



Fellowship Program in Cornea, External Eye Diseases and
Refractive Surgery

Department of Ophthalmology

College of Medicine

King Saud University

King Saud University Fellowship in Cornea, External Eye Diseases and Refractive Surgery

Introduction and importance

The Department of Ophthalmology is one of the pioneers in the field of postgraduate studies at King Saud University. The King Saud University Fellowship in Ophthalmology was established in 1984 which was the first approved fellowship at the level of college of medicine in Riyadh as well as in the Middle East region.

Since then and until now, the program has contributed significantly in raising the standard of medical care for eye patients. It has graduated more than 200 ophthalmologists at a high level of efficiency and skills. The fellowship provided great opportunities for graduates of medical school to go through structured training program that can equal the best training program worldwide.

One of the University's objectives is to develop new postgraduate programs and its vision is to raise the standard of medical care delivered to our society as well as to provide opportunities for ophthalmology graduates. To realize these objectives and vision, the Department of Ophthalmology whose interest is also to continue excellence and development of new programs, have decided to establish the King Saud University Subspecialty Fellowship in Cornea, External Eye Diseases and Refractive Surgery. Since the diseases of the cornea and external eye and refractive surgery have high prevalence in the society, we believe that establishing such program with high standard will give the chance for ophthalmologists in KSA and middle east region to go through structured and certified subspecialty training using the outstanding facilities available at King Abdul Aziz University Hospital and King Khalid University Hospital.

So that is the specialized program gives college degree in this specialization which is in line with the methodology of department Development programs with distinctive quality.

Program duration

Two academic years, starting January 1st , Candidates are entitled for 1 month annual leave per academic year.

Venue of training

The Whole training period will be conducted at king AbdulAziz University Hospital and King Khalid University Hospital.

Number of Candidate per year

The program will accept up to 2 candidates per year according to the availability of staff provided that all candidates meet the admission criteria of the program.

Application and Interview dates

Candidates can apply to the program by submitting their application personally, by mail or through the ophthalmology department web site. All applications must be submitted on first of February and the deadline for submitting the application is end of March. All interviews will be conducted Early May.

Admission requirements

King Saud University Fellowship in Cornea, External Eye Diseases, and Refractive Surgery is open for ophthalmologist who successfully completed ophthalmology residency program in recognized centre by the Saudi Council for Health Specialists or has certificate of King Saud Fellowship in Ophthalmology or any equivalent board accredited by the Saudi Council for Health Specialists. All applicants must submit and meet the following requirements:

- 1- All candidates must be enrolled on a full time basis.
- 2- Application form (Appendix 1)
- 3-- Updated CV
- 4-- Photograph 4x6
- 5-- Provide 3 letters of recommendations in sealed envelope directed to the program director
- 6-- Provide a written permission from the sponsoring institution
- 7--Certificate of successful completion of ophthalmology residency program or certificate of King Saud University fellowship in ophthalmology or any equivalent board accredited by the Saudi council for health specialists
- 8-- Medical report indicating visual acuity, color vision, stereopsis, absence of transmitted diseases hepatitis, HIV, and absence of hand and finger disabilities. (Appendix2)
- 9- Pass successfully the interview
- 10- Valid registration with the Saudi council for health specialist

General Objectives

1-To graduate cornea, external diseases and refractive surgery specialist who are capable of diagnosing and managing cornea, external diseases and refractive problems as well as challenging cataract surgeries and anterior segment reconstructive surgeries.

2-To prepare physician to take a lead in the academic and research field

Specific Objectives

By the end of the subspecialty fellowship training, the candidate should be able to:

1- Manage all corneal diseases using medical, laser and surgical approaches (Surgical approaches include LKP, PKP, DSAEK, and femtosecond assisted keratoplasty).

2- Manage all external eye diseases with medical and surgical approaches (Surgical approaches include Pterygium excision, Tumor excision, Gluing and AMT).

3- Diagnose and counsel patients with corneal hereditary disorders.

