# Proposal

## Post-Graduate Fellowship (PGF) in Oculoplastics

## King George's Medical University UP, Lucknow

Prepared by

Ocuoplastics and Orbit Unit
Department of Ophthalmology
King George's Medical University UP, Lucknow

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

## CURRENT STATUS: NEED & RELEVANCE

Oculoplastics and orbital disorders affect all age groups and have a wide spectrum including congenital and acquired diseases. A large segment of patients have sight threatening congenital defects, malignancies and post traumatic squeal involving the orbital and adnexal tissues.

Oculoplastics and Orbital disorders is the youngest subspeciality of Ophthalmology in India. Well equipped Units for this are currently functioning in AIIMS, New Delhi and PGIMER, Chandigarh and a few leading centres in the private sector(Shankar Nethralaya,Chennai a,d LVPEI, Hyderabad). The Oculoplastics and Orbit Unit of the Department of Ophthalmology, KGMU, is the only centre in the state of Uttar Pradesh providing service for this cause. Patients are referred from all over the state, neighbouring states and bordering Nepal.

However, unlike other centres we lack in having a provision for providing Fellowship training. This poses a restraint to the availability of trained personnel capable of providing Oculoplastic service at non institutional level, in the state.

Thus the need and justification of such a programme, this being an apex institution.

It is important for the King George's Medical University, Lucknow to take a lead role in forwarding the cause of training Oculoplastic and Orbit Surgeons by developing standards and guidelines for Fellowship in Oculoplastics in the state.

## EXISTING INSTITUTIONAL SCENARIO

An independent exclusive Oculoplastics and Orbit Unit is functioning in the Department of Ophthalmology of our university since 1999. Currently more than 3000 patients receive specialised medical and surgical therapy for conditions falling in the spectrum of Oculoplastic and Orbital diseases, in the unit. Additionally, this unit is getting intra-institutional references for specialized consultations along with references from whole of UP as well as from neighbouring states and bordering Nepal .

Additional clinic providing care for Thyroid Eye Disease has been started two years back 2014 to offset the workload of Oculoplastics Clinic.

## FUTURE DEVELOPMENTS

With the growth of patient load, available diagnostic and surgical skills, it is proposed to make the unit a Centre of Excellence with collaboration with the leading British, American and African Centres of Oculoplastic Surgery.

## LOCATION

Department of Ophthalmology,
King George's Medical University,
Lucknow, Uttar Pradesh,
India

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

## PARENT TRAINING DEPARTMENT-

Department of Ophthalmology, KGMU, Lucknow

## ANCILLARY TRAINING SITES-

Department of Anatomy, KGMU Lucknow

Department of Pathology, KGMU, Lucknow

Department of ENT, KGMU, Lucknow

Department of Oro-Maxillofacial Surgery,KGMU, Lucknow

Department of Plastic Surgery, KGMU , Lucknow

Department of Radiodiagnosis, KGMU , Lucknow

Department of Radiotherapy, KGMU , Lucknow

Department of Neurosurgery, KGMU, Lucknow

## FELLOWSHIP FACULTY

1 Head of Department as director

2 Unit head Oculoplastics to be course coordinator

The coordinator should have:

a) Basic qualification in Ophthalmology (M.S of a recognised University) and an additional Fellowship in Oculoplastics

b) Experience: - At least 10 years experience in the field of Oculoplastics

c) Practice: The coordinator of the programme must be a full-time staff of the University. His / her professional time should be majorly devoted to the practice of Oculoplastics.

d)Research and Publicatons: The coordinator should have commitment to research in the field of Oculoplastics. At least 10 scientific articles should have been published from the Unit / Department in the field of Oculoplastics in peer -reviewed, indexed journals. Of these, at least three must have been published in the preceding three years.

e)Membership of the Oculoplastics Association of India

Current Unit head Oculoplastics Professor Apjit Kaur (M.S.FAICO, PGDHHM) fulfils all the above requisites of Course Coordinator

