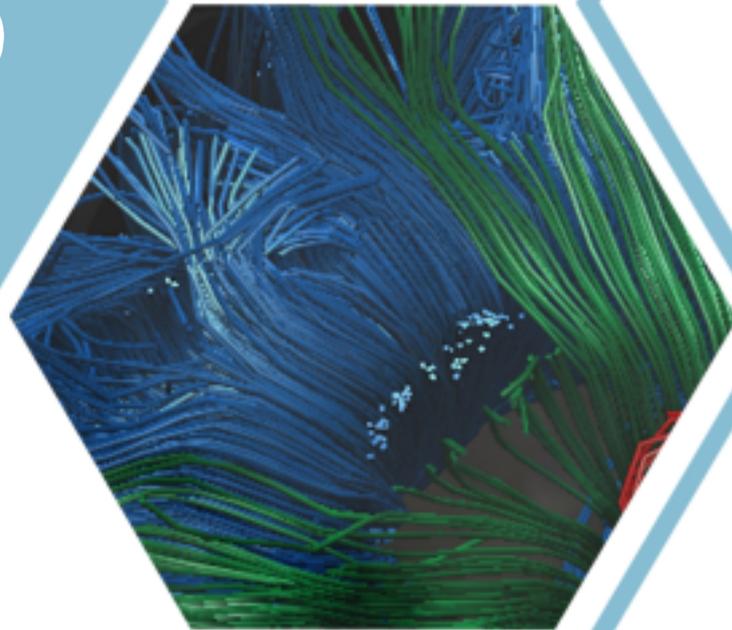
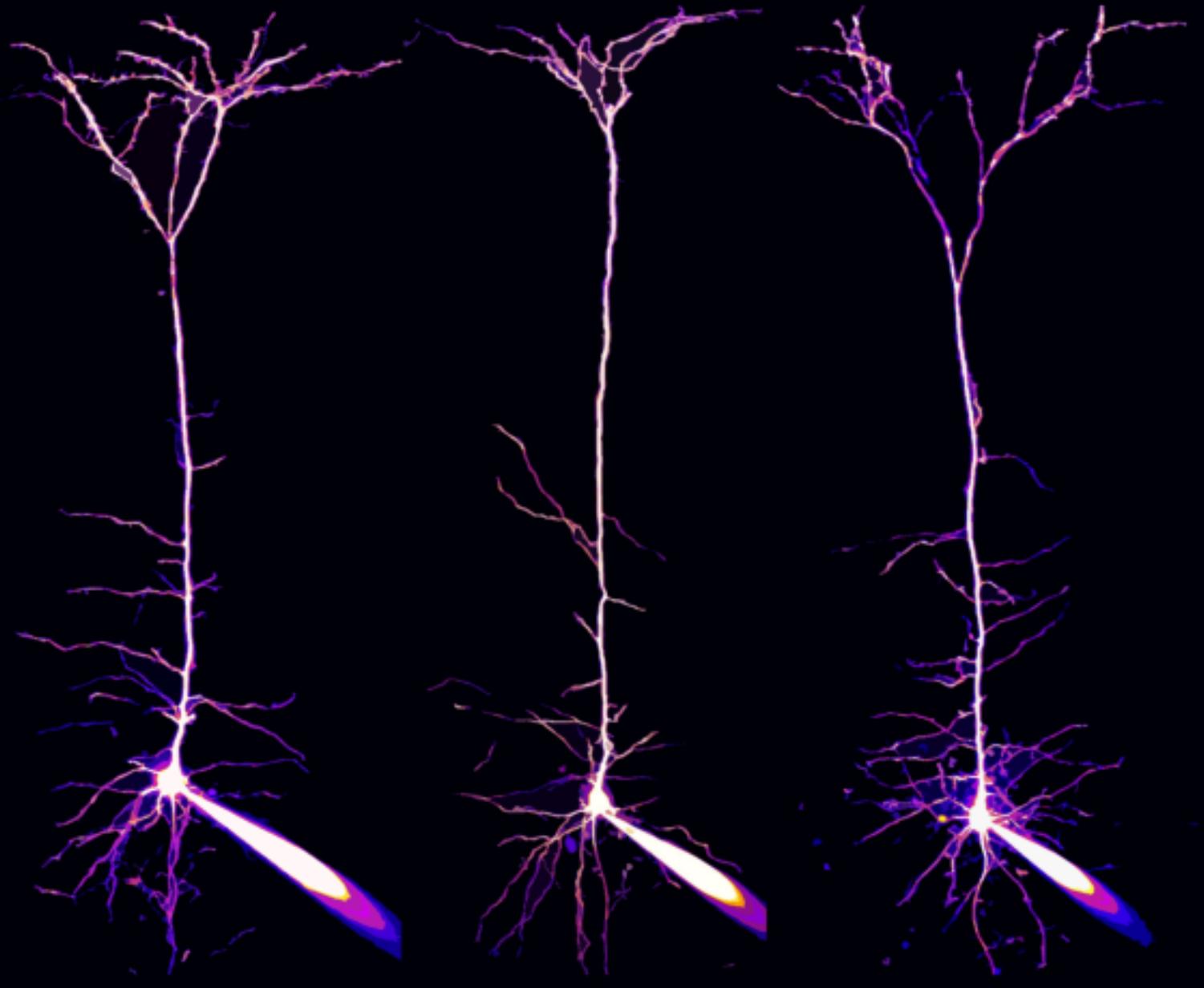


STRATEGY 2015-2019





CONTENTS

1. Foreword	2
2. About the UCL Neuroscience Domain	4
3. Review of Progress	6
4. Interdisciplinary Research Initiatives	9
5. Realising Impact	13
6. Career Development and Education	15
7. Partnerships	17
8. Communication and Engagement	19
Annex 1 - UCL Neuroscience Steering Group	22
Annex 2 - Neuroscience Departments, Centres and Institutes	23

1

FOREWORD

UCL is a world leader in the field of neuroscience, ranked first in Europe and second worldwide for ISI citations in Neuroscience and Behaviour. With nearly 500 Principal Investigators, the basic and clinical neuroscience research community at UCL is one of the largest in the world covering a broad range of research activity.

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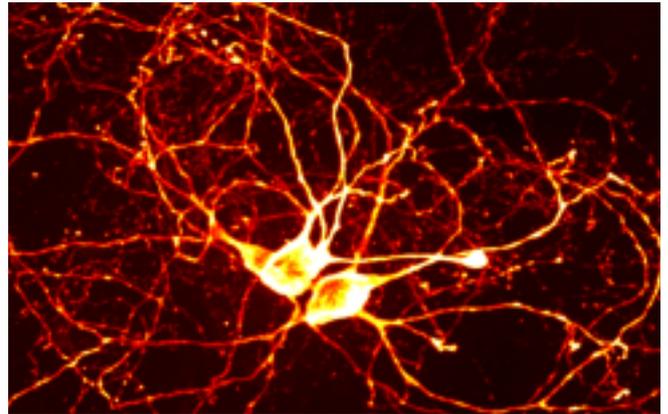
European ranking for ISI citations in Neuroscience and Behaviour



