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The Leverhulme Trust was established by the Will of William Hesketh Lever, one of the great entrepreneurs and philanthropists of the Victorian age.

Since 1925 we have provided grants and scholarships for research and education; today we are one of the largest all-subject providers of research funding in the UK, distributing over £50 million a year.

We award funding across all academic disciplines, supporting talented individuals in the arts, humanities, sciences and social sciences to realise their personal vision in research. As well as substantial grants for research projects, we offer fellowships for researchers throughout their academic careers, grants for international collaboration and travel, and support for professional training in the fine and performing arts.

Our approach to grant-making is distinctive. The majority of our awards are made in the responsive mode, with the choice of topic and research design left with applicants. We look for work of outstanding merit, which is original, important and has significance beyond a single field. We particularly value research that crosses disciplinary boundaries or that is willing to take risks in its pursuit of new knowledge or understanding.
Introduction

Chairman’s Foreword

As part of its commitment to nurturing future generations of researchers, the Leverhulme Trust has a long tradition of providing support for talented individuals, right at the beginning of their research careers. This year we were fortunate that the robust financial health of the Trust allowed us to extend that programme of support, not only through an uplift in funding for existing schemes, but also through new opportunities for the brightest graduates wishing to pursue doctoral studies, and for young people whose talents lie in the arts.

The Trust Board this year took the decision to invest £10 million in a new scheme which will provide doctoral scholarships for the most outstanding graduates. Opening in early 2014, the Leverhulme Doctoral Scholarship scheme aims to launch the research careers of the very best of our new graduates, at a time when student debt may be discouraging talented scholars from pursuing a profession in academia. This is a significant investment in the future of high-quality research in the UK, and I look forward to reporting on the outcome of this initiative in next year’s report.

Our abiding interest in supporting young people to develop their skills in the arts continued in 2013 with the award of over fifty grants in the new Leverhulme Arts Scholarships scheme. Through student bursaries and innovative teaching awards at a range of youth orchestras, conservatoires and theatres across the UK, this £9 million scheme will provide opportunities for aspiring performers to benefit from some of the UK’s finest training programmes in dance, drama, fine art and other performing arts.

This is a clear signal of the Board’s belief that arts training should continue to be funded generously during a period of constrained public spending.

Peer review is an essential part of the Trust’s grant assessment process, and we are grateful to the hundreds of academics who contribute their time and share their expertise as referees or members of our review panels. I would particularly like to thank our Research Awards Advisory Committee, which in its stewardship of five of the Trust’s fellowship schemes, considered almost 1,500 applications and awarded 250 grants during 2013.

I was this year privileged to take up the Chairmanship of the Trust from Sir Michael Perry, who stepped down in 2013 after twenty years as a Trustee and eight as Chairman. On behalf of the Trust Board, I would like to thank Mike for his dedication, hard work and leadership, which ensured that the Trust evolved to stay contemporary and relevant, without ever departing from the original principles of its founder. Mike will be remembered with great warmth and respect.

I would also like to offer my thanks to my colleagues on the Trust Board for their commitment and wise counsel over the year; to the Trust’s Director, Gordon Marshall, who has been so instrumental in the development of the new initiatives currently being implemented by the Trust; and to the staff team who have managed the delivery of the Trust’s grant schemes with such professionalism.

Niall FitzGerald KBE
Chairman of the Leverhulme Trust Board
Opening in early 2014, the Leverhulme Doctoral Scholarship scheme aims to launch the research careers of the very best of our new graduates, at a time when student debt may be discouraging talented scholars from pursuing a profession in academia.
HISTORY OF THE LEVERHULME TRUST
Born in 1851, William Hesketh Lever made his fortune through the manufacture and marketing of soap and cleaning products. In the space of only a few years his company Lever Brothers grew to become a household name, and its products, which included Sunlight Soap and Lux, were sold around the world. The title ‘Lord Leverhulme’ was conferred upon Lever in 1922. A committed philanthropist from the beginning, when Lord Leverhulme died in 1925, he left a share of his holdings in his company to provide for specific trades charities and to offer ‘scholarships for ... research and education’. The Leverhulme Trust was established to carry forward these charitable aims. In 1930, Lever Brothers merged with Margarine Unie to form Unilever – one of the world’s major multinational companies – and the shares held by the Leverhulme Trust became part of Unilever.

