

Cambridge-LMU Strategic Partnership



The Partnership



President Bernd Huber

The cooperation between the University of Cambridge and Ludwig-Maximilians-Universität München is a success story: a bottom-up initiative solidly built on a wide range of existing and vibrant collaborations between our researchers, which has now developed into a full strategic partnership, launched in 2019.

Curiosity-driven research is the key to finding solutions for the world's most pressing challenges and discovering innovations for the advancement of our society. The University of Cambridge and LMU Munich offer a formidable infrastructure to their researchers: by joining forces, both our universities will be even better placed in the highly competitive field of excellent universities around the globe. However, this strategic partnership is not just an academic endeavour which offers many benefits to our researchers, but also a clear signal that higher education institutions in Germany and in the UK want to intensify their collaboration, especially in times where borders between subject fields need to be crossed and bridges between countries need to be strengthened.

The partnership touches many areas of research and teaching and enhances the already existing collaborations which range across all faculties of LMU Munich and all Schools of the University of Cambridge, offering programmes and activities for graduate and doctoral students as well as workshops, joint research projects, and the exchange of academic staff.

At LMU Munich, we are strongly committed to this strategic partnership and highly value the investment in it. I look forward to seeing it expand and flourish in the years to come.

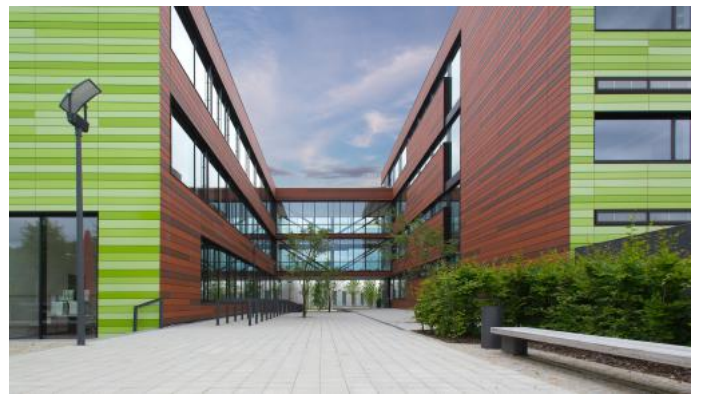
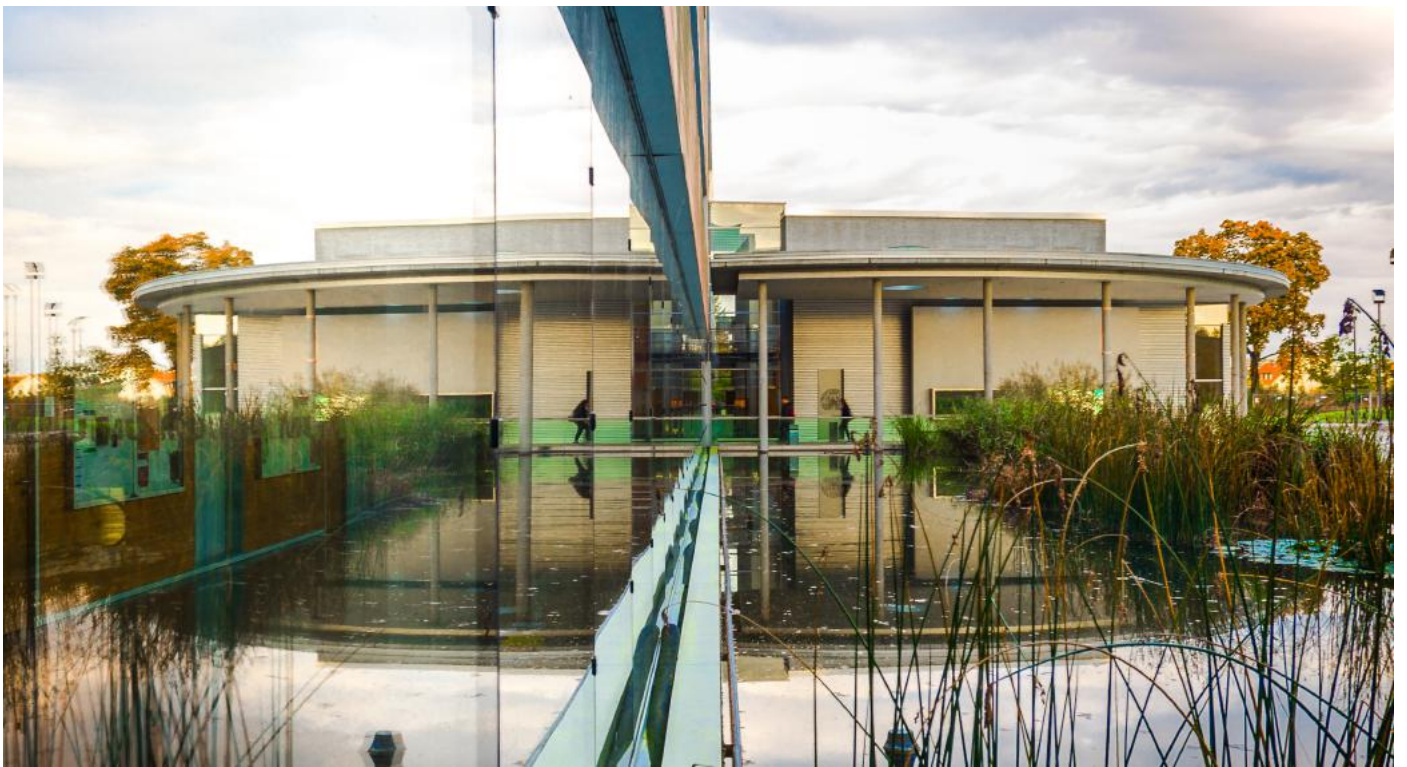