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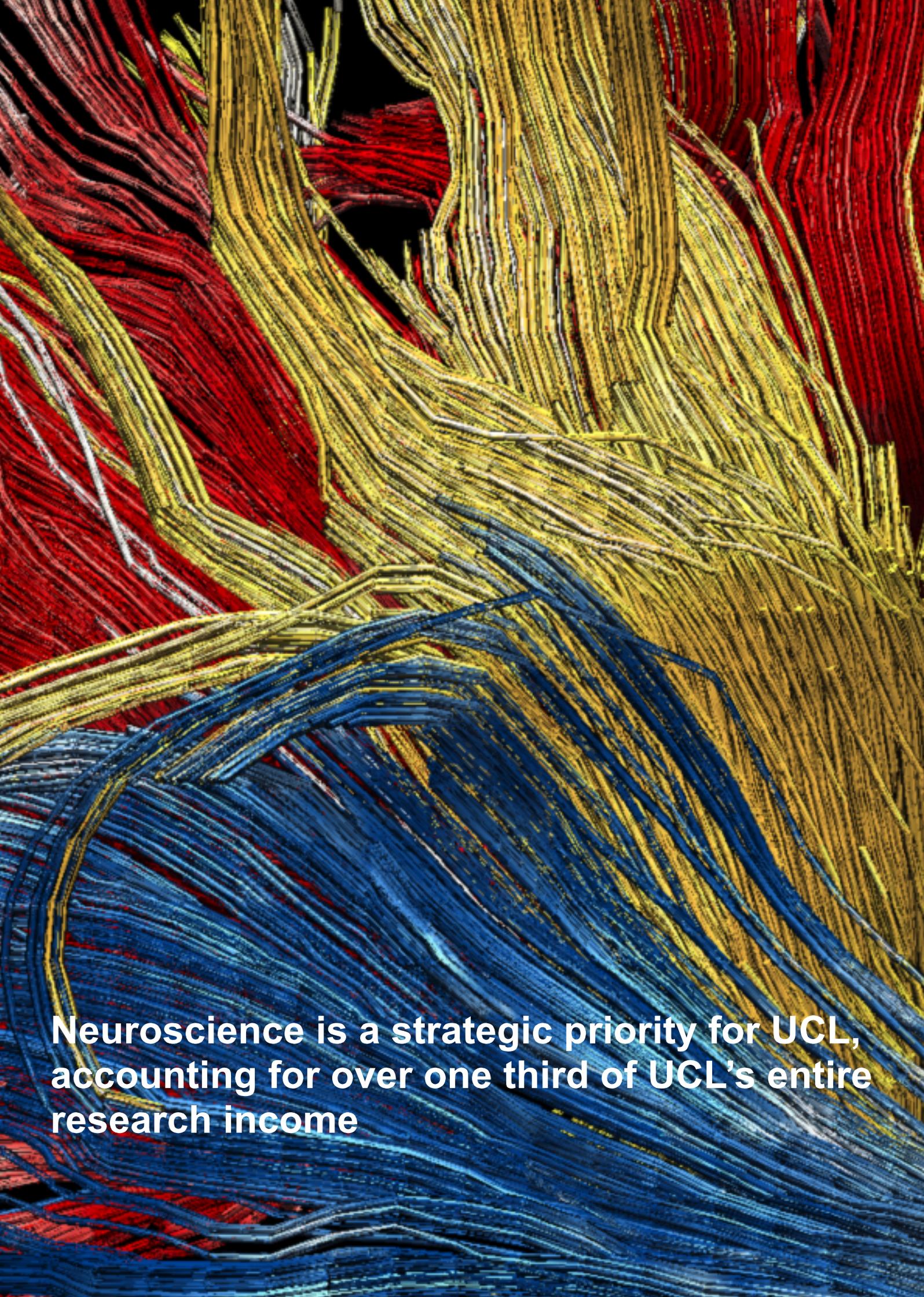
Worldwide ranking for ISI citations in Neuroscience and Behaviour



Two neurons of the inferior olive, an area of the brain involved in the production and learning of coordinated movement

The human brain is the most complex organ in the body, being composed of around 86 billion interconnected neurons, and is responsible for a range of functions, from movement and touch to processing auditory and visual information. The ability of the brain to form thoughts and memories defines who we are as individuals and how we behave. Disorders of the brain lead to some of the most debilitating and distressing human diseases, such as dementia, stroke and neuropsychiatric disease, which impart a huge social and economic burden on individuals, families and society.

The goal of UCL Neuroscience is to understand how the brain develops and works, from the level of investigating the molecular components of neurons and glia, through the functions of single cells, to how groups of connected neurons and associated glia work as networked systems, to the neural mechanisms of behaviour and cognition, and to apply this understanding to the development of new treatments and therapeutics for diseases of the nervous system.



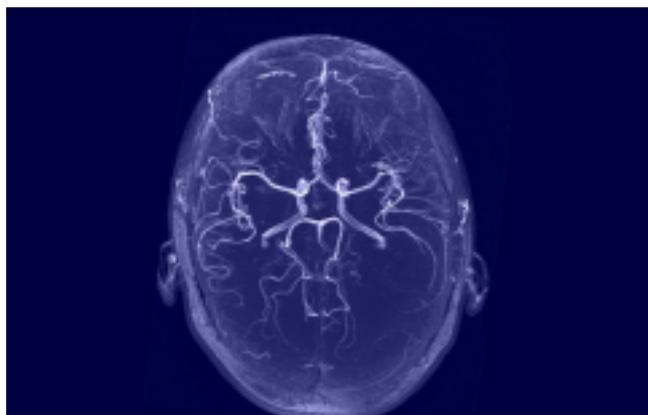
**Neuroscience is a strategic priority for UCL,
accounting for over one third of UCL's entire
research income**

2

ABOUT THE UCL NEUROSCIENCE DOMAIN

The breadth and depth of neuroscience expertise at UCL offers an unrivalled wealth of opportunities for undertaking cutting-edge, collaborative, interdisciplinary research. The majority of neuroscience activity is undertaken within the School of Life and Medical Sciences, principally in the Faculties of Brain Sciences and Life Sciences, but also in the Faculties of Medical Sciences and Population Health Sciences.

UCL is a multi-faculty University and our neuroscience activity is enriched by expertise from other areas, such as Biomedical Engineering, the London Centre for Nanotechnology, and the Departments of Computer Science, Chemistry and Physics. We also benefit from strong clinical partnerships with the National Health Service through the UCL Partners Academic Health Sciences Centre, the Biomedical Research Centre (BRC) at University College London Hospitals NHS Trust, two specialist BRCs in Ophthalmology and Child Health, and the Biomedical Research Unit in Dementia.



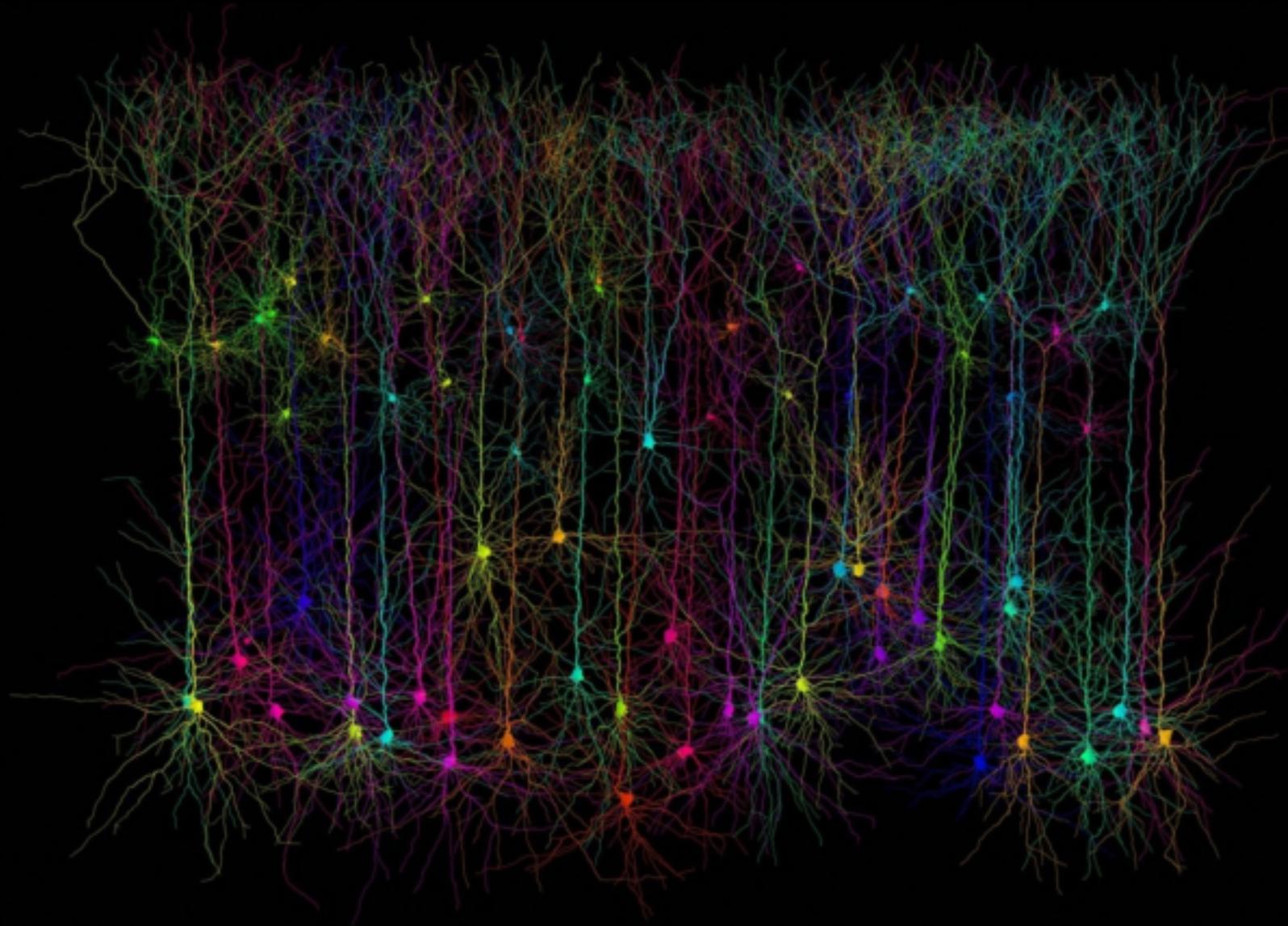
Blood vessels in the brain using magnetic resonance angiography

