

ANNUAL REPORT 2022

Department of Ophthalmology
and Visual Sciences

January 2023



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THE AGA KHAN UNIVERSITY



Introductory Remarks

Prof. Karim Damji – Chair, OVS

The Department of Ophthalmology and Visual Sciences (OVS) is a newly formed vibrant identity for ophthalmology at Aga Khan University (AKU). We deliver subspecialised and multidisciplinary services in an environment that supports teaching / learning, research, partnerships and leadership development.

The formation and early development of the department would not have been possible without support from Provost Carl Amrhein, Dean Adil Haider, former CEO Dr. Shahid Shafi, interim CEO Dr. Farhat Abbas and former chair of the Department of Surgery, Dr. Ather Enam.

Our faculty works closely with a team of over 40 specialised medical staff, including nurses, optometrists, technicians and others to offer comprehensive eye care for adults and children. Our hub for clinical activity is the Stadium Road campus. We also serve patients at Clifton Medical Center and Karimabad, Garden and Hyderabad hospitals.

[To learn more, click here to visit the department webpage.](#)

I am very appreciative of the high level of commitment that our excellent clinical faculty and team members provide. We are fortunate to have amazing faculty members. For example, in 2022 Dr Salim Mahar was appointed President of the

Pakistan Glaucoma Association, elected President of the Ophthalmology Society of Pakistan (OSP), received the Lifetime Achievement Award from OSP Larkana Branch and also received the SAO Excellence award by the Society Asian Academy of Ophthalmology. Dr Rehman Siddiqui was appointed principal investigator for AKU and Pakistan, of an important randomized clinical trial that is featured under the research section.

Early in 2022, we undertook a strategic planning exercise and developed a shared vision: **to be a Regional Center of Excellence for eye care services integrated with education, research, and professional development.** I am pleased that we are making progress on many of our strategic initiatives. For an overview of the department please see the following video:





Special thanks to Dean Adil Haider, Dr Gulzar Lakhani, Aryn Didarali and Dr Zehra Fadool who provided invaluable support to establish our new department offices.

My gratitude, respect and admiration for all our team members as well as our valued friends and supporters.

OVS faculty and administrative staff. Front row left to right: Rabia Iqbal, Dr. M.A. Rehman Siddiqui, Zeenat Sohail, Prof Pir Salim Mahar, Dr. Sharmeen Akram, Dr. Haroon Tayyab, Dr. Irfan Jeeva, Dr. Ahmad Burq Maqsood, Dr. Mahnaz Naveed Shah.
Back row left to right: Mariam Faisal, Asif Ali Najmuddin, Dr. Abdul Sami Memon, Dr. Shaukat Ali Chhipa, Prof and Chair Karim Damji, Rizwan Lalani & Dr. Rashid Baig.

Areas where the department can achieve significant impact in the next decade



Highest quality care, outstanding patient and provider experiences
Develop subspecialties
Expansion of clinic; state of the art equipment
Enhance patient access (community ophthalmology)



Professional development and career growth
Interprofessional education



Excellence in teaching and learning via UGME, PGME, fellowship, graduate student and allied health training
Share knowledge



Communication to public
Partnerships (alumni, TKN, organizations)
Financial strength



Relevant and impactful translational vision science
Credible partnerships, publications, grants



Message from Vice Chair - Academics

Prof. P. Salim Mahar

Year 2022 witnessed a new Department of Ophthalmology and Visual Sciences emerging from the Department of Surgery. Under the stewardship of our new chair, we have embarked on a journey to make our residency programme world class. This includes enhanced surgical training in wet labs and on the EyeSi simulation system at CIME. We have also developed dedicated teaching lanes which enables learners to assess patients before they discuss cases with consultants.

The department has also initiated teaching rounds, clinical presentations and journal clubs encouraging faculty and residents to invest in education and research benefitting our patients. We have also invited ophthalmologists and residents from other programmes in Pakistan to participate in our rounds and resident teaching sessions.

A new fellowship programme in vitreoretinal (VR) has been accepted by AKU and we are in the process of obtaining approval from the College of Physicians and Surgeon of Pakistan. This is a testament to the wide scope of patients with retinal disorders we see and advanced expert retinal services we offer. Insha'Allah this programme will commence in mid 2023.

