



In the Name of God

Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy Ministry for Education

Vitreoretinal Surgery

Degree: Fellowship

Program Description (Introduction)

Because of the advances in the field of ophthalmology and progressive development of its different subjects and increasing diagnostic - therapeutic modalities of ophthalmic diseases, it seemed that general ophthalmology is not sufficient. Therefore, in accordance to many other countries in the past two decades, a training program was suggested for vitreous and retinal fellowship in 1984.

Now, this training program is being held in different universities, and requires a curriculum with similar required units for all universities that hold this course. So current curriculum was developed, which was circulated among the universities after being ratified by the committee and passing all the legal stages. The curriculum committee welcomes the valuable expert comments, which will be taken into consideration in next revision.

Definition of the Training Program:

vitoretinal surgery fellowship is a Subset of ophthalmology and the graduates learn and are adept at the required skills for diagnosis and treatment of vitreous and retinal diseases in that they can independently and professionally diagnose and treat such diseases, and participate in relevant prevention programs.

Course Duration

Duration of this educational course is at least 18 months.

Aims:

1.To train knowledgeable, capable and liable physicians who will provide services in prevention, diagnosis, treatment, education and research of vitreous and retinal diseases, and continuously improve their abilities to improve the community health.

2.To rise the standards in the field of cornea and external eye diseases and to become one of the top ranking in the Middle East for next 10 years to the level of developed countries.

Language Requirements:

- Language requirements: Evidence of English Proficiency on the TOEFL or IELTS tests. The minimum score for TOEFL PBT, TOEFL iBT and IELTS is 533, 72 and 5.5 respectively.
- Applicants from Persian (Farsi) Speaking countries (They shall both speak and write in Persian) who have applied for graduate Degree-based programs may be exempted, based on the decision of the department, from submitting any certificates regarding their English Language Proficiency. Nevertheless, they are required to hand in their English language certificate which meets SUMS' minimal language proficiency requirements, within one year from commencing their studies at SUMS.

Admission Requirements:

- M.B.B.S./M.D. and specialty or equivalent certificates
- Certificate of Internship or Certificate of Practice

Expected Competencies at the End of the Program**General Competencies *****Specific Competencies and Skills**

At the end of the program learners will be competent in performing following procedures:

Indirect ophthalmoscopy (Diagnosis of pathologies retinal of periphery)

Knowing the indication and interpreting the results

Posterior segment examination using slit lamp bio-microscopy and lens 78 D lens

(Diagnosis of macular disorders)\

Fluorescein angiography

ICG angiography

OCT

Echography of eye and orbit and especially posterior pole

Electrophysiological tests of the eye

Surgical management of vitreous hemorrhage, endophthalmitis, complications of cataract surgery.

RD, vitreo-retinal interface abnormalities

Surgery:

1. Retinal laser photocoagulation in patients with diabetic retinopathy (Macular Photocoagulation and pan retinal photocoagulation), Retinal barrier laser around break
2. Indirect laser photocoagulation in patients with retinopathy of prematurity...
3. Photodynamic therapy (PDT) in patients with CSCR or PCV
4. Scleral buckling + subretinal fluid drainage + cryotherapy
5. Pars plana deep vitrectomy (20G, 23G, 25G) in patients with rhegmatogenous retinal detachment, tractional retinal detachment, combined RRD and TRD, advanced diabetic retinopathy, endophthalmitis
6. Membrane peeling, IL peeling, (in patients with epiretinal membrane macular hole and PVRC)
7. Gas/fluid exchange, Injection of endotamponade (SF6, C3F8, silicon oil)
8. Endolaser, endodiathermy
9. Pars plana lensectomy
10. Scleral window in patients with exudative RD
11. Vitrectomy with procedures including endolaser or injection of vitreous substitutes
12. Scleral buckling
13. Laser therapy, Pan Retinal Photocoagulation (PRP)
14. Laser therapy, Macular Photocoagulation (MPC)
15. Laser therapy for other vitreous and retinal diseases
16. Vitreous needle biopsy or vitrectomy

Educational Strategies, Methods and Techniques *

Student Assessment (Methods and Types)

A. Assessment Methods:

1. Continuing in-person assessment throughout the entire course
2. Logbook assessment (the department is responsible for providing logbook for residents)
3. Direct observation procedural skills (DOPS)

B. Periods of Assessment

Students are assessed once every three months based on the above paragraph for summative assessment by the head of vitreous and retinal department (6 times in 18 months)

The overall structure of the course:

| Ward, unit or setting | Content- procedures | Duration (month) |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Vitreous and retinal diseases clinic | <p>Clinical: At the end of the program learners have to know the pathogenesis, symptoms, signs, treatment modalities of common posterior segment disorders such as</p> <ol style="list-style-type: none"> 1- Retinal vascular disorders (Diabetic retinopathy, RVO, RAO, RPO,...) 2- Chorioretinal degenerative disorders (Age related macular degeneration,...) 3- Chorioretinal dystrophies (Retinitis pigmentosa,...) 4- Different types of retinal detachment (RRD, TRD, exudative RD) 5- Different types of intraocular inflammation (Infective, Idiopathic,...) 6- Intraocular tumors (choroidal melanoma, retinoblastoma,...) | Throughout the course according to department' s schedule |
| Ophthalmology paraclinic | Performing diagnostic procedures such as fluorescein angiography, ICG angiography, sonography (UBM-A, B Scan), OCT and electrophysiology, and interpreting them | Throughout the course according to department' s schedule |
| Ophthalmology ward | Examining patients, diagnosing diseases and performing procedures required for surgery and post-op examinations and medical treatments – preparing patients for surgery | Throughout the course according to department' s schedule |
| Laser Room | A variety of laser therapies for vitreous and retinal diseases | Throughout the course according to department' s schedule |
| Operation Room | Executing a variety of surgeries, examination of anesthetized children | Throughout the course according to department' s schedule |
| Optional ward | Based on the selected ward | Throughout the course according to department' s schedule |

Important Notice:

The above features the curriculum of the Vitreoretinal Surgery Program designed and approved by the Iranian Ministry of Health and Medical Education. Given the fact that Shiraz University of Medical Sciences is constantly improving and updating itself to meet the international academic standards and the state of the art, and based on the availability of facilities, devices, ward, laboratories, etc. at SUMS, all the SUMS curricula are approximately 20% subject to change.