

UCL Institute of Ophthalmology

Internal Quality Review (IQR) Self- Evaluative Statement (SES)

February 2015

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SECTION ONE

1.1 Key Developments

Since the last IQR, the Institute has dramatically expanded the number of PGT programmes that it offers. These have been underpinned by the Institute's Learning and Teaching Strategy, in line with the educational strategy for the Faculty. A greater number of research active staff have become involved in education. In addition, our administrative structures have been consolidated to ensure that UCL policies as well as best practice examples from other areas of the Faculty are followed. To reflect our increased range of education the staff student consultative committee has been expanded. Evaluation mechanisms have been completely overhauled resulting in a better student response rate: this in turn ensures timely and meaningful feedback is reported through to programme directors and module leads.

Education is now being delivered by all levels of Institute staff and forms a core part of the appraisal process. We are increasingly using external speakers from clinical settings and industry who offer the insights into the practical applications of course content.

We now host regular seminars and workshops for students and encourage both staff and students to participate in events organized by the Faculty or across the university. All new academic staff members are encouraged to complete CALT training as part of their induction process and our local events are helping integrate student cohorts and degree types. Staff members are also invited to attend Faculty level CPD workshops for education innovation

The research degree programme remains attractive to applicants and the submission rate has increased since the last IQR. This has been achieved by increasing the use of the student log and greater levels of scrutiny and support by the Graduate Tutors.

1.2 Reflection on Augmented Annual Monitoring

Augmented annual monitoring took place in December 2013 and covered the three programmes that were running at that time, MSc Clinical Ophthalmology, MSc Ophthalmology and the MSc Biology of Vision.

All the courses were favourably reviewed by the external scrutineers (Appendix 1) who commended the quality of the content and profile of the lecturers as well as the routine refinement of course content, modules offered and course structure. The scrutineer specifically noted that the changes made in response to Exam Board recommendations have improved the clinical programmes.

SECTION TWO

2.1 Summary Statement

The Institute of Ophthalmology (IoO) was founded in 1949 as one of the federated Institutes of the British Postgraduate Medical Federation of the University of London. In August 1995 the Institute joined UCL and is now part of the Faculty of Brain Sciences within the UCL School of Life and Medical Sciences.

IoO is one of a number of specialised biomedical research centres within UCL and is, together with Moorfields Eye Hospital Trust (MEH), is the world's leading centre for eye and vision research and training. The Institute is committed to a multi-disciplinary research portfolio that furthers an understanding of the eye and visual system linked with clinical investigations targeted to specific problems in the prevention and treatment of eye disease. The combination of the Institute's research base with the resources of MEH, which has the largest ophthalmic patient population in the Western World, opens the way for advances at the forefront of vision research and provides an unparalleled setting for research and training in ophthalmology.

The Institute conducts cutting-edge science, attracting research workers of the highest international calibre. Our international standing in research was underlined in the 2014 Research Excellence Framework Exercise where 75% of research outputs were graded 3* or 4*. Our achievements were recognized in 2011 when we were awarded the Queen's Anniversary Prize for Higher and Further Education, in recognition of "outstanding excellence".

Our close links with MEH provide a platform for delivering education and research of the highest quality in ophthalmology and vision science, linking to professional training for clinical careers in both ophthalmology and visual sciences and jointly we are acknowledged as a unique national resource for postgraduate training and research in ophthalmology. These links have been strengthened through UCL Partners where Ophthalmology is one of the eight themes within this Academic Health Sciences Centre. Given the tripartite mission of clinical excellence and world class research and training, UCL Partners offers an important vehicle for taking forward education on this site. The partnership with MEH is underlined by funding provided by the National Institute for Health Research (NIHR) which has awarded £26.5 million to support a Biomedical Research Centre for Ophthalmology.

The researcher of tomorrow is critical to our goal of improving sight. To this end, we contribute to the UCL undergraduate medical programme and have a large number of research students (MD, MPhil, PhD). Since the last IQR we have launched a number of M level taught courses that build on our expertise in translational science and links with industry. The M courses launched since the last IQR are:

- MSc Clinical Ophthalmology
- MSc Ophthalmology:
 - Retina diet;
 - Cataract and Refractive Surgery diet
- PG Cert Clinical Ophthalmic Practice
- MSc Biology of Vision
- MSc Translational Immunobiology
- MSc Translational and Regenerative Neuroscience
- MRes Vision Research

The Institute currently has 146 fee paying students spread across its PGT and PGR courses. The breakdown between home and overseas and modes of study are show in the table below:

	Home EU			Overseas			Total
	FT	Modular	PT	FT	Modular	PT	
PGT	31	19	5	11	0	1	67
PGR	51	1	18	8	0	1	79

A complete breakdown of the profile by FTE is shown in appendix 2.

IoO has an annual turnover of £25million and its facilities comprise 10,000m² of space contiguously located on a site adjacent to MEH. The breakdown of our staff profile is show in the table below:

	Number	FTE	Number full time	Number part time
Academics	47	44.8	42	5
Administration/Managerial Support	29	27.3	23	6
Total staff	256	241.8	226	28

The Institute has modern, well-equipped laboratories which cater for academic staff and students undertaking research projects. Day to day operations fall within the remit of four Research Departments:

- Visual Neuroscience (Professor Gary Rubin)
- Genetics and Gene Therapy (Professor Robin Ali)
- Cell Biology (Professor John Greenwood)
- Ocular Biology and Therapeutics (Professor Pete Coffey)

Further information about IoO research and education is available at: <http://www.ucl.ac.uk/loo/>

SECTION THREE

Quality Monitoring and Enhancement Framework

3.1 Curriculum planning and design

Educational at the Institute can be divided into three broad areas, clinical PGT, non-clinical PGT and PGR.

3.1.1 Clinical postgraduate taught programmes

We offer three programmes that are open to practicing or registered healthcare professionals. These are shown in the table below.

Name of programme	Mode of study	Launched	No. of Graduates
MSc Clinical Ophthalmology	One year full time Up to five years modular/flexible	2009/10	41 (PG Cert, PG Dip, MSc)
MSc Ophthalmology: - Retina diet; - Cataract and Refractive Surgery diet	One year full time Up to five years modular/flexible	2011/12	18 (PG Cert, PG Dip, MSc)
PG Cert Clinical Ophthalmic Practice	One year full time; two years, part time	2014/15	(None as yet)

The MSc Clinical Ophthalmology (Programme Director: Professor Sue Lightman) is aimed at junior doctors in ophthalmic training posts, qualified and experienced Optometrists and Orthoptists, and ophthalmic nurses. As most students are also working, this programme is delivered in blocks of intensive teaching, starting in August every year when new ophthalmic trainees begin work in the UK. The students must take six compulsory modules, two optional modules (from four), and a dissertation module. Modules cover the following areas: basic understanding of the eye; common ocular diseases and treatment; systemic diseases of the eye; eye surgery; basic ophthalmic sciences; optics and refraction; diseases affecting retinal function; and ocular therapeutics. (Further information is in the student handbooks Appendices 3 and 4)