We are also strengthening our undergraduate programme to graduate the best possible physicians of the future. Our vision is to mould our department into a Center of Excellence in patient care, research and education not only in this country but in the entire sub-continent.

Appointments and hiring in 2022:

Associate

Research
Associates

Assistant
Manager

Assistant /
Associate
Professors

Visiting
Faculty

Research Highlights

Clinical trial work:

We have begun our first research trial with support of AKU's Clinical Trials Unit. The study is led by Dr. Rehman Siddiqui and is designed to demonstrate equivalent efficacy and safety of the proposed biosimilar AVT06 to EU-Eylea®.

Paediatric vision screening:

We are collaborating with the Departments of Community Health Services (CHS) and Pediatrics & Child Health, and SONAM to develop and test a childhood vision screening programme. Our optometrist, Ms. Saima Jamil 'Mustabshira' who has an active interest in this area based on her Master thesis, has developed vision screening protocols and tested this in Azam Basti (CHS field site). We hope to also leverage this in Ibrahim Hyderi (Paediatrics field site).

Additional research underway:

Pilots are soon commencing in early detection of diabetic retinopathy, within AKU and with AKHSP. Individuals leading the AKU pilot include Drs Roomasa Channa, Haroon Tayyab, Khadija Humayun, and those leading the AKU-AKHSP pilot include Drs Rehman Siddiqui and Zubaida Sirang.

We have also identified many genes responsible for inherited retinal diseases, and this work is being done by Drs Rehman Siddiqui, Haroon Tayyab, and Irfan Jeeva in collaboration with Dr Salman Kirmani and his team.

Last year we published results ([Lancet Global Health](#)) related to care of patients with retinoblastoma (RB) in the context of global treatment outcomes. Further research including development of state-of-the-art treatment related to RB is continuing and this is led by Dr Irfan Jeeva in collaboration with Dr Zehra Fadool.



School vision screening at Azam Basti (with permission from the student and her family)

Faculty presentations & publications 2022

28

International
Presentations

36

National
Presentations

38

Publications



Postgraduate programme:

Our Ophthalmology residency programme, diligently led by Dr Abdul Sami Memon, has evolved to meet international standards. Our training is delivered by highly trained faculty who specialize in all aspects of ophthalmology. This programme is also supported by international faculty, including alumni, who give their time and knowledge to strengthen our programme.

Mentorship programme for residents:

The mentorship programme, led by Dr Sharmeen Akram, will be one-of-its-kind which gives an opportunity for residents to connect with faculty (mentors). The launch of this programme will be in April 2023, and it will also be supported by some of our international alumni. In this forum residents will be provided time to seek guidance about their personal and professional growth including career development.



Simulation-based practice, Eyesurg Tournament in collaboration with CIME*:

We have virtual simulation training that is considered world class. This includes the Eye Si, which is a simulator that helps residents develop their skills for cataract and other surgeries. Thanks to leadership from Dr Abdul Sami Memon and senior resident Dr Bilal Malik, we have organised an annual EyeSurg Tournament that is attended by many students and residents.

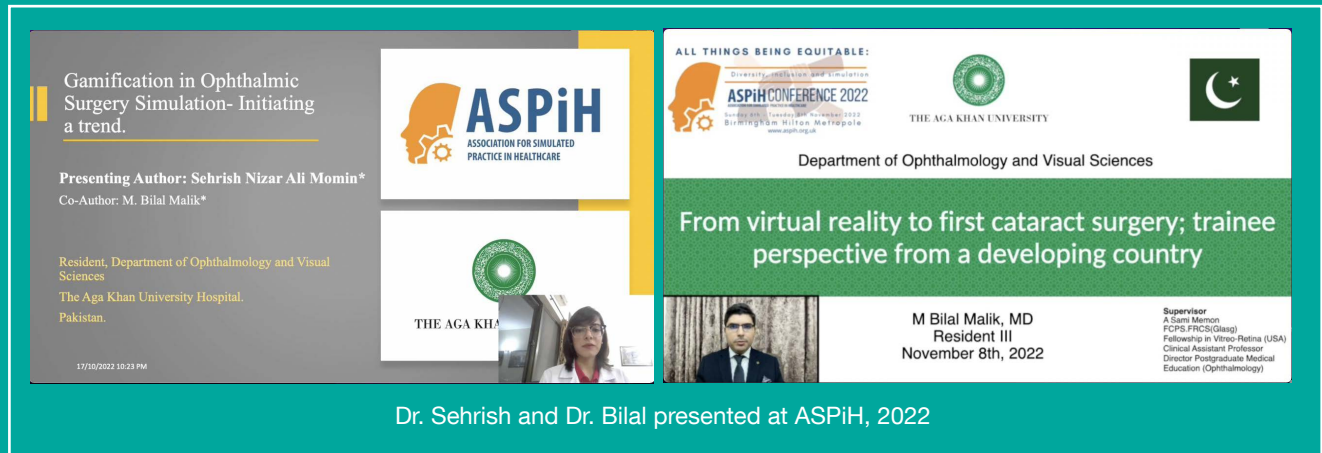
Wetlab sessions with CIME*:

