



APAO LEADERSHIP DEVELOPMENT PROGRAM 2019-20 GRADUATING CLASS

11 September 2021



OUR GRADUATES



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(Singapore)



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(Indonesia)



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Xiangtian ZHOU
(China)

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Name	Rupesh Agrawal
Country	Singapore
Email	rupeshttsh@gmail.com
Project Title	The Application of Clinical Registries in Ophthalmic Trauma - The International Globe and Adnexal Trauma Epidemiology Study (IGATES)
Mentor	Prof Ferenc Kuhn
Abstract	<p>Purpose:</p> <p>Using big data analytics, cloud computing and machine learning, we aim to propose a robust model incorporating a wider range of relevant markers relating to the outcome and to identify the factors affecting the outcome and of ophthalmic trauma and develop predictive modelling algorithms.</p> <p>Methods:</p> <p>International Globe and Adnexal Trauma Epidemiology Study (IGATES) platform will be developed to collect data over a 24-month period for patients presenting with ophthalmic trauma between 2000-2020 at participating centers. The findings from IGATES-1 to be used to design key elements of the Ophthalmic Trauma Score (OTS-2), which will be validated in a prospective study in the next phase, IGATES-2. In IGATES, participating centers are able to enter data onto the registry through the IGATES web-based platform (assessed at https://igates.oculartrauma.com/). Smart features that will help to streamline the entry of data have been incorporated.</p> <p>Results:</p> <p>IGATES is hosted on a secure web-based platform which exhibits user-friendly smart features, integrated OTS prognosis calculator and efficient data collection points. IGATES currently has 35 participating centers globally with data entered for over 1000 patients till date.</p> <p>Conclusion:</p> <p>There is currently a lack of a centralized international data repository for ophthalmic trauma. We draw lessons from past and existing clinical registries related to ophthalmology and propose a new suitable international multicenter clinical registry for ophthalmic trauma. This international collaborative platform may pave the way for the development of new diagnostic, prognostication and management tools.</p>

Name	Mas Putrawati Anak Agung
Country	Indonesia
Email	masputra06@gmail.com
Project Title	Solution to Improve Ophthalmology Resident Surgery Skill during Pandemic
Mentor	Simon Abbot
Abstract	<p>Purpose:</p> <p>To maintain ophthalmology resident surgery skill, instead of unlucky situation during pandemic that cause lack of opportunities for them compare to normal situation. Considering many numbers of residents, lack of surgery patient, restriction for resident to practice their skill at satellite hospital, many of residents exposed by covid-19 and have to do self-isolation at home and the discontinue of outreach cataract surgery program, are among others become the reason during this pandemic that hinder the progress of resident's learning program. While most of the lecture and subject can be maintained by online, but at first, we found that difficult to deliver the skill learning because of the obstacle above.</p> <p>Methods:</p> <p>Wet and dry lab in teaching hospital and self-learning surgery skill at home, video session discussion, built a mentoring surgery skill team (one on one program) by using ICO-OSCAR form (international council of ophthalmology's ophthalmology surgical competency assessment rubric). We regularly evaluate the progress of resident skill every week by holding online video conference</p> <p>Results:</p> <p>Usually after approximately 5-10 skill practicing using pig eyes, ophthalmology resident can show their improvement in surgery skill. The final wet lab test result shows most of the resident achieved good result.</p> <p>Conclusion:</p> <p>This initiative of allowing ophthalmology resident to practice their skill at wet and dry lab (teaching hospital and at home), and facilitate them by lending equipment so they can practice their skill. With maximize one on one program, the progress of the resident skill can be maintained and monitored during the pandemic.</p>