Vice-Chancellor Stephen Toope

Universities are exceptionally well placed to contribute to the solutions to some of society's greatest problems. But no single institution can provide, on its own, the answers to these challenges. No matter how distinguished its history, how illustrious its reputation, or how brilliant its people – no individual research organisation can attain excellence on its own. Globally leading institutions like LMU and Cambridge must harness the power of strategic partnerships – with other universities, with businesses, civil society, NGOs and governments.

Our partnership with LMU, one of Europe's finest universities, creates exciting opportunities to work together to address some of the complex issues we face, and to offer our students a richer education. It is especially exciting that it is a truly cross-disciplinary partnership, cutting across the Humanities, Social Sciences, and the Biomedical Sciences.

Despite the world being more connected than ever before – or perhaps because of it – cultural isolation, mistrust and wilful ignorance persist. We are committed to working closely with our friends in Munich, fostering collaboration and connectedness to a very highly valued European partner. It is my deepest hope that this wonderful partnership will allow us to better examine the challenges we are all up against.



Introductory Words from the Directors



Professor Chris Young

Germany has become an increasingly important region for the University of Cambridge over recent years. There was a higher number of German partners in Cambridge-led Horizon 2020 collaborations than with any other country, and we have significant cooperations with the DAAD and the Max Planck Gesellschaft. When it came to cementing our relationship with a university partner, there was one obvious choice. LMU is Germany's leading university in Germany's leading city.

LMU is an excellent match for Cambridge because of its scale and the widely acknowledged quality of its teaching and research. It was no surprise that there were already myriad collaborations between colleagues at both universities, and this exciting new partnership will intensify and augment these for years to come.

LMU also attracted us because of its outstanding high-tech hinterland and exceptional cultural heritage and infrastructure. This makes it the perfect bridge to Bavaria, Germany and Europe. As the United Kingdom leaves the European Union, our ties to the continent are more important than ever. Cambridge's strategic partnership with LMU – the first institution-wide partnership with any university worldwide – is a clear statement of the University's commitment to the meaningful forms of international collaboration that we all hold dear.



Professor Thomas Ackermann

At LMU we are exceedingly proud to have formed a strategic partnership with the University of Cambridge.

Cambridge not only ranks among the world's leading institutions in education, learning, and research, but for many researchers at LMU, including myself, it is also their second academic home, where they spent formative years of their careers and established extensive networks of on-going and expanding contacts.

For us, Cambridge embodies a unique blend of tradition and innovation that has inspired and influenced our academic work. Building on this rich experience, our partnership creates new and exciting opportunities for joint projects, covering a broad range of subjects that reflects the excellence of both universities in many fields of research and education. The selection of projects presented in this brochure bears witness to the scope of our collaboration and, more importantly, to the enormous talent and enthusiasm of the researchers involved.

Allowing these projects to develop and to grow will benefit our universities and society as a whole. In a time of re-emerging borders and a sweeping pandemic, it is more important than ever to stress the universal nature of our academic quest for knowledge and learning. If, however modestly, our partnership contributes to this purpose, it has achieved its goal.