Our residents get opportunity for hands on practice in the wet lab sessions. Last year, the department organised Cataract and Glaucoma procedures on goat eyes. We are also in process of embedding the wet lab sessions as part of the residency surgical curriculum.

*Centre for Innovation in Medical Education



Glimpse of Residents' Participation in International & National Fora:



Dr. Saniya Saher, presented at 42 KAROPHTH, Annual Glaucoma Conference.



Dr. Sehrish Nizar Ali was awarded 1st prize amongst all residents for her free paper at The Afro Asian Congress of Ophthalmology held at Lahore.



Dr. Sehrish Nizar Ali, presented at ESCRS 2022 held in Milan, Italy



Dr Benish Aslam graduated from our residency program with the convocation held in March 2022.



Dr. Saniya Saher graduated from our Residency programme with the convocation held in Dec 2022.

Resident's Presentations & Publications 2022

34

Publications

19

Grand rounds
with international
speakers

28

Journal club
sessions

4

Awards
& honors

Our partnership with ISRA Postgraduate Institute of Ophthalmology:

We are very grateful for our partnership with ISRA which began formally on 1st February 2021. This enables our residents to learn from ophthalmologists at ISRA and enables residents from ISRA to learn from our faculty and world class simulation facilities at AKU.

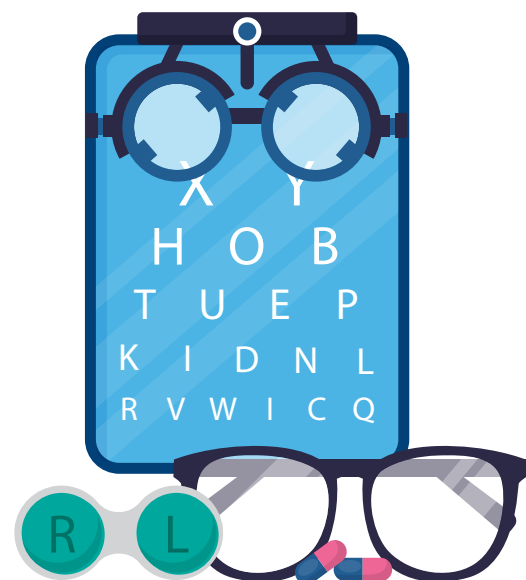
Our collaboration with Dr Carlos Solarte at the University of Alberta:

Dr Solarte was the recipient of the **Aman Builders Inc.** Global Professorship in Ophthalmology, established at the University of Alberta through the generosity of Shiraz Jiwani and family. Dr Solarte will be working with AKU to help design our competency-based residency curriculum, conduct research and assist us as we strengthen our paediatric eye care services.



Undergraduate Programme

Medical students rotate through Ophthalmology for one month. The faculty coordinator for UGME, Dr Rashid Baig, is in the process of enhancing this rotation in response to valuable feedback that students are providing.



Ophthalmology Interest Group:

Ophthalmology Interest Group (OIG) is the first student-led initiative formed to facilitate medical students interested in ophthalmology. The idea was conceptualised by founders Safa Saeed and Faiqa Aamir who worked diligently with students and faculty. With help from our patrons Drs Karim Damji, Haroon Tayyab, Mahnaz Shah and Rashid Baig, a launch event took place on 31st of August 2022. Since then, OIG has moved full steam ahead and held events including journal

clubs, 'Beyond the Borders' series aiming to impart knowledge regarding career paths, mentorship events with alumni, and helped students participate in the Eye-Si simulator tournament. Forthcoming plans include enhancing students' research opportunities, a game night as well as 'Life of an Ophthalmologist' video series aimed to expand and strengthen the student, alumni and faculty association.