Name	Elsie Chan
Country	Australia
Email	elsiec@med.usyd.edu.au
Project Title	Promoting a Formal Mentorship Program amongst Victorian Ophthalmology Trainees
Mentor	Catherine Green
Abstract	<p>Purpose:</p> <p>To promote and facilitate mentor-mentee relationships as part of the Royal Australian and New Zealand College of Ophthalmologists' mentorship program.</p> <p>Methods:</p> <p>The existing mentoring program was reviewed. A survey was then undertaken to gain an understanding of the current attitude of the registrars to the mentoring program. Written resources were then established for mentors and mentees, and assistance provided to facilitate new mentor-mentee relationships. Opportunities were sought to promote the program.</p> <p>Results:</p> <p>There were numerous barriers to the lack of engagement in the mentor program amongst registrars. This included the lack of understanding of the benefits of the mentoring relationship, with the majority of registrars seeking a mentor only because they believed it was compulsory.</p> <p>Existing resources were reviewed and a new written document was created for new mentors and mentees that outlines the aims, roles and responsibilities, and phases of the mentoring relationship. An emphasis was placed on distinguishing the difference between an informal and formal mentor, and the emphasis on the mentee in setting their own goals.</p> <p>As part of this project, 24 new mentor-mentee relationships have been established. To promote the program, a mentoring talk is now included during the orientation week for new registrars in the Victorian training program.</p> <p>Conclusion:</p> <p>The Royal Australian and New Zealand College of Ophthalmologists' trainee mentorship program can help create personal and professional development, new opportunities, and challenge ways of thinking for both the mentor and mentee. Encouragement and promotion of the program is essential to fulfil its long-term benefits.</p>

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Name	Tommy CY Chan
Country	Hong Kong, China
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Project Title	Microsurgical Training for Young Cataract Surgeons in Hong Kong
Mentor	
Abstract	<p>Purpose:</p> <p>Surgical training of ophthalmology residents in Hong Kong has been based on hands-on teaching during operation sessions. This could be stressful for trainees and trainers. In addition, with the increasing number of trainees, fewer operation sessions are allocated for each trainee. This project aims at providing microsurgical training to the young cataract surgeons through a series of workshops. Each workshop includes lectures and hands-on practical sessions.</p> <p>Methods:</p> <p>Phacoemulsification cataract surgery is the focus of this project. Our target audience includes Ophthalmology resident trainees and fellows of the Hong Kong Hospital Authority. This project was carried out at the Hong Kong Eye Hospital, Lee Wing Kit Advanced Ophthalmic Training and Education Centre (AOTEC). It is funded by the CUHK Jockey Club Ophthalmic Microsurgical Training Programme.</p> <p>Results:</p> <p>There were 3 workshops included in this project. The Basic Phacoemulsification Workshop aimed at teaching basic phacoemulsification technique. Advanced phacoemulsification workshops aimed at teaching the management of weak capsular support, posterior capsule rupture and performing scleral fixation of intraocular lens. The last toric intraocular lens workshop included preoperative planning and intraoperative strategies for toric intraocular lens implantation. These courses were well attended and received excellent feedbacks. The basic and advanced cataract workshop has been incorporated in the annual training of our ophthalmology trainees in Hong Kong.</p> <p>Conclusion:</p> <p>The establishment of microsurgical training enable standardized methods in providing training to junior ophthalmology.</p>

Name	Heeyoon Cho
Country	Republic of Korea (South Korea)
Email	drhycho@gmail.com
Project Title	Simulated Cataract Surgery Training Program in Korea
Mentor	
Abstract	<p>Purpose:</p> <p>The implementation of simulators in the residency training has been associated with a decrease in cataract surgery complication rates. KOS developed 'simulated cataract surgery program' for in-training members. To evaluate the usefulness of KOS simulated cataract surgery program and maintain the program during the COVID-19 pandemic.</p> <p>Methods:</p> <p>KOS organizing committee planed the 'simulated cataract surgery program' for in-training members. The committee made questionnaire survey to evaluate the usefulness of the program and get the feedbacks from participants.</p> <p>Results:</p> <p>The 3D simulator is a virtual reality tool for training house officers and ophthalmologists in intraocular surgery skills. The KOS Organizing Committee provided a well-equipped simulation center with professional mentors.</p> <p>Conclusion:</p> <p>The program, which lasted more than four years, has gradually developed and is fully established and has played an important role in the education of ophthalmologists. During COVID-19 pandemic, the KOS has established itself as a beneficial educational program for many members by providing a standardized educational program.</p>