The Trust Board
The Leverhulme Trust Board is recruited from the most senior levels at Unilever, the descendent of Lever Brothers. This arrangement was requested by Lord Leverhulme himself, and over the following decades has ensured that the culture of decision-making at the Trust remains free from disciplinary interest, able to draw upon the wide experience brought by its trustees, and fully alert to the role of education and research in modern life. In making decisions about funding, the Trust Board seeks the advice of a range of peer reviewers and expert panels or committees who offer an assessment of the academic merit and significance of applications.

Members of the Leverhulme Trust Board
Mr N W A FitzGerald, KBE FRSA*
(Chairman from 2 October 2013)
Sir Michael Perry, GBE FRSA
(Chairman and Trustee to 2 October 2013)
Sir Iain Anderson CBE FRSE*
Mr A C Butler
Mr P J-P Cescau*
Dr A S Ganguly CBE*
Mr R H P Markham
Mr P G J M Polman*
Mr S G Williams
*Trustee

A committed philanthropist throughout his life, on his death in 1925 Lord Leverhulme left a proportion of his holdings in Lever Brothers for certain trades charities and to provide ‘scholarships for ... research and education’. It was thus that The Leverhulme Trust came into being.
Research Projects
Research Project Grants are available for any research topic, with the choice of theme and research approach left entirely to applicants. Up to £500,000 over a maximum of five years is available for research and salary costs.

Research Programme Grants offer a maximum of £1.75 million over up to five years for research teams to conduct interlinked research projects to address a particular theme, chosen each year by the Trust Board.

Research Leadership Awards support researchers with an established university career who wish to build a research team to address a distinct research problem. Between £800,000 and £1 million over a period of up to five years is available.

International Networks offer up to £125,000 for up to three years to allow a UK-based researcher to lead a collaborative research project on any topic, where the participation of the chosen overseas institutions is critical for the successful realisation of the research objectives.

Fellowships and Studentships
Early Career Fellowships provide a bridge into an academic career for researchers with a proven research record, but who have not yet held an established academic post. The scheme provides fifty per cent (up to £23,000 a year) of the salary costs of a three-year academic appointment, with the host institution providing the remaining funds.

Research Fellowships of up to £45,000 over a period of three to twenty-four months are awarded to experienced researchers in any discipline, to allow them to undertake a programme of original research.

Major Research Fellowships, tenable for two or three years, allow well-established academics in the humanities and social sciences to conduct a specific piece of significant original research.

Emeritus Fellowships provide up to £22,000 over up to two years for senior researchers who have recently retired from an academic post to complete a research project and prepare the results for publication.

Visiting Professorships are awarded to UK institutions that wish to invite an eminent researcher from overseas to enhance the skills of staff and students at the host institution. The scheme covers maintenance, travel expenses and research costs over a period of three to twelve months.

Study Abroad Studentships offer maintenance, travel and study costs for recent graduates to spend twelve to twenty-four months on study or research at a centre of learning in any overseas country, with the exception of the USA.

International Academic Fellowships enable established researchers to spend a period of time in overseas research centres, to develop new knowledge, skills and ideas. Up to £30,000 is available for a period of three to twelve months.

Philip Leverhulme Prizes recognise researchers whose work has already had a significant international impact, and whose future research careers are exceptionally promising. Nominations are accepted for work across 18 broad disciplines, with prizes in six of these disciplines offered each year.

Arts Funding
Artist in Residence Grants support the residency of an artist in a UK university or museum, for up to a full academic year, in a creative collaboration with staff and/or students in disciplines distinct from the creative practice of the artist.

Arts Scholarships are open to specialist arts training organisations to develop innovative teaching and to provide bursaries for individuals of exceptional talent to develop their skills in the fine and performing arts.

For further information about the funding schemes offered by the Leverhulme Trust, please visit www.leverhulme.ac.uk
A recent report to the Leverhulme Trust Board brought together views from some twenty senior academics on the scope and remit of the funding schemes offered by the Trust. One feature of our grant-making that was mentioned particularly favourably was the range of opportunities we offer to researchers throughout their careers. This ‘cradle to grave’ approach is intentional, and it is given expression throughout our grant-making, both through the fellowships we offer for early-career, established and recently retired researchers, and through the flexibility of our research funding schemes, which are able to fund both small projects and larger initiatives involving groups of researchers under the direction of a principal investigator.