The MSc Ophthalmology (Programme Director: Professor Sue Lightman) has two possible diets: Retina or Cataract and Refractive Surgery. The programme is aimed at doctors who have three or four years of ophthalmic training. The Cataract and Refractive Surgery diet has not proved to be popular with students, but the Retina pathway has attracted many applicants and 2014/15 is the fourth year that the MSc Ophthalmology (Retina) programme has run. Students join the blocks of modular teaching that run as part of the MSc Clinical Ophthalmology. In addition, students attend complementary clinics and seminars introducing them to case-based small group teaching and practical experience through attendance in all retinal subspecialty clinics. Formal retinal teaching sessions run by the hospital for their ophthalmic trainees are also available to these students. The clinical focus is on medical retina in Term 1 and surgical retina (vitreo-retinal surgery) in Term 2. Overall there are eight compulsory taught modules and a dissertation module. Modules cover the following areas: basic clinical and research skills; retinal structure, function and imaging; diabetic retinal disease; age-related macular degeneration and hereditary retinal disease; retinal vascular disease; uveitis; posterior segment surgery and laser; and complications of posterior segment surgery. (Please see Appendices 3 and 4.)

A recent review of the above two programmes has led us to conclude that there are two important gaps in our provision. Students on the MSc Clinical Ophthalmology programme are regularly asking for more practical and clinical components to the programme. A few students move onto clinical attachments at Moorfields Eye Hospital for the year after they finish their degrees. This MSc was originally intended for UK students who were looking to complement their specialist training, but we have also been attracting EU and international students who do not have access to this type of clinical training programme. These overseas students often have the funding to continue for a second year of study. Students on the MSc Ophthalmology

(Retina) programme are joining our classes with different levels in their basic knowledge and they need further input and support before being ready to join our clinical sessions.

Based on this market insight, starting in 2015/16 we will combine our two clinical programmes to create the new two-year MSc Ophthalmology with Clinical Practice. The first year of the new programme will have exactly the same curriculum as the MSc Clinical Ophthalmology, but in the second year, students will take part in clinics in the following subspecialties: Cataract; Cornea; Glaucoma; Medical Retina 1 and 2; Paediatric Ophthalmology; Neuro-Ophthalmology; Uveitis; and Vitreo Retinal Surgery. The students will be grouped and rotated through these clinics every four to six weeks. This will provide a far more intensive and comprehensive clinical experience.

We will continue to offer the MSc Clinical Ophthalmology as some students will be reluctant or unable to commit to a two-year programme. The MSc Ophthalmology (both diets) is being withdrawn.

This year we have launched our first blended learning programme, and the first programme to be delivered jointly with MEH, the Postgraduate Certificate (PGCert) in Clinical Ophthalmic Practice (Programme Director: Mrs Helen Gibbons). This course has been designed to meet the needs of ophthalmic nurses and allied health professionals. The programme is made up of four compulsory modules: Anatomy and physiology; Clinical case studies relating to ophthalmic pathology; Introduction to research and statistics; and Work-based clinical skills. The content is offered mostly online, as distance learning, with the incorporation of six taught days. (Please see Appendices 3 and 4 for further information.)

3.1.2 Non-clinical postgraduate taught programmes

We offer following non-clinical PGT programmes:

Name of programme	Mode of study	Launched	No. of Graduates
MSc Biology of Vision	One year full time	2009/10	64
MSc Translational Immunobiology	One year full time	2014/15	(None as yet)
MSc Translational and Regenerative Neuroscience	One year full time	2014/15	(None as yet)
MRes Vision Research	One year full time	2014/15	(None as yet)
(MSc Vision Sciences – approved but not yet launched)			

The MSc Biology of Vision (Programme Director: Dr Tim Levine) attracts students from scientific and medical backgrounds. The course was developed to take advantage of our world-class researchers' excellent track record in basic biomedical research and is intended for students who are interested in learning more about the visual system. This programme has appealed to medical graduates who are looking to enhance their chances of gaining an ST1 position in ophthalmology. The programme has four compulsory modules, three optional modules and a lab-based research project (dissertation module). Modules are offered in: Ocular Cell Biology; Ocular Development in Health and Disease; Genetics and Epidemiology of Ocular Disease; Ocular Immunology; Visual Neuroscience; and Vascular Microbiology (details in Appendices 3 and 4). Up until the 2014/15 academic year, the two Visual Neuroscience modules (Introduction and Advanced) were owned and run by the department. However, recent staff changes means that students now attend two Visual Neuroscience modules from the Division of Biosciences. These modules are nearly identical to the ones previously delivered by IoO and the module lead is a member of IoO, Professor Andrew Stockman. This change provided the opportunity to incorporate another new optional module, Microvascular Biology (offered by the Institute of Cardiovascular Science) giving students a broader range of options.

Following on from the success of the MSc Biology of Vision and building on our close working relationship with the Institute of Neurology, we decided to develop new translational MScs and an MRes. Approval was received to launch the MSc Translational and Regenerative Neuroscience, the MSc Translational

Immunobiology, and the MRes Vision Research in Q1 2014. These programmes are designed to share modules with the MRes Translational Neurology which is based on the Institute of Neurology. Furthermore, these programmes tie in closely with both the Faculty Teaching and Learning Strategy that aims to develop programmes building on the research expertise and the wider UCL policy of research embedded education.

The rationale behind the MSc Translational Immunobiology (Programme Director: Dr Virginia Calder) is to convey translational expertise in different aspects of immunobiology and address the unmet need among young medical or non-medical scientists to acquire the skill-set needed to convert cutting-edge scientific discoveries into treatments that society needs. The programme aims to provide students with a broad understanding of human translational research covering areas from bench to bedside. The programme has five compulsory modules, six optional modules (students choose two or three, credit-dependent) and a lab-based or library research project (dissertation module). Modules are offered in: Research in Practice; Translating Science into the Clinic; Ocular Immunology; Developing Translational Research; a Masterclass of Translational Immunobiology; Ocular Cell Biology; Genetics and Epidemiology of Ocular Disease; Drug Discovery; Microvascular Biology; Ocular Therapeutics; Pharmacogenomics, Adverse Drug Reactions and Biomarkers.

The MSc Translational and Regenerative Neuroscience (Programme Director: Dr Tim Levine) is also aimed at students considering a career path in research or academia. It gives students a unique combination of know-how relating to translation of basic pre-clinical research into practical therapies. The key components for this understanding are the core modules that combine two major areas: (i) the process of research itself and (ii) the successful translation of ocular and ear neuroscience research concentrated in the Faculty of Brain Sciences. The programme has five compulsory modules, seven optional modules (students choose two or three, credit-dependent) and a lab-based or library research project (dissertation module). Modules are offered in: Research in Practice; Translating Science into the Clinic; Ocular Cell Biology; Developing Translational Research; a Masterclass of Translational and Regenerative Neuroscience; Genetics and Epidemiology of Ocular Disease; Drug Discovery; Ocular Development; Microvascular Biology; Cost Benefit Analysis and Health; Pharmacogenomics, Adverse Drug Reactions and Biomarkers.

