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### Teaching and training details:

In addition to the PG seminars/grand rounds and hands on training in various clinical activities focusing on competencies as described above, the cognitive and skill domains of following topics would be covered by

- interactive lectures and seminars- app 35
- demonstrations- app 30
- hands on training
- surgical exposure ( assistance, under supervision and independent)

### Syllabus to be covered:

Anatomy of the eye and adnexa
Anatomy of extraocular muscles
Physiology of ocular movements
Basics of vision
Basics of binocular vision
Refractive errors
Association of refractive errors with ocular alignment
Near vision accommodation and convergence
Introduction to neuromuscular anomalies, Terms and abbreviations in strabismus
Psychosocial effects of strabismus
Evaluation of strabismus-sensory and motor
Common pediatric fundus, abnormalities, examination, principles of screening and treatment
Heterophoria and heterotropia
Esodeviations
Exodeviations
Cyclovertical deviations
A and V Patterns
Anomalies of convergence and divergence
Paralytic strabismus
Special forms of strabismus
Nystagmus
Principles of strabismus treatment <ul style="list-style-type: none"><li>◦ Principles of nonsurgical treatment<ul style="list-style-type: none"><li>Refractive correction</li><li>Amblyopia</li></ul></li><li>◦ Chemodenervation of extraocular muscles</li><li>◦ Principles of surgical treatment</li></ul>

All time not occupied by patient responsibilities must be used to further academic pursuits such as research and teaching. Failure to utilize non-clinical time in an appropriate fashion and unsatisfactory progress may result in curtailment of the Fellowship. Except in exceptional circumstances all absences from clinic and operating room duties must be cleared two weeks in advance.

## Evaluation:

### Requirement for completion:

- Attendance 80%,
- Satisfactory performance
- Research publications 2 of which one to be an original article (sent/accepted).

### Formative assessment:

- (i) 360° evaluation will be done on a regular basis.
- (ii) MCQ and short answer question based assessment will be done every 3 months
- (iii) followed by a feedback session in which the faculty as well as the fellow will be given an opportunity to express their comments so as to facilitate teaching and learning.

**Course completion/ summative assessment:** In addition to satisfactory performance in 360° evaluation, the fellow will have to pass (more than 50% marks) two theory (MCQ and short answer question based assessment), and 1 practical exam ( OSCE and viva) in Strabismus and Pediatric ophthalmology.

## Award of Fellowship:

The fellowship will be awarded by the institution after the panel of examiners and chief coordinator have certified that the candidate has successfully passed all the sections of the evaluation process.

## 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.

## Admission process

### Application:

- Applications with detailed curriculum vitae, along with application processing fees of Rs 1000.00
- 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 10 candidates will be called for an interview after which 2 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.

Details of payment cash/cheque/ draft payable to the University

**Leave rules:** as per those applicable to P.G Residents

### The Fellow's weekly timetable comprises of:

Observation and assistance in following activities of the Pediatric Ophthalmology & Strabismus team:

1. Pediatric Ophthalmology & Strabismus clinic- twice weekly
2. Operating Room – once weekly
3. Pediatric Vision clinic- once weekly
4. OPD- once weekly
5. Refraction Room- Once weekly
6. Post graduate and undergraduate seminars, grand rounds and interactive lectures 3 to 4 sessions per week

The Fellow is expected to be in the University Monday to Saturday, 8:00 a.m. to 4:30 p.m. For additional experience the fellow may choose to be on-call with the emergency team.

## Social

The trainee will be sensitized to situation analysis and the need for improvement of health care delivery in the pediatric ophthalmic care in India with reference to preventive, diagnostic, curative and rehabilitative services.

### Infrastructural facilities:

The training program can be started within existing infrastructure, No additional facility is required

### Location

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

### Number of seats

Two/ year

**Housing:** Not Provided.

### Duration:

1 year (12 calendar months, 52 weeks); August 1 to July 31

### Eligibility:

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

Age: less than 45 yrs

**Program 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.

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## Program Goals

The Strabismus and Pediatric Ophthalmology Fellowship Program aims to empower the young ophthalmologist with the required knowledge, affect and psychomotor skills necessary for dealing with pediatric ophthalmic problems and will have significant goals in four main areas: Clinical, Surgical, Research, Teaching and Soft skills

### Clinical

The selected Pediatric Ophthalmology & Strabismus Fellows will work closely with the Pediatric Ophthalmology & Strabismus Faculty and department residents as part of the "Pediatric Ophthalmology & Strabismus Team" in OPD, IPD and OT. They will have the opportunity to actively participate in the medical and surgical management of patients who have a wide range of diseases including refractive errors, pediatric cataract, pediatric glaucoma, retinoblastoma, retinopathy of prematurity (ROP), trauma and congenital diseases.

Training in clinical evaluation of Pediatric Ophthalmology & Strabismus would include special, proficiency in refraction, work up of strabismus patients, slit lamp examination, indirect & direct ophthalmoscopy and diagnostic tests including digital Hess. Charting

### Surgical

Extensive exposure will be provided through assistance, assisted and gradual transition to independent surgery for strabismus, pediatric cataract, leucoma and trauma repair.

### Research

The fellow will be taught the fundamentals of clinical trial research through exposure to ongoing trials, review of past trials, and didactics on study design and critical analysis of research papers and interpretation. He will be encouraged to frame feasible research questions and discuss study design and methodology and will be provided dedicated time to pursue meaningful scientific research in areas of interest.

### Teaching

The fellows will be provided opportunity to actively supervise and teach ophthalmology residents and medical students through structured didactic classes, seminars and hands-on clinical teaching. Encourage their active participation in national and international conferences. The fellows would be considered as attending physicians and would as such take part in the on-call attending schedule with the other faculty, support the on-call resident and actively participate in planning and management of emergency pediatric patients.