4 -Perform proper screening for patients seeking refractive surgery.

5 -Have good knowledge of various corneal and anterior segments diagnostic imaging system (such as elevation based corneal topography, optical coherence tomography, specular microscopy, confocal microscopy, high frequency digital ultrasound, and ocular response analyzer) and to be capable of interpreting the results.

6- Have good knowledge of various refractive surgery options and to be capable of planning the right procedure and performing various laser and surgical refractive surgery. (PTK, PRK, LASEK, Epi LASIK, LASIK, femtosecond assisted refractive surgery, Phakic IOLS and corneal segments implantation).

7 -Manage all cataract cases including complicated cataract as well as being competent in choosing and performing the secondary IOLS procedures, multifocal IOLS, Toric IOLS ,LRI, and femtosecond assisted cataract surgery.

8 -Write a research proposal and conduct research projects.

9 -Develop teaching skills by active participation in teaching students, residents and presenting in journal clubs, grand round and case presentation

10- Participate in local and international meetings.

Training requirements and duties

- 1 -Every 4 months, the fellow will be assigned to one of the three teams functioning under the Cornea, external diseases and refractive surgery unit at KAUH and KKHU (Appendix 4)
- 2 -Attend a minimum of 2 cornea clinics a week
- 3- Attend a minimum of 1 refractive surgery clinic a week
- 4- Attend a minimum of 3 OR session a week
- 5 -The fellow will be responsible for all patient care activity of the assigned team (outpatients, inpatients and surgeries).
- 6 -The fellow must conduct daily rounds on the inpatients of the assigned team including weekend
- 7- Perform a minimum of 50 phacoemulsification cataract surgery.
- 8 -Perform a minimum of 30 corneal transplantation (LKP, PKP, DSAEK)
- 9 -Perform a minimum of 20 laser refractive surgeries
- 10 -Perform a minimum of 5 corneal segments
- 11- Perform a minimum of 5 secondary IOLs
- 12- Perform a minimum of 5 Pterygium excisions
- 13- Perform a minimum of 5 AMT
- 14- Perform a minimum of 5 Phakic IOLs
- 15- Perform a minimum of 10 yag capsulotomies
- 16 -Perform a minimum of 5 crosslinking treatment
- 17 -Master the technique of interpreting topography, elevation map, specular microscopy, confocal microscopy, anterior segment OCT, and confocal microscopy
- 18- Do general call as third on call
- 19- Do subspecialty call according to the assigned team
- 20- Conduct and attend journal clubs
- 21 -Conduct at least one major and one minor research project (i.e. major project include large retrospective studies, prospective clinical studies and basic science research and minor project includes case report, case series, and small retrospective studies.

22- Attend and participate in grand round and case presentation

23 -Participate in medical students teaching (Clinics, wards, skill session, OR)

24- Participate in teaching residents (clinics, wards, OR)

25 -Participate in local and international meetings

Program resources

1-Teaching staff

Name	Academic rank	Specialty	Institute	Courses
Khalid Tabbara	Clinical professor	Cornea	Riyadh Eye Centre	Cornea, external diseases and refractive surgery
Mubarak Al Faran	Professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Sameer Al mansouri	Associate professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Abdulrahman Al-Muammar	Associate professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Hani Al Mezani	Associate professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Hatem Kalantan	Assistant professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Abdullah Al fawaz	Assistant professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Majid Al Obailan	Assistant professor	Cornea	College of medicine, KSU	Cornea, external diseases and refractive surgery
Khalid Abu-Amero	Assistant professor	Genetics	College of medicine, KSU	Genetics

Ahmed Mousa	Lecturer	Ocular epidemiology	College of medicine, KSU	Ocular epidemiology
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2- Outpatients' clinic (KAUH-KKUH)

3 -Inpatients' rounds

4-Yag laser room

5 -Excimer laser room

6- Minor operating room

7- Major operating room

8- Ancillary services

9- Teaching classes

10 -Research labs

Contents of the program

1- Clinical examination

2- Practical skills (Minor OR, Lasers, Main OR, Imaging)