The MRes Vision Research (Programme Director: Dr Jacqui van der Spuy) aims to meet the requirements of students seeking more basic research-oriented training, with the ultimate goal of increasing the recruitment of high quality PhD students, research fellows and research scientists. We hope that the course will generate a strong cohort of research scientists able to address multi-disciplinary vision-related research activities of the future. The course may also enable the Institute to meet the challenge of recruiting first-class PhD students and research fellows. The programme has two compulsory modules and, four optional modules (students choose two). A unique feature of the programme is an extensive empirical and a lab-based research project (dissertation module) to the value of 120 M level credits of a total of 180. This gives students the opportunity to be exposed to the world class research environment at the Institute and participate fully in the process of developing and delivering research. Compulsory modules are offered in: Research in Practice; and Developing Research. Optional modules are selected to underpin the chosen field of research and are offered in: Ocular Cell Biology; Genetics and Epidemiology of Ocular Disease; Ocular Development; and Ocular Immunobiology (details in Appendices 3 and 4).

The MSc Visual Sciences was approved in early 2014, but the intended launch in 2014/15 was postponed until further notice due to the loss of key staff. The programme aims to provide students with a broad understanding of human vision based on a multidisciplinary approach to vision that will include anatomical, physiological, genetic, molecular and psychological approaches from the visual input at the retina to visual perception and cognition. The modules will cover visual optics, retinal imaging, visual transduction, the functional anatomy of the retina and LGN, cortical processing and higher level visual functions, such as colour, depth, space, motion, form, object and face perception, and will include some neurology and ophthalmology.

As the most recent additions to the course list were not approved until Q1 2014, active marketing did not start until May of that year. As a result recruitment was poor, with only one student starting the MRes and none applying for the translational courses.

3.1.3 Postgraduate research programmes

All PGR students have a principal and a subsidiary supervisor. Besides day-to-day supervision, the progress of these students is also monitored by the supervisors and Graduate Tutors through the research e-log. Both students and supervisors are expected to keep this system up-to-date, by recording supervisory meetings, entering summaries of progress and action items, uploading documents, and logging skills acquired through the Doctoral Skills Development Programme. MPhil students normally upgrade to the PhD after a year to 18 months. This upgrade usually involves a presentation, written report and upgrade viva, conducted by the subsidiary supervisor and an external examiner.

We have had 84 PhD graduates and 23 MD(Res) graduates since January 2010. We have been able to make a massive improvement to our PhD completion rates, largely due to the hard work of our Graduate Tutors. They have ensured a more rigorous application procedure, a more standardized process for MPhil upgrades, as well having been more closely involved with the last year and final stages of the PhD, and engaging supervisors with the process.

3.2 Learning, teaching and assessment

3.2.1 Learning and Teaching Strategy

The Learning and Teaching Strategy for the Institute was drawn up in 2009 (Appendix 5). At that time the major goals and challenges for the Institute included:

- 1) Reconfiguring the Institute's strategy to optimise its global position in eye and vision research. High level cornerstones of this strategy include:
 - a) continued promotion of innovation
 - b) collaboration (across UCL, with MEH, with commercial and global partners), and
 - c) translation (optimising the impact of innovation).
- 2) Consolidated growth of research activity underpinned by increased funding.
- 3) Consolidating and building on recent successes in translational gene and cell therapy.

Specific objectives and goals around education are:

- To continue to improve PhD completion rates.
- To continue to promote excellence in education as well as research.
- To increase opportunities for funded programmes for PhD students e.g. through Grand Challenge and Impact studentship schemes.
- To successfully set up and deliver the new MSc in Ophthalmology.
- To continue successful recruitment to, and enhanced delivery of, the Institute's MSc in Biology of Vision and MSc in Clinical Ophthalmology.
- To improve the recruitment of overseas students through the provision of attractive and flexible taught programmes, notably those offering a valued formal qualification with essential practical training in sub-specialty areas.
- To exploit opportunities offered by the joint site for the expansion and enhancement of educational provision, notably to include opportunities offered through UCL Partners.
- To continue to make the case within the Faculty of Biomedicine for recognition of the importance and value of educational provision through the provision of adequate administrative support which is currently not being authorised.

Further to these objectives, we are pleased to report that significant progress has been made in many areas:

- PhD completion rates have improved. Of the 94 students who started between 2006 and 2010, 60 submitted on time, 12 only marginally late (up to a year), and 22 did not submit at all. This means that we achieved a 76.6% completion rate.

- Promotion of excellence in education continues at all levels (departments, committees, strategy setting, and discussions with MEH) and our culture has shifted significantly in terms of valuing education and a widespread commitment to it.
- We have had sustained success in the UCL Impact Studentship schemes and have established a PhD programme in Sensory Systems and Therapies, jointly with the UCL Ear Institute. The Sensory Systems and Therapies scheme has four fully funded studentships funded by the UCL Grand Challenge scheme in 2014 and recruited eight students in total.
- The MSc in Ophthalmology was established successfully and the Biology of Vision MSc continues to recruit effectively. Recent reconfiguring of the clinical ophthalmology courses will hopefully extend our reach and success in this area.
- Apart from our clinical MSc programmes, where a number of overseas students come with government scholarships, recruitment of overseas students has been a challenge. We hope that reconfiguring of courses and increased marketing will address this.
- Building joint courses with Moorfields has been a significant development and one that is set to continue.
- The administrative support in the Education Office has increased to two FTEs.

We will be reviewing and refreshing our Learning and Teaching Strategy in 2015. We have been looking closely at the newly rolled out Connected Curriculum and UCL's 2034 Strategy. As an institute that is building an educational offer from an established research base that has strong links to other parts of the university and industry, we are naturally developing cross- and inter-disciplinary courses with research (skills training and experience) embedded in every programme.

3.2.2 Postgraduate taught programmes

Teaching on the PGT programmes is almost entirely conducted through face-to-face lectures and seminars. In clinics, students are either receiving one-to-one or two-to-one supervision (except for our PG Cert in Clinical Ophthalmic Practice). Our classes are generally small, with no more than 20 per group, so there is always the opportunity for informal questions and answers.

Classes are offered either in modular block weeks of teaching (MSc Clinical Ophthalmology programme) or spread across the weeks, as per the common timetable (remaining MSc/MRes programmes). We are reaching out to new markets by developing a blended learning PG Cert in Clinical Ophthalmic Practice. This course is delivered online, with content specifically designed and tailored to be accessible for distance learning. The Institute hired an instructional designer to work solely on the online content for 6 months. This online teaching and learning is complemented by six days of traditional face-to-face classes. This format is tailored for nurses that are working in ophthalmology clinics and need to balance study with their jobs. This format has also encouraged employers to sponsor students as they do not require considerable time away from work. The course also has also incorporated work-based learning which is ideally suited to this format strengthens the link between theory, research and clinical practice.