### Soft skills

Trained fellows will acquire the additional clinical and soft skills required for effective evaluation of pediatric patients and will be able to take up independently examination of a child with ocular complaints, reach a diagnosis, plan and execute management. They would be able to effectively and convincingly communicate with the patients and the attendants regarding the current situation, treatment options, advantages and disadvantages of each option, expected outcomes and complications of the disease and the treatment.

therefore untreated congenital and acquired motility problems, retinopathy of prematurity in susceptible individuals, pediatric cataract and inadequate vision care and lack of follow up protocols are some of the common causes that account for high prevalence of visual impairment in children and young adults. Prevention, early diagnosis and management can be improved only if more surgeons are trained in this field.

Several ophthalmic surgeons currently trained in India feel poorly equipped to deal with ophthalmology problems in children. This is largely because most centers give far more emphasis to senile cataract and inadequate attention is paid to training residents to deal with paediatric ophthalmic problems. Some non government centers are offering fellowships of varying durations of 3, 6 and 12 months in Strabismus, Pediatric Ophthalmology, Strabismus and Pediatric Ophthalmology.

Being a premier institution, it is important for the King George's Medical University, Lucknow to take a lead role in forwarding the cause of comprehensive training in Strabismus and Paediatric ophthalmology.

#### **Institutional:**

The strabismus and ocular motility clinic in the department of Ophthalmology King George's Medical University is more than 40 years old and over the years has upgraded to keep abreast with the latest modalities of diagnosis and management. In this field the present faculty incharge (proposed chief supervisor) has more than 30 years and proposed co supervisor has more than 5yrs of experience as faculty in this department.

This subspecialty of Ophthalmology requires specialized skills for evaluating, diagnosing and treating the pediatric population, so as to minimize community burden of childhood visual impairment the impact of which is manifold when considered in terms of DALYS (disability adjusted life years)

This training aims to empower the fellow with the required comprehensive knowledge, affect and psychomotor skills to evaluate and manage pediatric ophthalmic problems

The department has all the infrastructure to begin this training. The University will not be burdened with providing additional infrastructural support.

#### **Future developments**

It is likely that in due course, more centers in India will be in a position to train young ophthalmic surgeons in this field of ophthalmology which requires specialized understanding and skills. Meanwhile, University will adopt necessary actions so that this course may be recognized by MCI (strabismus and paediatric ophthalmic surgery)

**At Present:****Program director and Principal Supervisor:**

Dr. Vinita Singh M.S.

Professor and Head

Department of Ophthalmology

King George's Medical University

Lucknow

**Co Supervisor**

Dr. Siddharth Agrawal

Assistant Professor

Department of Ophthalmology,

King George's Medical University,

Lucknow, Uttar Pradesh, India

**Faculty co-ordinator**

Dr. Rajat M Srivastava

Assistant Professor

Department of Ophthalmology,

King George's Medical University,

Lucknow, Uttar Pradesh, India

**Co faculty:**

Other faculty from the department of Ophthalmology, Anatomy, Physiology, biochemistry, pathology, pharmacology, ENT and Neuromedicine will be involved for selected lectures and demonstrations

**Situation analysis and Justification:****International:**

The branch of strabismus & paediatric ophthalmology is well established in USA, UK, Europe, Australia and Japan with specialized departments, national and international societies and specialized journals devoted exclusively to strabismus & paediatric ophthalmology. These have been in existence for over 30 years. Specialised training in the field of Strabismus and Paediatric Ophthalmology is currently being offered in all these countries.

**National and state level:**

India has the largest number of children. A large proportion of patients who attend Ophthalmology departments in India are children. Timely diagnosis and management of these is often far from satisfactory. Uncorrected refractive errors, undiagnosed and

# Strabismus and Pediatric Ophthalmology Fellowship

## Department of Ophthalmology, King George's Medical University

The program to be run by:

### ~~Program director~~

Head of Department of Ophthalmology  
King George's Medical University.

~~Lucknow~~

### Principal Supervisor:

Requirements to be a principal supervisor

- Basic qualification in Ophthalmology M.S. Ophthalmology from MCI recognized institution/ DNB ophthalmology
- Must be a full time faculty of this University. His / Her professional time should be majorly devoted to the practice of Strabismus & Paediatric Ophthalmology.
- At least 10 years experience in the field.
- Should have commitment to research in the field of Strabismus and Paediatric ophthalmology.
- Must be an active member of the Strabismus & Paediatric Ophthalmology society of India and All India Ophthalmology Society.

### Co Supervisor

Requirements for a co supervisor: To be co opted by the principal supervisor.

- Basic qualification in Ophthalmology M.S. Ophthalmology from MCI recognized institution/ DNB ophthalmology
- Must be a full time faculty of the University. His / Her professional time should be majorly devoted to the practice of Strabismus & Paediatric Ophthalmology.
- At least 5 years experience in the field.
- Should have commitment to research in the field of Strabismus and Paediatric ophthalmology.
- Must be an active member of the Strabismus & Paediatric Ophthalmology society of India and All India Ophthalmology Society.

### Faculty co-ordinator

To be co opted by the principal supervisor. Requirements for a co supervisor:

- Basic qualification in Ophthalmology M.S. Ophthalmology from MCI recognized Institution/ DNB ophthalmology
- Must be a full time faculty of the University.

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Proposal

Strabismus and Paediatric Ophthalmology Fellowship

King George's Medical University UP, Lucknow

Prepared by

Strabismus & Paediatric Ophthalmology Unit

Department of Ophthalmology

King George's Medical University UP, Lucknow