Through this varied portfolio of funding schemes, the Trust awarded five hundred grants and fellowships in 2013, with a combined value of nearly £53 million. While the grant-making of other agencies is often subject to budgetary constraint, the Trust’s continuing financial health allowed the level of funding committed to each scheme to remain steady, and permitted the Trust Board to fund all those research projects that had attracted strong support from peer reviewers. The total expenditure of the Trust has in recent years tended to rise and fall, a fluctuating pattern due mainly to the rotation of our programme of major initiatives, which until now have run in two years out of every three. The introduction of new subject areas in which nominations are accepted, opening the scheme to applicants, is reflected in the diversity of applications and awards has remained within an acceptable range. Research Project Grants are at the heart of the Trust’s grant-making activity, with over half the funds distributed during 2013 committed to the 150 awards made through this scheme. Research Fellowships and Major Research Fellowships continue to be highly popular, and together these two schemes accounted for fifteen per cent of the Trust’s expenditure in 2013. The twenty-three grants made through the International Networks scheme represent a much smaller fraction of our annual spending, but play a crucial role in fostering international academic collaboration. The Trust Board is aware of the sustained pressure on the Early Career Fellowships scheme, which attracts consistently high numbers of applications, and has lower success rates than other schemes offered by the Trust.

Numbers of applications and success rates over the last five years are shown on the accompanying table.

The Philip Leverhulme Prize scheme is a highly-regarded award for researchers whose work is already making an impact at an international level. As part of its yearly review of the Trust’s schemes, the Board this year decided to raise the value of each prize to £100,000 from 2014 – a commitment of £3 million per year. Next year’s round will also see the introduction of new subject areas in which nominations are accepted, opening the scheme to a broader range of outstanding scholars. In making these changes, the Trust Board wishes to ensure the continuing prestige of the scheme in the academic community.

As has been the custom for many years, the Trust Board delegated responsibility for a number of schemes to the Research Awards Advisory Committee, which this year welcomed Professor Martin Daunton as its Chair. Supporting over two hundred individuals a year, the schemes administered through the Committee account for close to twenty per cent of the Trust’s annual expenditure.

The responsive nature of the Trust’s grant-making, in which the choice of topic and research methodology is left to applicants, is reflected in the diversity of research projects we fund. Awards made during 2013 will support research on topics as diverse as religious broadcasting in the twentieth century, an exploration of parasite infection in Burmese timber elephants, and a study of the effect of hate crime on the community of the victims. Through its International Networks scheme the Trust is supporting collaborative projects on topics ranging from binary star systems, to a new initiative that will foster links between the Blackfoot people of Canada and UK museums with Blackfoot artefacts in their collections. Research to be conducted by holders of Leverhulme fellowships is similarly varied, exploring themes such as minority representation and democracy in India and how climate change is affecting the relationship of Inuit and Sámi communities to the Arctic landscape. The work profiled in this annual review further highlights the quality and breadth of scholarship that has been supported by the Trust: pages 16–51 feature some of the research that was funded during 2013, while on pages 54–67 we follow the academic successes of previous grant-holders.

As ever, none of this would be possible without the contribution made by the Trust’s many advisors and reviewers world-wide, upon whose guidance and wisdom the Board depends in order to form its policies and make its awards. We are immensely grateful for this effort; without it, the Trust simply could not function. That is true also of the contribution made by the Trust’s modest staff, the fourteen colleagues here at Pemberton Row; who somehow succeed in stewarding a portfolio of 1,500 live awards, and managing more than 4,000 grant applications annually, with obvious wit, style and charm. My warmest thanks go out to them and to the wider Leverhulme family of supporters throughout the UK and beyond.