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

3 Co-Faculty.....Assistant Prof Oculoplastics

All HODs of ancillary departments or their nominee

INFRASTUCTURAL FACILITIES:-

The existing infrastructure in the Department of Ophthalmology is adequate to conduct the Fellowship Program – NO ADDITIONAL facility is required

PROGRAM GOALS

The Oculoplasty fellowship program, Department of Ophthalmology , King George's Medical University, Lucknow, will have Clinical, Surgical, Research and Teaching goals

CLINICAL GOALS

Applicant will be posted in oculoplastics unit and will attend OPD, IPD and OT actively under supervision of unit head as part of the "Oculoplastics team". The candidate will participate in the medical and surgical management of patients that include a wide range of orbital diseases, eyelid malpositions and tumors, lacrimal sac diseases, thyroid orbitopathy and others including congenital disorders, trauma and secondary orbital disorders.

SURGICAL GOALS

In the operating room, extensive exposure will be provided through mode of observation, assistance, being assisted and performance of major and minor surgical procedures.

RESEARCH GOALS

Sensitise the fellow towards research and teach the fundamentals of clinical trial research through lectures and participation in clinical analysis. Encourage and provide dedicated time for meaningful scientific research in areas of interest.

TEACHING GOALS

Allow fellow the opportunity to teach ophthalmology residents and medical students through hands on clinical teaching, structured didactic lectures and presentations in conferences.

DURATION OF THE FELLOWSHIP

One year (starting 01 August- 31 July)

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

NUMBER OF POSTS

One

## ELIGIBILTY

M.S /DNB Ophthalmology from MCI recognized institution and keen interest in the subject of Oculoplastics

## METHOD OF APPLICATION and SELECTION

Applications with detailed curriculum vitae, along with application processing fees of Rupees One thousand only.

After screening of applications the suitable candidates will be called for a written exam conducted by the University. On the basis of the exam a maximum of 5 candidates will be called for an interview after which 1 will be selected for the fellowship. The next two candidates will be put on the panel list and will be offered the fellowship sequentially if the selected candidate/ candidates expresses failure to join.

**Last date:** for receiving application: July 1 of the year of commencement of fellowship.

## COURSE FEE

Candidate has to deposit Indian Rs 1 lac ( INR one lac only) to the University in favour of course, hospitality of invited faculty and examination fees. This to be revised concurrent with revision of fee structure of PG trainees.

30% of the fees to be used by the University for examination and other purposes; 70% to be diverted to the Department augmentation fund for supporting fellowship training and academic activities.

**Details of payment** Electronic transfer payable to the University

## STIPEND/ SALARY

May be diverted from sanctioned post of SR (senior resident) existing in the department of Ophthalmology

Candidate other than a SR may derive stipend by applying for research fellow / associate or equivalent assignments to other funding bodies.

## ELIGIBILITY:

**Qualification:** M.S /DNB Ophthalmology from MCI recognized institution

**Age:** less than 40 yrs

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

## LEAVE RULES:

As per those applicable to P.G Residents

## DUTIES OF THE FELLOW

Training includes work related to subject in IPD/OPD , attending/ presenting Seminars /journal club, clinical case discussion. Surgical training to be imparted in three stages- assist , assisted and independent operations.
Attendance in OPD , IPD and Oculoplasty clinic and Thyroid Eye Disease Clinic
The fellow is expected to be on university campus or other assigned clinical sites at a minimum of Monday to Saturday ,8:00 a.m. to 4:30 p.m. regardless of clinical activities. The fellow shall perform all duties in areas of clinical, research and teaching assigned to him by Unit head/HOD.

## EVALUATION

1Formative Assessment 1 MCQ at end of month 4 and month 8 of joining.