The UCL Neuroscience Domain was created in January 2008 with the purpose of developing and coordinating activities across the full spectrum of neuroscience at UCL. Through the actions of its Steering Group, the Domain facilitates research activities that encompass different parts of UCL and various research disciplines. It aims to support individual researchers, Research Centres, Departments and Institutes, and to encourage synergistic endeavours of strategic importance that supersede institutional, departmental and discipline boundaries.

The five main objectives of the UCL Neuroscience Domain are to:

- Facilitate the highest quality neuroscience research across UCL
- Maximise our potential for interaction and our ability to create new fields of research
- Attract the very best neuroscientists from around the world to UCL
- Cultivate and train successive generations of neuroscientists
- Promote communication and lay engagement in neuroscience, both internally and externally

This document, written by the UCL Neuroscience Domain Steering Group, outlines our core strategy for the period 2015-2019 and builds on our previous strategic aims and achievements.



Our neuroscience activity is enriched by expertise from other areas, such as Biomedical Engineering, the London Centre for Nanotechnology, and the Departments of Computer Science, Chemistry and Physics

3

REVIEW OF PROGRESS

The first UCL Neuroscience Domain strategy ran from 2011-2014, and set a challenging number of goals across a spectrum of areas, the majority of which have been delivered. This period saw numerous changes and developments at UCL, and sea-changes in the external funding environment, during which UCL Neuroscience continued to thrive. The prominence of neuroscience at UCL was recognised by the School of Life and Medical Sciences through the creation in 2011 of the Faculty of Brain Sciences.

However, neuroscience is a central component of all the faculties within the school. Our collective research income has increased from £318million of live grant funding in 2010 to over £500million in 2014. We have responded competitively to new funding streams, an example being that, of the 22 Wellcome Trust Investigator Awards made to UCL, 17 have been in the area of neuroscience.

The continuing development of infrastructure and facilities is critically important for providing a world-class environment to support our research. The last three years have seen three major neuroscience-based initiatives come to fruition at UCL with which UCL Neuroscience has been integrally involved; the creation of the Sainsbury Wellcome Centre for Neural Circuits and Behaviour; the Leonard Wolfson Centre for Experimental Neurology; and the Alzheimer's Research UK Drug Discovery Institute.

Sainsbury Wellcome Centre for Neural Circuits and Behaviour

The Sainsbury Wellcome Centre, a £140million initiative funded by the Gatsby Foundation and the Wellcome Trust opening in 2015, will provide a new facility using state-of-the-art molecular and cellular approaches, imaging, optogenetics, electrophysiology and behavioural techniques, to investigate how brain circuits process information to create neural representations and guide behaviour. This will be supported by computational modelling through the Gatsby Computational Neuroscience Unit, which will be relocating into the Centre in 2015.

Leonard Wolfson Centre for Experimental Neurology

The Wolfson Foundation awarded UCL £20million to develop the Leonard Wolfson Centre for Experimental Neurology, which was officially opened in November 2013. This has provided UCL with a specialist first-in-human facility for new therapeutics to treat neurodegenerative diseases, as well as a PhD training programme for non-clinical and clinical scientists, and research programmes in biomarkers and imaging.

Drug Discovery Institute at UCL

The award by Alzheimer's Research UK of a Drug Discovery Institute (DDI) at UCL was announced in July 2014 involving a total of £8.8million over five years. The goal of the DDI is to seek new treatments for the debilitating effects caused by neurodegeneration.

Communication

A key focus has been the promotion of communication and engagement across UCL, and also with external stakeholders. The Domain newsletter goes out every two weeks to a mailing list of over 2000 people, providing updates on news stories, events and funding opportunities. The UCL Neuroscience symposium is now firmly established as an annual event, with the fifth symposium attracting over 800 attendees and more than 160 research posters being presented.

The Domain has also developed a publication that provides insight into some of the work on dementia and neurodegeneration being undertaken across UCL, in collaboration with academic and industrial partners, titled: "Dementia and Neurodegeneration - A Window of Opportunity". This was circulated to stakeholders from funding bodies, charities, government and industry, as well as the academic community.

Career Development

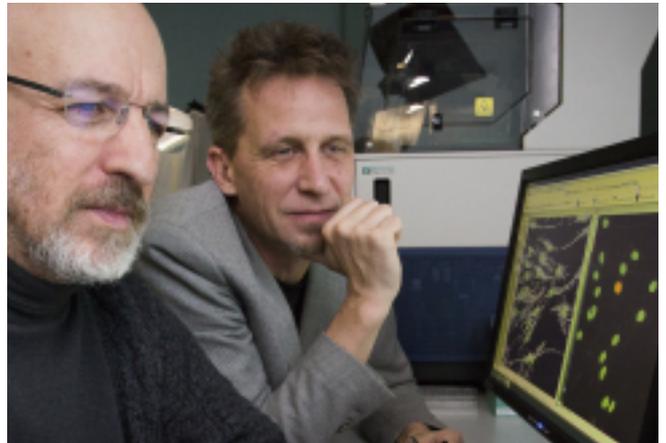
The recently re-named Neuroscience Careers Network (NCN) has been a major success. The NCN steering committee organises meetings and workshops aimed at supporting the career development of neuroscientists, from post-graduate students through to post-doctoral scientists and junior group leaders. The topics covered have included grant-writing, interview skills, work-life balance and careers outside of academia, amongst others. So far, more than 30 such events have been organised by the NCN steering committee.

Partnerships

Despite the strengths that UCL already has, our ability to progress understanding of the development and function of the nervous system, and discover new treatments, is enhanced through collaborations with other major neuroscience institutes. The Domain has pioneered a successful partnership with the Neuroscience Center Zürich, which has led to the funding of 15 joint projects and workshops.

