basis and rationale behind surgical techniques using their smart devices. They can later practise in the near future when the hands on training is safe to practice.
Fortunately, as COVID-19 pandemic spread has been well controlled in Taiwan, all the subspecialty trainings have been running as planned. Currently there are no restrictions on subspecialty training programs, therefore the programs are highly flexible. Generally, the duration of fellowship is 12 months, and trainees continue in the same hospital where they completed their residency. Some programs are designed in the form of double subspecialties training within the 12-month period, and some candidates seek training opportunities from a different training hospital to that in which they completed their residency. Subspecialty training is not mandatory, but due to abundance of surgical and clinical exposures, most residents prefer to proceed with fellowships. On the other hand, in order to become a sub-specialist or a member of certain associations (e.g. Taiwan Retina Society) in the future, trainees are required to attain the related subspecialty fellowship.

In Taiwan, we do offer fellowships for international trainees. Chang Gung Memorial Hospital has trained over 10 full-term ophthalmology international fellows and recently has recommenced the enrolment. Taipei Veterans General Hospital also offers opportunities for shorter term of international fellowship training. In National Taiwan University Hospital, international fellowship program was recently introduced as well. Although Mandarin is the native language used in Taiwan, English is used as one of the main language during the medical training in Taiwan, and the medical records in hospitals are documented in English, thus language communication barrier barely exist amongst doctors in Taiwan hospitals.

During the current Covid-19 pandemic, the fellowship trainings are greatly affected in many countries. Fellowship is a critical intensive training, and involves hands-on surgical exposure, hence it is almost impossible to be virtually implemented. We are grateful with our current COVID pandemic-free situation in Taiwan and we welcome international fellows to join us! With more international communications creating the exchange of ideas and experiences, together we can learn faster, and grow stronger!
In Thailand, ophthalmology residency and subspecialty fellowships training programmes are available in the university hospital which includes glaucoma, uveitis, vitreoretinal, cornea, and oculoplastic. In general, the subspecialty fellowship programmes require one-year training period, except vitreoretinal specialty which requires another extra year in some centres.

The number of international fellows has been increasing in the recent years, mainly from our neighbouring countries such as Laos, Cambodia, Myanmar and also from Bhutan. Qualifications are awarded directly from the training centres, and are not by the official examination board which is the Royal College of Ophthalmologists of Thailand. In our perspective, the fellowship training is not only relevant academically but plays an important role in the lifelong collaborations between the ophthalmologists in the regions.

During the peak of COVID-19 pandemic earlier this year, the ophthalmology training programmes in Thailand had been unavoidably affected, mainly due to the decrease in number of surgical cases. For lectures and seminars, we have adopted several new platforms such as Zoom, in order to maintain continuous learning. Fortunately, the situation of COVID-19 in Thailand has been greatly resolved and the training programmes are returning to nearly normal.
In Vietnam, our medical education system selects the best student from high school to study at medical school for 6 years through the national exam. Then they have 2 paths to become an ophthalmologist. The first path requires a 9 months comprehensive ophthalmology training (basic knowledge), followed by a 2 year practice at an eye centre/hospital and a 2 year master training program thereafter. During master training, the trainees choose their subspecialty and spend more time for this subspecialty (do the thesis). The second path is a 3 year residency program in which the trainee will focus on their subspecialty of choice in the final year. However, in order to become a resident, students must first pass a relatively tough examination. When it comes to subspecialty and fellowship training, unfortunately we only have short time (3 months) fellowships available for glaucoma, retina, cataract, pediatric and oculoplastic. It is different when compared to other countries which offer long term fellowships (1 to 2 years).

Training opportunities for international YOs in Vietnam is available but is of a short duration (3 months) as mentioned before. For example, we have had fellows from Laos, Cambodia, Mongolia and exchange fellow from Australia. At that moment, we have 1 fellow from Mongolia who is focusing on cornea subspecialty.

Thankfully the Covid-19 situation in Vietnam is under control. We have gone 68 days without new Covid-19 cases thus far. During the peak of the pandemic however, we carried out some adaptive measures to continue our education. Apart from adhering to strict standard operating procedures, we converted our learning sessions to online platforms to continue the exchange of knowledge.
APAO International Fellowship Program (IFP) was launched in 2014. 8 candidates were selected for the Program.

**Its objectives include:**

1. To help promising young ophthalmologists from the Asia-Pacific region, in particular those from developing nations, to improve their clinical skills, surgical exposure, as well as their research experience, and to broaden their perspectives of ophthalmology.

2. Fellows are expected to bring their acquired knowledge and skills back to their native countries and participate in blindness prevention programs whenever appropriate.

3. The APAO International Fellowship Program (APAO IFP) adheres to the global initiative ‘Vision 2020’ in terms of spreading education and professionalism to all parts of the world and promoting international collaboration between institutions dedicated to eye care.

The 15 training centers below are endorsed by the APAO Fellowship Standing Committee to provide subspecialty & research training:

**China**
- Beijing Tongren Eye Center
- C-MER (Shenzhen) Dennis Lam Eye Hospital (Clinical)
- Zhongshan Ophthalmic Center (Basic Science)

**Hong Kong, China**
- Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
- Department of Ophthalmology, University of Hong Kong

**Iran**
- Khatam-al-Anbia Eye Hospital

**Japan**
- Department of Ophthalmology, Osaka University Medical School

**Nepal**
- B.P. Koirala Lions Center for Ophthalmic Studies
- Til Ganga Institute of Ophthalmology

**New Zealand**
- New Zealand National Eye Centre

**Singapore**
- Singapore National Eye Centre
- Department of Ophthalmology, National University Hospital

**South Korea**
- Department of Ophthalmology, Kyung Hee University Hospital

**United States**
- New York Eye and Ear Infirmary
- UCLA Jules Stein Eye Institute

In general, up to 5 APAO International Fellowships are offered each year in:

a) Ophthalmic subspecialties, such as paediatric ophthalmology and strabismus, medical and/or
surgical retina, cataract surgery, cornea and external eye diseases, glaucoma, neuro-ophthalmology, ocular oncology, uveitis, orbital and oculoplastic surgery (up to 4 Fellowships in ophthalmic subspecialties per year);

b) Ophthalmic research (clinical and laboratory) (up to 1 Fellowship in ophthalmic research per year).

The duration of the fellowship program is either 3 months or 12 months.

Fellows should fulfil the following criteria:

- From an APAO member nation;
- Have completed basic residency training in ophthalmology; advantages will be given to those having completed a subspecialty training program;
- Published at least one original scientific article in an indexed peer-reviewed journal;
- Fulfil the special requirements of respective APAO International Training Centers;
- Preferably below age 40.

Candidates who are successfully placed in an APAO training center will be provided with up to US$1000 for airfare and an allowance of US$200 per month during the period of training.