

## AN INSIGHT INTO OPHTHALMOLOGY BASED RESEARCH AND PUBLICATION IN MALAYSIA

*Research and publication in the field of Ophthalmology in Malaysia is still far from reaching the pinnacle of excellence. Despite an abundance of resources, we still lag behind neighbouring countries in terms of impactful and meaningful research that can capture a global audience. In this article, we will hear from research experts in our field regarding the reality of research in Ophthalmology and how we can improve to be at par with the global leaders in research.*



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**Dr Mohamad Aziz Salowi, MBBS** is an **Ophthalmologist sub-specialised in Public Health** and is an active researcher. He is also actively involved in numerous research pertaining to **National Eye Database** and is a key person in the development of **e-CUSUM**; cataract surgical monitoring system.



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**From your perspective, what is the prospect of Ophthalmology based research and publication in Malaysia?**

**Mohamad Aziz Salowi, MBBS:** In my opinion, the prospect for research here in Malaysia is excellent. For instance, we have a fine clinical database (Cataract Surgery Registry) which has placed itself on

par with other international databases through research collaborations with ICHOM and network with Prevention of Blindness programs under WHO/ International Agency for the Prevention of Blindness (IAPB). In addition, we also have a strong platform to collect other data (National Eye Database). Sub-specialities in Malaysia are fairly developed and data collected through these programs can potentially generate research questions and results. Besides these, we also have strong and sustainable technical/ financial support from local CRC/ICR/NIH and there are many clinicians with research background and interest who can guide other clinicians in research.

**Liza Sharmini Ahmad Tajudin, MBBS:** There is a huge potential for Ophthalmology research in Malaysia, but we are lacking in collaborative effort, financial support and proper strategic planning in promoting research. We are still at the stage of 'standing on the shoulders of the giants' by depending on our closest neighbouring countries to act as our giant. We need to start moving forward. Although our health system is amongst the best in the world, we do take the extra effort to use it for research purposes. We are a small country and thus coordination of collaborative research is easier in Malaysia when compared to countries such as Indonesia and China. We just need to initiate the collaboration between the different regions. The training program in Malaysia includes a research element to nurture young researchers but somehow the interest dissipates after graduation. In addition, research grants are important to ensure good quality research. However, the availability of funds is shrinking.

**Goh Pik Pin, MD:** I think the prospect is good as ophthalmologists at MOH are exposed to research methodology and most of them have conducted research when they were doing their post graduate masters training. However, when they become specialists, unless they keep up their passion in seeking new knowledge and have an inquisitive mind, they may not be actively involved in conducting research.

**In your opinion, what are the contributing factors in Malaysia for the lack of research publications in high-impact journals (especially among KKM ophthalmologists) and how can this be addressed?**

**Goh Pik Pin, MD:** Ophthalmologists who are keen in research should consistently update their knowledge by reading published articles and reach out to academicians and others to collaborate. They should also cultivate the passion for research and patience in equipping themselves with skills in research.

**Mohamad Aziz Salowi, MBBS:** In my opinion, some of the reasons include: a lack of motivation, or lack of knowledge in basic statistics which may result in a lack of confidence in writing and interpreting results. These problems can be overcome by having roadshows/research and statistical workshops within the ophthalmology service which would also make it applicable to clinical practice.

**Liza Sharmini Ahmad Tajudin, MBBS:** According to my experience, these are some of the factors involved and ways to handle them: A) *Lack of impactful research outcome.* Most research outcomes are from small-scale research projects with poor design and inadequate sample size. Therefore, we should minimize the 're-inventing the wheel' type of research. Motivate researchers to think outside the box. B) *Lack of collaborative effort from MOH, universities and private institutions in Malaysia and outside Malaysia.* This is important as collaborative efforts will result in higher quality and impactful publications. C) *Lack of strategy in selecting journals and poor writing skills.* Scientific writing workshops will certainly help but the conduct of the workshop may not fit all. Divide the workshop for beginners, intermediate and 'just writing'. 'Just writing' is a special workshop that allows dedicated time for writing amongst busy ophthalmologists. Workshops must be conducted with defined purpose. The main aim for the 'just writing' workshop is manuscript submission. D) *Lack of interest in writing.* A change of mind-set is important. The ability to conduct research and write papers will not reduce your clinical ability. In fact, it will strengthen your capability of clinical decision-making based on scientific evidence. E) *Good writing - must be in perfect or near perfect English.* As English is our second language, we may need help in perfecting our grammar. Perhaps, we need to hire an English editor. This person/company needs to be affiliated with the MSO or College of Ophthalmology and a percentage of their income should go to the MSO or College of Ophthalmology.

