

RESEARCH STRATEGY

Through **world-leading**
and **outward-looking**
research focused on
meeting societal need
King's will make the
world a better place.

Vision

Research is core to King's, what we do, what we care about and how we educate.

It is how we channel our creativity to further knowledge and understanding, challenge convention and deliver impact.

Our vision is to deliver research to inform and innovate.

Through world leading and outward looking research focused on meeting societal need, King's will make the world a better place.

We will enhance our existing disciplinary strengths and invest in key growth areas in order to deliver high-quality, high-impact research.

In many areas, we can utilise excellence within our core disciplines to develop new multi- and inter-disciplinary research opportunities.

King's Research Strategy will connect and enhance faculty strategies.

When fully implemented, it will deliver the environment and support to enable world-leading research and provide a framework to exploit inter-disciplinary research opportunities.

These elements will be vital in delivering our vision and having King's researchers at the forefront of generating knowledge, creating impact and addressing global challenges.

Foreword

Since my arrival at King's, I have been committed to continuing to develop an ambitious agenda for research. We have many areas of excellence and brilliant colleagues. However, we must increase the areas where we are delivering at the highest level and the whole 'sea level' of our research excellence must continue to rise.

Research is about great people creating new knowledge – blue sky and applied. It is also about providing a major contribution to addressing the great problems of the age, which will increasingly require inputs from multiple disciplines.

The launch of a research strategy for King's is an excellent opportunity to enable and complement the work of our faculties. It enhances the delivery of key research related initiatives underpinning our Strategic Vision 2029. Our research strategy outlines our institutional commitment to delivering world-class research supported by world-class facilities.

King's research strategy sets out our ambition to build on our current strong position. The research strategy has been developed around our people – our researchers, current and future, our professional services and our students. The strategy is designed to provide the support, development, infrastructure and environment they need to succeed.

Committing to the delivery of the strategy will allow us to become more responsive to shifts in our operating environment and increasingly agile in our approach to global research challenges. While our vision is ambitious, I am confident we can achieve this through the effective implementation of the detailed actions set out within the plan. The level of engagement and enthusiasm shown by King's community in developing the research strategy gives me confidence that together we will achieve our ambitions for the future, making the most effective contribution we can in the years ahead.

Professor Ed Byrne

President and Principal

I am delighted to launch King's research strategy, the culmination of 12 months work across the university to better understand the needs of our research community and define how we will enable the full potential of our outstanding research staff and students to be realised. I am grateful to the many colleagues who have taken time to contribute to the development of this research strategy and I hope you will soon see the impact of your involvement. I would also like to thank Dr Lorna Thomson, Director of Research Strategy, who has done so much to get us to this point.

The research strategy sets out the broad direction of travel to deliver the environment and support that is critical to our research success. The accompanying action plan details the specific tasks, the measures of success and the accountability for delivery. Our intent throughout has been to support an enabling culture across King's. I encourage you to engage with delivery of the strategy and think about the positive impact you can make within your role. By working in partnership, we can achieve our research ambitions and all benefit from positive changes that will occur.

Professor Reza Razavi

Assistant Principal,
Research & Innovation

King's distinction & strengths

King's has strong and distinct foundations across many disciplines upon which we can build our research ambitions:

- A broad research base that allows us to utilise disciplinary excellence and bring researchers together to tackle problems at the interface of subjects through inter-disciplinary working.
- A conducive environment, with a distinctive and creative mix of disciplines, for taking discovery and understanding through the pipeline from proof of concept to translation where research is embedded with practice and is enhanced by collaborative working.
- A central London location and an integrated London strategy, supporting us in bringing together potential partners and work closely with businesses, policy makers and institutions to create social and economic value and deepen the impact, relevance and applicability of our research.
- A global outlook, which allows us to engage with places, ideas and people, that shape the world. Our international strategy and worldwide academic networks, alongside King's global institutes, unlock our potential to deliver on the world stage.

King's performance in REF 2014 showcased strengths in all parts of the institution. Highlights include Law (highest Grade Point Average across UK law schools), Clinical Medicine (3rd for quality) and General Engineering (5th for quality).

For outputs, Social Science, Health & Medicine and Mathematics performed extremely well (2nd and 3rd in the UK respectively) and for impact, History were top in the Russell Group.

There were also standout performances for Politics (1st in the UK for power), Education (2nd for quality and 4th for power), Subjects Allied to Medicine (1st for power) and Psychiatry/Neuroscience (2nd in power). Overall, King's was the 'biggest winner' according to the Times Higher Education.

This achievement, gained within an increasingly competitive environment, has helped to cement our global reputation for excellence.