All lecturers who teach on our programmes are expected to undergo CALT training, from teaching assistants to senior clinicians. Contribution to education is now been made part of yearly appraisals for all academic staff. We do not have many opportunities for research students to teach, but when they arise we will ensure that PGTA contracts are issued and required to attend CALT training. As the PGT offer expands we will try to create more teaching opportunities for research students to enhance their CVs.

Our programmes use a variety of assessment methods: essays, presentations, journal clubs, problem-based learning questions, case-based scenarios, multiple-choice questions, and short-answer questions. This variety is intended to allow students as many opportunities to succeed as possible. Formative feedback and provisional grades are provided on each assessment, in as timely a fashion as possible (4 weeks). Appendix 6 shows example assessment criteria and marking guidelines. Please also see Appendix 7 for External Examiner reports for the last three years.

3.2.3 Postgraduate research programmes

Our PGR students are not required to complete specific taught modules during their studies, but if a specific need is identified, research students are welcome to attend existing classes. PGR education is mostly delivered through the guidance students receive from their supervisors combined with advice from post-doctoral researchers and technical staff in their department.

PGR students are continually informally assessed through interaction with their supervisors and presentations at group and departmental seminars. They are also required to complete their e-logs, a process that monitors the progress of the project. MPhil students submit a written report and undergo a viva in order to upgrade to the PhD. Many supervisors also require bi-annual or annual reports on the progress of their research. The Graduate Tutors assess student progress according to the detail in their research e-logs. Many students will submit and publish papers during their PGR studies.

We actively encourage PGR students to identify any additional support they feel they need, or would benefit from, to enhance their student experience here at the Institute. As a result of this we have established regular courses and seminars on the basics of statistics in a biological/clinical setting for our students and staff that are held locally at the Institute.

3.2.4 Undergraduate teaching: SSC components of MBBS programme

We run three Student Selected Components on the MBBS programme: 1) SSC1 – Imaging in Eye Disease; 2) SSC2 – Systemic Infectious Diseases and Eye Disease; 3) Research Heart Disease – genes tell the story.

1) SSC1 – Imaging in Eye Disease

This SSC is led by Professor Sue Lightman and Professor Francesca Cordiero. It is timetabled on Wednesday afternoons for 16 weeks during Term 2: 13 weeks of teaching (lectures and practical sessions), one week to prepare for assessments, and two weeks for assessment. We are able to accommodate 6 – 20 students on this SSC. The aim of the SSC is visualising the eye in health and disease. We offer first year medical students a comprehensive understanding of the eye and causes of visual loss integrating clinical exposure and knowledge with imaging techniques. We have also incorporated the science/research that underpins clinical disease or treatments. As well as lectures and practical sessions, we include two excursions in the programme, to the Science Museum and then to the Royal National Institute of the Blind. This SSC is assessed by each student giving a short presentation (worth 65% of the final mark) on a common eye topic and then answering questions. The presentation is marked by two academic staff members. In addition the students are assessed by their overall contribution during the course (35%).

2) SSC2 - Systemic Infectious Diseases and Eye Disease

This SSC is led by Professor Sue Lightman and Professor William Lynn, Ealing Hospital NHS Trust. It is timetabled on Friday afternoons for 10 weeks during Term 1: eight weeks of teaching (lectures and practical sessions), one week to prepare for assessments, and the final week for assessment. We are able to accommodate 6 – 20 students on this SSC. The aim of the SSC is to learn more about infectious diseases and the effect on the eye, together with how we operate and laser the eye. Students are taught using fully illustrated lectures, as well as patient-based sessions and by watching surgery. This SSC is assessed by each student giving a short presentation (worth 65% of the final mark) on a common eye topic and then answering questions. The presentation is marked by two academic staff members. In addition the students are assessed by their overall contribution during the course (35%).

3) SSC3 - Researching Heart Disease: genes tell the story

This SSC is led by Dr Tim Levine and is taught to up to 8 first year medical students in Term2. The eight sessions are spent on a mixture of didactic teaching, participatory discussion, lab practicals (2 sessions) and presentations to the group by each member in turn. The aim of the SSC is to underpin the basic science content of the MB BS course by revealing how progress is made and where fundamental knowledge is lacking, with particular relevance to genetic and cell biological models of fundamental processes that are important in human diseases. We address common mechanisms that are relevant to many pathophysiology, not limited to the cardiovascular system. SSC participation is ensured by working towards a group project such as creating a Wikipedia page that illustrates an aspect of the cell biological/genetic research into heart disease.

3.2.5 Short courses

We run the FRCOphth Part 1 Revision Course twice a year, in February and September. The February session is designed to overlap with the provision of Module 5 (Basic Sciences) and Module 6 (Optics and Refraction) on MSc Clinical Ophthalmology programme. This course is very popular, with about 35 participants in each session. Following the last session, held in September 2014, we contacted participants who indicated that they would be writing their Part 1 exam in October. We discovered that more than half of the students who attended our course passed this exam. The average pass rate for the FRCOphth Part 1 exam, for all students who sit the exam, is about 30%. We will continue to develop this course, with the idea of developing an online/distance learning version, complemented by more intense practical days held at the Institute.

As part of our strategic plan to develop a joint educational strategy with Moorfields Eye Hospital and building on the success of the PG Cert in Clinical Ophthalmic Practice have been working with optometrists at MEH to develop CPD courses in line with the requirements of the College of Optometry – specialising in Glaucoma, Contact Lenses, Retina and Low Vision. We are hoping to launch these courses in September 2015. Should these courses prove successful, we may convert these courses to a full MSc in Advanced Optometry.

We also run a number of other short courses throughout the year, in Diabetic Retinopathy, Age-Related Macular Degeneration, and Uveitis. We will be running our Summer School in Ophthalmology for the first time in July 2015. We offer practical sessions for the British Undergraduate Ophthalmological Society, where 100 medical students join us for training. We also run practical ophthalmic skills training for physicians who intend to take MRCP(UK) Part 2 Clinical Examination (PACES).

3.3 Student recruitment, admission and reception

3.3.1 Postgraduate research students: Recruitment and application process

Postgraduate research (PGR) students are recruited in a variety of ways. Running science based research projects incurs substantial lab costs and as a result students usually require some form of sponsorship through research grants, sponsorship or prizes. Some applicants have been awarded funding by their government or employer, but IoO staff are successfully awarded many studentship grants every year. These come from a variety of sources including UCL schemes such as the Grand Challenges or Impact funding, but also through external sources such as Research councils and charities such as the Moorfields Eye Hospital Trustees and Fight for Sight. Studentships are usually advertised on the UCL website, jobs.ac.uk and on FindaPhD.com. Applications are sent directly to the Principal Investigator (PI), who interviews and selects the recipient of the studentship. That person is then requested to apply officially to UCL through UCL Select.