Folma Buss and Claudia Veigel

Analysis of Myosin Motor Proteins Using Biophysical and Cell Biological Approaches

**“The project is
enthusing early
career researchers”**

Most of us take movement for granted, but whether brushing our teeth or walking to work, our movement depends on tiny proteins. Known as myosin motors, these proteins drive our movement – from the cellular level right up to whole organisms – and researchers at Cambridge and LMU are experts in the field.

“Myosin motors are like little cars or trains. They run along protein tracks, using cellular energy generated in mitochondria, transporting cargo around the body in a highly organised fashion,” explains Professor Folma Buss at Cambridge.

As well as generating all our movement, myosin motors are vital for health. Broken myosin motors are found in many diseases – from dementia and cancer to heart disease and deafness – but before we can devise ways of repairing them we must understand how they work.

Buss at Cambridge and Professor Claudia Veigel at LMU are world-leading researchers in myosins. Using different approaches and different tools, both laboratories are doing fundamental research on myosins at a cellular level.

To accelerate this work, the two labs are collaborating thanks to funding from the Cambridge-LMU Strategic Partnership. From Cambridge, cell biologist Buss brings expertise on cellular processes, studying myosin motors in live cells using high-resolution microscopy to understand how myosin motors hook up to their cargo, while in Munich Veigel uses single-molecule, *in vitro* techniques such as optical tweezers, fluorescence and electron microscopy to zoom into the details of how myosin motors generate movement.

The partnership began in 2019, when the pair focused on one class of myosins, and has already yielded success in a joint publication. During the next phase of the project they will take the same approach and apply it to other myosins.

“We are interested in how myosin motors convert chemical energy into mechanical work, from generating large forces in skeletal or heart muscle to motile functions in different immune cells,” says Veigel. “Understanding these processes at a molecular level will help us understand them in both health and disease.”

They will also be looking at myosin motors in two human pathogens – *Leishmania* and *Plasmodium*, the parasite which causes malaria – to investigate new ways of treating these major tropical diseases by targeting their myosin motors.

The science is hugely exciting and the partnership is also enthusing early career researchers in both labs. “It means we can have joint lab meetings. Our students love it. It allows them to spend time in both Cambridge and Munich, learning new techniques and different approaches,” Buss concludes. “Science is international, so these exchanges are crucial for keeping scientific communities together.”

Jeremy Butterfield and Erik Curiel

Black Holes and Quantum Field Theory on Curved Spacetime

“Our success is the conversations the partnership has stimulated”

“Science,” said Heisenberg “is rooted in conversations.” Yet as individual disciplines become more specialised, talking to each other has become increasingly difficult. Now, thanks to the Cambridge-LMU Strategic Partnership, physicists and philosophers are carving out time and space for new conversations that could enrich both disciplines and resolve some of physics’ biggest conundrums.

For most of the nineteenth and twentieth centuries, physics and philosophy have been separate. But, says Dr Jeremy Butterfield, this was not always the case: “From Aristotle to Newton, physics and philosophy were seen as kindred spirits, both equally concerned with the fundamentals of space, time, matter and causation.”

Now, as physics and philosophy reconverge, Butterfield in Cambridge and Dr Erik Curiel at LMU are using the strategic partnership to bring philosophers and physicists in Cambridge and Munich closer together through a series of meetings, workshops and reciprocal research visits for graduate students.

Their conversations are focussed on one of the most contested areas of modern physics, the conflict between quantum theory and Einstein’s general theory of relativity, as they seek to describe black holes, areas in which Cambridge and LMU have excelled for decades.

In 2019, Butterfield and Curiel held a five-day meeting at the Department of Applied Mathematics and Theoretical Physics in Cambridge. Talks were limited to morning sessions, providing ample time for discussion in the afternoon. And as well as their successful meeting, the collaboration has led to 16 peer-reviewed papers and helped win funding worth more than 1.8m Euros to Cambridge and LMU.

During the next stage of the project, they will build on this success, running another five-day meeting, plus a shorter, three-day workshop and eight reciprocal research visits for graduate students.

What physicists and philosophers will learn from each other is harder to predict. Philosophers always learn from physicists, Butterfield believes, but the reverse is also true. “Physics is so rich conceptually that as philosophers, we have a rich seam to mine,” he says. “In the harsher world of understanding black holes, philosophers may not be able to calculate or prove theorems, but we can describe the landscape in ways that can be fruitful for physics.”

Ultimately, the conversation is what counts. Conversation benefits all of science, but for open-ended, abstract and intricate areas such as black holes, coming together to talk is invaluable. “What makes this project so exciting is the brains it involves. Our success has been in the conversations the partnership has stimulated,” concludes Curiel, “because even in an era of Skype, there is nothing like having four hours together at the blackboard.”