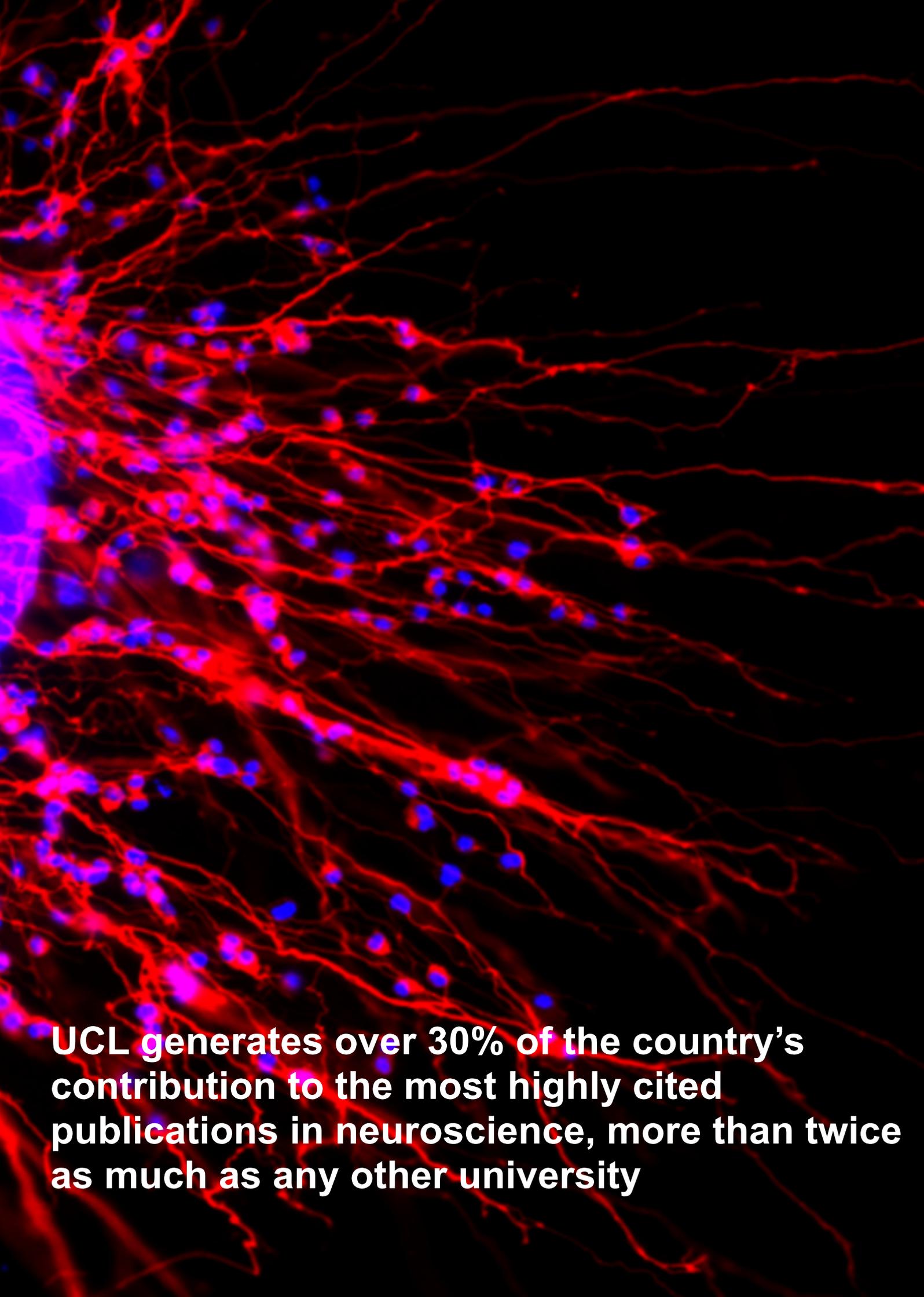


The Leonard Wolfson Experimental Neurology Centre is based at the heart of the National Hospital for Neurology and Neurosurgery



Professor Michael Duchen (left) and Dr Gyorgy Szabadkai were among the first UCL researchers to team up with the Eisai pharmaceutical company, to develop agents targeting key mitochondrial mechanisms that are involved in neurodegeneration.

The Domain has also been involved in engagement with industry, most notably through the development of the UCL-Eisai collaboration, a new type of academic-industrial alliance that will involve researchers from both organisations working together on the same site to investigate radical new ways of treating neurological diseases. This collaboration has laid the foundations for further interactions of this type with other pharmaceutical companies.



UCL generates over 30% of the country's contribution to the most highly cited publications in neuroscience, more than twice as much as any other university

4

INTERDISCIPLINARY RESEARCH INITIATIVES

Given the breadth and depth of our basic and clinical research, we are ideally positioned to be at the forefront of neuroscience research and healthcare, and to respond to research funding opportunities. Our aim is to forge ahead in our position as one of the world's leading institutions for neuroscience and to continue to establish ourselves as the international leader in many research areas.

In order to maximise our potential, it is critical for an organisation of the scale and complexity of UCL to find new ways of working across traditional Divisional/Departmental structures, bringing together expertise from across disciplines to address important problems. Such initiatives often require strategic coordination and the ability to foster initial collaborations.

The Steering Group will receive and solicit proposals from the neuroscience community that bring together expertise from across disciplines, match needs to opportunities that would benefit from coordination and support at the level of the UCL Neuroscience Domain.

Goals

- Integrate the Neuroscience Domain across UCL by incorporating new members from the Faculties of Mathematical and Physical Sciences, and from Engineering onto the steering group
- Explore new research activities and methodologies cognate to neuroscience in the areas of physical, engineering and computing sciences

MENTAL HEALTH

Mental health disorders are a significant and increasing problem in the UK affecting individuals, families and society from health, economic and social perspectives. It is projected that one third of the population in the UK will suffer from a mental health disorder during their lifetime. The total cost to the UK economy was £49bn in 2007, and estimated to rise to £89bn by 2026. The predicted changes in the global population over the next 20 years will have profound implications on the burden of mental health worldwide. Mental health is an area in which UCL has not yet exploited its full potential. However, there are over 140 research groups working on topics related to mental health, from basic science, through translational research, to clinical science. Furthermore, there is the potential to harness the unique local resources of our academic health sciences network, UCL Partners and our local Mental Health Trust to increase coordination and impact in this vital area. Presently, much of this expertise is fragmented and would benefit from interdisciplinary coordination and strategic targeting of resources. UCL should therefore build further upon external collaborations and partnerships related to mental health.

UCL has the opportunity to create a sustainable focus for both basic and applied research addressing the major mental health challenges of our time. Progress in understanding the aetiology of mental health disorders and developing new treatments will require internationally leading discovery science grounded in an attempt to establish mechanistic accounts of human cognition.

Goals

- Work with the Faculty of Brain Sciences to develop an Institute of Mental Health, incorporating basic and clinical research areas of activity, ensuring they are coordinated for effectiveness of activity, ensuring they are coordinated for effectiveness
- Drive the mechanistic understanding of the basis for mental health dysfunction
- Work with the Faculty of Brain Sciences to develop an Institute of Mental Health, incorporating basic and clinical research areas of activity, ensuring they are coordinated for effectiveness
- Support the submission of at least one substantial interdisciplinary research proposal to a major funding body for mental health research
- Promote and support the involvement of the wider research community with mental health research

NEURODEGENERATION

In dementia and neurodegeneration, UCL can lay claim to world-leading expertise across the full spectrum of research, from studies of the genetic causes of disease and their molecular modes of action through to evidence-based psychosocial treatments for patients and carers. We have identified dementia and neurodegeneration as a long-term strategic priority; in part this reflects a desire to build on our undoubted strengths in this area, but it is also recognition that dementia and neurodegeneration are considered as both national and international priorities. As populations age, neurodegenerative diseases are inevitably going to become more common. It is distressing for patients and their families, and imposes an immense cost on healthcare systems and society. Currently, very little progress has been made in tackling the primary causes of neurodegenerative disease. Our goal is to exploit our unique range of research expertise and clinical resources at UCL to drive forward the development of interventions and diagnostics that prevent disease, mitigate its effects and/or improve the quality of life of those who develop dementia or other neurodegenerative diseases.

Goals

- Develop a broad strategy for innovative research on dementia across UCL
- Develop new initiatives with the AHSC and BRC to promote closer collaboration between basic and clinical scientists
- Support the development of a Drug Discovery Institute in neurodegeneration
- Facilitate the involvement and engagement of UCL with the Dementias Platform UK
- Seek to establish further industrial collaborative partners in the field of neurodegeneration

DEVELOPMENTAL NEUROSCIENCE

Developmental neuroscience is an interdisciplinary scientific field encompassing basic research addressing the earliest steps in the specification of neuronal identity, through the genetic and cellular mechanisms that establish functional circuits, to cognitive neuroscience. The area holds the potential to increase our understanding on a number of important issues, including;

- How the nervous system is induced, takes shape, and matures functionally throughout childhood, adolescence and in ageing
- How genetic and environmental changes to cells and neural networks in the developing brain impact synaptic plasticity and cognitive development
- The biological basis of disorders with neurodevelopmental origins, including autism and schizophrenia, and improving diagnosis and potentially treatment of such conditions
- How to generate specific neuronal subtypes (such as photoreceptors) and structures such as optic vesicles/retinae) for cell replacement therapies and tissue engineering.