Many of our part-time PhD and MD(Res) students are also clinical fellows at Moorfields Eye Hospital. Often clinical higher degree students require clinical fellowship training in parallel to research training: in the clinical PhD programme, the two types of training are integrated.

Principal Investigators and the Education Office receive many applications attracted by our research reputation. If the applicant is not suitable for our PhD programme, we recommend postgraduate taught programmes. PIs also market the PhD programme through their network of colleagues in other institutions and through stands at international events (the Association for Research in Vision and Ophthalmology (ARVO) annual conference, for example).

All applications are made through the UCL Select system and selection of candidates is governed by the relevant UCL policies. Applicants are all interviewed by the potential supervisor and been guided through the application process by the Education Office staff. All applications are closely examined by the Graduate Tutors, who ensure that 1) there is sufficient funding, or a guarantee of funding, for the entire duration of

the programme; that 2) the supervisory team is appropriate to the topic and not already overloaded with students; and that 3) the project has been peer-reviewed.

3.3.2. Postgraduate research students: Admission and reception

Once an application has been processed and approved, the applicant receives an offer with an indicated start date. The applicant is supported through the process of registration by the Education Office, until they are enrolled as a student.

Our PGR students are able to start at any point throughout the academic year and every new starter receives one-to-one induction sessions with the Education Administrator to discuss the PhD or MD(Res) process and to answer questions on administrative process. She provides information regarding Graduate Tutors, the Skills Development Programme, the Research e-Log, annual re-enrolment, the MPhil upgrade process (where appropriate), and the final examination process. Students are provided with the UCL Doctoral School Handbook and Student Code of Conduct. We are currently developing a PGR Moodle page which will provide IoO with up-to-date information. We are considering developing a PGR Student Handbook (online and hard copy).

We hold institute-wide *Welcome and Induction* events for all PGR students, which is hosted by the graduate tutors. This is an informal event where students have an opportunity to meet library staff, the IT support staff, the porters, and other members of staff who can help them whilst studying at the institute. There are a series of short presentations that covers the functions of the various departments and the main milestones of the research programmes. Each student also receives a full induction into their research department and research group. This is delivered by a combination of the primary supervisor for academic matters and technical staff who deliver health and safety, fire evacuation or specific equipment training. Departmental administrators play an important role during induction helping students integrate into life within their research group helping them place orders and ensuring they take part in local events.

3.3.3 Postgraduate taught students: Recruitment and application process

Our postgraduate taught (PGT) programmes are aimed at a number of niche markets. Our clinical PGT programmes usually attract young doctors or medics who are just beginning their specialist training or nurses who are looking to improve their career prospects. Our non-clinical PGT programmes attract students from a variety of backgrounds who are looking to develop a career in academia and/or scientific research. Our new translational programmes may also have a market in the pharmaceutical industry.

On the whole, our students find our programmes through internet searches and by word-of-mouth. Our alumni also contribute to the number of applications received as they recommend our programmes to their colleagues during and after their studies. Appendix 8 shows example of the UCL online prospectus entries.

The Institute has an excellent reputation for research and PhD and clinical training via PGT programmes. However, we need to develop a reputation for the new non-clinical programmes which are based on basic science. We acknowledge that we do not have a particularly robust marketing and recruitment strategy and this is something we are trying to tackle. In the 2014/15 year, we are raising awareness of our programmes by developing an online profile and through targeted displays (online advertisements related to search results). We have redesigned and re-launched our departmental website, to make it more attractive, more up-to-date, and more user-friendly. We have engaged Prospects, the largest UK digital marketing website for PGT programmes, which has a global reach. This forms part of a marketing plan which will be sending bespoke HTML emails to potential applicants through their extensive database of students looking for postgraduate courses. Our educational programme portfolios will also be advertised through stands at the two largest international ophthalmology conferences. The stands will be used to distribute printed material to potential students and also to position the institute as a PGT course provider with our peers. We are also developing our social media platforms, by making better use of our Twitter feed and by creating a Facebook student group.

The Education Office field general enquiries about all the taught programmes and aim to respond to these emails within 48 hours. Students apply through UCL Select. The Education Office monitors the application inboxes to ensure that all applicants receive prompt replies. When the applications are marked for action by the central admissions team, they are double-checked and then forwarded to the Programme Directors for consideration. Approved applications are then recommended for an offer. The Education Office keeps a spreadsheet that tracks the progress of all new applications.

3.3.4 Postgraduate taught students: Admission and reception

Prior to arrival, new students are sent 'welcome' emails, with information about enrolment, registration and directions. Continuing and modular/flexible students are sent re-enrolment and registration reminders. For the MSc Biology of Vision and the PG Cert Clinical Ophthalmic Practice students, we hold an *Induction and Orientation* programme that provides departmental information, curriculum information, introductions to relevant members of staff, and a fire safety briefing. For the clinical MSc students, their induction and orientation sessions are incorporated into their first week of lectures. All PGT students are invited to faculty induction events and provided with student handbooks (please see the appendices to this document for samples of student handbooks). During the first few weeks of term, we offer library-based seminars on PubMed, critical appraisal of journal articles, and EndNote referencing system.

As our student numbers are not too large, we are able to provide an ongoing and personal service for all of our students. A large amount of information is provided during those first few weeks and we find that most of it only begins to make sense once the students have oriented themselves. Because of this, we make sure that our Education Office staff are available to answer the multitude of questions that arise during this period.

3.4 Student support and guidance

3.4.1 Personal tutors

All PGT students are allocated a personal tutor at the beginning of their studies. As we have such small classes at present, the personal tutors for these students are their Programme Directors. Our clinical PGT students (MSc Clinical Ophthalmology and MSc Ophthalmology) are looked after by Professor Sue Lightman and the deputy programme director, Dr Oren Tomkins. Our MSc Biology of Vision students are looked after by Dr Tim Levine and deputy course director, Dr Jacqui van der Spuy. Our MRes student is looked after by Dr Jacqui van der Spuy and our PG Cert Clinical Ophthalmic Practice students are seen to by Mrs Helen Gibbons. This system has been successful in helping the vast majority of students who have no more than short-lived problems of a pastoral or academic nature. All student who has longer-lived issues in either sphere is allocated a personal tutor among institute staff not involved in running the course and their meetings provide a neutral forum for the student to seek advice and air concerns.

We understand that this situation is not ideal and we would like to find a way of spreading this tutor load in future. This will allow for more objective support for the students, opportunities for junior staff, and a better distribution of the work load. Equally, we would like to set up a system of monitoring the occurrence of personal tutor meetings and establishing a rigorous method of collecting feedback from these meetings (see Section Four).