Name	Tarjani Vivek Dave
Country	India
Email	tvdeye@gmail.com
Project Title	Quo Vadis? Advocacy, Policy and Planning in COVID Associated Mucormycosis: A Battle Within the War
Mentor	Prashant Garg, LV Prasad Eye Institute, India
Abstract	<p>Purpose:</p> <p>To develop a system for prevention and management of COVID-Associated Mucormycosis (CAM).</p> <p>Methods:</p> <p>India saw a tremendous increase in CAM cases from April 2020 to July 2021. LV Prasad Eye Institute, as a tertiary eye institute, was at the helm of affairs in advocacy, policy, and planning for combating this battle within the war of the COVID-19 pandemic. The efforts on each front are listed here.</p> <p>Results:</p> <p>We developed a taskforce that came up with a Standard Operating Protocol for the management of CAM. The team reviewed all existent literature and came up with evidence-based guidelines for management of the disease. LVPEI is a stand-alone eye institute and we liaised with a multispecialty institute for a 360° care for our patients. We utilized the isolation room facility as well as equipment such as drone slit lamps and technology such as teleconsultation to help patients with suspected mucormycosis avail consultation facility. We developed a hotline for immediate and direct access by patients to solve their queries and for them to get a fast-track OPD review. We secured a grant of INR 50,000,000 towards treatment of the underprivileged suffering from CAM. We got involved with the government to make CAM a notifiable disease and develop a registry for all the cases that are being reported. We also undertook preventive measures with extensive print, radio, television, and social media news materials that were published for awareness regarding the disease in high-risk individuals, governments as well as referral centers. We published extensively and participated in national and international webinars on the topic for the benefit of the community at large.</p> <p>Conclusion:</p> <p>Unprecedented community level epidemic requires an unprecedented and swift approach in planning policy and advocacy. Teamwork, evidence-based management, creation of prompt referral chains, collaboration with multispecialty teams and the advocacy at a governmental and non-governmental can help manage such emergencies.</p>

Name	De-Kuang Hwang
Country	Chinese Taipei
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Project Title	Application of Shared-Decision-Making (SDM) in Ophthalmology
Mentor	Prof. Shih-Jen Chen
Abstract	<p>Purpose:</p> <p>By increasing patients' knowledge and involving their opinions, we try to improve the medical compliance and overall outcome of the patients with diabetic macular edema or non-infectious uveitis</p> <p>Methods:</p> <p>Official health educational materials for diabetic macular edema and non-infectious uveitis were made. The SDM program were applied with four main steps: education, understand the patients' needs, fully discussion with patients, decide the treatment regimen. Selected patients would be enrolled in the project, satisfaction and compliance measured by questionnaires were recorded before and after enrolling to the program.</p> <p>Results:</p> <p>The educational materials were made after panel discussions, alpha tests, and beta tests were done to ensure the materials are neutral and convincing. 37 patients with diabetic macular edema and 16 patients with non-infectious uveitis in the Taipei Veterans General Hospital were enrolled. Results from the questionnaires showed improvement of patients' knowledge about their diseases. Most of the patients and doctors were satisfied to the SDM. The materials were put on the official Taiwan Retina Society and provided to all retinal specialists in Taiwan.</p> <p>Conclusion:</p> <p>Although the SDM program is time-consuming, it would improve patients compliance and satisfaction to the medical treatment. The program might be promoted to many chronic diseases to improve patients' final outcome.</p>

Name	Ka Wai Kam
Country	Hong Kong, China
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Project Title	Children Care Through Eye Care
Mentor	Prof Jason YAM
Abstract	<p>Purpose:</p> <p>To promote public awareness and educate about eye care and common eye diseases in childhood through collaborative efforts from ophthalmologists, nurses, medical and nursing students, and volunteers from the community.</p> <p>Methods:</p> <p>We organized a 2-day public education event at a local shopping mall and performed free vision check and eye screening examination in September 2019. The theme of our event was a fun fair, and each child was given a game card upon admission and the child would be awarded a stamp after completing each game, and a souvenir after completing the stamp card.</p> <p>Results:</p> <p>More than 1,000 participants attended the event, and 300 children were examined. The centerpiece of the event consisted of a giant eye model that aimed to create an immersive learning experience while participants read from posters co-authored by our medical students. Adjacent to the model, three interactive entertainment booths were designed to help children learn about visual field defects, strabismus and leukocoria/retinoblastoma as they enjoyed the games. The examination section included distance visual acuity, stereoacuity, colour vision, cover test and slit-lamp examination performed by our volunteer ophthalmologists. At the end of the examination, parents were counselled by our ophthalmic nurse about the findings. The event received support from government official and professional bodies of ophthalmology in Hong Kong. Over the week, we gathered more than 360 'likes' on our event page and reached more than 6,000 users online.</p> <p>Conclusion:</p> <p>The Children's Eye Care Programme Fun Day was a successful public education event that promoted children wellbeing especially of their vision, by performing free eye examination, and raised awareness among parents about childhood eye diseases through interactive games and exhibition.</p>