Developmental neuroscience brings together a range of different approaches, including genetic and cellular studies, particularly in model organisms, imaging at many levels of resolution, behavioural analyses, the physiology of neural circuits, computational modelling and psychology. There is wide recognition that greater coordination of effort

is required to overcome historical fragmentation, to enable the growth of new disciplines and expertise to address broad questions, enabling UCL to be a world leader in this field.

Goals

- Facilitate links between neurodevelopmental centres of excellence, including Institute of Child Health, Division of Biosciences, neurobiologists located at the Francis Crick Institute, and colleagues working in similar areas elsewhere in London, particularly Kings College London
- Use the wealth of knowledge being gained from developmental studies of invertebrate and vertebrate nervous systems to inform and direct new work on human nervous system development, stem cells and *in vitro* organogenesis
- Organise workshops to support the interaction of groups working on different areas of developmental neurobiology
- Facilitate the link between the work of basic scientists and clinicians on disorders of brain development and developmental psychology to intervention studies
- Support the submission of a major multi-centre grant

OPTICAL NEUROSCIENCE

Developments in both imaging techniques and optical methodology are allowing structural and functional studies that were previously inconceivable. Now we can not only visualise neural structures and networks, but also have the ability to control neuronal activity by light-based regulation of single molecule behaviour, or by changing the conformation and activity of chemical moieties. These developments are creating a new crucible of interdisciplinary activity in the form of 'optical neuroscience'. Optical methods are predicted to play a dominant role in neuroscience research over the next decade. This focus will inspire the development of new chemical entities, improved microscopy, optogenetic tools, and computational methods of analysis for new types of images and very large datasets. UCL has acknowledged international strengths in these areas, upon which we will build.

Goals

- Develop a centre of research excellence dedicated to light-based methods in neuroscience
- Establish a state-of-the-art core technical facility for cutting edge optics, optical mechanics, electronics and computational technologies
- Provide training for new and existing generations of neuroscientists who wish to adopt optical methods

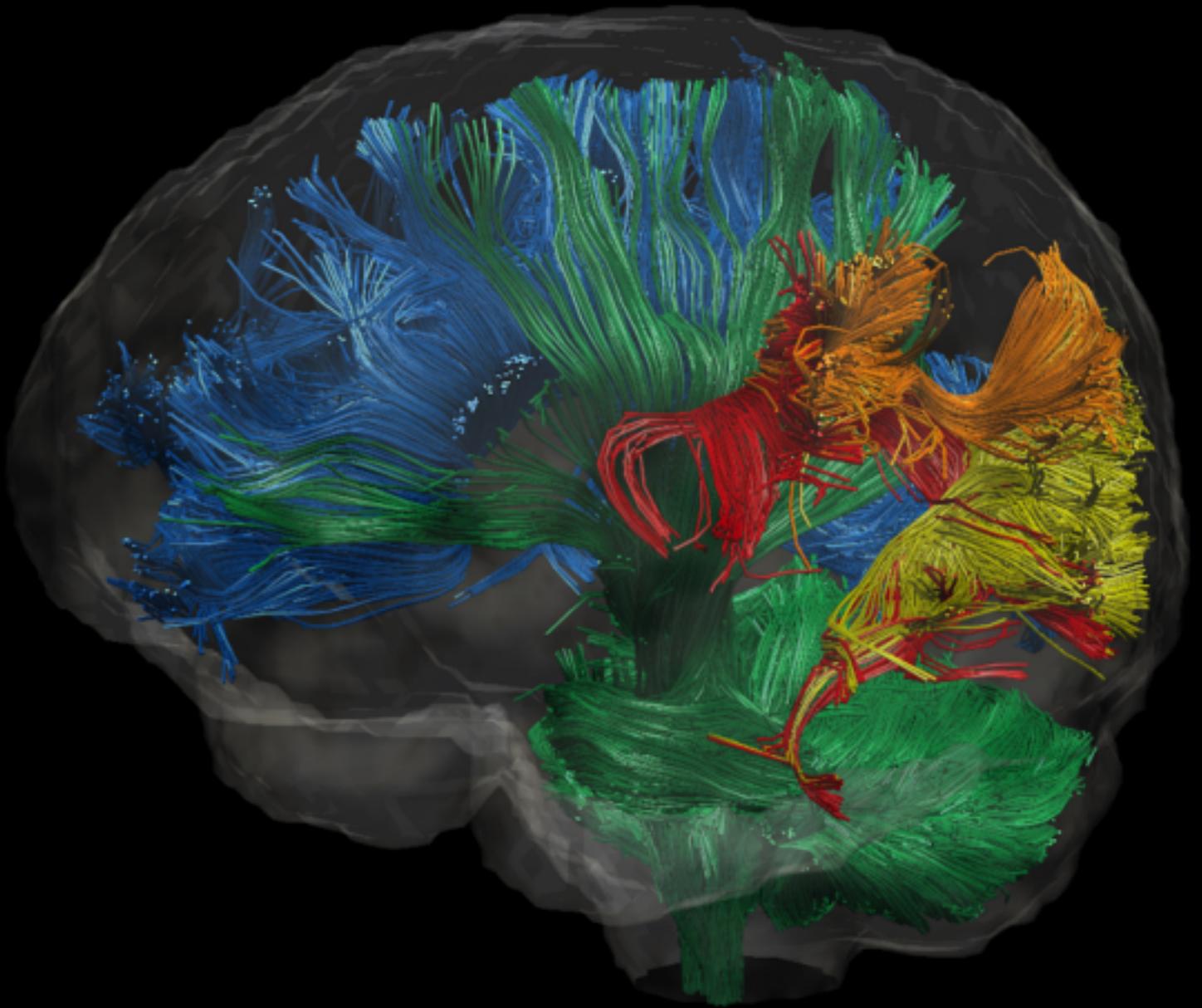
HORIZON SCANNING FOR FUTURE INITIATIVES

The development of new technologies and techniques are major aims for UCL Neuroscience. These enable new approaches to research and facilitate understanding of the function (and dysfunction) of the nervous system from cellular mechanisms to systems and behaviour. For example, advances in inducible pluripotent stem cells allows the development of models of neurological diseases at a cellular level, and the application of nanotechnology will allow the study of individual neurons and the development of therapeutics that can cross the blood-brain barrier.

We will use horizon scanning to ensure that we are aware of developments, trends and other changes in the medium to long-term future in neuroscience methodologies. In particular we will identify new directions and opportunities in neuroscience research and training, in order to place UCL in the best position to not only respond to these, but to be at the forefront of new developments.

Goals

- Convene a biannual horizon scanning meeting to identify new methodological innovations in neuroscience, and develop proposals for new activities based on this
- Encourage Faculty investment in people and technical facilities to ensure we are optimally placed to develop new techniques
- Promote interactions between basic and clinical neuroscientists with physical science and engineering to identify new technologies of potential use in neuroscience



The challenges for translational neuroscience research are formidable but not insurmountable, and opportunities are now plentiful

5

REALISING IMPACT

Neuroscience is among the most rapidly developing areas of biology and medicine, with many advances made in our understanding of neuronal development and function. However, the applications of this expanding knowledge are only slowly being realised. Fundamental neuroscience is yielding significant insight into how the brain works and regarding a wide range of neurological disorders, yet the number of new treatments entering clinical trials remains steadfastly low.

The challenges for translational neuroscience research are formidable but not insurmountable, and opportunities are now plentiful. Linking basic and clinical neuroscience is a continual aim of UCL Neuroscience, and such links will not only facilitate the evolutionary development of basic discoveries into the clinic, but also have a societal impact, for example in education.