Professor Gordon Marshall
### Total Applications (A) and Success Rates (%)
From 2009 to 2013

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>%</td>
<td>A</td>
<td>%</td>
<td>A</td>
</tr>
<tr>
<td>Research Project Grants &amp; International Networks</td>
<td>951</td>
<td>19</td>
<td>1,085</td>
<td>23</td>
<td>1,005</td>
</tr>
<tr>
<td>Early Career Fellowships</td>
<td>533</td>
<td>14</td>
<td>670</td>
<td>11</td>
<td>717</td>
</tr>
<tr>
<td>Research Fellowships</td>
<td>647</td>
<td>15</td>
<td>554</td>
<td>16</td>
<td>637</td>
</tr>
<tr>
<td>Major Research Fellowships</td>
<td>184</td>
<td>18</td>
<td>155</td>
<td>18</td>
<td>101</td>
</tr>
<tr>
<td>Philip Leverhulme Prizes</td>
<td>198</td>
<td>12</td>
<td>193</td>
<td>13</td>
<td>180</td>
</tr>
<tr>
<td>Visiting Professorships</td>
<td>74</td>
<td>58</td>
<td>76</td>
<td>51</td>
<td>106</td>
</tr>
<tr>
<td>Study Abroad Studentships</td>
<td>127</td>
<td>13</td>
<td>125</td>
<td>14</td>
<td>111</td>
</tr>
<tr>
<td>Emeritus Fellowships</td>
<td>120</td>
<td>28</td>
<td>137</td>
<td>25</td>
<td>92</td>
</tr>
<tr>
<td>Artist in Residence Grants</td>
<td>27</td>
<td>59</td>
<td>36</td>
<td>58</td>
<td>30</td>
</tr>
<tr>
<td>International Academic Fellowships</td>
<td>36</td>
<td>31</td>
<td>42</td>
<td>24</td>
<td>46</td>
</tr>
</tbody>
</table>
DISTRIBUTION OF FUNDS IN 2013

It is noteworthy that in 2013 half of the annual spend was dedicated to one of the Trust’s core schemes, the Research Project Grants. The Board’s commitment to the Early Career Fellowships scheme was also evident, with over £7 million being dedicated to supporting the next generation of academics.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Percentage</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Research Project Grants</td>
<td>55%</td>
<td>£29,193,453</td>
</tr>
<tr>
<td>2</td>
<td>Early Career Fellowships</td>
<td>14%</td>
<td>£7,221,000</td>
</tr>
<tr>
<td>3</td>
<td>Major Research Fellowships</td>
<td>8%</td>
<td>£4,094,520</td>
</tr>
<tr>
<td>4</td>
<td>Research Fellowships</td>
<td>7%</td>
<td>£3,482,873</td>
</tr>
<tr>
<td>5</td>
<td>International Networks</td>
<td>4%</td>
<td>£2,245,133</td>
</tr>
<tr>
<td>6</td>
<td>Philip Leverhulme Prizes</td>
<td>4%</td>
<td>£2,030,000</td>
</tr>
<tr>
<td>7</td>
<td>Visiting Professorships</td>
<td>2%</td>
<td>£1,340,756</td>
</tr>
<tr>
<td>8</td>
<td>Other*</td>
<td>6%</td>
<td>£3,370,645</td>
</tr>
</tbody>
</table>

* (Academy Fellowships, Arts Scholarships, Study Abroad Studentships, Emeritus Fellowships, Visiting Fellowships, Artist in Residence Grants, International Academic Fellowships)
### SUMMARISED FINANCIAL INFORMATION
For the year ended 31 December 2013

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td><strong>Incoming resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment income</td>
<td>73,877</td>
<td>64,157</td>
</tr>
<tr>
<td><strong>Resources expended</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment management cost</td>
<td>1,894</td>
<td>1,252</td>
</tr>
<tr>
<td>Charitable activities: grants and awards</td>
<td>52,218</td>
<td>73,683</td>
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<tr>
<td>Governance costs</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td><strong>Net incoming and outgoing resources before other recognised gains</strong></td>
<td>19,698</td>
<td>(10,845)</td>
</tr>
<tr>
<td>Gains/(losses) on investment assets</td>
<td>119,665</td>
<td>162,583</td>
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<tr>
<td><strong>Net movement in funds</strong></td>
<td>139,363</td>
<td>151,738</td>
</tr>
<tr>
<td><strong>Statement of funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total funds brought forward</td>
<td>1,888,350</td>
<td>1,736,612</td>
</tr>
<tr>
<td>Total funds carried forward</td>
<td>2,027,713</td>
<td>1,888,350</td>
</tr>
</tbody>
</table>

This information is taken from the Leverhulme Trust Annual Report and Financial Statements 2013, which are available to download from the Charity Commission website or on request from the Trust.
Written by current award-holders, and spanning a range of funding schemes and academic disciplines, our twenty awards in focus highlight the breadth and significance of research funded by the Leverhulme Trust in 2013.
Richard Holland’s research with robins and reed warblers explores the role of environmental cues in the ability of migratory birds to navigate their way across unfamiliar landscapes.

