Developing a culture of wisdom at UCL, London’s global university

Wisdom is the key to addressing major problems effectively

The world’s major problems – for example, in the economic, environmental, health and cultural spheres – are complex, systemic and interconnected to an unprecedented degree.

Billions of humans suffer from illness and disease, despite the existence of proven preventions and cures. Life in our cities is under threat from social tension, pollution and climate change. The prospect of global peace and cooperation remains under assault from tensions between our nations, ideologies, faiths and cultures. Our quality of life appears to be diminishing despite technological advances.

Wisdom – here defined as the judicious application of knowledge for the good of humanity – is the key to providing solutions to aspects of these global problems. Wisdom is the outcome of bringing together different and differing perspectives to address issues in their full complexity.

Working in partnership with government, commerce and society, the best universities can propose robust solutions to the problems articulated by those groups.

Only universities with excellence across the disciplines, a critical mass of expertise and a commitment to impact can respond with wisdom on the scale and with the speed required by current crises.

Knowledge can be transformed into wisdom

University research is valuable in that it both generates applicable knowledge and expands the potential of human thought and action.

Specialist knowledge tends to be generated within disciplines, whether traditional (eg economics or pharmacology) or emerging (eg nanotechnology or post-silicon computing), through problem- and curiosity-driven scholarship by individuals and small groups. Many significant discoveries are the product of lone investigation and invention.

Yet solutions to complex major problems evade the grasp of any single discipline. While individual excellence and subject expertise are essential, even more significant outcomes can result when experts from different disciplines act in concert.

Greater understanding and novel insights are achieved when the breadth of specialist knowledge is considered collectively. Bringing together different expertise, perspectives and methodologies can produce novel solutions. Wise solutions emerge through contrasting and synthesising the knowledge and methodologies of different disciplines.
Establishing a culture of wisdom therefore requires transformative action:

- respecting specialist knowledge, while dismantling the barriers to its cross-fertilisation
- supporting the synthesis of new knowledge both within and across fields and disciplines
- facilitating collective, collaborative working practices in order to gain fresh perspectives and, ultimately, wisdom
- establishing and advocating policy and practice based upon the wise counsel so developed.

Achieving that transformation is not easy. Conventional models of academic structures, career progression and measures of prestige based on specialisation, for example, de-incentivise academics to work across boundaries.

UCL’s qualities allow it to adopt and apply a culture of wisdom

Taken together, the following qualities position UCL, London’s global university, uniquely well to adopt a culture of wisdom and see that wisdom applied to the world’s major problems.

Principles — Inspired by the utilitarian Jeremy Bentham, our radical founders committed our university to innovation, accessibility and relevance. Almost two centuries later, that commitment remains at the heart of our activity and purpose.

Pioneering tradition — UCL became the pioneer in England of university research in several important disciplines — such as architecture, civil engineering and medicine — now viewed as core academic activity. It established the UK’s first professional chairs in many subjects, including geography, French, medical physics, media law and Egyptology. Our departments of statistics, chemical engineering, and the history and philosophy of science were the UK’s first.

In the nearly two centuries since UCL’s founding, our staff and students have undertaken groundbreaking research that has helped shape the modern world. Their achievements include:

- advances in communications such as the telephone and wireless telegraphy, and the first transatlantic computer network connection, which was the precursor of the internet
- understanding of the physiology of nerve cells and their synaptic connections
- biomedical breakthroughs such as the identification of hormones and vitamins, and the first antisepctic treatment of wounds
- understanding of the immune system’s rejection of tissue and organ grafts, and of autoimmune diseases such as rheumatoid arthritis
- discovery of the inert gases, including neon, which resulted in the understanding of the immune system’s rejection of tissue and organ grafts, and of autoimmune diseases such as rheumatoid arthritis
- telegraphy, and the first transatlantic computer network connection

Outstanding problem- and curiosity-driven research conducted by our individuals and small groups forms the bedrock upon which a culture of wisdom is built. Once our great minds engage in cross-disciplinary debate, our collective expertise and knowledge is greater than the sum of its parts, and our work is then best placed to yield wise solutions. A key element of the UCL Research Strategy, then, is to increase and strengthen interdisciplinary research, bringing our excellent specialists together and optimising their impact. We facilitate this interaction in multiple ways:

- strengthening those academic departments that already adopt a multidisciplinary approach
- forming new academic departments to address problems demanding diverse expertise
- supporting new thematically focused centres that draw on expertise from across our academic departments
- providing thematic contexts for interdisciplinary interaction
- promoting research through UCL Grand Challenges.

UCL is turning its knowledge into wisdom

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Excellence — The breadth, depth and quality of our current research exceeds the imagination even of our visionary founders.

UCL is home to 4,000 academic and research staff, many of them at the very forefront of their disciplines. They deliver excellent research, as shown in the result of the UK government’s 2008 Research Assessment Exercise (RAE). UCL was rated the best research university in London, and third in the UK overall for the number of its submissions which were considered of ‘world-leading’ quality.