The Neuroscience Domain aims to link basic and clinical sciences with related areas such as chemistry, engineering, physics and maths

UCL capability

UCL Neuroscience has multiple strengths in translational research and also has the capacity and potential to do significantly better through greater interaction between basic scientists and clinicians and improved use of the existing resources and infrastructure.

Our expertise across neuroscience disciplines, our NHS links, plus UCL's capability in related areas such as Chemistry, Physics, Nanotechnology, Maths and Computing, and Engineering provide significant opportunities and should make UCL Neuroscience particularly attractive to neuroscience-related industry. The UCL Partners Academic Health Science Centre, comprising six research programmes, aims to harness discovery science and use the focused strengths of the BRCs and our clinical trial and informatics capabilities to translate research into world-class clinical outcomes and population health and wealth gain.

Neuroscience is one of the six research programmes, and the Domain will actively engage with the Academic Health Sciences Centre to work together with a view to identifying areas with genuine potential for synergistic enhancement of activity. Our NIHR-funded Biomedical Research Centre and Units provide an opportunity to build on our basic research discoveries to design novel therapeutic approaches to disease management.

Industry

Although UCL Neuroscience enjoys successful partnerships with industry, there is potential to significantly increase the level of such activities given our size, strengths and resources. We need to ensure effective communication with industry, establish greater awareness of our own potential and market UCL Neuroscience more effectively to exploit the opportunities. There has been a notable transformation in how industry conducts drug discovery and development and many companies have decided to outsource their basic research portfolios to specialist research houses of academia. Hence, opportunities exist not only to develop new partnerships and attract external funding, but also to access the vast array of resources (e.g. screening technologies, compound libraries etc.) held by pharmaceutical companies.

UCL has established a new and successful model of engagement with industry through the partnership with Eisai focusing on neurodegenerative diseases. Such an approach provides a strong platform for the development of similar partnerships with other pharmaceutical companies. However, the success of these depends on the identification of new projects and the engagement of academics across UCL with industry.



Professor Sarah Tabrizi leads the ASO-HTT-Rx study, a new therapy that aims to treat Huntington's disease by targeting the gene itself. The study involves collaboration with industry; California-based Isis Pharmaceuticals and the Swiss pharmaceutical company Roche

Goals

- Run a workshop with potential industrial partners on the academic – industry interface in neuroscience
- In partnership with the Translational Research Office, identify and progress specific areas with the potential for drug development and early phase clinical studies
- Work with the Translational Research Office in developing new partnerships with industry, and with the BRC and AMC neuroscience programmes to develop joint translational activities

6

CAREER DEVELOPMENT AND EDUCATION

UCL provides an outstanding environment for training future generations of researchers in basic and clinical neuroscience and has a longstanding history of recruiting talented people. However, we face competition for recruiting the best people; there are many well-funded successful institutions undertaking neuroscience research, providing attractive start-up packages. It is therefore imperative to maximise our ability to recruit both junior and senior investigators and to retain outstandingly productive researchers by providing a supportive environment.

With nearly 500 neuroscience groups at UCL, there is a large body of MSc and PhD students and postdoctoral scientists, who all contribute to the success of UCL Neuroscience. The Early Career Neuroscience Forum (ECN) has successfully developed and run a series of events to provide career-advice and public-engagement activities.

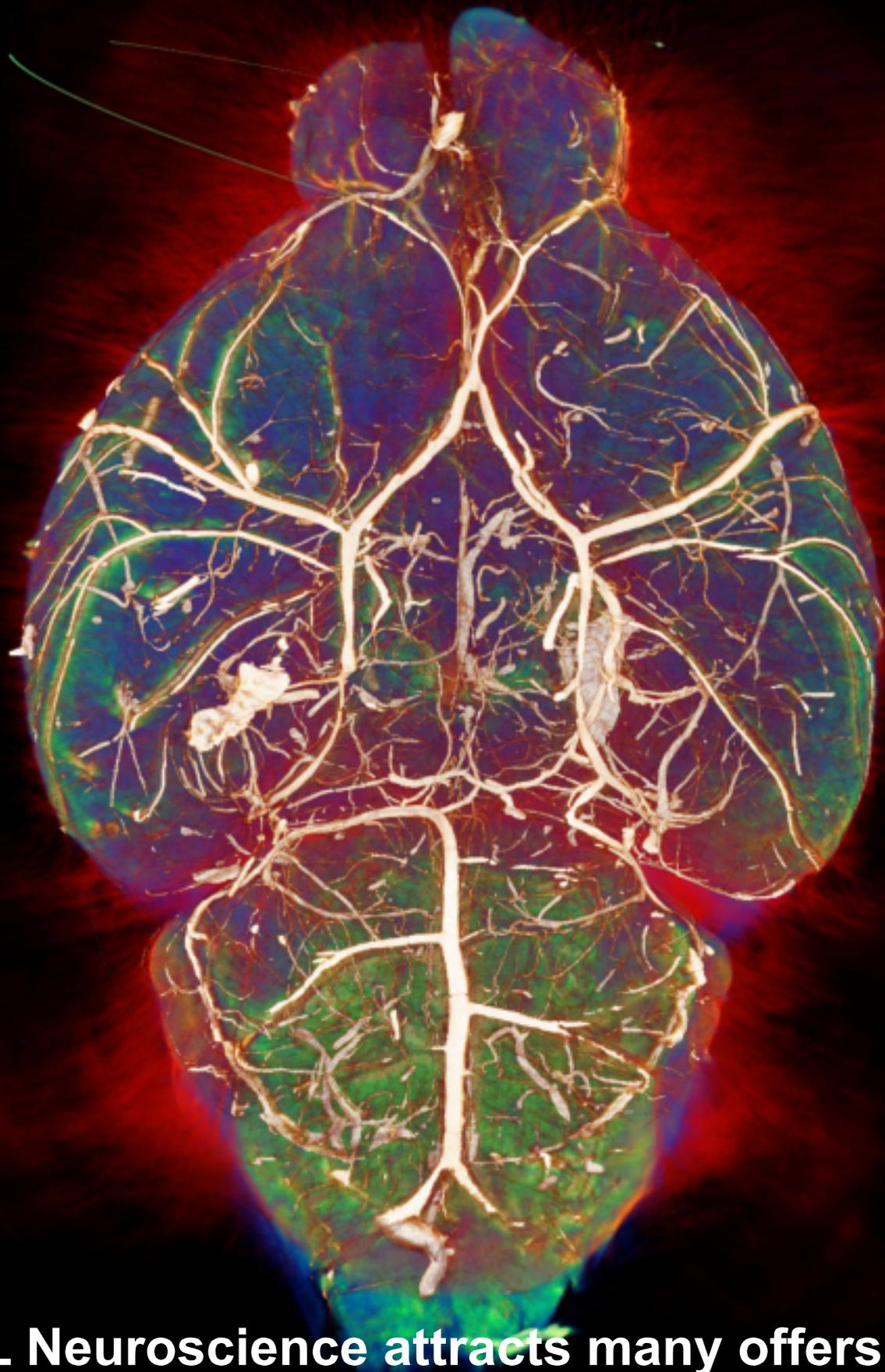
The ECN has recently widened its focus to provide support for group leaders as well as early career neuroscientists (defined as those with less than 10 years postdoctoral experience). It has, therefore, been renamed from 2014 as the Neuroscience Careers Network (NCN).

Career development schemes from the Wellcome Trust, MRC and other funders provide excellent routes for recruitment at all levels. With concerted effort, targeting, and internal competition for submitting applications, UCL Neuroscience should be able to attract more and better candidates for Fellowship applications and thereby increase its probability of success. Furthermore, funding for fellowships is limited, and UCL Neuroscience will support the UCL Excellence Fellowships scheme to attract the best young neuroscientists who will be competitive for career development and similar awards.

A crucial aspect of career development is receiving support and advice at critical stages. UCL Neuroscience could facilitate career progression by formulating a mentorship scheme that could 'pair' early careers researchers with established members of the community.