Dr Richard Holland
Queen’s University Belfast
Research Project Grant

The ability of small migratory birds to navigate thousands of miles between breeding and wintering areas remains one of the great unsolved mysteries in science. While experiments have demonstrated that adult solitary migratory birds can correct for displacements outside their normal range, even across whole continents, juvenile migrants are unable to do this, and must be navigating by innate mechanisms.

The ability to return to a known location from an unfamiliar place, without access to familiar landmarks or other cues emanating from the target location, is called ‘true’ navigation. Scientists have assumed that a bird’s ability to perform true navigation is dependent on information gathered on its first migratory journey. But it remains unclear to what extent this first journey influences subsequent migration patterns.

It has been proposed that true navigation is based on a ‘bi-coordinate’ map similar in essence to our Cartesian coordinate system, in which environmental gradients (cues that vary with latitude or longitude across the Earth’s surface) are extrapolated from home values in the breeding or winter area. For this mechanism to be successful it would require a minimum of two gradients intersecting at ninety degrees. However, to date even the sensory cues that animals use for navigation are debated.

My research project will test the responses of migratory birds to manipulations of specific cues – such as the Earth’s magnetic field and environmental odours – that may play a role in the true navigation ability of birds. Perhaps surprisingly, the birds themselves will not move during the experiments. I will use a long-established technique to test their orientation: an orientation funnel. Migratory birds show increased activity in the migratory period and if kept in captivity will hop around and flap their wings. It turns out that this hopping behaviour is directed and matches with the direction they would migrate in.

By keeping birds briefly in captivity, we can manipulate environmental cues to indicate other locations and test the birds’ responses to these virtual displacements. These experiments have great significance, not just for documenting the behaviour of the birds, but also for understanding the sensory systems involved. We do not yet fully understand the magnetic sense of birds, and uncovering its role in true navigation will aid us in establishing its physiological limits. Understanding the extent to which birds rely on environmental odours for migration will help better predict how future changes in weather patterns might affect bird migration. Studying animal navigation has another important impact on society: it is now being recognised that alternative, biologically-inspired navigation systems are required for human navigation in situations where GPS is not available or fails. Thus, understanding animal navigation has the potential to help us in our quest to find our way home.

Above. The reed warbler (Acrocephalus scirpaceus) is a summer visitor to Britain, and winters in Africa, south of the Sahara Desert.
Despite national acclaim on his death in 1955, the educator Alex Bloom is now virtually unknown. Michael Fielding’s research will provide the first full-length study of Bloom’s life and work, and show the relevance for contemporary times of his commitment to the values of participatory democracy in education and wider society.

**Professor Michael Fielding**
Institute of Education, University of London
Emeritus Fellowship

Alex Bloom was one of the great twentieth-century pioneers of radical democratic approaches to education. On 1 October 1945 he opened St George-in-the-East, a new secondary modern school in old buildings in Cable Street, Stepney, a very poor, tough, multiracial area in the East End of London, littered with bomb craters and the devastations of war. It was to be, in his own words, a ‘consciously democratic community ... without regimentation, without corporal punishment, without competition’.

Within three years the school had hosted numerous international visitors, including Dr Gertrude Panzer, a concentration camp escapee and one of the key figures in the educational reconstruction of post-war Germany. Speaking to Sir Robert Birley, later headmaster of Eton and the 1949 Reith Lecturer, Panzer remarked:

>‘If I could have in Berlin three schools like St George-in-the-East, Stepney, I could revolutionise the education of this city’.

Bloom’s untimely death in September 1955 at the age of 60 prompted an obituary in *The Times*, front-page coverage in the *Evening News*, and a double-page spread in the *Daily Mirror* with photos of weeping children and parents honouring his contribution and his passing. Indeed, Roy Nash, the education correspondent of another national daily, the *News Chronicle*, insisted, ‘It was an incredible thing to happen, absolutely unique in State education history. In my time I’ve reported funerals of prominent people, but I’ve never seen such genuine grief as on that day in the East End.’

As we mark the hundredth anniversary of the First World War, this study of one of the great pioneers of radical democratic education prompts us to reflect once more on how we might understand and learn from responses to the cataclysmic events of the first half of the twentieth century.