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Name	James Abraham B. Lee
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Project Title	Now Eye Know: Educational Videos
Mentor	Sherman O. Valero, M.D.
Abstract	<p>Purpose:</p> <p>The project aims to create short educational videos regarding eye health and other eye concerns to combat the rampant proliferation of eye myths and treatments in social media. It aims to offer an explanation of the common eye conditions encountered by the public from a reliable source in a platform that is easily accessible and free. During the pandemic, it also aimed to inform the public regarding eye health and safety in relation to COVID-19.</p> <p>Methods:</p> <p>Short educational videos regarding common eye conditions were produced regarding eye health initiated by the LDP participant. Other Young Ophthalmologists were also invited to participate in producing their own short educational videos.</p> <p>Results:</p> <p>As of this writing a total of 8 videos (and counting) were produced and were posted online. These videos include topics such as blurring of vision, glaucoma, proper use of eye drops, digital eye strain, first aid tips, pediatric eye examination at home, recommended screen time for kids, and UV light exposure.</p> <p>Conclusion:</p> <p>Educational videos were effective in educating and providing correct information regarding common eye conditions. Videos should be short and concise to maintain the audiences' attention and to convey the correct message.</p>

Name	Dongmei Li
Country	China
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Project Title	Standardize the Aesthetic Market in China
Mentor	Prof. Yip Chee Chew
Abstract	<p>Purpose:</p> <p>With the vigorous development of the market economy and the continuous improvement of people's living standards, the pursuit of beauty has also grown correspondingly. However, due to the rapid growth of the economy and the inability of policies, regulations, market supervision and professional talents to match it, medical cosmetology incidents occur frequently. So, we intend to sort out the main existing problems in the oculoplastic surgery market and call for more attention and standardization at the levels of society, policies, and regulations. In order to regularize the aesthetic and beauty industry.</p> <p>Methods:</p> <p>Clear all the medical qualifications. First, in order to qualified doctors and hospitals, we established a strict regular assessment system. The price was controlled as government policy of the most importance. In addition, in terms of purchasing regulation for qualified cosmetic products, it was controlled standardized and strictly by the government. Doctors' training was conducted like residency and fellow's training program in government hospital also were in process currently in several provinces.</p> <p>Results:</p> <p>The price is unified, at the same time, the training program and the supervision system are improved. A better technical level of the ocular plastic surgery industry has been promoted.</p> <p>Conclusion:</p> <p>It is a long way to go, with tireless efforts of government and academic associations. The beauty market in China has been improved, and the goal of minimizing complications and medical accidents is being realized gradually.</p>

Name	Emmy Yuen-mei Li
Country	Hong Kong, China
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Project Title	Awareness Program on Allergic Conjunctivitis
Mentor	Dr Catherine Green
Abstract	<p>Purpose:</p> <p>To promote awareness and knowledge on allergic conjunctivitis among the public in Hong Kong, especially parents and their children.</p> <p>Methods:</p> <p>A series of activities including online survey, interactive online public education talk, Facebook feeds, press interview, press release, flyers for e-circulation and feature television program were conducted to promote awareness on allergic conjunctivitis.</p> <p>Results:</p> <p>There were 473 respondents for the online survey, 9535 views for the online talk, 2617 views for the feature television program. The pathophysiology, common presentations and management of allergic conjunctivitis were highlighted.</p> <p>Conclusion:</p> <p>Allergic Conjunctivitis is a common eye condition that causes reduction in health-related quality of life and may potentially affect visual function. By promoting the awareness and knowledge on the disease, we hope patients and parents would be able to carry out preventive measures and seek professional help timely to reduce the negative impact brought about by the disease.</p>

