

INSTITUTE OF
OPHTHALMOLOGY



UCL



2019 – 2020

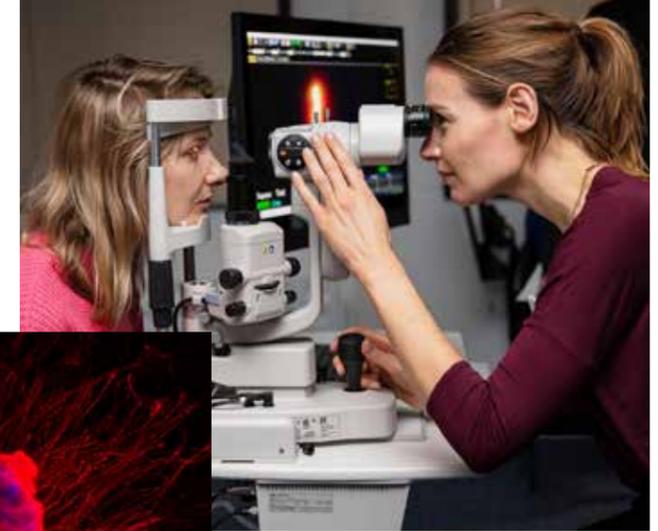
**UCL Institute of
Ophthalmology – IoO
Annual Review**



Who we are

We are an institute within UCL, London's global university, proud of its disruptive thinking and commitment to solving the world's most pressing challenges. UCL is ranked eighth in the QS 2020 World University Rankings and rated as the top UK University by research strength.

As an institute within the Faculty of Brain Sciences at UCL, our principal strategic partner is Moorfields Eye Hospital, the leading provider of eye health services in the UK and one of the oldest eye hospitals in the world. Together we have a National Institute for Health Research Biomedical Research Centre (NIHR Moorfields BRC), enabling translation of our fundamental scientific innovation. We work with education institutions and hospitals around the world to help raise teaching standards and train the next generation of researchers and vision health experts who can make a difference to the lives of millions of people around the world. Our students come from over 150 countries and, according to the 2017 Centre for World University Rankings, we are the best place in the world to study ophthalmology.



"Poetic connectivity"
by Dimitra Kopsini.

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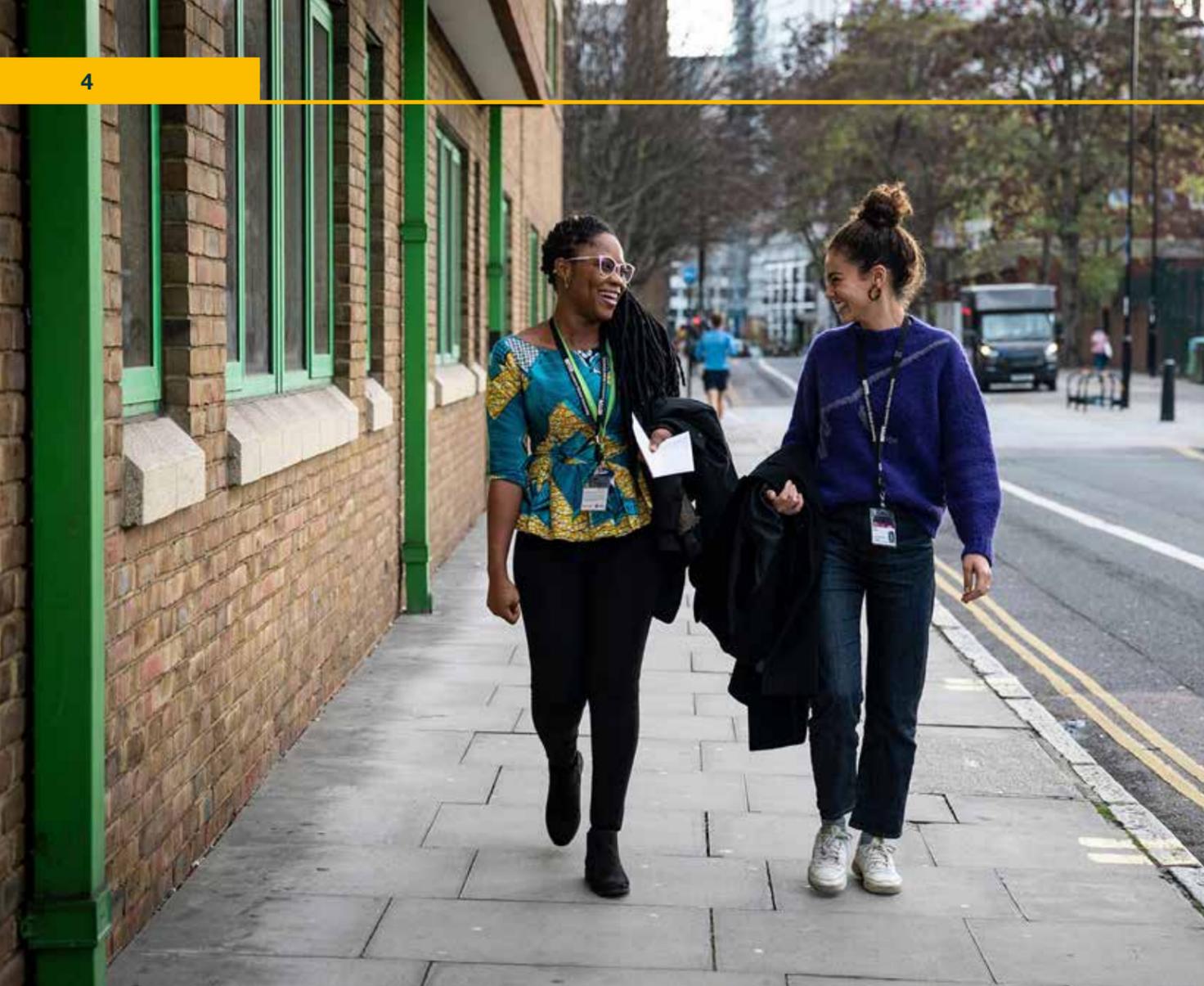
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All photos at UCL IoO
by Anton Webb, unless
otherwise stated. Cover
photo by Jane Clipston.