3.4.2 Graduate tutors

The personal tutors for our PGR students are the Graduate Tutors – Professor Alison Hardcastle, Dr Virginia Calder, Professor Andrew Webster, and Professor Karl Matter. Each student is allocated to a Graduate Tutor (GT) at the commencement of their studies, depending on the student's area of research, the department, and the GT's expertise. In most cases, clinical students are assigned to our clinical Graduate Tutor – Professor Webster. The GTs aim to see each PGR student at least once a year to review the progress of their studies and to address any pastoral issues. They meet regularly to review PGR processes, to monitor uptake of the online research student logbooks, and to discuss student issues. The uptake of the research e-log in our department is relatively high, with 90.43% of our students using the system. There are usually at least

two GT representatives at each Education Committee meeting and Student Staff Consultative Committee meeting.

The GTs are also responsible for reviewing and approving PGR applications, MPhil upgrades, Research Degree Exam Entry forms, and Examiner Nomination forms.

3.4.3 Student academic representatives (StARs)

Our StARs each represent either a research department or academic programme. Currently, we have seven StARs, one of whom has been a representative for more than a year (our senior StAR) and six new recruits. We run a recruitment drive for new StARs at the beginning of each academic year, depending on where vacancies exist.

Our StARs for 2014/15 are:

- * Garima Sharma, representing ORBIT (PhD student, senior StAR)
- * Chrishne Sivapathasuntharam, representing Visual Neuroscience (PhD student)
- * Ana (Rita) Pinho, representing ORBIT (PhD student)
- * James Tee, representing Genetics (PhD student)
- * Rosie Gilbert, representing Cell Biology/ORBIT (PhD student)
- * Korina Theodoraki, representing MSc programmes (MSc Biology of Vision student)
- * Christine Putri, representing MSc programmes (MSc Biology of Vision student)

Our StARs are not elected into their posts; their service is voluntary. In future, as our student numbers increase and there is more competition for these positions, we may have to run elections. It is relevant to note that we do not often get StAR volunteers from the clinical PGT programme. This may be because of their modular lectures and/or heavy clinic timetable. This may change as we roll out the new and revised programmes in 2015.

Each StAR is responsible for initiating and organising one event per academic year, with the assistance of the other StARs. In 2013/14, these events ranged from social events, to career talks, to statistics workshops. The statistics workshops were hugely popular and had to be run twice to accommodate all the students who wished to attend. (Please see section 3.4.11 for an example of an event.)

The StARs seek feedback from their peers and represent these viewpoints at the SSCC meetings (see below). They are also responsible to relaying responses and information back to their peer groups.

3.4.4 Student Staff Consultative Committee (SSCC)

The SSCC meets twice a year and we are looking to increase this to once a year. The students are represented by the StARs (see above) and they are joined by the following staff – Professor Sue Lightman (as Education Committee Chair), the Graduate Tutors, the Institute Manager (Dr Steve Bunting) and Education Office staff (Leigh Kilpert and Andrew Dehany). Minutes are available in Appendix 9.

These meetings are used to discuss student feedback and issues, to plan future StAR events, to convey any relevant departmental information, and to consult the students on future departmental plans. SSCC meeting minutes form part of the annual monitoring process and any major concerns are raised with the Faculty tutor.

3.4.5 PGT mentors

As of 2013/14, the Faculty of Brain Sciences rolled out the PGT mentor scheme. The Institute of Ophthalmology has one PGT mentor – Kristin Luehders (PhD student). During the Admissions process running up to the start of 2014/15, Kristin contacted applicants to ask if they had any questions. She also contacted all new students when they started, introducing herself and providing contact details for future

support. She has also provided current students with support during the research projects and in writing up their dissertations. She is looking to make her role more visible and has been soliciting suggestions from students regarding what further support or activities they would like.

3.4.6 Education Office and Faculty Support

The Education Office currently has two full-time staff members – an Education Administrator (Ms Leigh Kilpert) and an Education Assistant (Mr Andrew Dehany). The clinical PGT programmes (MScs and PG Cert) and research students (MPhil, PhD, MD(Res), and MRes) are supported by the Education Administrator, while the MSc Biology of Vision is looked after by the Education Assistant. The office is staffed and open from 9am to 5pm every work day to ensure that there is always someone available to answer student enquiries. The staff provide a personal service for each of our students. If a student has a particular complaint or concern, they are directed to the Programme Director and/or Deputy Programme Director. If we are unable to resolve an issue at a local level, the Faculty Tutor and her office (Dr Julie Evans) provides support and advice.

3.4.7 Attendance and engagement monitoring

Student attendance is monitored by providing sign-in sheets for each lecture or seminar, to ensure that students are attending regularly. In general, we have not had any issues with student attendance and it is rare that we need to discuss this issue with an individual student. The IoO also participates in the UCL engagement monitoring process (Points of Engagement). Research students are very difficult to track by one office, so this responsibility is delegated to supervisors and departmental administrators. The Education Office asks for regular feedback regarding research students' engagement with their studies. The Graduate Tutors also monitor the research review points through the research e-log system.

3.4.8 Student disability support and equal opportunities (DEOLO)

Students with declared learning disabilities are usually referred to the Student Disability Service for assessment (e.g. Dyslexia). This department then provides us with feedback and advice on how best to support these students in their studies. We do not currently have any students with any declared physical disabilities (e.g. visual, hearing or mobility impairment), but should we admit a student with a mobility impairment, we will need to make specific arrangements for access to classes.

We have a Departmental Equal Opportunity Liaison Officer (DEOLO), Ms Gill Tunstall, who assists any staff and students with personal equal opportunities issues. We draw attention to this role in our Student Handbooks. Our DEOLO advertises various events and advises us on policies in relation to equal opportunities.

3.4.9 Library

The Institute of Ophthalmology has a joint library shared with Moorfields Eye Hospital. The library has a variety of resources, both in hard copy and online format. Students meet the library staff and are given a tour of the library facilities when they begin their studies. The library staff provide training on the use of electronic databases (e.g. "Making the most of PubMed"), referencing conventions and EndNote software, search methods and tools (e.g. "Finding the evidence"), and critical appraisal of journal articles. These training sessions are arranged at the beginning of the year for all PGT students and are offered on a rolling basis throughout the academic year for staff and PGR students. (Please see the appendices to this document for further details of these training sessions.) Students often mention our approachable library staff (Ms Debbie Heatlie and Mr Desta Bokre), and the excellent support they provide, in their student feedback.

The library also contains the Institute's computer cluster and provides critical space for social learning.

3.4.10 Student opportunities to disseminate research

The Institute has a shared staff and student common room, where we have free beverages and biscuits at 11am each morning. This venue gets very busy as this time and again at lunchtime. Students sit with post docs, lab staff, and academic staff in large discussion groups. The morning sessions are an excellent time for new students to meet their colleagues and share opinions across departments within the Institute.

The common room is also used for a variety of events, from hosting external speakers and tea/coffee mornings, to the PGR welcome event, to the annual student poster evening (see below), and the Institute's Christmas party.