King's ambition

Research is a key priority of King's Strategic Vision 2029. We require an assertive research ambition that capitalises on our academic reputation and ultimately improves King's position on the international stage. King's ambition will focus on growth in quality, impact and income by:

- ♦ focusing on excellence in our research, supporting areas of strength and fostering those with the potential to become world-leading.
- ♦ delivering a growth agenda to enhance our academic size and shape*
- ♦ building upon notable success in connecting and collaborating with practitioners and policy makers, to ensure that our research is changing practice and influencing understanding, behaviours, policy and culture.
- ♦ exploiting our pipeline approach in biomedicine from fundamental science, through experimental medicine, to health services research, where the research is informed by clinical challenges, is rapidly translated, and leads to transformational practice that benefits patient and population health.
- ♦ better connecting our people and expertise to explore new avenues of research.

* The key changes planned around academic size and shape comprise:

- ♦ **21st century science and technology** – there is substantial growth in physics, mathematics and chemistry. By extending, or accessing through partnerships, expertise in new areas and leveraging strengths across the university, we will increase the impact of our basic science strengths. In technology, we will build on our strengths within biomedical engineering, computer science, robotics and telecommunications as we expand.
- ♦ **Management and business** – this will be a major expansion for the university, creating a new faculty in 2018/19. There are significant opportunities to grow the research portfolio as the faculty expands to improve understanding of the changing world of business, and provide theoretical, empirical and practical insights into ways of managing for business success.
- ♦ **Human development and health** – we will consolidate and grow expertise to create an academic grouping focused on child and maternal health with a unique and unifying life course approach combining mental and physical health research. This will include a new digital and informatics offer and will be delivered via a combination of physical and virtual infrastructure with a specialist hub at the Evelina Children's Hospital.
- ♦ **Population health and implementation science** – we will establish a critical mass which crosses faculties and links across health and social science to address important societal needs around public health. This will build on research strengths in, amongst others, health and social care research, analytical and environmental sciences, geography, nursing, global health and public policy.

Delivering King's ambition

The research strategy affords an opportunity to build on our disciplinary excellence, engage in multi- and inter-disciplinary research and ultimately deliver our vision of transformative research that crosses disciplines and changes paradigms. There are five pillars that underpin our ambitions.



Delivery of this research ambition will require engagement across King's.

Individual faculties, schools, divisions and departments will be instrumental in delivery, through their own research strategies and must be given authority, accountability and resource.

Additionally, by linking with the education, London and international strategies, we can generate tangible actions and outcomes that will envelop the whole King's community – from students and researchers to international partners.

The research strategy action plan, which accompanies this document, details priorities, key actions, owners, delivery milestones and resource implications as many of these initiatives will require funding and/or new support mechanisms, either at faculty/school/division/department or university level.

The enabling pillars

King's must provide the environment, support and networks needed for our community, from postgraduate research students to senior academics, to deliver research excellence.

The enabling pillars detail our long-term plans to support this. The broad principles are overarching and will provide a framework within which our researchers can deliver.

Faculty ownership of this strategy will allow the initiatives to be further refined to suit the community they will serve.

1. Retaining, developing and recruiting world-class talent

Our research success is dependent on our staff.

We will support our staff to deliver world-leading research at all stages of their career and develop mechanisms to identify, nurture and accelerate research careers. Staff satisfaction and well-being are vital and we recognise that workload pressures are significant. One of the aims of the research strategy is to introduce measures and systems to support the research endeavour, reduce administrative load and allow our researchers to focus on the delivery of their work.

We will recruit the best talent to King's, with senior research staff representation on academic recruitment panels, and strongly encourage talented researchers with personal fellowships to come to King's. Our staff development and recruitment ambitions will be achieved whilst retaining our commitment to equality and diversity.

Working closely with colleagues in the Graduate School, the Centre for Research Staff Development, Organisation Development and High-Performance Culture, we have identified interventions at levels throughout the career of a researcher. King's aims to provide a pipeline of support from student to senior academics:

- A supportive and enabling learning environment for all postgraduate research students as they begin their research careers via a doctoral training centre approach and the Graduate School's researcher development programme.
- A variety of support for research staff, especially post-doctoral researchers, from assisting with fellowship applications to strategic career development and career options.
- Targeted, faculty specific support to develop academics at all levels to encourage achievement.

Delivering effective and efficient professional services, including technical services, is a fundamental enabler of our academic ambition. We will strive to improve the way research services are delivered, as we seek to reduce duplication, streamline processes, exploit technology more effectively, and focus our resources on services that deliver real value to the academic ambition. A number of initiatives around systems and support (in research development for example) will benefit our research community as a whole.