Name	K John Mathen
Country	Malaysia
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Project Title	Increasing Awareness about Corneal Donation in Malaysia
Mentor	
Abstract	<p>Purpose:</p> <p>Corneal diseases constitute significant causes of visual impairment and blindness worldwide, especially in developing countries. Corneal transplantation offers the potential for sight restoration to those who are blind from corneal diseases. The number of patients waiting for corneal transplantation is growing due to insufficient number of eye donations in Malaysia. Eye donations are dependent on people willing to pledge their eyes for donation and on relatives to honour that pledge upon the death of the person. Raising the level of understanding about eye donation among the public through health education is an important step to achieve more local eye donations.</p> <p>Methods:</p> <p>Increasing awareness about donation via informational campaign – print and electronic media (social), information disseminated through TV, radio, papers. Reach out to the public by having booths at malls and other public places to educate, inform and inspire the benefits of donated tissue. Overcoming religious and cultural barriers by engaging with spiritual leaders.</p> <p>Results:</p> <p>Awareness of eye donation was observed in participants. Willingness to donate was not very positive.</p> <p>Conclusion:</p> <p>Although majority of participants were aware of eye donation, willingness to donate eyes was poor. There is a need to educate the public about corneal transplantation so that they can consider to become eye donors, thus facilitating the availability of donor corneas for corneal transplantation in Malaysia.</p>

Name	Malaravan Muthusamy
Country	Sri Lanka
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Project Title	Cataract Screening by Primary Health Care Workers in Sri Lanka – a Part of Cost-Effective Sustainable Cataract Surgery Programme
Mentor	Prof Madhuwanthi Dissanayake
Abstract	<p>Purpose:</p> <p>Sri Lanka blindness survey reveals 1.7% blindness over 40 years. Cataract is the major cause (67%). Government Hospitals provide more than 80% of total cataract surgeries with free of charge to patients in Sri Lanka. Patients with the symptoms and signs of cataract are self-registered at the nearby hospitals and surgeries are performed. Significant number of unscreened cataract patients are in low socio-economic group in Sri Lanka. The cataract screening programme was introduced to primary health care workers to identify the unscreened cataract patients.</p> <p>Methods:</p> <p>Training and primary eye care tool kits were provided to Health care workers in five districts of Northern Province of Sri Lanka. They screened and referred the patients to eye units under proper referral and feedback mechanism. District eye care team monitored the cataract screening.</p> <p>Results:</p> <p>515 primary health care workers were trained in Northern Province of Sri Lanka. 3211 cataract patients were screened and referred to the district eye units. Surgeries were performed.</p> <p>Conclusion:</p> <p>Health workers were trained to screen the cataract patients in Northern Province. The cost-effective screening method can be introduced to the government health system via polices thus sustainability can be maintained. This project is one of the components to reduce the avoidable blindness due cataract in Sri Lanka.</p>