Part of our response must inevitably, some would argue pre-eminently, include a consideration of the role of education in helping us to imagine and create a more just, more humanly fulfilling future for all. Alex Bloom’s life and work in schools in the East End of London in the first half of the twentieth century is an exemplification of just such an undertaking. His decade at St George’s demonstrates, in ways that are still resonant and relevant how education in and for democracy might be realised on a day-to-day basis.

My research has a threefold purpose. First, to provide a definitive account of the nature and significance of Alex Bloom’s life and work, with particular reference to his time at St George’s. Second, it asks how it was possible to successfully go against the grain of contemporary educational and social norms in such a profound and inspirational way. Third, it asks how lessons learned from such research might be creatively utilised in shaping more overtly democratic educational futures in the twenty-first century.

Below. Alex Bloom (left) at a staff meeting in the garden of his home.
Drawing upon her artistic practice, which creates visual representations of the memories of Holocaust survivors, Barbara Loftus will work with staff and students at the University of East London to explore the theoretical, cultural, and educational potential of ‘visualisation from memory’.

Dr Angie Voela (residency host)
University of East London
Artist in Residence Grant

In 2014 the artist Barbara Loftus starts a year-long residency at the Psychosocial Studies Programme at the University of East London. Barbara, an English artist with maternal origins in Berlin, has for some years been engaging with visual representations of the memories of Holocaust survivors. Describing her work as ‘visualisation from memory’, she draws on narrative accounts of Holocaust survivors in order to imagine the settings of their experience: house interiors, scenes of domestic life, and ordinary objects. Barbara’s interest in the subject arose when her mother, Hildegard, broke her life-long silence and began talking to her grown-up daughter about her childhood in Nazi Berlin. The artist comments:

“My work is concerned with a re-enacting and interpreting of intimate domestic life described to me by my mother, who grew up in a comfortable bourgeois apartment in the diplomatic quarter of Berlin. I attempt to picture some of the effects of the progressive erosion of the family’s rights as citizens. I have fragments of evidence, copies of documents from archives, photographs and old letters. It is the texture of daily life, places and objects that I want to give a voice to.”

Barbara’s approach to the Holocaust does not focus explicitly on the horror of the specific historical event and the ineffability of trauma. By not attempting to represent it directly she creates a ‘site of memory’ capable of drawing attention to what is not included in the picture. This kind of oblique representation chimes with a current ethical question: will the obligation to confront the Shoah diminish and finally disappear with the passing of the last survivors and witnesses?

Hailing from the trans-generational transmission of the trauma of the Holocaust, Visualisation from Memory goes on to ask how the memories of others in general are received today, in the context of a Western-European culture that seems to be shifting from remembering to amnesia and to therapeutic discourses of ‘letting go’ and ‘moving on’. Barbara Loftus’ artistic practice invites individuals of different backgrounds to share and receive the memories of others.

During her residency, Barbara will work with students and staff to explore the theoretical, cultural, and educational potential of the artistic practice of visualisation from memory. Two themes, memory–childhood–homes and trans-generational trauma have been selected as most relevant to the central topic of this residency. Workshops and lectures will take place over two semesters and will involve students from all three undergraduate years. Students will investigate ways to visualise and explore testimony and memory, looking into their own pasts and considering the emotional benefits to be gained by different kinds of visualisation. A large number of students on the Psychosocial Studies courses are of African heritage and carry their parents’ memories of civil war, trauma, or loss of home; this project provides an opportunity for them to record and transmit these memories.

As an artist working on trans-generational trauma, Barbara has often felt confronted with issues of time and the lapse of time, the desire to work through traumatic memories and the failure to do so, as well as notions about the ‘proper’ ways of preserving the memory of the Holocaust. At this stage of her career she wishes to reflect further upon her practice in a more systematic and theoretically-informed manner. Working with academics at the University of East London will help her re-acquaint herself with the psychoanalytic notions that underpin her work. This collaboration will also produce a number of academic articles with myself and other colleagues on subjects including: the experience and mechanisms of coping with maternal trauma in art and psychotherapy; the mother-daughter relationship in Barbara Loftus’s work and in the work of Jewish artist-psychoanalyst Bracha Ettinger; the ethics of responding to the other’s trauma; and the spatial-aesthetic practices of trauma and the representation of childhood home.