Goals

- Develop a mentorship scheme for senior postdoctoral fellows and junior group leaders
- Support the UCL Research Excellence Fellowship scheme as a way of bringing in new talent in neuroscience
- Continue the annual UCL Early Career Neuroscientists Prize
- Establish a working culture in which all senior recruitment opportunities are discussed strategically and openly within the UCL Neuroscience Domain



UCL Neuroscience attracts many offers of partnership with national and international academic and industrial institutions

7

PARTNERSHIPS

With increasing external recognition of UCL Neuroscience's research strengths and resources, NHS links and access to patient populations, many offers are received of partnership with national and international academic and industrial institutions.

It is important that we develop effective, productive partnerships relevant to our strategy that complement our own expertise and further enhance our capability in all aspects of neuroscience.

Local and national

The UCL Grand Challenges programme, launched in 2008, brings together expertise, insights and creativity at UCL and beyond to address key issues that affect the world. The Grand Challenges also provides an environment for researchers to think about how their work can intersect with and impact upon these issues. Neuroscience and the function of the brain are fundamental to many of the problems facing the world today, and there is an opportunity for the Neuroscience Domain to work with the UCL Grand Challenges on major issues in this area and bring the research community together to identify and discuss how these can be tackled.



A research agreement was signed between UCL and ZNZ in 2012 to strengthen the existing collaborations and foster new interactions in research and training in neuroscience.

The opening of the Sainsbury Wellcome Centre (SWC) at UCL provides an opportunity to establish a world-leading centre of neural circuit research, and one that can have a major impact on existing research activities. The Domain will seek to maximise this impact through ensuring opportunities for networking with the SWC.

UCL is a founding partner of the Francis Crick Institute, one of the most significant UK biomedical initiatives for a generation, which aims to undertake research to understand the basic biology underlying human health. There will be opportunities to foster collaborations with Crick researchers in neuroscience that will be of mutual benefit, and importantly provide an opportunity to translate the work of the Crick.

International

On an international level, UCL has been approached by several overseas institutions with a view to developing strategic alliances. Potentially, such relationships can promote collaborative research; raise UCL's international profile; increase exchange of students and fellows; and leverage funds. However, in all cases it is essential to ensure that benefits outweigh the substantial efforts involved in developing such alliances.

The UCL-Zurich collaboration is an exciting new partnership, whose approach across institutions and disciplines places it in a unique position to advance the scope and quality of multidisciplinary research in both institutions. The Neuroscience Center Zürich, a joint centre formed by the ETH Zurich and University of Zurich, is one of the world's leading research institutions for neuroscience. This collaboration brings together over 500 research groups covering the entire spectrum from basic to clinical research.

The Max Planck Society is one of our main research collaborators in Europe. Following the signing of a Framework Agreement on Scientific Cooperation between UCL and the MPS, a Max Planck - UCL Steering Group has been established to enable collaboration between the two organisations with regard to research and PhD training. Neuroscience will be a core component of the developing relationship, building on our strong mutual research interests.

Goals

- Continue and expand our partnership with Neuroscience Centre Zurich
- Hold a joint event with the UCL Grand Challenge of well-being on specific disorders linked to the brain
- Promote joint UCL appointments with the Francis Crick Institute in the area of neuroscience
- Facilitate the development of a complementary research strategy and activities with the Francis Crick Institute, including joint meetings and workshops
- Support the establishment of the Sainsbury Wellcome Centre and its integration across UCL
- Establish research links with new international partners in neuroscience as appropriate

Philanthropy

The potential for philanthropic fund raising in neuroscience at UCL is significant, but to date we have achieved relatively little in this regard and suffer by comparison with our counterparts in North America and also with some other research-intensive UK Universities.

Fund raising is a highly competitive field, but UCL Neuroscience should be particularly well placed to compete and increase philanthropic income with an organised strategy and appropriate support. We have numerous internationally renowned researchers, linked to leading basic science and clinical activities in topics which are of great public interest, especially in the physiology of brain function, neurology, mental health, vision and hearing. We need to identify expertise, resources and support to lead substantial fundraising campaigns with well-defined goals.

Goals

- Establish regular meetings with the UCL Development and Alumni Relations Office to develop an enhanced strategy for securing philanthropic funds
- Establish funding for a prestigious 'named' lecture series for UCL Neuroscience



Forging successful partnerships with a range of institutions is central to our belief in maximising the social impact of our intellectual resources.

8

COMMUNICATION AND ENGAGEMENT

The large number and diversity of interests, as well as the geographical dispersion of researchers across UCL, means that specific efforts need to be made to work strategically across the neuroscience community.

Improved communication encourages individuals to think and act collectively, helps convey all of the opportunities, facilities and expertise that are available, and broadcasts the strengths of UCL Neuroscience research. The external perception of UCL Neuroscience is also enhanced by such integrative activities.



The annual UCL Neuroscience Symposium provides an excellent means of bringing together neuroscientists from across UCL.

UCL Neuroscience website
(<http://www.ucl.ac.uk/research/domains/neuroscience>)

The website provides a vital means for communication and brings together the collective activities from across UCL. It also serves as the prime public face of UCL Neuroscience and as such it aims to be engaging to both the public and potential benefactors. It is already a valuable resource, but with further enhancement could have greater functionality to help achieve our goals of improving communication and accessibility. The bi-weekly newsletter provides information on events, news, funding opportunities and seminars across UCL, and has a mailing list open to all neuroscientists.

Social media

The use of social media has progressed rapidly over the last few years, and provides an opportunity for UCL Neuroscience to highlight our research. As well as providing information about UCL Neuroscience, it also presents the prospect of engaging with students and early career researchers. We have already increased the number of outgoing 'tweets' on the School of Life and Medical Sciences Twitter account, and will look to further promote UCL Neuroscience using social media.

Events

Meetings such as the annual UCL Neuroscience Symposium provide an excellent means of bringing together neuroscientists from across UCL. We will encourage further integrative events, including: large-scale symposia; more topic-focused colloquia targeting specific audiences, such as early career neuroscientists; joint meetings with clinical, commercial and international partners; and media and public-engagement events.

Engagement with funders, Government and industry

Many of our highly-respected neuroscientists occupy influential positions on various boards and advisory committees of funding agencies, Government and industry. They are therefore ideally placed not only to influence the strategies of these external organisations but also to advise UCL as to how it should be developing its own research strategy. We need to ensure that UCL continues to have a presence in these structures, and also that we make the most of the knowledge and expertise gained by these individuals.

Public engagement

It is essential to engage the public in our science in these challenging economic times, to maintain public support for the important work we do. Public engagement is also an increasingly important requirement of funding agencies and the Government. There are several excellent examples of public engagement activities within UCL Neuroscience, led by a number of committed UCL neuroscientists. Current activity tends to be limited to areas of neuroscience that lend themselves well to a lay audience (e.g. cognition, vision, hearing) and we need to do more to promote public engagement across the full spectrum of our neuroscience activities at UCL. There are many neuroscientists within UCL working in different areas who would be willing to engage in this area given appropriate encouragement, training and support. Events may range from simple public lectures or open days, to major projects that could be run on a local or even national basis,