2 Periodic Skill assessment

2 Summative assessment – Interview by HOD , course instructor, instructors from ancillary training sites , result of formative assessment

3 Research publications (atleast 2 in indexed journal , sent/accepted)

## CURRICULUM

### A Cognitive Skills

#### General

1 Perform preoperative and postoperative assessment of patients with common, uncommon and rare oculoplastic disorders.

#### Eyelid

1. Describe anatomy and physiology (eg, orbicularis, meibomian glands, Zeis glands, orbital septum, levator muscle, Müller muscle, Whitnall ligament, Lockwood ligament, preaponeurotic fat,lymphatics).

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

2. Describe basic mechanisms and indications of eyelid reconstruction with reference to trauma treatment (lid margin sparing, lid margin involving, canaliculus) and post- tumor resection.

3. Describe clinical features, evaluation, mechanisms, associations and indications for treatment of ptosis (congenital and acquired, simple and complex,including clinical features, evaluation, syndromic association and management of congenital ptosis (eg, simple, blepharophimosis-ptosis-epicanthus inversus syndrome [BPES], jaw wink, congenital fibrosis), acquired myogenic ptosis (eg, oculopharyngeal muscular dystrophy, mitochondrial myopathies, myotonic dystrophy, myasthenia and of acquired neurogenic ptosis (eg, third nerve palsy, Horner syndrome).

4. Describe clinical features,mechanisms, evaluation and indications ,type of procedure for treatment of upper and lower eyelid retraction.

5.Describe clinical features, evaluation, mechanisms and indications and type of procedure for treatment of entropion.

6. Describe clinical features, evaluation, mechanisms and indications and type of procedure for treatment mechanisms and indications for treatment of ectropion.

7.Identify floppy eyelid syndrome and its systemic associations.

8. Identify blepharospasm and hemifacial spasm, in terms of clinical features, etiology and treatment.

9. Describe clinical features , investigations and treatment of benign and malignant lid lesions.

10.Describe clinical features, investigation , differential diagnosis and treatment of pre-septal cellulitis.

11. Described the genetics (where known), clinical features, evaluation, and treatment of congenital eyelid deformities (eg, coloboma, distichiasis, epicanthus, telecanthus, blepharophimosis, ankyloblepharon, epiblepharon, euryblepharon, cryptophthalmia, Goldenhar syndrome, Treacher-Collins syndrome, Waardenburg syndrome).

12. Describe the mechanisms and indications for treatment of more advanced eyelid trauma (eg, chemical burns, thermal burns, canthal avulsions, eyelid avulsions).

13. Describe the etiology, evaluation, and medical and surgical treatment of the following eyelid diseases: a. Complex ectropion (eg, congenital, paralytic, involutional, cicatricial, mechanical, allergic) b. Complex entropion (eg, involutional, spastic, cicatricial, congenital) c. Complex myogenic ptosis (eg, myasthenia gravis, chronic progressive external ophthalmoplegia [CPEO], oculopharyngeal muscular dystrophy [OPMD], myotonic dystrophy) d. Upper eyelid retraction e. Lower eyelid retraction f. Benign, pre-malignant, or malignant eyelid tumors (eg, papilloma, seborrheic keratosis, epidermal inclusion cyst, molluscum contagiosum, verruca vulgaris, keratoacanthoma, actinic keratosis, basal cell

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

carcinoma, squamous cell carcinoma, sebaceous cell carcinoma, melanoma) g. Single or recurrent inflammatory lesions (eg, recurrent chalazion or its mimics) h. Facial nerve palsy with exposure keratopathy (eg, tarsorrhaphy, gold weight, lower lid tightening/elevation)

**Lacrimal**

1. Describe anatomy and physiology in terms of puncta, canaliculi, lacrimal sac, nasolacrimal duct, endonasal anatomy, lacrimal glands, and lacrimal pump mechanism theories.

2. Describe structure of tear film and mechanisms of tearing.

3. Describe mechanisms and indications for treatment of congenital and acquired nasolacrimal duct obstruction

4. Identify , investigate and treat canaliculitis, acute, and chronic dacryocystitis.

5. Describe the genetics, clinical features , evaluation and management of lacrimal dysgenesis.

6 Describe the mechanisms and indications for treatment of lacrimal trauma (eg, nasolacrimal duct obstructions resulting from facial fractures).