We are all looking forward to Barbara’s residency and hope that it will be the beginning of a long-standing collaboration between the artist and our institution.
Sigismund’s Watch. Completed in 2007, this cycle of paintings concerns a significant day remembered from Hildegard’s childhood, which reveals the domestic impact of the Weimar hyperinflation of the 1920s.
Abigail Williams questions some of the basic assumptions about reading and authorship in the eighteenth century. Most histories of the period describe a move from anonymous writing and oral recitation towards named authorship and silent reading – but how accurate is this account?
Dr Abigail Williams  
University of Oxford  
Research Project Grant

How do we know who read what, and how? The past thirty years have seen an explosion of interest in the history of the book and the history of reading. Literary scholars and historians have begun to consider not just the text within books, but also the forms of those works and the evidence of what happened to them once they left the bookseller, library, or printer. Did historical texts work differently for their early readers, and is that difference created in part by the ways in which texts were packaged and read? How might we work out what books have meant, as well as what they mean now?

‘A New History of Reading and Authorship’ is a project which aims to transform the history of early modern English verse by questioning some fundamental assumptions about what happened to literature in this period. Existing accounts of the period from the mid-sixteenth to the end of the eighteenth century have developed common narratives about what happened to literature in this period. They have described a move away from anonymous or collective authorship, and a shift from manuscript transcription and oral recitation, towards individual named authors, silent reading and the dominance of print. But was this actually the case? It depends on what kinds of evidence we look at. Printed verse miscellanies, collections of verse by several hands, were some of the most popular forms of verse publication, but they have been long neglected by literary critics and historians, in part because of their bewildering number and variety. This project will for the first time enable us to see how verse circulated in miscellanies from 1557–1780.

Our research will draw upon and develop the findings of two databases of verse miscellanies: the Digital Miscellanies Index (DMI), which covers the eighteenth century, and Verse Miscellanies Online (VMO), which covers the late-eighteenth and early-seventeenth centuries. The two datasets have already pointed to some surprising conclusions about how verse circulated – conclusions which challenge existing accounts of the period. For example, the DMI has shown that John Dryden and Alexander Pope, the major authors of the early-eighteenth century, only make up three per cent and one per cent, respectively, of all the verse published from 1700–1720. The world of eighteenth-century verse was clearly more diverse, and less dominated by these canonical figures, than we might now assume. ‘A New History of Reading and Authorship’ will consider whether this startling conclusion is replicated for major authors across the period.

The two datasets have also challenged modern ideas of authorship. When editing poems for VMO, Michelle O’Callaghan, the co-investigator on the project, identified a number of poems that were composed out of sections of other poems printed in earlier miscellanies. Evidence suggests that this phenomenon originates in the early print trade and the practice of using ‘compiled’ poems to fill the blank spaces in books. In our work on the DMI we have become aware of a whole subset of anomalous texts: composite poems that are made up of small sections from other poems. Sometimes these ‘Frankenstein’ poems are composed of snippets from works by one author, but at other times, they are the product of many minds.

The period from the sixteenth to the eighteenth century is a critical time in the evolution of ideas about literary imitation and authorial property, and the emergent shape of the literary canon. This project will change the way we think about who wrote, what they wrote, and who read it.
BUILDING PLANETARY SYSTEMS

Top. An artist’s concept of Kepler 16-b with its two stars.

Bottom. Computer simulation of the formation of the Kepler-16 system, showing a young planet and protoplanetary disc around a newly-formed binary star.
Richard Alexander’s research explores one of the most challenging problems in modern physics: the formation of planets. Could the architecture of planetary systems outside the solar system tell us something about their formation, billions of years ago?

**Dr Richard Alexander**
University of Leicester
Philip Leverhulme Prize in Astronomy and Astrophysics

Since their discovery in the 1990s, our knowledge of extra-solar planets has increased at a startling rate. We now know of over a thousand planets around other stars, and most of these systems look very different to our own. My research looks at the birth-places of planets – ‘protoplanetary’ discs of cold dust and gas around newly-formed stars – in order to understand the origins of the enormously diverse exoplanet ‘zoo’.