Working closely with our professional strengthening programme we will deliver a culture of high ambition and standards within the research management and innovation teams and the associated professional networks, encouraging, empowering and challenging all members of our community.

2. Providing the best environment and systems to deliver world-leading research

We will deliver valuable insight and ground-breaking discovery using state of the art infrastructure.

Expansion of research activity will require additional space – to allow growth of current research groups and the recruitment of new academics. Our central London location is a major asset; but it comes at a cost. In the short and medium term, we must explore options for smarter use of our current space whilst remaining sensitive to the needs and nature of each academic community. As spaces are developed, local and directorate teams will work closely with researchers to optimise the available space.

Across the university, options are being considered for long-term accommodation. King's is exploring a number of possibilities including partnership models with the private sector, our partners (e.g. KHP) and other universities to help with affordability. Our priority, via the research strategy, is to ensure the financial viability of research growth plans (planning for associated capital costs) and to work with faculties and directorates to ensure clarity on space utilisation and the process for repurposing or providing new space for research – including the potential for collaborative work spaces to promote inter-disciplinary research.

We must also provide the supporting infrastructure and facilities to deliver on our research agenda. This includes core research facilities and IT infrastructure, particularly multi-faceted eResearch solutions.

- **Core facilities:** An initiative to refresh the core facilities is underway. The plan will cover governance, management, new equipment applications and strategic investments in key technologies which give King's a competitive advantage, and which may be offered to the sector regionally or nationally.
- **eResearch:** A new core service delivered jointly through research and IT, and linked closely to faculties, will provide researchers with access to the best systems, tools and expert support to deliver and enhance their research. We will establish a new team that combines core and embedded staff with a broad range of knowledge who will be responsible for the provision of research specific systems, infrastructure, process and policy. Researchers will be involved throughout the process to deliver an eResearch plan and will be key stakeholders in governance and management/delivery.
- **Research management tools and data provision:** We will deliver improved research management systems to ensure there are no institutional barriers to obtaining research funding and which allow research support staff to provide an enabling, value-adding service. Additionally, new systems will provide further data and analytics to inform and drive strategy. We will move toward a data informed, though not data driven, culture. Executive deans, heads of school/division/department and the directorate will have access to a broader range of information to help in the management of their areas and to help inform internal discussions. This data will also enhance the PDR and business planning processes. We will join up systems throughout the research pipeline from application through project management to data archiving.

Furthermore, a key priority is to improve the provision of information via the website, to support our internal community and to showcase our work externally.

3. Broadening the research base whilst increasing quality

King's has committed to significant growth over the coming years in existing areas and in new disciplines.

Our priority is to ensure that as we grow, broadening our research base and promoting inter-disciplinary working, that excellence in our core disciplines does not suffer and we continue to improve our research quality.

King's will continue to deliver a broad portfolio of research driven by its academics across all faculties and we will protect academic freedom within the broad envelope of our research effort. We will increase our research activity beyond our current strengths and drive increased research income across all faculties, acknowledging that many areas within arts and sciences require less funding to conduct equally high quality research. Investing in key growth areas, such as science and technology, will help in modifying our grant portfolio and redressing, to an extent, the current balance of 85% of the total research grant income residing with health faculties. To fulfil this ambition and deliver our overall growth plans, we must diversify our sources of funding, developing and broadening research income streams and work with all faculties to identify the optimum portfolio of funders by:

- increasing research council funding.
- improving the balance of quality-related research (QR)/non-QR charity funders.
- continuing to pursue EU and ERC funding while available.
- exploiting international funding opportunities.
- pursuing contract research opportunities (with public sector or industry).
- being prepared for strategic and inter-disciplinary calls.
- actively pursuing fellowship type funding (contributing to income but also as a marker of esteem and research quality).

We will continue our investment in professional services support and systems as we pursue this ambition.

We believe firmly in the value of creating research centres of excellence, virtual or physical, in key areas (single discipline and across disciplines) to bring together a critical mass of leading researchers. By focusing on research excellence, these institutes will raise the quality and consistency of research outputs. Staff development and proactive recruitment will be supported and King's will commit to these initiatives with appropriate matched funding where strategic centre or institute funding applications are submitted.

King's is committed to increasing research quality by developing our staff. By delivering through Pillar 1 (Retaining, developing and recruiting world-class talent), we aim to develop a cadre of new research leaders who are delivering larger, more innovative projects as well as attracting new researchers to their groups. By optimising research support, staff and systems, we will allow researchers to focus on quality of outputs as the burden of administration is reduced.