Anna Korhonen and Alexander Fraser

Multilingual Natural Language Processing

“We want to make language technology more socially and globally inclusive”

Speakers of a handful of languages – including English and German – take many things for granted. From commerce and research to internet searches and machine translation, the world revolves around a small number of tongues. Yet humans speak more than 7,000 languages, so what can be done to ensure everyone has access to our shared store of knowledge?

Despite advances in artificial intelligence, big data and computing power, massive inequalities exist – and persist – due to current methods of machine translation. Huge amounts of data and resources are needed to train the powerful deep-learning models used for machine translation. That’s why machine translation works well for English, German and other ‘well-resourced languages’ – but everyone else is excluded.

To open up new ways for computers to learn how to translate into a wider range of languages, Professor Anna Korhonen – a computational linguist at Cambridge – has teamed up with Professor Alexander Fraser – a leading light in machine translation – under the Cambridge-LMU Strategic Partnership.

The aim of the project is to make language technology more widely applicable globally. According to Korhonen: “We want to increase the global reach of this technology to include more languages, which will help make language technology more socially and globally inclusive.”

During 2019, the pair brought their groups together via a series of meetings. To determine how they could best combine their different methods, the first meeting included half a dozen presentations, after which the groups did some deep thinking before agreeing key topics and joint experiments. Further meetings reported on progress.

The project will build on these foundations, finding new ways of combining LMU’s machine translation work with the language models being developed at Cambridge. The project will also be combining forces to benefit PhD students working in such a specialised area.

“Our groups at Cambridge and LMU have huge expertise, so we decided to combine forces to run graduate seminars, which is something that’s hard to do alone,” Fraser explains. “Working together gives us a bigger audience and more expertise, which will give our students the best possible training for their research.”

Korhonen is also confident that by bringing together fundamental and applied research, these two world-leading groups will be able to make a real difference to people’s lives. “It’s difficult for one group to excel in both the science and its applications,” she concludes. “It’s vital for researchers in this field to show the practical benefits of our research – and this partnership is the best possible context for doing that.”

A. Cengiz Öztireli and Thomas Wachtler

Neural Mechanisms in Vision for Digitally Augmented Reality

“We’re opening up new horizons in digitally augmented reality”



Digitally augmented reality (AR) – which integrates 3D virtual objects into the real environment in real time – is coming of age. From Facebook to Microsoft, tech giants are pouring billions into the next generation of AR devices and experts predict an explosion of such devices over the next three years.

Delivering the technology, however, will not be simple, and significant scientific hurdles remain to be overcome. The human brain’s ability to interpret the visual world is astonishing, and before we can augment this, we must understand more about how we perceive our visual environment.