3.4.11 Student poster evening

We hold an annual student poster evening in late April or early May every year, timed to take advantage of the ARVO conference and the fact that many students have already produced posters for this event. The poster evening is a relaxed event where we supply pizzas and drinks, supervisors are not invited, and students have the opportunity to provide each other with constructive feedback and to network across the departments. All students (PGT and PGR) are invited to submit a poster and we usually get about 10 – 15 entries every year. The posters are judged by two of the Graduate Tutors and first, second and third place prizes are awarded in the form of Amazon vouchers. Each year this event is well received, but feedback from last year's event suggested that some students would prefer to have the poster session later in the year, to allow the PGT students more of an opportunity to participate (their research projects are only submitted in August).

Students also participate in the annual faculty poster symposium and a student from the institute won the inaugural faculty PGT research project video competition.

(see <https://www.youtube.com/watch?v=ra2nNztybVY> for Tara Brah's video.)

3.4.12 Athena SWAN and career support

The Institute was awarded a silver Athena SWAN award in 2013. Our Athena SWAN lead is Dr Maryse Bailly. She actively tries to encourage female students, post docs and junior staff to take up more leading roles in research.

Our research manager, Ms Natalie Reeve, runs grant-writing workshops throughout the year and we have begun inviting PGR students to these sessions.

Apart from the career talks organised by our StARs (see above), the Institute also participates in Faculty of Brain Sciences career events. Our postdoctoral community has also begun arranging speakers from a variety of backgrounds (academic, clinical, industrial, and charitable) to visit the Institute to highlight the various paths that our students and post docs can take after completing their degrees.

Our academic staff are involved with organising career-related events for our postdocs and students. For example, Dr Maria Balda has arranged a workshop on Career Management for Researchers: Academia and Beyond, to take place on Wednesday, 25 February 2015. We have a Career Advice Committee, made up of the following staff: Astrid Limb, Maryse Bailly, Jim Bainbridge, Maria Balda, Mike Cheetham, Virginia Calder, Julie Daniels, Karl Matter, Stephen Moss, Christiana Ruhrberg, Patric Turowski, Matteo Carandini, and Anthony Vugler. Students can choose who they would like to speak to and a short meeting is arranged.

3.4.13 The Doctoral School

Our PGR students are strongly encouraged to take advantage of the courses on offer through the Doctoral Skills Development Programme. Individual courses are advertised locally to boost attendance.

3.5 Staff support and development

All new staff are provided with an induction from their line manager, the HR Staffing Administrator (Ms Gill Tunstall) and their departmental administrator (if necessary or relevant). Information included in the

induction covers everything from diversity training, to health and safety training, to first-time system user information, to information about Employee Assistance Programme, to UCL's staff training courses, to introductions to colleagues, and a tour of the relevant areas of the Institute. The line manager will discuss the appraisal process and outline what is expected for review and promotion. (Please see Appendix 10.)

New starters involved in teaching are required to attend the UCL and CALT courses in teacher training. They are also informed about the peer observation process and given information relevant to the programme that they will be teaching on. (Please see Appendix 10 for information on our peer observation process.)

Should a staff member wish to supervise research students, they are required to attend supervisor training as provided by the Doctoral School and CALT before being approved initially as a subsidiary supervisor. Once a supervisor has gained some experience of the UCL process and has supervised a few successful PhD candidates, s/he may apply to be allowed to supervise in a principal capacity. The experience principal supervisors and Graduate Tutors mentor those academics who are starting out as supervisors.

As indicated previously, our academic staff are more involved with education since our previous IQR. Teaching is now a core component of the academic appraisal process.

3.6 Academic quality review, monitoring and feedback framework

3.6.1 Postgraduate taught programmes

We follow UCL's procedures for Annual Monitoring and Annual Academic Review of Programmes (Appendix 1). We conducted an Augmented Annual Monitoring process at the end of 2013. This means that Programme Directors meet with Module Leads at least once annually to review the year's results, students feedback, and to discuss the content and running of the programmes. Any important considerations are recorded and collated as part of our Annual Monitoring submission. The Chair of the Education Committee, Professor Sue Lightman, examines the feedback on each module and programme and writes the DTC report. This report is then circulated to the members of the Education Committee for amendment and approval. Any changes to modules and assessments are submitted through the Faculty Office.

We changed the format and process for student evaluation of teaching substantially during the first half of 2014. The original feedback forms were limited in that the design included no specific questions or prompts for constructive criticism. The scale used for measurement was arbitrary and there had been little in the way of data capture or analysis of the feedback. We were collecting bare data on individual lectures and not doing overall reviews of the modules or the assessments. The new format includes a 5-point scale in which students can either agree or disagree with simple statements. Some sample questions are:

- The lecturer was well-prepared.
- The lecturer appeared to be knowledgeable about the lecture topic.
- The lecture and presentation was interesting and informative.
- The lecturer was receptive to students' questions and answered them well.
- The lecturer stimulated me to think and learn.

We considered creating online surveys to facilitate the collection of data, but decided against this method as our student numbers are quite small and online surveys have a notoriously bad return rate. We rolled out this new evaluation system in August, for our first set of block lectures. We encouraged students to return the completed feedback forms and captured the feedback as it came in. We averaged the scores across the categories and monitored attendance to analyse response rates. We were able to facilitate small changes immediately. The lecturers were exceedingly appreciative of their feedback, with a number of them indicating positive changes to be made to their teaching. The capture of feedback is currently a bit time-consuming, but we plan to find a way to make this aspect of the process more efficient. (Please see Appendix 11 for summaries of the 2014/15 student feedback and evaluations conducted in previous years.)

3.6.2 Postgraduate research programmes

Our Graduate Tutors work closely with the Graduate Faculty Tutor, Dr Steven Bloch, to ensure that our PGR processes are up-to-date and in line with UCL requirements.

3.7 Management and organisational framework

The Institute's governance and management structure is well-defined (Appendix 12), based around formal reporting mechanisms and opportunities for expression of views by both staff and students. Key meetings are minuted with follow-up actions clearly noted and assigned (Appendix 13). Key committees include: Institute Board of Management (bi-monthly); Research Department Heads Committee (monthly); Academic Staff Forum (monthly); Management Team (weekly); Education Committee (quarterly). Individual Research Departments hold their own meetings. Furthermore, interactions between IoO and MEH are managed via the Joint Strategy Board, the Biomedical Research Centre Board and cross-representation on MEH Board and Directors and Institute Board of Management.

In consultation with the Dean of the Faculty of Brain Sciences and the Institute Director, Research Department Heads are required to ensure that quality assurance processes operate within the Research Department in accordance with policies, procedures and other guidance laid down in the UCL Academic Manual. RD Heads must also ensure that such quality assurance processes are communicated to all within their respective Departments.