Our Mission

To deliver research and education in vision and eye disease to benefit sight and society in the UK and worldwide.

Our mission is to promote and expand the unique eye research and education that we provide, and to take that from our labs to patients and the rest of society. We aim to establish collaborative networks across England to harness the strength of the knowledge and research base across the country. Our close partnership with Moorfields Eye Hospital means that we can realise this vision, 'from bench to bedside' in a seamless way, where the research is also aimed at clinical applications and where clinical requirements shape the research. Thanks to this strategic partnership, we offer a number of joint degree programs. For our students, this means access to innovative facilities, connection to a growing network of peers, and support from highly experienced and professional tutors.

Our Vision

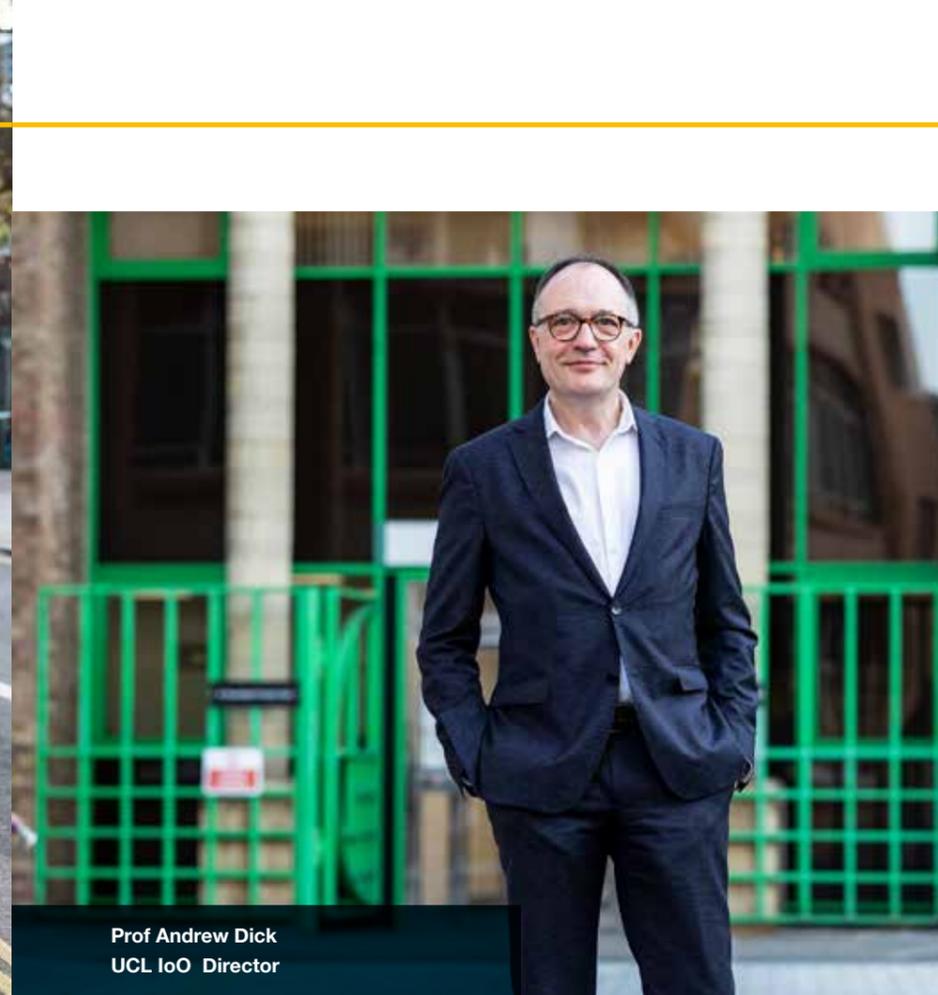
We work to bring out our translational research to generate better therapies, diagnostics and knowledge of eye care.

We do this by:

- Leading globally in Fundamental Research
- Producing high-impact research for society and patients
- Fostering inclusivity, enterprise and innovation
- Equipping students with knowledge, skills and boldness to succeed

Our Core Values

- **Collaboration**
- **Inspiration**
- **Integrity**
- **Support**
- **Opportunity**



Prof Andrew Dick
UCL IoO Director

From IoO Director, Professor Andrew Dick

The unexpected challenges we all have faced in recent months as a result of the Covid-19 pandemic have impacted everyone's life. They have also uncovered opportunities and areas for development and expansion. At the IoO, together with our Faculty and the rest of UCL, we worked tirelessly this year to ensure we could continue our teaching and research activities to the best of our capacity. We established an executive COVID response team with our Deputy Directors and representatives of academic and operational staff, meeting weekly to respond to needs and make decisions swiftly as we drew up plans for a phased re-opening of our building. Many key workers committed to maintaining our facilities so we could be fit for purpose on our return. We introduced a regular weekly communication in the form of a weekly bulletin reaching nearly 700 in all staff,

students and partners at the institute. We adapted remarkably well to virtual meetings, managing to maintain activity and connectedness. We expanded our virtual seminars and symposia facilities to increase our networking and give staff and students the opportunity to share their work and interests. Education was a beacon of our activity this year as we launched new courses and brought opportunities for engagement in online course development.

We received over £8 million in research grants, and we were one of a few institutes within UCL to reopen at limited capacity in July to drive our research work forward and get ready for the new academic term. Our student numbers have grown massively compared to 2018-2019, and our international partnerships continue to bloom. We had a great round of promotions, appointing, among others, four new non-clinical

lecturers. Studies and papers from our research work were covered by the national and the international media.