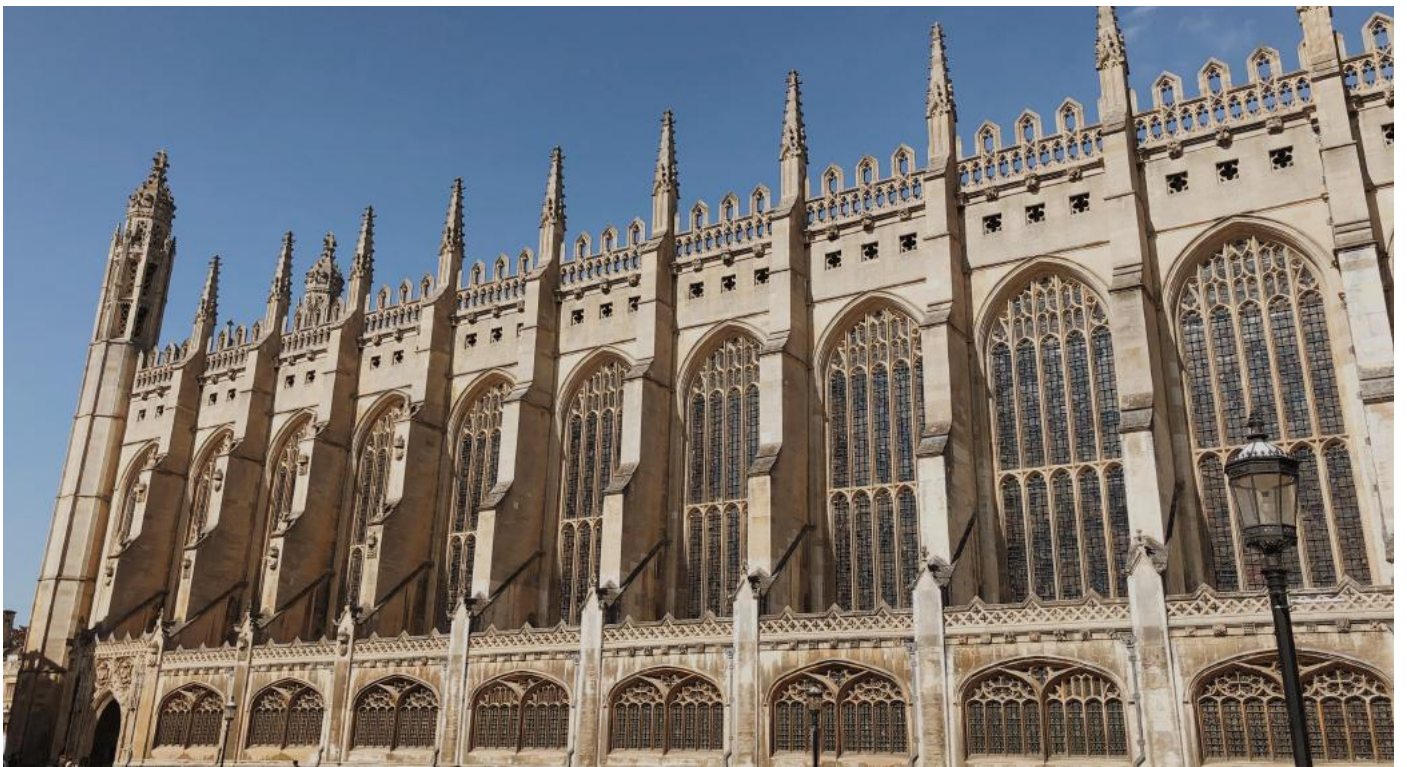
Despite the myriad clever things computers can do, they cannot yet see the world as humans do. According to Dr Cengiz Öztireli of the Department of Computer Science and Technology at Cambridge: “The things we take for granted – like recognising a football irrespective of whether the ball is in bright sun or dense shade – are almost impossible tasks for AR without extensive examples. To realise the potential of AR, we urgently need to understand more about our own visual processing.”

As part of the Cambridge-LMU Strategic Partnership, Öztireli is joining forces with Professor Thomas Wachtler at Munich, bringing together Cambridge’s expertise in AR, machine learning and artificial intelligence with Munich’s world-leading research on human visual systems.

“The most exciting part of the project is marrying these two big fields and this expertise. It’s something I’ve wanted to do for a long while, but lacked access to the right people,” Öztireli says. “Finding that expertise at LMU and being able to work together thanks to the Cambridge-LMU Strategic Partnership opens up new horizons for both of us.”

During the next phase of the project, they will pool experience, gather new data and lay the foundations for a more ambitious, longer-term collaboration. Through their experiments, they hope to learn more about how humans respond to key features of AR. This will allow them to develop new theories and improve machine perception algorithms.

Their ultimate aim – to model the visual processes in our brains accurately enough to produce the algorithms we need for computers to ‘see’ better – could not be more timely or urgent. “Augmented reality and machine learning are strategic areas for the University of Cambridge with huge potential for scientific utility as well as commercialisation,” he says. “Now is the time to be doing this because we finally have enough data, enough computing power and a generic framework to solve the problems.”



Pedro Ramos Pinto and Kiran Klaus Patel

CALM PhD Training Collaboration in the Contemporary History of “Global Europe”

“The project will foster debate, internationalise research and build new networks”



Dr Pedro Ramos Pinto at Cambridge and LMU’s Professor Kiran Patel have a simple aim: they want to change the future of Contemporary European History. Like other fields of history, it’s a lively, growing field. Unlike others, however, Contemporary European History – the history of the continent since 1900 – is bedeviled by borders.

History is collaborative; through working together, colleagues exchange ideas, develop new perspectives and fresh ways of looking at the past. In world history, economic history and medieval history, which share common tools and languages, collaboration comes naturally. In Contemporary European History, it’s much less common.

“First and foremost we are historians of Britain, Germany or France. Students and scholars coalesce around narrower topics or national traditions,” Ramos Pinto says. “But it’s increasingly clear that we must approach Europe’s history not in isolation but in relation to other regions and processes, including migrations, epidemics and globalisation.”

Determined that the next generation of historians should roam more freely across borders, Ramos Pinto and Patel are using the partnership to establish the CALM (Cambridge-Ludwig Maximilian) PhD Training Collaboration. By bringing PhD students together, the collaboration will foster debate, internationalise research and build new networks.