In 43 of our 49 RAE submissions, at least 50% of UCL staff were ranked at either the highest grade, 4* (‘of world-leading quality’) or 5* (‘internationally excellent’). Excellent results were achieved across a wide spectrum, including:

- architecture and the built environment
- chemical engineering
- cancer studies
- computer science and information sciences
- earth systems and environmental sciences
- economics and econometrics
- law
- philosophy
- psychology

London — Our central location in the capital offers close interaction with Bloomsbury’s cultural and intellectual vibrancy, Westminster and Whitehall, the City and our world-class hospital partners.

Perspective — We are committed to enhance the circumstances of the physically, educationally and socially deprived. We also adopt a global perspective, in recognition of the interconnectedness and interdependence of people around the world.

Flexibility — Our management structure engages with long-term planning, but with a degree of flexibility and intellectual agility that enables our researchers to respond rapidly and imaginatively to new initiatives and emerging priorities.

New multidisciplinary departments — Five of UCL’s recently constituted academic departments are similarly multidisciplinary:

- UCL Cardiovascular Science, pioneering novel, integrative strategies in preventative and therapeutic cardiovascular medicine through unifying cardiovascular science and cardiology with disciplines such as chemistry, physics and mathematics
- UCL Ear Institute, aiming to lead the world in understanding hearing and fighting deafness through interdisciplinary approaches
- UCL School of European Languages, Culture & Society, bringing together expertise within and beyond the disciplines of Dutch, German, Italian, Scandinavian Studies and Spanish, to promote interest in, and an understanding of, the diverse languages, cultures and societies of Europe
- UCL Institute for Women’s Health, with expertise across the whole spectrum of women’s health — from laboratory science to clinical skills to social and behavioural sciences.

New thematically focused centres — Central investment in new initiatives, through the UCL Provost’s Strategic Development Fund, has recently enabled the formation of the following groups, which provide a focus for both internal planning and research initiation, facilitate the training of postgraduate students in fields of contemporary significance, attract new funding, disseminate UCL research, and forge links and collaborations with other institutions:

- UCL Institute for Global Health
- UCL Institute of档 Cardiovascular Science, pioneering novel, integrative strategies in preventative and therapeutic cardiovascular medicine through unifying cardiovascular science and cardiology with disciplines such as chemistry, physics and mathematics
- UCL Institute of Neuronal Pathology, which aims to further the understanding of the processes of vision, and to develop new diagnostic and therapeutic strategies
- UCL School of Slavonic & East European Studies, one of the world’s leading specialist institutions — and the largest national centre in the UK — for the study of central, eastern and southeast Europe and Russia.

Existing multidisciplinary departments — These include the world-renowned specialist centres that became part of UCL during the last 25 years:

- UCL Institute of Archaeology, unique in the scale and diversity of its research and the global scope of its expertise and collaborative links
- UCL Institute of Child Health, which pursues an integrated, multidisciplinary approach to enhance understanding, diagnosis, therapy and prevention of childhood disease
- UCL Eastman Dental Institute, which undertakes cutting-edge fundamental, clinical and translational research on biomaterials, tissue engineering and microbial diseases
- UCL Institute of Neurology, ranked second in the world for neurology and both clinical and basic neuroscience
- UCL Institute of Ophthalmology, which aims to further the understanding of the processes of vision, and to develop new diagnostic and therapeutic strategies
- UCL School of Slavonic & East European Studies, one of the world’s leading specialist institutions — and the largest national centre in the UK — for the study of central, eastern and southeast Europe and Russia.

Research themes — We have also introduced a set of research themes in order to encourage cross-disciplinary interaction of both structured and spontaneous natures. The themes are:

- Ageing & Wellbeing
- Basic Life Sciences
- Biomedical Imaging
- Bioprocessing
- Cancer
- Cardiometabolic Medicine
- Communication, Language & Crime
- Computational Science & Digital Systems
- Economic Analysis
- Energy, Environment & Transport
- European Studies
- Experimental Medicine
- Global Health
- Heritage, History & Cultures
- Infection, Immunology & Inflammation
- Justice, Ethics & Human Rights
- Law & Enterprise
- Materials
- Media, Communications & Information
- Migration
- Nanotechnology
- Neuroscience
- Origins
- Population Health
- Public Policy & Governance
- Reproduction & Development
- Risk & Security
- Systems Engineering
- Urban & Spatial Studies

Grand Challenges — Overarching our cross-disciplinary collaboration is UCL Grand Challenges, the mechanism through which concentration of specialist expertise across and beyond UCL can be brought together to address aspects of the world’s key problems.

UCL Grand Challenges seeks to open networking opportunities, provide spaces for debate, facilitate novel research and improve policy and practice. It also provides an environment in which researchers are encouraged to think about how their work intersects with global issues.

UCL is bringing wisdom to policy and practice

UCL is deploying the following mechanisms to inform the thoughts, perspectives and actions of policymakers, practitioners and the public:

- global citizenship
- strategic partnerships
- public engagement
- enterprise

Global citizenship — Through our Global Citizenship programme, UCL is inculcating in its community of students a culture of creative and critical scholarship, of ambitious, idealistic and ethical behaviour, and of obligation to society. Our learning environment is underpinned by the preparation of our students for their future roles as global citizens.