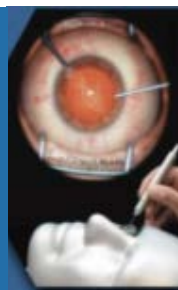


Second Eye-Surg Tournament for Undergraduate Students - Sep. 16, 22 Organized in Collaboration with CIME, AKU



2nd EyeSurg Tournament

Healthcare Simulation Week 2022
Theme: Cataract Surgery - Rhaxis Challenge





Message from Vice Chair – Clinical Services

Dr. Haroon Tayyab

OVS is positioning itself to offer world class subspecialty services at a constantly enhancing quality level. We plan to develop a health system model to improve access for various services in the community at an affordable price.

Currently we have strengthened our glaucoma and retina services and over the next few years our focus is to recruit cornea, orbital / oculoplastic, pediatric, neuro-ophthalmology, vision rehabilitation, ocular genetics and other subspecialists. We challenge ourselves to recruit and train the brightest minds!

Last year our Head Nurse and a new nurse recruit looked at ways in which we can improve patient/family flow and experience in our clinic. We successfully completed a quality improvement project in partnership with the operating theatre staff to improve the efficiency of cataract surgery. We are soon planning to resume cataract and other surgical services at the Hyderabad hospital.

We are acquiring additional state-of-the-art equipment for our clinical programmes at Stadium Road and CMS and have introduced new services including corneal cross linking & cornea Ferrara ring service (which will benefit patients with keratoconus and other diseases) and advanced refractive surgery.

Some equipment we will soon have includes ultrasound biomicroscopy (first in the region), specular microscopy (only one in the region), high resolution OCT angiography, a retinal camera for pediatric patients and a microperimeter for best clinical and research capability to check for any toxic effects of systemic medication (e.g. hydroxychloroquine) in the eyes and to improve care for patients with inherited retinal disorders. We are also developing a vision rehabilitation service for those patients that need additional support for their visual loss or activities of daily living.

We have begun to enroll patients in our first randomized clinical trial. We believe that opportunities to participate in clinical research go hand in hand with the best clinical care.

The announcement of the new department has provided the opportunity to create an academic healthcare system that provides the latest technological and research advances to the people of Pakistan and neighboring regions. I am proud to contribute to our endeavors, and with all the support around us, we will continue our long tradition of excellence in providing advanced ophthalmic clinical services. Thank you to all our eye care team members and valued supporters for your continued dedication!

Clinical Statistics 2022

53479

Outpatient
visits

11189

Outpatient
clinical procedures

2499

Day care
surgical procedures

Visit to Aga Khan Medical Center in Gilgit (AKMCG):

Drs Karim Damji and Haroon Tayyab visited AKMCG on June 18, 2022. They exchanged perspectives on ophthalmology operations with Dr Zubaida Sirang and her colleagues who are doing commendable work serving patients in the Northern Areas of Pakistan. Several recommendations were made by Drs. Karim and Haroon to strengthen clinical care and forge educational and research collaborations. Dr. Zubaida has now been appointed visiting faculty at AKU and we look forward to developing a strong collaboration between AKU and AKMCG



Philanthropy and Partnership

Laila Endowed Professorship:

OVS gratefully acknowledges the extraordinary generosity of Dr. Aamna Sultan, an AKU graduate of 1989, who has donated the Laila Endowed Chair of Ophthalmology and Visual Sciences at AKU. We are so grateful to her and her family for their incredible support which will go a long way to strengthen our department.



Donation by Aliya's Foods Ltd / Noorudin and Anis Jiwani Family to establish a research and education endowment:

OVS is extremely fortunate to have received an incredibly generous pledge (\$2M US over 5 years) that will establish an endowment to support research, innovation and education. This has been made possible via an Edmonton, Alberta Company / family – Aliya's Foods Limited / Noorudin and Anis Jiwani family.



Meeting the Jiwani family (Aliya's Foods Ltd) with President Shahabuddin and Prof. Damji

We also value the generosity of our alumni and friends, many of whom have contributed to our academic vision in 2022:



Photos with alumni and friends in Chicago (during the American Academy of Ophthalmology conference)

We'd love to hear from you! To share feedback, please contact
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