We established and consolidated important professional collaborations and strategic partnerships: with Santen, Singapore Eye Research Institute (Seri), and the International Centre for Translational Eye Research (ICTER). The number of IoO Principal Investigators (PIs) holding UKRI Future Leaders Fellowships is now three, and we are looking forward to the appointment of the inaugural Moorfields Eye Charity Chair in Advanced Ocular Imaging, partnered with UCL Department of Medical Physics & Biomedical Engineering and UCL Institute of Healthcare Engineering.

This year we were awarded Gold for both Green Impact office award and LEAF Awards for sustainable laboratories, at UCL's 2020 Sustainability Awards. Having quickly adapted to the virtual learning environment, we were able to deliver a successful annual lecture, attracting more than 100 participants. In order to recognise the high quality of academic, teaching and collegiality activities at the institute, we held our annual IoO day virtually, and announced the winners of this year's awards. To support our staff during a challenging period following the pandemic, we adapted our core hours-based system for meetings, and launched a Mental Health hub on the IoO Intranet to make it easier for people to find contacts and resources.

Our core values remain at the heart of what we do. This time of change has afforded us opportunities to learn and to shape the way we interact for the better, in order for our research portfolio to continue to carry a high level of impact, and for our teaching to maintain its high standards. This next year promises to be just as remarkable as we welcome more students than ever before to the IoO. Going forward we will continue to strive for a fair institute, working with Faculty to better support staff and students.

This Annual Review highlights some of the magnificent work we achieved in the 2019-2020 academic year.



At a glance

Grants received

Total number of grants received

43

Total amount awarded

£8,609,129

Funding bodies

Akari Therapeutics Plc

AMS The Academy of Medical Sciences

BBSRC Biotechnology and Biological Sciences Research Council

BHF British Heart Foundation

EMBO European Molecular Biology Organisation

Fight for Sight

Macular Disease Society

Moorfields Eye Charity

MRC Medical Research Council

National Eye Research Centre

NIH National Institutes of Health

Retina UK

Santen Pharmaceutical Co., Ltd.

Thomas Pocklington Trust

UCLTF UCL Technology Fund

UKRI UK Research and Innovation (formally Innovate UK)

Wellcome Trust

51 HR data

New staff starters: 51
Staff leavers: 51



Senior Promotions (effective from 1 October 2020)

2 staff promoted to Professor
Maryse Bailly
Mariya Moosajee

3 honorary staff from Moorfields promoted to Hon Clinical Professor
Daniel "Frank" Larkin
Stephen Tuft
Ananth Viswanathan

2 honorary staff from Moorfields promoted to Associate Professor (formerly Reader)
Dawn Sim
Adam Dubis

1 staff promoted to Associate Professor
Tessa Dekker

1 honorary staff from Moorfields promoted to Professorial Teaching Fellow
Narciss Okhravi



1 Junior Promotions
staff to Senior Research Fellow
Helen Baker

Professional and Support Staff regrading
Charu Reddy Laboratory Manager
James Wyles Laboratory Safety & Management Support Technician

7 first-time processes introduced

- ✓ First all-staff meetings
- ✓ First PS&T staff meetings organised with Equality Challenge Team
- ✓ First shared mailboxes
- ✓ First targeted staff group mailing lists
- ✓ First IoO weekly bulletin
- ✓ First institute online calendar on the intranet
- ✓ First operations support survey



Our research

The UCL Institute of Ophthalmology conducts pioneering science and attracts researchers of the highest international calibre.

Our research teams are led by 56 Principal Investigators (PIs), bringing together expertise to transform our understanding of vision, by investigating the mechanisms underlying function and dysfunction, and developing new therapeutic approaches. We provide evidence for improving health outcomes, in areas ranging from genetics and stem cells to clinical trials, data informatics and psychophysics.

Our joint research strategy with Moorfields Eye Hospital NHS Foundation Trust is supported by our Biomedical Research Centre status that enables fundamental discovery research to be rapidly translated to delivery of new diagnostic methods and therapies into the clinical setting.



Prof Alison Hardcastle

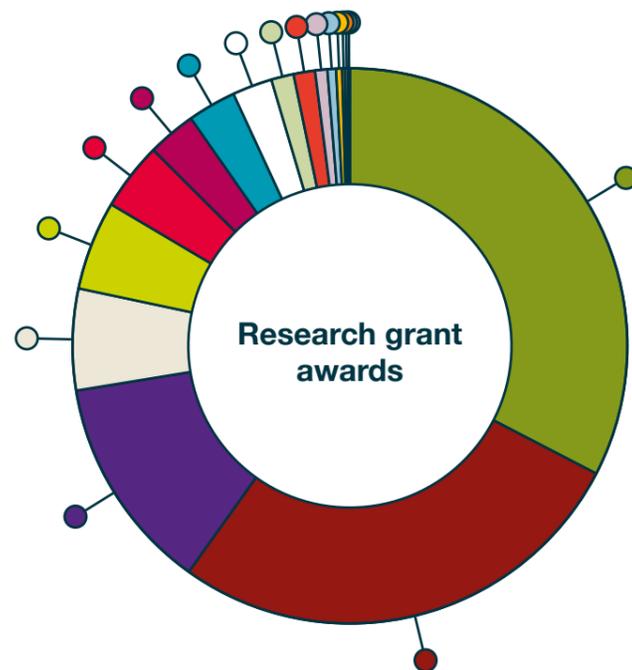
Our inter-related research themes are:

- **Development, Ageing and Disease**
Biological advances and understanding mechanisms
- **Rescue, Repair and Regeneration**
Evolving therapies and clinical trials
- **Visual Neuroscience and Function**
Understanding vision and population data science

These themes explore interdisciplinary aspects of our core translational mission of understanding vision, disease and developing therapies.