Regarding the quality of research outputs, we will encourage and support researchers to produce the highest quality outputs for their work – whether journal publications, monographs, compositions or other methods. We will prepare for the research excellence framework (REF) and work with faculties, ensuring all have the support needed to plan, deliver and record high quality outputs.

We will promote positive accountability and faculties that are performing well can continue to implement their successful strategies. Where faculties are not performing as well, we will work closely with the relevant executive deans and research vice deans to devise options for improvement and provide targeted support where required.

4. Increasing impact and expanding research partnerships

Our vision describes world-leading and outward looking research focused on meeting societal need.

The breadth of King's research endeavours should deliver impact across the spectrum by informing policy and practice and adding value to the UK economy through exploitation of research. It will also help our understanding of society and support social cohesion whilst informing, stimulating and driving new creative possibilities.

Delivering this level of impact takes significant time and effort – this is recognised by university leadership and will be encouraged as an open discussion during annual reviews. Encouraging and enabling the public to engage with research outputs will be a key priority and public engagement will be the subject of refocused energies within King's. We will strive to become a more porous organisation, encouraging our researchers to engage with external stakeholders and vice versa. We will improve our online presence and reach to allow partners (existing and potential) to engage more easily with King's.

We recognise the breadth of impact is vast and cannot be completely defined. We will engage dedicated staff to provide information and education to enable researchers to better understand the process of turning ideas into action. This will increase the number of research ideas that deliver impact. Links between our institutes (commercialisation, policy, culture), associated directorate support (entrepreneurship, innovation, intellectual property and licensing), the Centre for Research Staff Development and our research development teams, will be strengthened to ensure researchers have the contacts, networks and specialist brokerage skills required.

We must also embrace and encourage innovation, turning our research into new or improved ways of thinking, capabilities, services/products, strategies or processes in order to deliver impact. This should be considered as important as outputs and grant income and become a desirable attribute within performance review, promotion and recruitment.

Working closely with our academic community, we will collaborate with key partners who complement our research base, accelerate our pathways from innovation to implementation, and enhance our societal impact. We will showcase our research to a global audience of academia, commercial & social enterprise and government creating opportunities for new, high-value partnerships that change the way research and development (R&D) is delivered. We will leverage our London, national and international leads to broker new relationships.

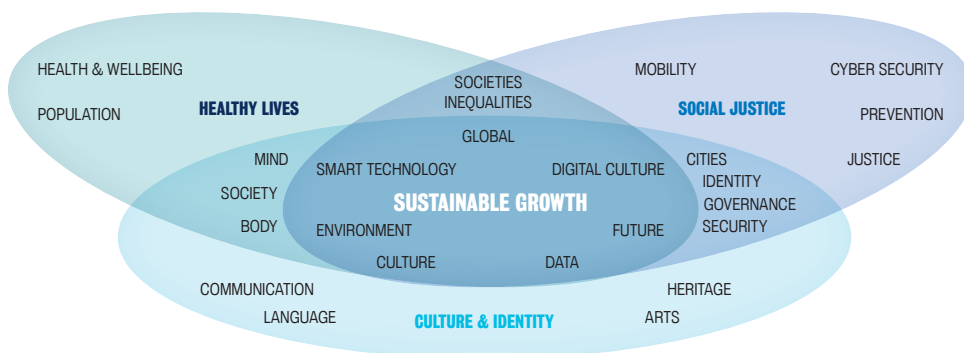
We will take greater advantage of our existing collaborations, with the public sector, King's Health Partners and our international academic partners. By strengthening our partnerships with leading, like-minded organisations in London, the UK and across the globe, engaging in activities driven by a common purpose, we can enhance our impact and societal contributions. We will develop new value-added partnerships that are characterised by a common purpose, mutual respect, commitment and trust.

Inter-disciplinary working is key to delivering impact; 80% of the REF impact case studies were based on inter-disciplinary research. We have embarked upon a programme to support and encourage interdisciplinary working: King's Together provides seed-funding, development support and, importantly, removes institutional barriers that prevent us working in this way.

King's Together: enabling multi- and inter-disciplinary research

The breadth of expertise across King's puts us in a strong position to utilise multi-disciplinary (the sum of parts from multiple disciplines uniting to solve a common problem) and inter-disciplinary (integration of separate disciplinary methods, concepts and theories in order to create new disciplinary insight) research both to enable transformative advances in fundamental research and to produce new, sometimes revolutionary, insights which can be applied rapidly to deliver impact across the world. These approaches should build on our successful enquiry-driven disciplinary research.