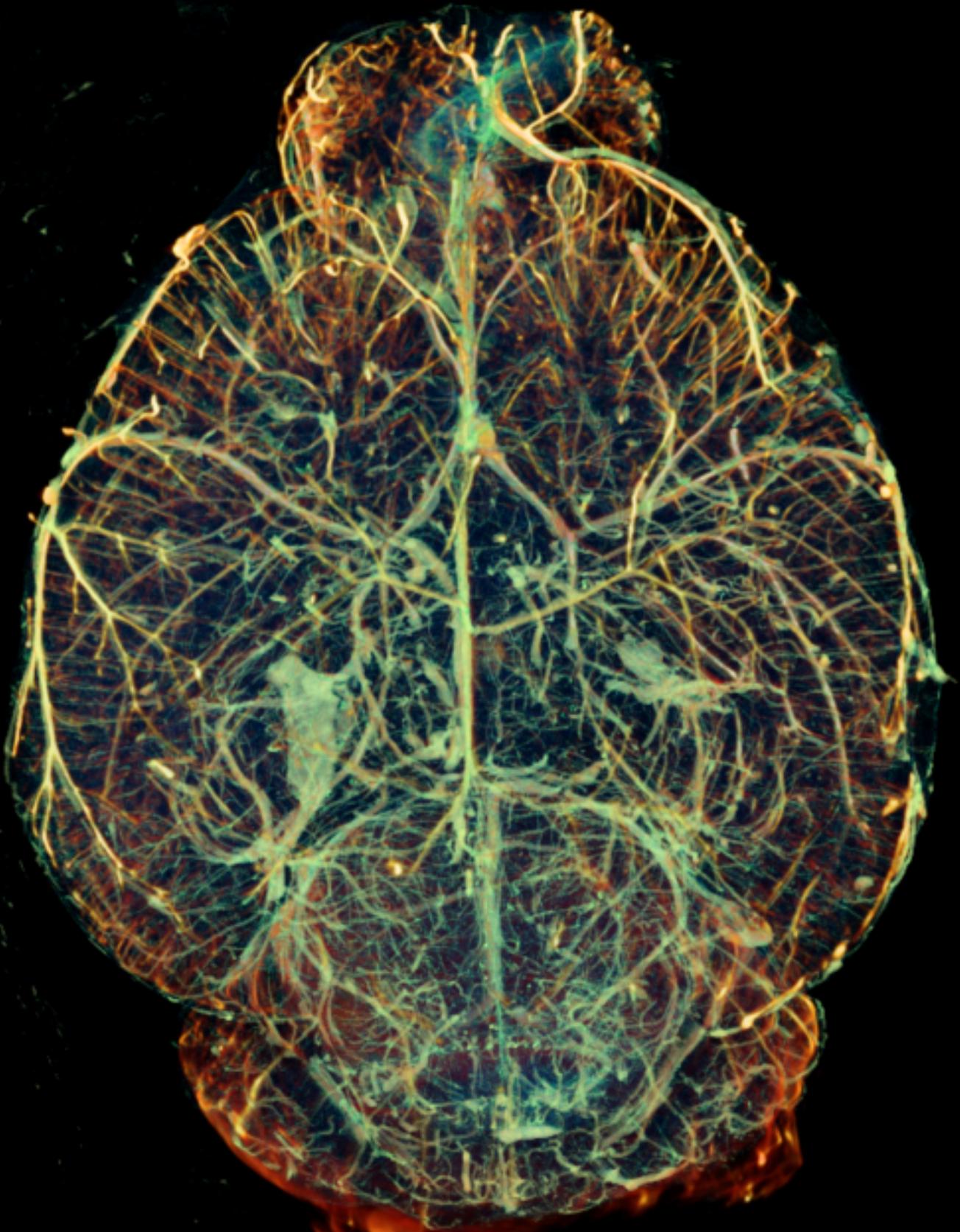
coinciding with important events such as Brain Awareness Week and the Cheltenham Science festival. There are significant opportunities for partnerships with institutions such as the British Library, Royal Society, Royal Institution, British Academy, British Museum, the Dana Centre and British Association for the Advancement of Science.

Public policy

UCL Neuroscience seeks not only to engage the public but also to establish and advocate public policy and practice based on the scientific advances that we make. UCL Neuroscience investigators are already involved in many policy initiatives, for example through the UCL Grand Challenges, the Royal Society 'Brainwaves' neuroscience policy project, and working directly with policy makers and MPs. We seek to capitalise on these initiatives by encouraging UCL Neuroscience investigators to become involved in such activities, and by encouraging early career researchers to explore opportunities for effective engagement between academia and policy-makers, for example through UCL public policy secondments.

Goals

- Formalise our approach to public engagement and training by holding events to improve knowledge about opportunities and applications for public engagement support
- Bring public engagement to the fore on the UCL Neuroscience website, with public access
- Continue our partnership with the British Library through the organisation of an annual event
- Consider linking public awareness with a fund-raising campaign for neuroscience
- Organise an annual public open day on "Discover the Brain" at UCL
- Develop and support a UCL Neuroscience Twitter feed



UCL Neuroscience seeks not only to engage the public but also to establish and advocate public policy and practice based on the scientific advances that we make

ANNEX 1

UCL NEUROSCIENCE STEERING GROUP

The Steering Group for the UCL Neuroscience Domain serves the research community by promoting, coordinating and developing activities that facilitate neuroscience research at UCL.

The Steering Group plays a key role in horizon scanning for new areas of research, identifying activities that will improve communication and interdisciplinarity, and which enhance funding opportunities and success, while also facilitating research progress and career development. It promotes and undertakes activities that are considered to be in the best interests of the whole neuroscience community at UCL. Working groups are established for specific tasks by external initiation, or by responding to suggestions and advice from the wider UCL community.

The Steering Group reports directly to the UCL Vice-Provost for Health and serves as an autonomous but not an executive body; its activities are not directed by senior management, and it does not impose on the strategies of Faculties, or running of Centres, Departments or Institutes. The Group actively seeks funding from the Vice-Provost (Health) or from external sources for running costs and essential infrastructure, and to advance initiatives from the UCL Neuroscience community that require financial support.

Current membership:

Professor Trevor Smart (Chair)
Department of Neuroscience, Physiology and Pharmacology

Professor Sarah-Jayne Blakemore
Institute of Cognitive Neuroscience

Dr Maria Chait
Ear Institute

Professor Peter Fonagy
Department of Clinical, Educational and Health Psychology

Professor Michael Hausser
Wolfson Institute for Biomedical Research

Ms Candice Lewis
Research Coordination Office, Communications and Events Officer

Professor Troy Margrie
National Institute for Medical Research / Francis Crick Institute

Professor Francesco Muntoni
Institute of Child Health

Dr Rachael Pearson
Institute of Ophthalmology

Dr Antonella Riccio
Laboratory for Molecular Cell Biology

Professor Mala Shah
School of Pharmacy

Professor Alan Thompson
Dean, Faculty of Brain Sciences

Professor Essi Viding
Division of Psychology and Language Sciences

Dr Matt Wakelin
Research Coordination Office, Neuroscience Strategic Coordinator

Professor Steve Wilson
Department of Cell & Developmental Biology

Professor Nick Wood
Institute of Neurology

Professor Tarek Yousry
Institute of Neurology

ANNEX 2

NEUROSCIENCE DEPARTMENTS, CENTRES AND INSTITUTES

There are many inter-departmental and cross-faculty research groups and Centres associated with UCL Neuroscience and researchers can also be found in many other Departments across UCL, reflecting the interdisciplinary nature of UCL Neuroscience research.

Faculty of Brain Sciences

Division of Psychology and Language Sciences
Division of Psychiatry
Ear Institute
Institute of Cognitive Neuroscience
Institute of Neurology
Institute of Ophthalmology

Faculty of Life Sciences

Department of Neuroscience, Physiology and Pharmacology
Department of Structural and Molecular Biology
Department of Cell and Developmental Biology
Gatsby Computational Neuroscience Unit
Laboratory of Molecular Cell Biology
School of Pharmacy
Sainsbury Wellcome Centre for Neural Circuits and Behaviour

Faculty of Medical Sciences

Wolfson Institute of Biomedical Research

Faculty of Population Health Sciences

Institute of Child Health

Other Neuroscience Related Departments

Computer Science
Medical Physics and Bioengineering
Philosophy
Chemistry

Associated Research Centres

MRC Prion Unit
MRC Centre for Neuromuscular Diseases
Wellcome Trust Centre for Neuroimaging
London Centre for Nanotechnology

Cross-Cutting Research Centres

Institute of Behavioural Neuroscience
Institute of Movement Neuroscience
Centre for Developmental Cognitive Neuroscience
Centre for Educational Neuroscience
London Pain Consortium
Genetics Institute
Centre for Medical Image Computing (CMIC)

UCL Institute of Education

Biomedical Research Centres

UCL/UCLH BRC
ICH/GOSH Specialist BRC
IOO/Moorfields Specialist BRC
Dementia BRU
UCLPartners Academic Health Sciences Centre

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