According to Patel, inspiration for CALM came from an unlikely source – the editorial board meetings for an academic journal. “Pedro and I are both on the board of ‘Contemporary European’ History. After the admin’s done, we have a roundtable discussion and come away feeling intellectually stimulated, so we thought why not do this for our students too?”

Thanks to the strategic partnership, they can. Over two three-day meetings, CALM will bring two cohorts of PhD students together from Cambridge and LMU. At the first meeting in Munich they will discuss a broad range of key issues central to Contemporary European History, initiating debate and understanding each other’s intellectual traditions.

Then, after six months of ongoing virtual conversation, the groups will re-unite in Cambridge, presenting their own research and using ‘crowd wisdom’ to solve each other’s problems. As far as outcomes go, Ramos Pinto and Patel believe anything is possible.

“What’s really exciting about the partnership is its focus on the next generation of historians,” says Ramos Pinto. “Our PhDs are already sophisticated researchers, but this gives our brilliant students a way to go further. They’ll be able to hit the ground running, come up with innovative projects looking at new questions, and, who knows – they might even collaborate with others they met through CALM.”

Augusta McMahon and Karen Radner

The Neo-Assyrian Empire: Digital and Comparative Approaches

“The partnership has a transformative impact on our students”



Centred on northern Iraq and stretching from the Mediterranean to Iran, the Assyrian empire was as large, ambitious and complex as those of the Romans, Egyptians and Babylonians. But unlike the latter, the Assyrian empire remains little known outside a small band of scholars.

Being part of a small academic field creates unique challenges for teaching and research. Often widely scattered among a handful of institutions, access to primary sources can be problematic, international collaboration is crucial, and forging a successful career demands willingness to move between countries or even continents.

Assyrian specialist Professor Karen Radner of LMU is a case in point. “I worked in the UK before coming to Germany. Nor am I German, I’m Austrian but began my work in Finland. International CVs are the norm in our field – and you have to work with colleagues outside your own university,” she says.

Both Cambridge and LMU are major centres of scholarship on the Assyrian empire, albeit with radically different approaches to the subject. While Cambridge is renowned for its innovative use of drama to teach students about the cuneiform world, LMU is a leader in the digital humanities, using new technology to analyse and open up access to cuneiform texts.

Together with Dr Augusta McMahon in Cambridge, Radner is using the Cambridge-LMU Strategic Partnership to strengthen this small, vibrant field at both institutions. By bringing together research and teaching, the project is enabling students and researchers at all levels to learn from each other and build closer, long-term collaboration.

During 2019, the project saw staff travel between Cambridge and LMU to take over each others’ undergraduate and graduate teaching. They hosted public lectures, visited the British Museum’s Assyrian exhibition together, developed plans for digitising Cambridge teaching materials and exchanged ideas about creative teaching methods.

“There was a lot of experimentation, learning, talking and observing each other,” says Radner. “The project was extremely productive and we achieved far more than we set out to do.”

They will continue to broaden and deepen the partnership, working together on plays, digital resources, research and student internships, as well as expanding the project to include comparative research with Cambridge classicists.

But it is the project’s effect on students and teaching that makes it most exciting. “The big difference with this partnership has been seeing its immediate, transformative impact on our students,” Radner concludes. “They responded so positively, which has been a joy. It’s hugely gratifying and it’s why we are so keen to continue.”

Paul Shellard and Jochen Weller

Unveiling the Structure of the Universe

“Working together could reshape our model of the cosmos”

Cosmology is at a crossroads. Large amounts of precision data are allowing cosmologists to test their theories about the early universe and bringing new insights into how the early, rapid expansion of the universe sowed the seeds for all the structure we see today – from galaxies and stars to planets and life on Earth.

“What’s new in cosmology is that we’re getting loads of data from surveys,” explains Professor Paul Shellard at Cambridge. “These are constraining our models of the very early universe and helping uncover some of its enduring mysteries, including the nature of dark matter and dark energy, which between them make up 95% of the universe.”

Cambridge and LMU are world-leaders in cosmology. Both are pioneers of early universe physics and in investigating the particles that may solve the puzzle of dark matter. Today, they have complementary strengths, Cambridge in gathering and analysing the cosmic microwave background and LMU in getting to grips with the hugely complex processes of galaxy formation.

By coming together through the Cambridge-LMU Strategic Partnership, Shellard at Cambridge and Professor Jochen Weller at LMU are creating new synergies that they hope will shape our model of the cosmos for decades to come.