By considering our current strengths, we have outlined four overlapping themes. These should not be thought of as all encompassing, rather as a guide as to where we may be able to engage in innovative research. These themes link well with the global themes from our international strategy and present an opportunity to enhance our inter-disciplinary research activities within the university, while the international priorities help us to raise King's profile in internationally inter-disciplinary areas of strength.



The most successful inter-disciplinary collaborations come from naturally forming partnerships between researchers and we hope to see inspiring solutions will arise from all levels. We want to enable our staff to work together but also to continue with curiosity-driven research that can unearth new and emerging problems. The King's community is best placed to define these problems and form inter-disciplinary groups to solve them. This initiative should grow and develop, with new ideas and research questions being added. We aim to be an institution which is agile and responsive to emerging challenges.

The approach to embedding multi-and inter-disciplinary research will be three-fold, comprising:

- Champions from different disciplines to lead the themes outlined above. The champions will shape the thinking for the theme and facilitate engagement with researchers from across King's.
- The scheme is available to staff across all disciplines and is designed to support cross-faculty projects. There is flexibility around the type of project and the funding limit – aiming to encourage many new ideas.
- The removal of institutional barriers to working across disciplines: ensuring all participants are acknowledged/ receive appropriate recognition, that all research income (including overheads and QR) are fairly apportioned between departments/divisions and that inter-disciplinary projects and ways of working are embedded within our research policies, through joint appointments, promotion criteria and during performance review.

5. Delivering research-enhanced education

By ensuring that our strategic ambitions in research and education complement each other, our students will learn through participating in research and enquiry at all levels of their study.

We will deliver programmes that are research-enriched, responsive to change and delivered in line with best educational practice at all levels of study. Our students will enjoy a challenging, innovative and enriching university experience, enhanced by our research breadth and inter-disciplinary expertise.

By creating multiple opportunities to encounter and become engaged with research, our students will understand how knowledge is generated and become co-creators of that knowledge. Opportunities throughout undergraduate and masters programmes will create a talented pipeline of new researchers – supported by schemes such as King’s undergraduate research fellowships.

We will support key transition points, especially from postgraduate taught (PGT) to postgraduate research (PGR). Our PGR students are vital to the production of knowledge and impactful research. Improving our research environment will benefit our PGR community and working closely with colleagues in the graduate school, doctoral training centres will be rolled out as the King’s model for PGR student training where appropriate, ensuring the same high quality research preparation and support is available to everyone, regardless of funding source.

Our disciplinary research breadth and expertise allows the creation of distinctive educational offerings, enhancing or developing new courses that are aligned to our research. Increasing our research breadth and creating new interdisciplinary groups will further enhance our options for innovative courses in emerging areas.

Our London and international research partnerships will further enhance our educational offering including, through joint PhD programmes that will stimulate collaborative research.

What will success look like?

Adoption and implementation of the research strategy will look different depending on the faculty/school/division/department or directorate.

Within 18 months, we will see tangible improvements across the university that help King's researchers in their pursuit of valuable insight and ground-breaking discovery, often in partnership, in state of the art infrastructure. Our professional services will be working in closer partnership with the research community to ensure we operate in an enabling environment.

Key to our success will be our people.

We will have a strong pipeline of high quality researchers emerging from our doctoral training. Our post-doctoral support will encourage development of talent. We will retain excellent researchers at King's and attract exciting new talent. Our research leaders will be recognised globally in their fields.

King's research will have equality, diversity and wellbeing at its core including in all recruitment campaigns and promotion proceedings. Our professional services staff will have exciting career opportunities and feel part of a thriving research culture within the university. Our environment will enable us to produce the best research and reward performance.

Our performance discussions at all levels will consider the quality and impact of our research, including outputs that show inter-disciplinarity and collaboration. As we move towards a data-informed culture, providing substantially richer information to inform discussions, our faculties will use this information to help determine their distinct plans. Our success will also be reflected in an increased number of strategic research collaborations and major relationships with industry and public sector partners.

To ensure our continued success, we will rely on our faculties, schools, divisions, departments and directorates to engage with delivery of the strategy, taking responsibility and ownership. We will promote positive accountability: encouraging those that are performing well to continue with implementation of their successful plans and taking advantage of new initiatives delivered via implementation of the strategy. Where needed, we will provide additional support, working closely with executive deans and research vice deans to devise options for improvement.

Successful implementation of the research strategy will ensure that across a broad range of disciplines King's will be delivering outstanding research and in a number of key areas will be recognised as the world-leader.

Our research will be more widely known for its impact and will attract the best research talent and students to King's.