Research funding

As of September 2020, six PIs hold Wellcome Trust Investigator Awards, two hold Wellcome Trust Clinical Career Development Fellowships, and with recent success, three hold UKRI Future Leaders Fellowships: after Dr Alice Davidson, this year we added Dr Pearse Keane, and we are excited about Dr Anthony Khawaja's having been announced for 2020-2021. In the last year we were awarded more than £8 million in research grants from a variety of funding organisations to support our translational research, including Research Council funding, grants from charitable organisations and biotech partnerships. We receive considerable support in areas of infrastructural, career development, PhD studentships and springboard awards, from Moorfields Eye Charity.

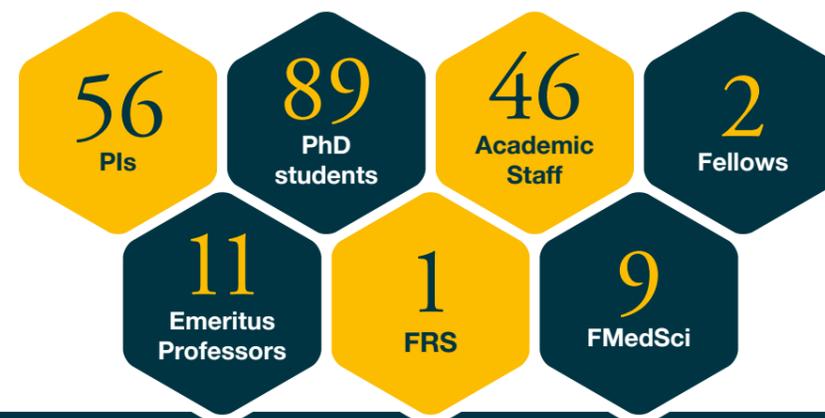


- Moorfields Eye Charity
- MRC Medical Research Council
- UKRI UK Research and Innovation (formally Innovate UK)
- BBSRC Biotechnology and Biological Sciences Research Council
- UCLTF UCL Technology Fund
- Retina UK
- Santen Pharmaceutical Co., Ltd.
- Fight for Sight
- Macular Disease Society
- BHF British Heart Foundation
- National Eye Research Centre

- EMBO European Molecular Biology Organization
- Akari Therapeutics Plc
- AMS The Academy of Medical Sciences
- Thomas Pocklington Trust
- Wellcome Trust
- NIH National Institutes of Health

Building research capacity

In 2019-2020, we have built our research capacity aligned with our increase in our educational suite of courses. In addition to one further UKRI future leader fellowship and two personal fellowships, we welcome four new non-clinical lecturers, increasing our depth of investigation in molecular genetics, developmental biology and stem cell biology.



Research highlights

Our researchers have published their groundbreaking studies in internationally renowned peer-reviewed journals. Highlights in 2019-2020 include publications in *Science*, *Nature*, *Nature Medicine*, *American Journal of Human Genetics*, *Genetics in Medicine*, *Nature Communications*, *The Lancet*, *New England Journal of Medicine*, *Nature Biomedical Engineering*, *Nature Genetics*, *Cell*, and *Proceedings of the National Academy of Sciences (PNAS)*. Between September 2019 and August 2020 we published **372** papers.

A few studies that made the news

AI system to predict "wet" age-related macular degeneration (AMD)

Researchers at UCL IoO and Moorfields Eye Hospital developed an artificial intelligence system that can help predict whether people with age-related macular degeneration (AMD) will develop the more serious form of the condition in their 'good eye'.

Increased alertness may change the way we see the world

A study led by IoO's Dr Sylvia Schröder discovered that the activity of neurons within the retina changes when we are running or when our alertness increases.

New gene therapy approach may offer a new treatment for retinitis pigmentosa (RP)

A study co-led by IoO Professor Michael Cheetham shows that gene therapy might be a good approach for X-linked RP and that mini-retinas can be used to study other forms of inherited blindness.

AI used to test very early signs of glaucoma progression

A study led by Professor Francesca Cordeiro presents a new test that can detect glaucoma progression 18 months earlier than the current gold standard method.

A selection of the awards received by our researchers



Oct 2019

Omar Mahroo receives Rising Star of the Year award from the Macular Society for his contribution to providing services and care for people with macular disease.

Dec 2019

Professor Gus Gazzard and the team delivering the LiGHT trial win an award from the International Glaucoma Association (IGA) for excellence in glaucoma care.

Jan 2020

Julio Corral Serrano wins a prize for best conference poster at French-UK Cilia Network Meeting.

Feb 2020

Patric Turowski, Jui Hsein Chang & colleagues win the George Heller Award.

Feb 2020

Ted Garway-Heath receives Clinical Excellence Awards from the American Glaucoma Society and the UK Advisory Committee.

Mar 2020

IoO PhD candidate Sarah Houston wins top prize at STEM for Britain Poster competition.

Apr 2020

MSc IOVS student Dimitra Kopsini has her 'Poetic connectivity' image, produced during her research project at the IoO, selected as the UCL Neuroscience symposium 2020 main image.

May 2020

Professor James Bainbridge is elected to the Academy of Medical Sciences Fellowship.

Aug 2020

IoO PhD student Siegfried Wagner is awarded funding via the UCL Train and Engage scheme for a project impacting communities at UCL and beyond.



IoO PhD candidate Sarah Houston at STEM for Britain Poster competition.