Name	Indira Paudyal
Country	Nepal
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Project Title	Screening of Accompanying First Degree Relatives of Patients with Primary Open Angle Glaucoma
Mentor	
Abstract	<p>Methods:</p> <p>First Degree Relatives of Patients with Primary Open angle Glaucoma who accompanied them to glaucoma department of Tilganga Institute of Ophthalmology were screened for glaucoma. All participants had to undergo a complete ocular examination after getting an informed consent.</p> <p>Results:</p> <p>Fifty-three first degree relatives of patients with glaucoma were examined. Among them 25 (47.2%) were female and 28 (52.8%) were male. The mean age was 30.81 years ($\pm 13.24\%$), mean age of female was 33.92 years (± 14.9) while that of male was 28.04 years (± 11.1). Most of them were Mongolian 21 (39.6%), followed Chettri 11(20.8%), Newar 9 (17%), Bhramin 7 (13.2%) and others 4 (7.5%). Forty-seven out of 53 (88.67%) accompanying first degree relatives were off springs, 5 (9%) were siblings and only 1 (1.88 %) was a mother. Out of 53 participants only 19 (35.8%) had their eyes checked up in the past and among them only 2 (3.8%) had their eyes checked up for glaucoma and had their intra ocular pressure measure with Goldman Applanation tonometer. None of the participants were diagnosed as glaucoma before, so none of them were under any type of anti-glaucoma medication. Four out of 53 (7.5%) had optic disc and visual field changes and were diagnosed as glaucoma and started on anti-glaucoma medication. Out of these 4, 2 were off springs and 2 were siblings. Thirteen participants (24.5%) had suspicious Cup disc ratio and were classified as glaucoma suspects. Of these 13, twelve were off springs. Thirty-six (67.9%) of the participants had no sign of glaucoma.</p> <p>Conclusion:</p> <p>Four out of 53 (7.5%) had optic disc and visual field changes and were diagnosed as glaucoma and started on anti-glaucoma medication. Out of these 4, 2 were off springs and 2 were siblings. Despite being first degree relatives of glaucoma patients, 96.2% of accompanying never had their eyes checked for glaucoma, demonstrating a lack of awareness about this disease.</p>

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Name	Bayasgalan Purevdorj
Country	Mongolia
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Project Title	To Establish Ophthalmic Oncology Service in Mongolia
Mentor	James Muecke, MD Chairman, Sight For All
Abstract	<p>Purpose: To initiate ophthalmic oncology service in Mongolia</p> <p>Methods: Three Mongolian ophthalmologists, one Head and Neck plastic surgeon and one pathologist from MNUMS have been selected for the course. We planned to cooperate with Australian organization "Sight For All" and others for an in-country training course in Ophthalmic Oncology in Mongolia. Following the course, the trained doctors will subsequently be able to manage their own patients with a high level of expertise, and train their own colleagues, thereby allowing vital sustainability of the project to be achieved. The ripple effects of the program will be far-reaching and sustainable for years to come. We will arrange with our supporting international organizations one fully trained Ophthalmic Oncologist or Pathologist for a week in every month to spend time in the eye clinic and operating theatre, or the pathology lab, conducting comprehensive one-on-one training with the relevant Mongolian doctors. The program will last for nine months, with eight one-week visits.</p> <p>Results: We examined 250 patients, did 86 surgeries and taught 500 healthcare workers during the fellowship program. We collaborated with Mongolian National University of Medical Sciences, National Center for Maternal and Child Health of Mongolia, National cancer center of Mongolia, Ministry of Health and Australian organization "Sight For All". All five Mongolian fellows of ophthalmic oncology in country training successfully passed the final exam and started ophthalmic oncology service at their institutes.</p> <p>Conclusion: We successfully established Ophthalmic Oncology Service in Mongolia by training specialists (ophthalmic oncologists pathologists), improving patient's referring system or infrastructure (telemedicine), proving the medical equipments. We need to maintain the high standard, improve our human capacity and enhance the quality of service in the future.</p>

Name	Kasem Seresirikachorn
Country	Thailand
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Project Title	Resident and Glaucoma Fellow surgical experience across Asia-Pacific
Mentor	Assoc.Prof. Visanee Tantisevi, MD
Abstract	<p>Purpose:</p> <p>To determine the number of glaucoma surgeries of the residents and glaucoma fellow during training and to investigate the number of the performed cases in order to gain confidence.</p> <p>Methods:</p> <p>A comprehensive online survey was sent to the glaucoma specialists across Asia-Pacific.</p> <p>Results:</p> <p>From 10 different countries, a total of 77 glaucoma specialists have returned their responses. The mean \pm SD age was 37.6 ± 6.8 years with the median of 5 years after completion of residency course and 3 years after glaucoma fellowship training. The average number of filtering surgery, glaucoma drainage device (GDD), and minimal invasive glaucoma surgery (MIGS) that performed during the residency training (mean \pm SD, 3.6 ± 0.9 years) were 6.4, 0.67, and 0.22, whereas the average number during the glaucoma fellow training (median course 1 year) was 67.2, 12, and 2.9, respectively. The average number of operations needed to gain confidence were 28.3, 14.3, and 14.2 for filtering surgery, GDD, and MIGS. Of these, the percentage of fellows reaching the confidence number were 71.7%, 32.5%, and 5.2 %. Among the respondents, 20.6% of them were in training at the time of Covid-19 pandemic, which revealed their achievement of the confidence number to 70.7%, 25% and 0% for filtering surgery, GDD, and MIGS, respectively.</p> <p>Conclusion:</p> <p>After training completion, glaucoma fellows gain higher confidence in performing filtering surgery than GDD and MIGS, encouraging them on continuing the former. As a consequence of Covid-19 pandemic, limited surgeries were obtained resulting in lower achievement of confidence number.</p>