**Orbital**

1. Describe anatomy in terms of orbital bones, orbital foramina, paranasal sinuses, annulus of Zinn, arterial and venous vascular supply, nerves, orbital septa , extraocular muscles, vascular anatomy, neural anatomy, orbital septa).

2. Identify normal orbital and relevant nasal and paranasal sinus anatomy on imaging studies (eg, computed tomography, magnetic resonance imaging).

3.Describe the clinical features.investigations andtreatment of congenital orbital deformities( anophthalmia.microphthalmia.hypertelorism and telecanthus.

4. Describe the genetics, clinical features, evaluation, and management of common craniosynostoses and other congenital malformations (eg, Crouzon syndrome, Apert syndrome).

3. Describe basic mechanisms and indications for treatment of orbital trauma (eg, medial wall and floor fractures, retrobulbar hemorrhage).and manage advanced orbital trauma (eg, zygomaticomaxillary complex fractures, naso-orbital ethmoid fractures, Le Fort fractures).

4. Describe the pathophysiology, Identify, evaluate, and treat thyroid ophthalmopathy (eg, epidemiology, symptoms and signs, associated systemic diseases, orbital imaging, differential diagnosis, surgical, medical, and radiation indications, side effects of treatment).

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

5.Describe the clinical evaluation , investigations,differential diagnosis and treatment of proptosis in children and adults.( include congenital causes, infections, infestations, benign, malignant and metastatic causes)

6. Describe epidemiology, clinical features, evaluation, and management of fetal alcohol syndrome

**B Technical/Surgical Skills**

**Eyelid**

1. Describe indications for and perform the basic office examination techniques for most common eyelid abnormalities (eg, margin reflex distance, palpebral fissure height, levator function, lagophthalmos, lid crease, lid laxity assessment, brow height, dermatochalasis, eversion, double eversion).

2. Perform minor lid and conjunctival procedures (eg, repair of small eyelid laceration including marginal, removal of benign eyelid lesions, chalazion curettage or excision, conjunctival biopsy).

3. Treat complications of minor operating room procedures (eg, incision and drainage of chalazia, excision of small eyelid lesions).

4. Identify and treat trichiasis (eg, epilation, cryotherapy, surgical therapy).

5. Describe indications for and perform a temporary tarsorrhaphy.

6.Describe indications for and perform a lateral canthotomy/cantholysis.

7. Describe indications for and complications of, and perform more eyelid surgery (eg, upper blepharoplasty, lower lid tightening,margin malposition corrections ).

8. Describe indications for and complications of, and perform eyelid resection and reconstruction (upper eyelid, lower eyelid, canthii and caruncle)

9. Identify indications for and complications of, and treat blepharospasm and hemifacial spasm.

10 Identify indication and perform all types of ptosis surgery, knowledge of management of complications.

10. Identify histopathological features of common eyelid conditions.

**Lacrimal**

1.Describe indications for and perform the basic office examination techniques for the most common lacrimal abnormalities (eg, Schirmer test, dye disappearance test, punctal position, punctal dilation, canalicular probing, lacrimal probing and irrigation, interpretation of dye testing, canalicular probing in trauma).

2 Describe indications for and perform an incision and drainage of the lacrimal sac abscess.

3 Describe indications and perform external dacryocystorhinostomy

4.Perform punctal plug insertion or removal.

5. Identify indications for and interpret lacrimal imaging (eg, scintigraphy, cystography).

64. Identify histopathological features of common lacrimal conditions.

**Orbital**

1.Describe indications for and perform the basic office examination techniques for orbital abnormalities (eg, Hertel measurement, one scale and two scale measurements, forced duction test ) to assess dystopia, facial asymmetry, enophthalmos, proptosis).

2. Identify indications for and perform the basic anophthalmic socket assessment (eg, types of implants, implant movement, socket health, socket surface, socket volume, fornices, prosthesis type and fit).