ECR activities

The IoO has its own dedicated early career researcher (ECR) committee, comprised of PhD students and post docs. The community organises regular networking events such as: the ECR IoO Lates, where ECRs can practise talks in an informal setting; the 'My PI Story' events, where junior PIs talk about their career development; the annual ECR Symposium, a celebration of the research carried out at the institute; a 'Meet the directors' event at least once a year where the ECRs can pose any questions they might have and meet our directors. Occasionally we hold career events as well as networking event. Due to Covid-19, the ECR Symposium was held online via Microsoft Teams. With talks from eight researchers, a keynote from Professor Matteo Carandini and a short talk from the IoO PPIE award winner, this year's symposium had 70-90 people logged in to the talks on each of the three days.

All attendees were encouraged to provide lay abstracts about their work, which gave them practice at communicating to a wider audience.

In September, IoO Professor Mariya Moosajee was appointed Academic Lead for the Early Career Researcher Committee alongside Associate Professor Jacqui van der Spuy.



Prof Mariya Moosajee

Partnerships

Our success is underpinned by establishing strategic collaborations, as well as spin-off or partnerships which have joint commercial and/or reputational implications that raise the profile of ophthalmic research at UCL and boost interdisciplinary skills and knowledge.

In 2019-2020:

- We established strategic partnership with the newly formed International Centre for Translational Eye Research (ICTER, Poland). Our goals and ambitions are aligned, particularly in imaging at different levels of resolution, from single molecules to the entire architecture and function of the eye. Our institute Director Professor Andrew Dick and Deputy Director Research Professor Alison Hardcastle are chair and member of the International Scientific Committee of the ICTER, respectively.
- PanAngium Therapeutics, the IoO spin-out company derived from the work of Professors John Greenwood and Steve Moss, formalised its directorship and received seed funding from Albion Ventures, as part of their involvement with the UCL Tech Fund.
- In October Moorfields began its partnership with INSIGHT, the Health Data Research Hub for Eye Health, which the IoO is supporting through the work of Dr Pearse Keane.



- A Memorandum of Understanding (MoU) is in place with Singapore National Eye Centre (SNEC) and Singapore Eye Research Institute (SERI), principally to build on research infrastructure for AI, Big Data and health service-related research.
- Dr Ryan MacDonald was appointed IoO representative for the Neuroscience Domain Steering Committee.

IoO mentoring

The IoO mentoring scheme runs on a yearly basis, providing a mentor/mentee relationship for academic/research staff. This scheme is particularly recommended for final PhD year students, postdoc/fellowship-level researchers, and those who need guidance to identify the next stage in their career. The IoO Mentoring team is run by Maryse Bailly, Maria Balda, Clare Futter, and Joe Smith.

Here is some feedback from the 15 mentees who took part in the 2019-2020 scheme:

“ My mentor has been great, very encouraging. My overall objective when we first met was to get into a position where I could continue an independent research programme. My mentor helped me set up a clear vision for lectureship applications, provided invaluable advice about developing future research plans and gave feedback on my job applications. I am now looking forward to starting a lectureship position at the Institute of Ophthalmology in August.

Junior PI/Fellow

“ I am very happy with my mentor. We will certainly keep meeting until the end of the scheme. I did benefit from the mentoring. I received great advice from my mentor and good psychological support. I think I will keep benefit from our interaction.

Postdoc/research associate

“ My mentor has been very encouraging about my goals and useful in helping me put things into perspective. I think it will help me in the long term as I transition from PhD to a new job.

Final year PhD student

Education and student experience

The past year has been exciting while also filled with challenges and opportunities. We have continued to pursue our joint education strategy at pace.

Health education is experiencing a dramatic realignment in response to the pandemic, especially around digital innovations. In partnership with Moorfields, we had already started thinking about how we could tap into the virtual space for our education delivery. We kicked off the academic year with a successful conference entitled the “Digital ophthalmic student”. We had a learning technologist join our joint education team to develop high-quality interactive online content.

We continued to build our international collaborations with two high profile trips early in the academic year. A team led by Nora Colton and including Jacqui van der Spuy, Sobha Sivaprasad, Sanny Yuzhen Jiang, and Sarah Canning travelled to China as part of a joint seminar at Peking University on cultivating the future of ophthalmic education, building on the signing of an MOU between UCL IoO, Moorfields and the Peking University Health Science Centre. Nora Colton also travelled to Shenzhen to visit the Shenzhen Eye Hospital and then to Singapore to the Singapore National Eye Centre. They are strategic education partners of UCL IoO and Moorfields.

Moorfields launched the education hub at Ebenezer Street, which is now the home of our joint education short courses and emerging executive education. It is a beautiful facility built for the future with movable walls and live streaming for events throughout the space. Although we had to pause our face-to-face short courses and summer schools this past year, we have moved many into the virtual space and remain poised to resume them in 2021.

To fill the desire for education and training during the lockdown, we ran several successful webinars attended

by participants from all over the world and featuring our pioneering researchers engaged in education: Paul Foster, Pete Coffey, Marcus Fruttiger, Pearse Keane, Peter Thomas, Mandeep Sagoo, Tracy Lockett and Roxanne Crosby-Nwaobi.

As part of the connected curriculum that we are developing, we worked not only with staff but also with our students to ensure we are capturing their views. We applied for a UCL Changemaker project grant called “EyeBelong”, which involved a series of focus groups with students to understand their journey of feeling a sense of belonging at the institute. This programme informs our induction in 2020-2021.



Prof Nora Colton

We saw a significant rise in our PTES (Postgraduate Taught Experience Survey) results, improving across most of the categories. We not only increased our numbers of students with the launch of new programmes and a novel degree apprenticeship, “Advanced Clinical Practice in Ophthalmology”, but our students were engaged and pleased with the offering.



Team led by Nora Colton at Peking University.

Postgraduate Taught Experience Survey (PTES) results

83.6%

for Overall satisfaction as a department. This score increased from 72.4% in 2019, and compares to a UCL average of 79.7%.

95.9%

would recommend UCL for our programmes to a prospective student.

83.2%

for Teaching and Learning.