The Institute Director, Heads of Research Departments, Institute Manager and functional managers keep abreast of evolving UCL policies and issues in the Institute's broader environment (e.g. DoH, NHS), ensuring these are discussed at relevant management meetings and implemented or addressed appropriately through designated responsibility.

Academic staff have opportunities to contribute to IoO strategy directly at the Academic Staff Forum or to the Institute Director who maintains an open access policy or indirectly through Research Department Heads.

Beyond the Institute, staff (academic and support) are encouraged to participate in UCL committees and working groups. Participation is important for the integration of the Institute, for network building, and for the opportunity to discuss and influence policies and procedures directly affecting the Institute.

A number of staff have been through the UCL future leaders programme for academics and the management development programme for administrators.

SECTION FOUR

Self-Analysis

4.1 Strengths and opportunities

- Size – small, ability to offer more personal approach, discrete and well-defined environment
- Research-embedded education (connected curriculum) with access to world-class researchers and facilities
- Women in science a key strength (Athena Swan Silver) with inspirational investigators
- Moorfields Eye Hospital partnership which, as well as providing clinical experts and exposure to patients provides, with UCL a globally recognized pair of brands.
- Opportunity to build a joint educational strategy with Moorfields in the context of the proposed new joint building.
- Still on an upward trajectory in terms of scale of educational activity we can offer.
- Our high research profiles make it probable that we could offer ‘executive’ education to large pharma and SME’s.
- Student evaluation of teaching

4.2 Weaknesses and challenges

- Size – small, fewer staff, less space and fewer resources for students
- Workload model
- Student recruitment and marketing
- Space and resources for students
- Personal tutoring
- Peer observation of teaching
- Availability of information – working more efficiently/effectively.
- Disabled access to teaching venues
- Distance from UCL

4.3 Plans to overcome weaknesses and tackle challenges

We are currently, if anything, getting smaller as a number of investigators reach retirement age, but this will lead to phased expansion as we grow towards the proposed new building where further expansion will be possible. There are, however, opportunities to effectively grow by increasing interactions with colleagues at Moorfields and in other UCL Departments.

We have details of a workload model from another Department in Brain Sciences and intend to adapt the implementation of this for our needs. It would be useful for there to be a standard Faculty / School workload model.

Recruitment and marketing remain a major challenge. We now advertise on the Prospects system and we are waiting for UCL Web and Mobile Services to launch our new website. We are attending major meetings to present our educational programmes and are specifically targeting the Middle East (through links with Moorfields Dubai) and China (through links with Zhongshan Ophthalmic Centre and Sun Yat-Sen University).

We have refurbished our Portacabin space and are currently exploring with Moorfields the potential to use some of their newly-acquired space on site (Kemp House) as a shared education facility. There may also be scope to reconfigure some of the library space but this is currently a lower priority.

As far as personal tutoring is concerned, we are cognisant of the fact that as our student numbers grow, we will be unable to sustain our current form of personal tutoring. We will need to find a solution that empowers more staff to be able to help support our students.

Peer observation of teaching is an area we recognize can be significantly enhanced and we are developing a new programme to address this. Our current approach to peer observation was set up to be collegial, unobtrusive and designed so as not to create more work for our academics. However, this has meant that the uptake has been limited and there is little monitoring of whether peer observation is taking place or not. We are thinking of introducing a slightly more formal process, where a schedule of observed classes are planned and both parties have to confirm that the observation and feedback have taken place. We believe that changes in peer observation of teaching are being discussed at UCL level and we look forward to the outcome of these discussions. We will make any changes in light of amendments to UCL policy.

Our size makes a bespoke and rather personal approach to information exchange with students realistic and in many ways this is a positive aspect of being a student at IO. This is, however, not sustainable as we grow and so we are putting in place a comprehensive set of 'tool's to provide information for students. This will include a more formal induction programme with information as hard copy and an enhanced intranet provision. In addition, we are considering a system of 'clinic' – based opportunities for students to access not just education office staff and course tutors but also provide access to Heads of Research Departments and Institute Director.

4.4 Plans to build on strengths and take advantage of opportunities

4.4.1 Partnership with Moorfields Eye Hospital

Much of our educational success to date has hinged on ophthalmology and clearly the Moorfields brand is a major asset for us. The plan is to advance this partnership as follows:

- Secure agreement to extend MEH Education Strategy into a Joint Education Strategy with IO
- Secure agreement to appoint to a Joint Director of Education
- Establish, if at all possible, a joint education facility with a shared education office
- Scale up clinically – relevant courses in particular targeting overseas students from Middle East and China.

4.4.2 Teaching environment

We have recently received a large award from Allergan for significant investment in clinical teaching infrastructure including refurbishment costs for teaching space. If we are seeking support from Moorfields Eye Charity / the Special Trustees of Moorfields. These two charities are about to merge and we have successfully had education added to the list of charitable objectives for the proposed merged entity.

4.4.3 Building funding for PhD Students

Ophthalmology has always suffered from the lack of a specific PhD programme and it is disappointing that despite approaches to the Wellcome Trust and Fight for Sight we have so far been unable to establish such a programme. What offers promise is the establishment of a Sensory Therapies PhD Programme (SENCYT) as part of the Faculty of Brain Sciences Strategy. This (led by Shin-Ichi Ohnuma – IO, and Maria Chait – EI) is currently bringing together a cohort of students funded through diverse sources but we anticipate that the success of the programme will strengthen our ability to draw in dedicated funding.

4.4.4 Executive training

We have been interested in some time in the possibilities of providing educational opportunities for established company executives and senior scientists. This might be in the form of an executive higher research degree programme but more likely, high-end intense sessions around ophthalmology for executives / companies moving into ophthalmology and for those requiring updates. This is being explored with Bjorn Christenson, our UCL Contracts Consultant.

4.4.5 Translational Sciences

Despite our slow start we remain confident that there is a major market for translational medicine. We have great research strength in this area and, by broadening appeal by engaging with colleagues in other parts of the Faculty and School we believe the potential here is great. We are currently pushing the creation of a number of UCL spin-outs and if successful these will also provide valuable 'real - world' examples and experience.

4.4.6 Marketing

This is a major challenge for us. The ophthalmic market is quite small and so we have to extend our reach into non-ophthalmic markets for the translational courses. There is also a challenge to reach junior potential students in other countries. Funding for professional advice and delivery would help.

Appendices

Appendix 1: Annual Monitoring Reports and External Scrutineer's Reports

Appendix 2: Full breakdown of student numbers

Appendix 3: Student Handbooks

Appendix 4: Programme Specifications

Appendix 5: Teaching and Learning Strategy

Appendix 6: Assessment criteria and marking guidelines

Appendix 7: External Examiner reports

Appendix 8: Prospectus Entries

Appendix 9: SSCC meeting minutes

Appendix 10: Staff induction, development and peer observation of teaching

Appendix 11: Student evaluations and feedback

Appendix 12: Departmental Committee structure

Appendix 13: Key committee meeting terms of reference and minutes