3. Describe indications for and perform enucleation and evisceration with and without implants, and manage complications thereof.

5. Identify common orbital pathology (eg, orbital fractures, orbital tumors) on imaging studies (eg, magnetic resonance imaging, computed tomography, ultrasound).

6. Treat orbital infestations, infections and non infective inflammations

7. Identify histopathological features of common orbital conditions.

8. Describe indications for and complications of basic orbital skills and procedures, including: a. Anterior orbitotomy for tumor biopsy/excision . Orbital floor fracture repair ,Socket reconstructions (eg, tissue transfers, grafts, flaps, synthetic implants) Optic nerve sheath fenestration . Orbital decompression for thyroid eye disease)

Nasal

1. Describe nasal endoscopy as related to the management of lacrimal and periorbital processes. . Describe turbinectomy and nasal surgery as related to the management of lacrimal and periorbital processes.

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

**Sinus**

1. Describe sinus surgery and endoscopy as related to periorbital and lacrimal processes.

**Head and Neck**

1. Describe facial flaps, including temporal, midface, lower face/neck for functional and aesthetic conditions related to the management of periorbital processes.

2. Describe rhytidectomy, including the periorbital and adjacent areas.

3. Repair upper face and brow conditions, including brow ptosis repair.

4. Use neuromodulators (eg, botulinum toxin), dermal fillers, other technologies (eg, laser) and chemical/pharmaceutical agents for the management of contour and skin quality abnormalities (ie, functional and aesthetic).

Note: Inclusion of therapies and investigations in the ICO Residency Curriculum does not imply that listings are all inclusive or that methods are endorsed by the ICO. Appropriate levels of expertise and knowledge should be achieved based on the care provided. Practitioners should know of therapies and investigations not available at their hospital.

**Proposed Curriculum Schedule for Fellowship in Oculoplasty**

During the entire fellowship period, fellows will be trained through well structured weekly presentations, clinical evaluation of specialty patients, surgeries and rotatory postings in allied departments. The fellow is required to be involved in research and get published at least one article in an indexed journal. The weekly schedule of fellow shall comprise of 1 OPD (Out Patient Department) Day, 2 Specialty Clinic Days, 2 Operation Theatre (OT) Days and 1 Academic day (Academic presentation). The fellow shall have to pass two theory examinations and one practical examination in oculoplasty at the end of fellowship period for successful completion of fellowship.

**Induction Period** (Week 1 to Week 6)

During this period, the fellow will get accustomed to the working of the institution. He/She will also be exposed to other specialties of the department. Fellow will also be posted in allied department for a couple of days per week. During this period he/she would be explained the procedure and importance of proper record keeping. He/She will be asked to review the already published work of the sub specialty and encouraged to have ideas for his/her own publication.

**Academic Presentations** (Every Saturday between 9 to 10 AM)

In order to maintain the high standards of academics, fellow will be given a predesigned schedule of topics for presentation and discussion. His/Her performance shall accordingly be

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

adjudged weekly. Fellow will be required to present one topic per week from the completion of Induction Period.