In 2019, the partnership held two “energetic” workshops in Cambridge and Munich, initiating valuable discussions, reflecting on how their complementary approaches can be integrated to gain new cosmological insights, attracting matched external funding from the Kavli Institute in Cambridge and developing deeper links with the Excellence Cluster ORIGINS in Munich.

Having laid firm foundations, they have ambitious plans for the future, including some strategic innovations for a post-Covid era. A new monthly online seminar and journal club is attracting 50 participants from both institutions, plans for online training have been accelerated, and an online workshop on the rise of field theory in cosmology is planned for early 2021.

Together with meetings and research, the partnership is also developing the next generation of cosmologists. As machine learning and artificial intelligence come to play an increasingly important role in the future of cosmology, the partnership means Cambridge and LMU can share teaching resources for courses at the cutting edge of data analysis, ensuring that students are best prepared for the new era of data-driven discovery.

For Cambridge, LMU, and cosmology itself, the strategic partnership is, says Weller, hugely exciting. “Our complementary expertise in cosmic microwave background and analysing data from galaxy surveys opens up a wealth of new cosmological information,” he explains. “As cosmological data analysis undergoes a period of radical change, ours is a timely partnership and one which will strengthen our ability to shape these international developments for decades to come.”

Giles Yeo and Susanna Hofmann

Hypothalamic Targets of Diet and Exercise

“By bringing us together, the partnership makes for a unique combination”



Obesity is one of the greatest public health challenges of the 21st century and is linked to increased risk of many diseases, from heart disease and high blood pressure to type 2 diabetes and certain cancers. According to the OECD, more than 25% of UK adults are obese and across the EU some 150 million adults and 15 million children are considered obese.

While we know that the causes of obesity are simple – eating too much and moving too little – patterns of obesity show that more complex genetic differences are at play. What, for example, explains why some people eat more than others and why some put on – or lose – weight more easily?

For both sides of the energy balance equation, the hypothalamus – the part of the brain that regulates both food intake and energy expenditure – is key. Dr Giles Yeo at Cambridge is an expert on the genetics of obesity, using state-of-the-art tools and mouse models to study the hypothalamus at a molecular level. Professor Susanna Hofmann at LMU has complementary expertise in how exercise influences the brain, so working together – via the Cambridge-LMU Strategic Partnership – is a perfect fit.

Their project focuses on Hofmann’s intriguing discovery that post-exercise, male and female mice opt to eat very different foods. “We all know that when we get home from exercise, we’re ravenous, but what kinds of foods do we reach for? For me it’s sausages, but for others it’s carbs,” says Yeo. “Are there differences between males and females in this craving for food post-exercise? That’s what our project is all about.”

During 2019, their labs hosted reciprocal visits and a mini symposium. Their research results revealed that male mice undergoing running exercise lost much more weight than female mice – and that these differences can be seen at the level of gene expression. In the next phase of the project, they plan to home in on the most important mechanisms at play with the ultimate goal of producing more tailored public health messages to help men and women lose weight more easily.

The science, its potential impact and the strategic partnership are all hugely exciting, says Hofmann. “When we exercise, our muscles are going like the clappers. But they also excrete hormones, and how these communicate with the brain is not well studied. By bringing together our two areas of expertise, the partnership makes for a unique combination,” she explains. “And as well as its science value, the partnership is very valuable geopolitically in this post-Brexit age.”

Projects

[Dr Alexander T. Archibald and Dr Christoph Knot](#)

Atmospheric Chemistry and Physics Modelling

[Dr Tristan Bekinschtein and PD Dr Christine Falter-Wagner](#)

Changes in Repetitive Behaviours and Sensory Hyper-reactivity in Autism Spectrum Conditions (ASC)

[Professor Gábor Betegh and Professor Christof Rapp](#)

Moral Psychology Ancient and Modern

[Professor Richard Bourke and Professor Karsten Fischer](#)

Political Theory and the History of Political Thought

[Professor Folma Buss and Professor Claudia Veigel](#)

Analysis of Myosin Motor Proteins Using Biophysical and Cell Biological Approaches

[Dr Jeremy Butterfield and Dr Erik Curiel](#)

Black Holes and Quantum Field Theory on Curved Spacetime

[Professor Sarah Colvin and Professor Susanne Lüdemann](#)

Literature and the Rule of Law

[Dr Karen Ersche and Dr Eva Hoch](#)

Predicting Addiction: Identifying Early Markers in Patients at Risk for Addiction

