

BRISTOL MARSHALL SCHOLARSHIPS

Further Information Provided by the University of Bristol

Bristol has a global reputation for excellence in research. Here there are world-class research centres, groups and projects at all points of the academic spectrum, from the medical and physical sciences to the humanities, the social sciences and the performing arts. The keynotes are collaboration, innovation and interdisciplinarity.

Research Strengths

Medical and Veterinary Sciences

1. Neuroscience (Leader: Prof Zafar Bashir)

A wide range of interests are supported within this research group, including molecular and cellular neuroscience, animal behaviour, human psychology, epidemiological, and clinical studies. Representing this is Bristol Neuroscience, a virtual institute in which neuroscientists from different Faculties and at local hospitals are actively involved.

2. Cardiovascular Science (Leader: Prof Julian Paton)

Here research extends 'from molecule to man', encompassing stem cell research, gene therapy, and cardiovascular health. The focal point is the renowned Bristol Heart Institute, committed to 'translating basic science into clinical practice'.

3. Population Health (Leaders: Prof Glyn Lewis and Prof David Gunnell)

An interdisciplinary research group incorporating geneticists, biologists, social scientists, economists, anthropologists, epidemiologists, statisticians, and clinicians, with a common interest in questions influenced by public health priorities.

4. Animal Behaviour and Welfare (Leader: Prof Mike Mendl)

Research under this theme addresses animal cognition, including the mental lives of animals, and even animal 'emotion'; studies in animal welfare focus on developing new methods for measuring welfare and identifying the role of experience and genes in generating individual differences in the ability to cope with welfare challenges.

Science

1. Nanoscience and Quantum Information (Leaders: Prof John Rarity and Prof Mervyn Miles)

These emerging fields are among the most exciting in science and technology. Both are of fundamental academic importance, and widely anticipated to be critical to future economic developments. At Bristol they bring together researchers in Biochemistry, Biology, Chemistry, Computer Science, Electrical Engineering, Mathematics and Physics.

2. Global Change (Leader: Prof Paul Valdes)

Global climate change is one of the most important issues currently facing mankind. We urgently need to better understand the likely consequences of human induced environmental change and to be able to evaluate this in the context of the natural, past variability. This is a 'grand challenge' area of science, requiring expertise in wide range of fields from the physical to the social sciences.

3. Mechanistic and Structural Biochemistry (Leader: Prof Paula Booth)

Researchers in this field explore the complexity of biological systems at a molecular level and contribute to technological development in integrative systems. Working at the interface of Biology, Chemistry and Physics, they pioneer new approaches to fundamental biological questions and seek to harness knowledge from biological systems in the design of drugs and biomaterials.

4. Predictive Life Sciences (Leaders: Prof Alan Champneys and Prof Claire Grierson)

'Predictive life sciences' is the application of methods from mathematics, statistics, the physical sciences, computing and engineering to biological problems. Bristol has world leading departments with expertise in all elements of this interfacing research area as well as the supporting infrastructure such as high performance computing.

Engineering

1. Communications (Leader: Prof Joe McGeehan)

Researchers under this theme address the development of communication systems to meet the challenges and demands of the 21st century. An interdisciplinary group, it draws on expertise in Aerospace Engineering, Control Engineering, Mathematics and Nanotechnology.

2. Advanced Composites Centre for Innovation and Science (Leaders: Prof Michael Wisnom and Prof Michael Friswell)

Composites research is yielding high-profile results, such the development of the carbon fibre wing for the new Airbus A400M military transport aircraft. This is a research group of global renown.

Social Sciences and Law

1. Gender (Leaders: Prof Harriet Bradley, Prof Judith Squires, Prof Marianne Hester)

Bristol has been at the forefront of research on gender and feminist theory at University of Bristol for almost forty years. Researchers in this group are drawn from the Graduate School of Education, Human Geography, Law, Management Research, Politics and Sociology, School of Policy Studies and the School of Social Medicine.

2. Human Rights (Leaders: Prof Steven Greer and Prof Rachel Murray)

Human Rights is a field of global importance. At Bristol this research theme fosters collaborations involving researchers from a diversity of disciplines, including law, policy studies, community health, medicine and medical ethics, philosophy, and historical studies.

3. Market and Public Organisation (Leader: Prof Simon Burgess)

The Centre for Market and Public Organisation (CMPO) is one of the UK's leading research centres, combining expertise in economics, geography and law. Its aim is to study the intersection between the public and private sectors of the economy, and in particular to understand the right way to organise and deliver public services.

Arts

1. Screen Research (Leaders: Prof Sarah Street and Prof Derek Duncan)

Researchers under this theme capitalise on the city of Bristol's central role in Britain's creative industries – it is the chosen base for many film, TV, production and post-production companies – to cultivate innovative approaches to the full range of screen outputs.

2. Medieval Cultures (Leader: Prof Pamela King)

Medieval Cultures concerns all aspects of the literature, art, history, and thought of western European civilization between c.500 and c.1500. 'Culture' denotes not only higher-end artistic productions - the theatre, opera, art exhibitions etc. - but the whole complex of ways in which a society, functions, thinks about itself, and expresses its identity. Bristol medievalists have an international reputation for interdisciplinary approaches to the cultural remains of medieval society.

3. Science Knowledge and Reality (Leader: Prof Alexander Bird)

The key research questions in this field are: What is knowledge? What is science? What are nature and reality and how do we relate to them? To what extent is science moulded by society and history, to what extent is it an interaction between the world and evolved capacities? How well do we understand the foundations of the sciences, in particular mathematics, physics, biology and psychology? Current strengths include the metaphysics of science, philosophy, psychology, and neuroscience, structuralism and ontology in science, medical humanities and the philosophy of

medicine Evolutionary theory and the conceptual foundations of biology, psychology, and social science.

For further details see also <http://www.bristol.ac.uk/research/policy/themes/uniresthemes.html#cardio>