| Week | Topic |
|---|---|
| Week 7 | Anatomy and embryology of Lids. |
| Week 8 | Anatomy of Orbit and its surgical relevance. |
| Week 9 | Anatomy of Lacrimal Gland/Sac and Naso-lacrimal duct. |
| Week 10 | Tear film & Physiology of Tear Drainage. |
| Week 11 | Basic Anatomy & Physiology of Paranasal Sinuses. |
| Week 12 | Benign lesions of Lid. |
| Week 13 | Malignant Lesions of Lid. (BCC/SCC) |
| Week 14 | Malignant Lesions of Lid (SGC/Melanoma) |
| Week 15 | Principles and Techniques of Lid Recontruction. |
| Week 16 | Common congenital lid anomalies and their management. |
| Week 17 | Disorders of lid margins and their management. |
| Week 18 | Ptosis and its evaluation. |
| Week 19 | Surgical principles in Ptosis Surgery. |
| Week 20 | Brow Ptosis and its management. |
| Week 21 | Lid Retraction: Causes and management. |
| Week 22 | Blepharospasm and its management. |
| Week 23 | Benign Tumours of Lacrimal Gland. |
| Week 24 | Malignant Tumours of Lacrimal Gland. |
| Week 25 | Acute Dacryocystitis & its management. |
| Week 26 | Chronic Dacryocystitis & its management. |
| Week 27 | Congenital Nasolacrimal Duct Obstruction and its Management. |
| Week 28 | Traumatic canalicular injury and principles of surgical management. |
| Week 29 | Ocular Surface Squamous Neoplasia and its management. |
| Week 30 | Chemical ocular injury (Pathophyiology and clinical features) |
| Week 31 | Principles of managing chemical injuries. |
| Week 32 | Congenital anomalies of the Orbit. |

Dean
Faculty of Medicine
K.G Medical University, U.P.
Lucknow

| | |
|---|---|
| Week 33 | Common causes and evaluation of globe proptosis. |
| Week 34 | Cystic lesions of the Orbit. |
| Week 35 | Vascular Malformations of Orbit-I |
| Week 36 | Vascular Malformations of Orbit-II |
| Week 37 | Retinoblastoma and its management. |
| Week 38 | Rhabdomyosarcoma/Chloroma/Neuroblastoma. |
| Week 39 | Optic nerve Glioma and its management. |
| Week 40 | Optic nerve sheath tumours. |
| Week 41 | Inflammatory disorders of the Orbit. |
| Week 42 | Thyroid Associated Ophthalmopathy-I |
| Week 43 | Thyroid Associated Ophthalmopathy-II |
| Week 44 | Orbital Cellulitis and its Management. |
| Week 45 | Orbital trauma: Pathophysiology. CF. |
| Week 46 | Orbital trauma: Principles of management with repair of orbital floor fracture. |
| Week 47 | Principles of surgical approach to Orbital lesions and Orbit Decompression. |
| Week 48 | Evaluation and principles of Contracted Socket repair. |
| Week 49 | Orbital Implants |
| Week 50 | Role of Ultrasound in Orbital Imaging. |
| Week 51 | MRI & CT characteristics of common Orbital lesions. |
| Week 52 | Role of Fine Needle Aspiration Cytology (FNAC) in diagnosing Orbital lesions. |

**Surgical Training:**

The Fellows will be trained in surgical approach to various disorders in Oculoplastics over a period of one year. The fellow will be exposed to various surgeries and will gradually progress from being an observer to assistant to eventual surgeon. The entire period of 1 year (52 weeks) is as divided:

| Duration | Surgical Exposure |
|---|---|
| 1. Week 1 to Week 8 | The fellow shall only observe procedures related to Oculoplasty in Minor OT and Main OT. |

Dean
Faculty of Medicine
K.G. Medical University, U.P.
Lucknow

| | |
|---|---|
| 2. Week 9 to Week 22 | The fellow shall be allowed to do procedures in Minor OT. (Eg. NLD Syringing/ Probing, Intralesion Steroid Inj., Chalazion I/D, Tarsorrhaphy etc. |
| 3. Week 23 to Week 34 | The fellow shall be exposed to lid surgeries including laceration repairs, mass excision and lid reconstruction, Entropion/Ectropion correction etc.<br>The fellow will be allowed to assist surgeries and perform surgeries under supervision. Independent surgeries will be given according to the skills acquired by the fellow. |
| 4. Week 35 to Week 52 | The fellow shall be exposed to Orbit surgeries, Lacrimal Sac surgeries, Ptosis Surgeries, Cosmetic Surgeries (including Grafts)*.<br>The fellow shall be allowed to assist these surgeries and may even be allowed to do surgeries under supervision according to the skills acquired by the fellow. |

Faculty of Medicine
K.G. Medical University, U.P.
Lucknow