[Dr Frances Foster and Professor Markus Janka](#)

From Classical Mythology to Contemporary Education in Britain and Germany

[Dr Cédric Ghevaert and Professor Thomas G. Schulze](#)

Cerebral Organoids from Patient-Derived iPS Cells

[Dr Henning Grosse Ruse-Khan and Professor Thomas Ackermann](#)

Private Rights and Public Autonomy in a Fragmented World

[Professor Peter Haynes and Professor Thomas Birner](#)

Theoretical Meteorology

[Dr Kate Hughes and PD Dr habil. Wolfram Petzl](#)

Development of a New Experimental Toolkit to Study Small Ruminant Mastitis

[Professor Ulrich F. Keyser and Professor Philip Tinnefeld](#)

Single Molecule Sensors and Nanosystems – A self-organized Student Network

[Professor Anna Korhonen and Professor Alexander Fraser](#)

Multilingual Natural Language Processing

[Dr Dániel Margócsy and Professor Kärin Nickelsen](#)

The Histories of Plants and Humans

[Dr Anita Marguerie de Rotrou and PD Dr Med. Anne Hilgendorff](#)

STAR TRACK. STRategic Alliance to initiate paRtnerships in TRAnslational Cardiopulmonary research

[Professor Hugh Markus and Professor Martin Dichgans](#)

Cerebral Small Vessel Disease and Vascular Cognitive Impairment

[Dr Barbara McGillivray and Professor Hans-Jörg Schmid](#)

Lexical Innovation in Public Discourse – Linguistic Theory, Computational Methods, Social Implications

[Dr Augusta McMahon and Professor Karen Radner](#)

The Neo-Assyrian Empire: Digital and Comparative Approaches

Projects

[Dr Leo Mellor and Professor Ingo Berensmeyer](#)

Signal and Sign: Prehistories of Connectivity

[Dr Erik Niblaeus and Professor Ursula Lenker](#)

Intellectual Connections and Exchanges Between Northwestern Europe and Southern Germany, c 650-1200

[Dr A. Cengiz Öztireli and Professor Thomas Wachtler](#)

Neural Mechanisms in Vision for Digitally Augmented Reality

[Dr Pedro Ramos Pinto and Professor Kiran Klaus Patel](#)

CALM PhD Training Collaboration in the Contemporary History of “Global Europe”

[Professor Huw Price and Professor Stephan Hartmann](#)

Decision Theory and the Future of Artificial Intelligence

[Dr Timothy Rittman and Professor Robert Perneczky](#)

Understanding the Relationship Between Brain Structure and Function in Dementia

[Dr Nitzan Rosenfeld and Professor Philipp Baumeister](#)

Analysis of Circulating Tumour DANN for Therapy Planning and Surveillance in Patients with Head and Neck Cancer

[Professor James B. Rowe and Professor Robert Perneczky](#)

Neurodegenerative Disorders and Dementia

[Dr Sebastian Schornack and Professor Martin Parniske](#)

Plant Health – the Foundation for Reaching the Sustainable Development Goals of the United Nations

[Professor Paul Shellard and Professor Jochen Weller](#)

Unveiling the Structure of the Universe

[Professor Roel Sterckx and Professor Armin Selbitschka](#)

The Materiality of Chinese Ritual

[Dr Maximilian Sternberg and Professor Burcu Dogramaci](#)

Art and Architecture in the 20th Century and Contemporary City

[Dr Simon Stoddart and Professor Carola Metzner-Nebelsick](#)

Collaborative Graduate School in Archaeology

[Professor Nicholas Thomas and Professor Philipp Schorch](#)

Museum Futures: Material Cultures of Ethnography and Natural History as Archives of Environmental Knowledge

[Professor Caroline van Eck and Professor Ruth Bielfeldt](#)

The Object Talks Back. Material Reception of Antiquity: Reconstruction, Restoration and Display.

[Dr Ross Waller and Professor Markus Meißner](#)

Molecular Interactions Between Protozoan Pathogens and their Mammalian Hosts

[Dr Giles Yeo and Professor Susanna Hofmann](#)

Hypothalamic Targets of Diet and Exercise

[Dr Weilong Zhang and Professor Florian Englmaier](#)

Cambridge-LMU PhD Partnership in Economics



UNIVERSITY OF
CAMBRIDGE

Ingrid Hobbis

University of Cambridge Programme Coordinator
ingrid.hobbis@admin.cam.ac.uk



Dr. Anna Jakubowska

LMU Programme Coordinator
anna.jakubowska@verwaltung.uni-muenchen.de