79.7%

for Student Engagement.

74.3%

for Dissertation satisfaction.

62.8%

for Organisation and Management. This score improved from 56.4% in 2019.

87.3%

for Learning resources. This score increased from 83%.

77.7%

for Skill development. This increased from 72%.

80.4%

of our students participated in the survey, which places us with a 50% response rate above other departments at UCL.

Marcus Fruttiger has led on the launch of a Bioscience Entrepreneurship MSc programme, which has been well received by students across the globe. Our “Advanced Clinical Optometry and Ophthalmology MSc” received a resounding endorsement with HEE commissioning ten places for students from various Trusts.

The education team continue to work very hard as they

pivot their programmes and modules to remote delivery which started at the end of term 2. We appointed two energetic and engaged Deputy Directors of Education: Marcus Fruttiger and Gordon Hay. As we welcome 200 students to our IoO and Moorfield learning community for the 2020/21 academic year, we continue to hold the ranking as the best place in the world to study ophthalmology.

Our strategic education principles aim to:

- develop an excellent portfolio of degree programmes that captures our reputation in both clinical practice and life sciences
- ensure lifelong learning through an extensive range of short courses, and continuous professional and personal development across our areas of expertise
- manage the pipeline of volunteers, learners, students and trainees through diverse and inclusive education programmes

- transform the teaching and learning of our faculty, clinicians, nurses, allied health professionals, postdoctoral researchers, doctoral candidates and staff to grow our education and training capacities
- explore innovative ways of engaging and educating society through an online learning resource centre that offers an array of exceptional digital resources and opportunities
- revitalise the curriculum and our approach to education to create the best experience for our students
- build an interactive education space that supports innovation and flexible learning.

Operations support services, Estates and Sustainability

IoO's Operations support staff work to deliver the institute's objectives by providing operational support to staff and students. They bring efficient and effective services across many activities including research, education and enterprise.

The Operations teams connect to colleagues across the faculty and central UCL services to meet UCL wider aims and ambitions. They also look after the wellbeing of the IoO community and aim to improve the services offered by gathering feedback and maintaining a frequent dialogue with the members of the institute.



Dr Wing-Chau Tung, IoO Institute Manager

Several changes were made this year to the way we operate at the institute:

Finance and Research team structure

- We created the Finance and Research Manager post and added a Finance and Research Administrator role, offered as a secondment.

Education team structure

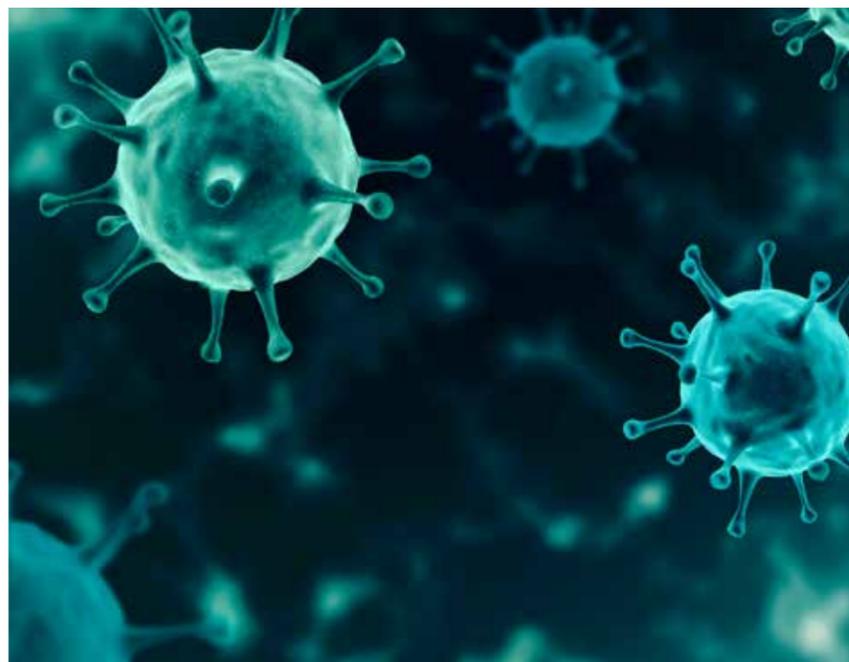
- One of the Teaching and Learning Administrators moved to the Administration team as one of the Institute Administrators.
- The Communications and Marketing Manager post was split into two positions: the student recruitment and marketing responsibilities were allocated to the Education Marketing Manager, which is a joint-funded post between IoO and MEH; internal and external communications responsibilities were allocated to an additional part-time Communications Manager post.

HR systems

The HR team implemented the new UCL MyHR system in February 2020.