3-Didactic lectures

-Corneal subspecialty topics

-Anatomy, Physiology and Pathophysiology

-Basic Evaluation of Cornea and External Eye

-Laboratory Investigation

-Imaging techniques of the Cornea

-Differential Diagnosis of Cornea and External Eye Diseases

-Eye Banking

-Diseases of the Cornea

-Developmental Abnormalities

- Corneal Manifestation of Systemic Diseases
- Corneal Dystrophies, Ectatic, and degeneration
- Corneal Infections
- Interstitial Keratitis
- Noninfectious Keratopathy
- Immunological Disorders of the Cornea
- Corneal Trauma
- Contact Lenses
- The Sclera and Anterior Uvea
- Keratoplasty/Keratoprosthesis
- Corneal surgery
 - Management of corneal Perforation
 - Management of Superficial Corneal Diseases
- Anterior Segment Surgery
 - Surgical Management and Rehabilitation of Anterior Segment Trauma
 - Iris Reconstruction Surgery
 - Management of Scleral Perforation

-External diseases topics

- Diseases of the Lid anatomy
- Lid Tumors
- Lid Inflammation and Infection
- Disorders of Tear Production and Lacrimal System
- Conjunctival Tumors
- Conjunctivitis

- Infectious Conjunctivitis
- Allergic Conjunctivitis
- Cicatricial Pemphigoid
- Steven Johnson syndrome
- Toxic Conjunctivitis
- Superior Limbic Keratoconjunctivitis, Ligneous Conjunctivitis, and Conjunctivochalasis

- Management of Pterygium
- Management of Chemical Burns
- Indication for and Uses of Amniotic Membrane
- Ocular Surface Transplantation

- Refractive surgery topics

- Basic and Principles of Refractive Surgery
- Preoperative Considerations
- Laser Vision Correction
- Intrastromal Corneal Ring Segments
- Incisional Keratotomy
- Phakic and Pseudophakic Refractive Intraocular Lenses

-Genetics topics

- Introduction to Genetics
- Ophthalmic Genetics

-Optics and refraction topics

-Research topics

- Introduction to Research
- How to write Research Proposal
- Research Designs

-How to write Manuscript

Evaluation and promotion

The process of evaluation and promotion are linked together and will be as follows:

1- At the end of every Four months, an evaluation should be done by the attending (appendix 3) based on:

- Performance in clinics, wards, and during on call
- Performance in surgery
- Knowledge based on discussion, lectures and grand round
- Performance in teaching
- Participation in different academic activities

2- At the end of every four months, the fellow supposes to submit a report indicating the status of all research project and participation in local and international meeting.

3- At the end of every four months, the fellow suppose to submit a report indicating all teaching activities conducted by the fellow including: lectures to students and residents, clinical sessions, journal club, combined teaching round, grand round, public education and social services.

4- At the end of every four months, meeting will be held with the fellow to monitor the performance and highlight the areas of strength and weaknesses

5- Successful completion of the training will depend on the 6 evaluations done over the two years and completion of research

6- Successful completion of the training will allow the candidate to set for the final written and oral exam and certificate of King Saud University subspecialty in cornea, external eye diseases, and refractive surgery will be issued when the candidate successfully pass the written and oral exam.

Vacations

1-Candidate is entitled for one month leave every year which must be taken any time between first of July till end of August

2- Candidate is allowed to take no more than 4 weeks educational leave divided between the two years.

3- Candidate must follow King Saud University regulation regarding sick leave.

Housing

King Saud University will not provide housing. Single female candidate might be allowed to stay at the nursing compound based on the availability but no guarantee.

Financial support

-All candidates should have sponsor which can be an institute or self sponsor.

-Tuition fees for the fellowship training must be paid to postgraduate centre at College of Medicine. Payment can be done through the sponsoring agent or through the candidate himself.

- No payment will be provided by King Saud University for any of the services provided by the fellow as it is part of the training.