### How can the culture of research and publication be enhanced/improved amongst young budding ophthalmologists in Malaysia?

**Liza Sharmini Ahmad Tajudin, MBBS:** There are many ways to enhance the interest in research amongst young ophthalmologists: 1) *Currently, subspecialty interest groups (SIGs; under MSO) and chapters (under College of Ophthalmologists) are focused on clinical expertise.* These SIGs should be aware that the 'interest' here refers to all aspect of their subspecialty including research. This platform is the best platform to generate national-level research projects and manuscript writing (which will be more focused and impactful) 2) *Malaysian Young Ophthalmologists (MYO) should create another group/cluster for young researchers.* Of course, I am more than willing to help this group of young clinical scientists/researchers. YO should focus more on IT related research (it is their era) such as AI, big data and tele-medicine. They are more well-versed with technology compared to senior researchers like me. At present in Malaysia, there are no AI experts in ophthalmology. There are some who are interested in innovation but lack the support. Working together with engineers and IT experts is the best way to go forward 3) *MSO/College of Ophthalmology should have a special research program during their annual scientific meeting.* All SIGs should conduct their special meetings during this time 4) *Malaysian Journal of Ophthalmology (MyJO) should conduct workshops on scientific writing, scientific paper review and conducting research annually with young budding ophthalmologists as their target audience.*

**Goh Pik Pin, MD:** I feel good mentoring and support in terms of resources and time is vital in motivating and improving the research culture amongst young ophthalmologist. Besides this, setting up some key performance measures and incentives for research would also be helpful.

**Mohamad Aziz Salowi, MBBS:** I do believe that protected time from HODs such as one research day a week will be good. Apart from this, regular presentations of research projects during CMEs guided by clinicians with a background in research or epidemiologists/statisticians may help. This can potentially generate interest among the juniors besides being used as advocacy to engage people in research. Next, organizing brainstorming sessions among ophthalmologists at a national level or

departmental level to identify topics for research projects can also be beneficial. HODs must facilitate the process without which this will not be sustainable. Clinicians should also optimize NED platform (identify clinical question, download data, clean and analyse data, then write manuscript). The guide is available from myself and statisticians in ICR.

### How can an ophthalmologist interested in ophthalmic clinical research pave their career in research in Malaysia?

**Mohamad Aziz Salowi, MBBS:** We need to identify them or they can come forward to express their interest to HODs or the Head of Services (We are supposed to have a research committee at the ophthalmology service level). Once identified, we will groom and facilitate the process. I believe the career pathway for them is within the Ophthalmology Service itself due to the abundance of clinical/population data resources.

**Liza Sharmini Ahmad Tajudin, MBBS:** An ophthalmologist interested in ophthalmic clinical research has the opportunity to pursue his/her interest by applying for a third degree (PhD) in clinical or fundamental research in local or overseas universities. We currently have 8 ophthalmologists who are also PhD holders (6 in universities and 2 in private practice) in Malaysia. In addition, there are universities like Universiti Sains Malaysia (USM) that have a proper pathway for clinician scientists. The program allows the candidate to pursue their subspecialty and PhD degrees at the same time. At the end of 4 years, the candidate will be conferred dual certificates: a sub-specialty fellowship and a PhD. This program is yet to receive its first ophthalmologist for training. Another opportunity is for them to work closely with the National Institute of Health (NIH), Malaysia. NIH can provide a good opportunity to generate a new generation of clinician scientists in Malaysia.

**Goh Pik Pin, MD:** My simple and meaningful advice would be to have the initiative to seek others who can help and work together and persevere.

### What are some of the platforms/ organization/ personnel that researchers can obtain help and guidance for their research and publication?

**Liza Sharmini Ahmad Tajudin, MBBS:** Currently, there are efforts to help with research and publication. Those in MOH, should be aware and take advantage of CRC in their hospital. CRC is a one-stop centre to assist in research and publication. Statistical help is available too. But I think the statisticians there lack experience in conducting clinical research. In order to generate expertise, KKM should include them in research conducted by the trainees. They can learn from each other. They should be involved (invite them) from the beginning – at the conceptual framework level (research proposal). As I mentioned earlier, SIGs are the best platform; those experts in research in the respective SIGs should be able to provide help and guidance. You could also contact the academics (ophthalmologists) in the universities for help without feeling obliged to include their name as co-authors.

**Mohamad Aziz Salowi, MBBS:** Helpful platforms include local CRC in individual hospitals, ICR and NIH. These are within the country only. There are many more if we explore regional/international collaborations.

**Goh Pik Pin, MD:** The best would be CRC at the hospitals and universities. Apart from this, College of Ophthalmologists at the Academy of Medicine Malaysia.



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