COVID-19 Response

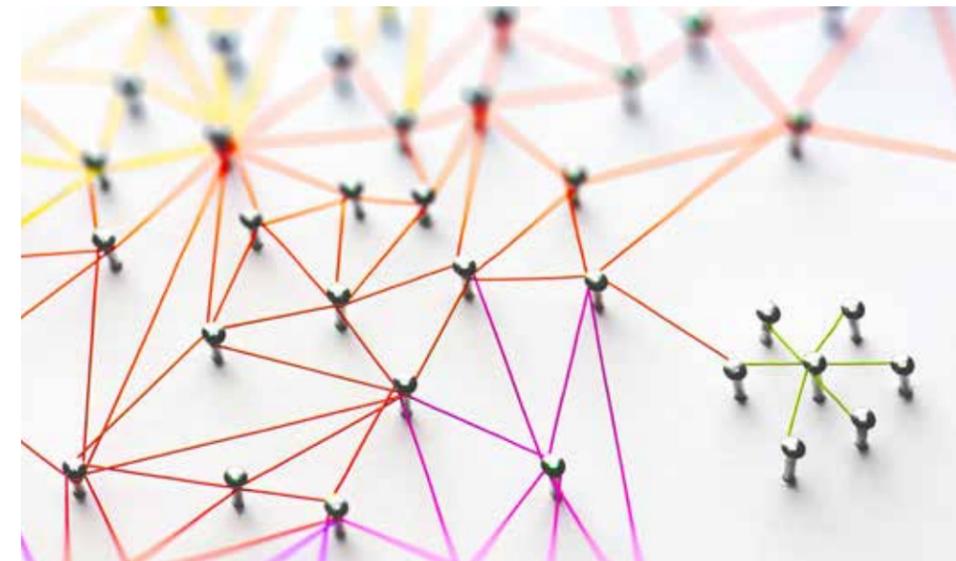
There were many challenges brought by the COVID-19 pandemic and national lockdown in March 2020 and all operations adapted and moved to remote working. The Lab Management and Environment and Safety teams worked closely with the PIs to make the institute buildings, particularly laboratory areas, safe for a complete lockdown. This unprecedented action was achieved over a very short timeframe, of a few weeks. The teams worked with the Faculty, Estates and Safety services to formulate the re-opening plans. We were then able to open at 25% capacity at end of June, before increasing to 50% capacity from September onwards. A new mandatory online safety induction was put together for all building users to attend before they could return to work in the building. In support for staff during this time, the HR and Finance and Research teams also worked with the PIs to implement the furlough scheme to furlough eligible staff in accordance with UCL guidelines.



Internal communications

We identified the need to improve the way we communicate internally and with the wider world. The all-staff meetings were introduced to foster a sense of cohesion within the institute, enabling all staff to meet and receive updates directly from our leadership team. The specialised termly meetings for Professional Services & Technical (PS&T) staff were brought in to provide a platform specific for this staff group, to gather feedback and hold breakout sessions on different topics. Shared mailboxes and mailing lists were created to enable us to send targeted emails to specific teams and staff groups.

We used our display screens and the monthly newsletter until March when COVID-19 impacted upon our operations and we moved swiftly from in-person meetings to a complete remote service, facilitated by the full adoption of Microsoft Teams. Most meetings and activities were either postponed or adapted to run through MS Teams including the annual IoO Day, with the annual lecture and awards. We introduced the IoO Weekly Bulletin, aiming to provide regular updates to all



our staff and students on what we were doing to keep things running as smoothly as possible, as well as opportunities, wellbeing resources, event planning, and other relevant news. This, combined with the monthly newsletter, helped us reduce institute email traffic.

Our Communications team worked to refresh the IoO Intranet to make it the central hub for all staff and students to find the information they need, to improve workflows, communications and internal content management. As a result of this, traffic to the IoO

intranet pages increased exponentially this year, going from 2087 total page views in 2018-2019 to 7036 total page views in 2019-2020. As this is an internal resource, the drive was based exclusively on internal communications, without relying on any external advertising.

Through the first ever IoO operations support survey conducted in August, we were able to collect feedback and suggestions for improving the services we provided throughout the year, particularly during lockdown.

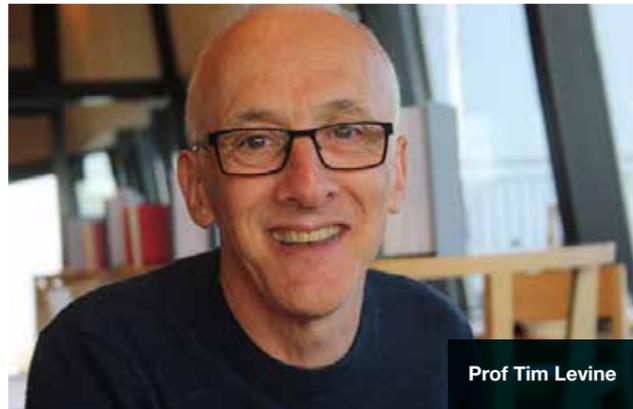
Environment, Safety & Sustainability

Here are some of the highlights from this year:

- ✓ We completed refurbishment of three labs on third floor of Ashton Building to provide space for the new joint IoO/engineering research group. Christiana Rhurberg's research group moved into refurbished labs and offices.
- ✓ We received Gold awards for both Green Impact office award, and LEAF Awards for sustainable laboratories at UCL's 2020 Sustainability Awards, through the work of our Sustainability team.
- ✓ We completed the 'Target-100 – a tool for safety improvement' baseline assessment with Safety Services, and formulated an action plan to improve health and safety within the institute.
- ✓ We were awarded funding for Mariya Moosajee and Shin-Ichi Ohnuma's labs on second floor of Cayton St. Due to COVID, this project is now on pause.
- ✓ We completed redecoration projects in several offices.
- ✓ We refurbished and made teaching rooms within the porter cabins COVID-safe in preparation for the new academic year.
- ✓ We upgraded power installation points for Cortical Processing Labs in Cruciform Building and Pete Coffey's lab, Ashton 303.

EDI at the IoO

Equality, Diversity and Inclusion (EDI) is a core part of the IoO's agenda to improve the working environment and culture for all students and staff. This is spearheaded by our Equality Challenge Team. In 2019-2020 we appointed Professor Tim Levine as the first departmental Deputy Director for EDI in UCL.



Prof Tim Levine

The team's mission is to engage with all members of the IoO community to drive real cultural change, as well as liaising closely with the Faculty Vice-Dean for EDI, and EDI teams across UCL. The team is also responsible for the Athena SWAN application. The Athena SWAN Charter recognises and

celebrates good employment practices for women working in higher education and research. This year we increased the number of non-clinical women academics to 43%. We continued to achieve gender-balanced postdoc promotions and set up the IoO Race Action Group to support BAME staff

and students at IoO. We published our professorial gender pay-gap (first in UCL), showing that this has reduced by 10%. As part of the response to the pandemic, we changed our core hours to give everyone plenty of time around lunch without key meetings (12-2pm).