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Name	Andrew Tsai
Country	Singapore
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Project Title	Asia-Pacific Residency Training Survey
Mentor	A/P Marcus Ang
Abstract	<p>Purpose:</p> <p>This survey aimed to identify factors that influenced the standard of ophthalmic residency training across Asia-Pacific.</p> <p>Methods:</p> <p>We conducted a web-based survey from Sept 2019 till July 2021 through the respective Young Ophthalmologist (YO) leaders. We compared the survey results of Western Pacific (WP) countries to Southeast Asian countries (SEA) (as classified by WHO), as well as YO who graduated in the year 2020 and before (senior) versus 2021 and after (junior).</p> <p>Results:</p> <p>There was a total of 130 responses from 20 out of 26 locales of the APAO member nations. The year of residency completion ranged from 1999 to 2024. The average time spent in residency was 3.7 (SD1.0) years. The majority of residency programs in WP and SEA countries had an official training curriculum. Most residency programs provided a graduated learning experience, with an average of 6 (WP) and 7(SEA) residents per year. There were no differences in number of hours worked per week and overtime work between WP and SEA programs. WP program residents performed more phacoemulsification surgeries (76) compared to SEA program residents (19) ($p=0.004$). There was however no significant difference in posterior capsular rupture rates. Most programs felt performing 133 to 144 cataract surgeries was sufficient to achieve independence. Senior YOs performed more cataract surgeries during residency.</p> <p>Conclusion:</p> <p>The results of this survey have provided normative data for residency training in the Asia Pacific. This can help National Ophthalmic Societies in planning to improve residency training in their country.</p>

Name	Xiangtian Zhou
Country	China
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Project Title	Decreased Choroidal Blood Perfusion Induces Myopia in Guinea Pigs
Mentor	
Abstract	<p>Purpose:</p> <p>The development of myopia in guinea pigs can be inhibited by attenuating scleral hypoxia through increasing choroidal blood perfusion (ChBP). In this study, we reduced ChBP through surgical and pharmacological methods to determine the effect on myopia development. The effect of enhancing the form-deprivation myopia (FDM), with quinpirole on ChBP was also investigated.</p> <p>Methods:</p> <p>ChBP was reduced in the right eyes of guinea pigs via transection of the temporal ciliary arteries or daily injections of phenylephrine into the inferior peribulbar space for one week during normal ocular growth. Other guinea pigs were subjected to monocular FDM with facemasks worn for two weeks, along with daily injections of quinpirole, a dopamine D2 receptor agonist, to enhance the FDM. Changes in refraction, axial length, ChBP, and choroidal thickness (ChT) were measured in both treated and fellow eyes of the treatment and control groups. Hypoxia-labeled pimonidazole adducts and the expression of α-smooth muscle actin (α-SMA) in the scleras were also measured.</p> <p>Results:</p> <p>Surgical and pharmacological reduction of ChBP induced myopia development in the treated eyes. Such reductions rendered the scleras hypoxic and increased scleral α-SMA expression. Furthermore, increasing the magnitude of myopia via quinpirole injections augmented the reductions in ChBP and ChT and increased the levels of scleral hypoxia and α-SMA.</p> <p>Conclusion:</p> <p>Decreased ChBP in guinea pigs leads to scleral hypoxia and scleral myofibroblast transdifferentiation with increased α-SMA expression, ultimately resulting in myopia development. In future clinical trials, ChBP reduction can act as a potential biomarker for early detection of myopia development.</p>