Our aim is to ensure that we develop graduates who are: critical and creative thinkers; ambitious, but also idealistic and committed to ethical behaviour; aware of the intellectual and social value of culture difference; entrepreneurs with the ability to innovate; willing to assume leadership roles in the family, the community and the workplace; and highly employable and ready to embrace professional mobility. These future leaders will both recognise and help to produce wise counsel.
Public engagement – UCL is making public engagement a key function, both by understanding the public’s varied concerns, beliefs and behaviour, and by responding with proposals that are relevant, effective and efficient. We are committed to engaging with local and global communities and recognise our role in ensuring effective two-way dialogue between university and society. As one of six national Beacons of Public Engagement, we know that it is through social dialogue that our insights can be applied judiciously. Our UCL Beacon partners include:

- the British Museum
- the South Bank Centre
- the Cheltenham Science Festival
- Arts Catalyst
- City & Islington College
- Birkbeck College.

Enterprise – We recognise the importance of continuing to develop our enterprise agenda by:

- maximizing the economic impact of UCL research
- translating research findings into practice
- fostering an entrepreneurial environment
- enhancing our consultancy activity
- providing focused continuing professional development.

We are building on the work of:

- UCL Advances (our centre for entrepreneurship and business interaction)
- UCL Business (the access point to the wealth of our innovation and intellectual property)
- UCL Consultants (which contracts the consultancy work undertaken by UCL staff).

Strategic partnerships – UCL is committed to forming strategic partnerships, for example with other research organisations, with commerce and industry, and with healthcare providers. We engage in partnerships, such as the following, to enable the impact of our research to be widened and deepened:

- UCL and three of the world’s leading biomedical research organisations – Cancer Research UK, the Medical Research Council and the Wellcome Trust – are establishing the UK Centre for Medical Research & Innovation. Through interdisciplinary work, the project intends to find new ways to treat diseases such as cancer, tuberculosis, influenza and malaria
- UCL and four of the UK’s world-renowned hospitals – the Great Ormond Street Hospital for Children NHS Trust, the Moorfields Eye Hospital NHS Foundation Trust, the Royal Free Hampstead NHS Trust and the University College London Hospitals NHS Foundation Trust – form UCL Partners, one of just five Department of Health-designated Academic Health Science Centres. By pooling resources and expertise, UCL Partners, which treats more than 1.5 million patients every year, will be able to deliver the benefits more rapidly to people
- UCL has formed an alliance with Yale University – also involving UCL Partners and Yale/New Haven Hospital – to improve global health through scientific research, clinical and educational collaboration. Its initial focus is on cardiovascular disease, cancer and neurosciences. By analysing healthcare delivery in the diverse settings overseen by each institution, researchers will work to develop best management practices for hospitals
- a joint venture with Imperial College London, the London Centre for Nanotechnology is a multidisciplinary enterprise to solve global problems in information processing, healthcare, energy and the environment through the application of nanoscience and nanotechnology. Its experimental research is supported by leading-edge modelling, visualisation and theory through its access to state-of-the-art clean-room, characterisation, fabrication, manipulation and design laboratories. The centre draws on chemistry, physics, materials, medicine, electrical and electronic engineering, mechanical engineering, chemical engineering, biochemical engineering and earth sciences
- UCL School of Energy & Resources, Australia, is the university’s first overseas campus, a research-led academic facility in Adelaide. It is the outcome of a partnership agreement between UCL, the Government of South Australia and Santos Limited, one of Australia’s largest energy companies. The school provides a range of programmes, designed for both new graduates and established professionals, to address areas of skills shortages identified by industry and government, and provide scientists and engineers with management skills through courses designed specifically for the energy sector
- UCL is the academic partner in one of five Comprehensive Biomedical Research Centres (CBRCs) and two of six Specialist Biomedical Research Centres (SBRCs) announced by the Department of Health in 2006: the University College London Hospitals NHS Foundation Trust/UCL CBRC, the Moorfields/UCL Institute of Ophthalmology SBRC and the Great Ormond Street Hospital for Children NHS Trust/UCL Institute of Child Health SBRC. Each of the centres’ research themes is based around an existing internationally recognised research programme designed to take the advances achieved by basic laboratory science through to clinical advances, in order to save lives, prevent suffering and improve quality of life
- Higher Education London Outreach is a £1.3-million project led by UCL in partnership with MegaNexus Ltd and supported by London Business School. The scheme enables London businesses to access free consultancy and technical expertise from these leading institutions.

Engagement with public policy – We work with governments at all levels, as well as with non-governmental organisations, to identify and respond to public policy needs. Many of our individuals and research groups already have excellent and mutually beneficial connections with policymakers.

Building on this, we are developing an institution-wide programme of policy engagement through which external agencies can identify sources of relevant wisdom and our institution can better anticipate and respond swiftly to emerging policy issues.

We are in discussions with a range of think tanks about working together on topics of mutual interest. We are developing a public policy events series, with key policymakers and media in attendance, and will issue working papers on a number of public policy issues on a regular basis.

Find out more
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