IoO networking meetings and events

We have been running internal Research Network Meetings, and a programme of monthly lectures with guest speakers since the beginning of 2018 (coordinated by IoO Professor Astrid Limb), to promote networking, collaboration and engagement as part of our academic activity.

Institute PIs nominate guest speakers from the world of ophthalmology to present their work and receive questions from students and researchers. The lectures are open to

all staff and students from UCL and Moorfields Eye Hospital. Unfortunately, the lectures planned from March had to be cancelled due to the pandemic and our adjustment to remote working.

However, we were very pleased to be able to run the very successful annual award lecture online as part of the IoO Day.

2020 IoO Annual lecture and IoO Day

The IoO Annual Award Lecture was established in 2018 by IoO Director Professor Andrew Dick to honour scientists who have made outstanding contributions in the field of Ophthalmology and visual science. This year's awardee was Professor Justine Smith from Flinders University. Her lecture, entitled 'Mechanisms of Ocular Toxoplasmosis' was attended by over 100 people. Awards are also given to IoO and Moorfields/IoO associated staff during the institute day to recognize academic, teaching and collegiality activities. A new award from the NIHR Moorfields Biomedical Research Centre was introduced this year to recognise excellence in Public and Patient Involvement and Engagement (PPIE) in research.



Prof Justine Smith

2020 IoO Awards



Research Excellence Award winner

1ST

Sylvia Schroeder

2ND

Rena Chopra



Teaching Award winner

1ST

Dr Omar Mahroo



PPIE Award winner
Young People's Advisory Group

The Eye-YPAG:
Dr Louca-Mai Brady
Jacqueline Miller
Dr Annegret Dahlmann-Noor



Collegiality Award winners

Institute Award for Collegiality

Facilities Management Team:

Adu Gyamfi Brobbey
Denis Lincoln
George Bradley
Lloyd Springer
Mervyn Davies
Sean Fagan

Institute Award for Exceptional Collegiality

Laboratory Facilitation Team

Abi Li
James Wyles
Claire Cox
Naheed Kanuga
Gopi Damodaran
Jill Cowing

Our international partnerships: a snapshot



Prof Chieko Asakawa and Prof Shin-ichi Ohnuma at the Crick Institute.
Photo by Kei Matsunaga.

Our partnership with Santen, a world-leading ophthalmic pharmaceutical company, is alive and vibrant. Santen have been great supporters of UCL IoO with their PhD studentships, their symposia, and new initiatives. With one new studentship added this year, Santen are now supporting a total of 9 students at the IoO. Our relationship over 2019-2020 has continued to grow thanks to the ongoing work carried out by UCL's Japan ambassador and IoO Professor Shin-ichi Ohnuma. In addition to his work as Director of the PhD programme of the Sensory System, Technology and Therapies (SenSyT), Professor Ohnuma has worked over many years to strengthen UCL's ties with

Japanese companies and universities. In October, Professor Ohnuma, our director Professor Andrew Dick and UCL President & Provost Professor Michael Arthur went to Japan to visit Santen's headquarters and meet with Shigeo Taniuchi, CEO and the senior team. We will be renewing our prolific collaboration with Santen and we are currently discussing the next stages.

In December 2019 Professor Ohnuma organised a mini symposium at the Crick institute to discuss technological advances and prospective therapies to treat sight loss. IBM Fellow and Carnegie Mellon University's Distinguished Service Professor Chieko Asakawa was invited to give a

public lecture. The next day Professor Asakawa came to the IoO to speak at the international student conference, SenSyT symposium 2019, as the main speaker. Professor Asakawa has been instrumental in furthering accessibility technology research and development for three decades and she will be contributing to the accessibility work we need to do for Oriel.

We established an international strategic partnership with the newly formed International Centre for Translational Eye Research (ICTER, Poland), with whom we share the ambition to have a direct impact on new therapies and diagnostics for visual health.

Oriel

Plans for Oriel, the new integrated centre for eye care, research and education have progressed well with a number of milestones being met during the academic year.

Oriel is a joint initiative between UCL IoO, Moorfields Eye Hospital NHS Foundation Trust and Moorfields Eye Charity. Subject to the necessary approvals, it would see the IoO and Moorfields move from Islington to a purpose-built centre in Camden's Knowledge Quarter, a world-class hub for science and innovation.

Under the proposals, existing IoO services at the Bath Street premises would share the new purpose-built centre with Moorfields on two acres of the St Pancras hospital site. This integration of research, education and eye care would create a more collaborative working environment,

increasing the scale and speed of progress from scientific discovery to clinical practice.

Following an extensive consultation in 2019, formal NHS bodies gave the green light to proceed with the next stage of planning for the new centre in February 2020.

A further programme of consultation got under way in August to seek the views of IoO staff and students alongside Moorfields patients, sight loss charities and Camden local residents and businesses. Feedback on the early designs of the new building informed the planning application submitted to

oriel-london.org.uk

Camden Council in October. A decision is expected by the Council in early 2021.

This year's consultation has demonstrated that IoO staff and students recognise the benefits of being located in a flexible, integrated centre with Moorfields. The new centre would have the potential to transform teaching and learning by enabling IoO to widen its research portfolio and include patient participation.

The 2021 academic year will be a particularly exciting phase, with IoO staff and students working with the Oriel design team to co-design the internal departments of the new centre.



Project ORIEL: proposed design

Collaboration
Inspiration
Integrity
Support
Opportunity



**INSTITUTE OF
OPHTHALMOLOGY**

www.ucl.ac.uk/ioo

IoO.Comms@ucl.ac.uk

UCL Institute of Ophthalmology

11-43 Bath Street

London EC1V 9EL



@UCLeye



@UCLIoO



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