Understanding how planets form is among the most challenging problems in modern physics. The largest solid bodies in the inter-stellar medium are dust particles, so planet formation requires growth from sub-micron grains all the way up to Earth-size planets and beyond: a factor of at least 1,040 in mass! On top of this, we see only the beginning and end-points of the planet-formation process: the small grains and pebbles we see in million-year-old protoplanetary discs are the building blocks of the exoplanets we observe around billion-year-old stars, but the intermediate steps are invisible to our telescopes.

We have, however, reached a point where our study of both protoplanetary discs and mature exoplanet systems is ‘data-rich’, and this wealth of observations allows us to study both in detail. We know, for example, that planet formation is a relatively inefficient process: typically only around one per cent of the material found in protoplanetary discs ends up in planets, with the rest either falling onto the star or being blown out into space.

Much of my research to date has concentrated on understanding how protoplanetary discs evolve and disperse, but in recent years I have begun to link the evolution of discs to observations of exoplanets. Newly-formed planets feel strong gravitational torques from their parent discs, which cause them to ‘migrate’ inwards towards their host stars. Migration plays a major role in determining the final orbits of young planets, and much of my recent work has focused on what the architectures of exoplanet systems can tell us about their formation.

Circumbinary planets (or ‘Tatooines’) are particularly interesting. These are planets orbiting twin suns, and until recently were largely the realm of science fiction. However, NASA’s Kepler mission has found that circumbinary planets not only exist, but are in fact common, and these systems are an ideal laboratory for testing our understanding of how planets form.

With my PhD student Alex Dunhill, I used the DiRAC super-computer in Leicester to simulate the early evolution of one such planet (Kepler-16b; see figure). We were able to use its present-day orbit to infer the properties of the disc in which it formed billions of years ago. I will use my Philip Leverhulme Prize to appoint a post-doctoral researcher to continue our work in this field, building detailed simulations of how young planets, discs and stars interact and evolve. By building detailed numerical models of these systems I aim to determine the conditions for planet formation around young binary stars, which in turn will help us understand the origin of the extraordinarily diverse properties of exoplanets.
Cromwellus ducitur Unco
Spectandus gaudent omnes quae labraquis illi
Dultus erat nunquam mihi credis amam
Hunc Hominem

Luv Satio
In writing the first accessible history of the period for twenty years, Alice Hunt will draw on multiple disciplines to tell a nuanced story about the Interregnum, a time of political and cultural innovation and experimentation.

Dr Alice Hunt  
University of Southampton  
Research Fellowship

On 30 January 1649, Charles I was executed outside the Banqueting House on London’s Whitehall. In May 1660, his son was invited back from exile to become King Charles II. Between execution and restoration lies the most misrepresented period in British history – and one of the most extraordinary.

Commonly referred to as the ‘Interregnum’, England’s republic has often been written about as a failure, as a doomed pause between the acts of the Stuarts’ royal drama. One dominant historical line has been that the British institutions of monarchy, parliament and church were not altered by the experiments of the 1650s; the ‘real’ revolution lay in the future, with the accession of William III and Mary II in 1689. Other historians have found the roots of modernity in England’s short-lived republic. And the popular view is that the 1650s were chilly and joyless, synonymous with Cromwellian tyranny, Puritan austerity and cultural impoverishment. But what was it really like to live in England during the 1650s, to live in a kingdom with no king and with no certainty that the British monarchy would ever be restored?

My research, to be published by Faber and Faber as a book for the general reader, takes me into the disciplines of political, economic, and social history, literature, music, art, and architecture. Weaving the disciplines together allows me to tell a more nuanced story about England’s republic. The 1650s were turbulent, and full of conflict and contradiction. Many men and women resisted the regime and plotted for Charles II’s return. But many others adapted to their upside-down world and began to believe things that had never before been imaginable. Taxes were high, theatres were closed, and the army and navy were formidable, but it was also a time of experimentation, innovation, flourishing trade, and new forms and fashions. Thomas Hobbes wrote Leviathan, John Milton began Paradise Lost, and William Davenant staged England’s first opera. The Quakers expanded and the Jews were allowed back into England. At the same time as pleas for godly reform thundered from the pulpits, people went to coffee houses and shopped for clocks and chocolate. A group of natural philosophers, including Christopher Wren, gathered on Bishopsgate to discuss the ‘new science’; they later became the Royal Society.

One of the most puzzling aspects of the English republic is the way in which Oliver Cromwell, a talented military leader and deeply religious man, began to dress, rule and live like a king. In 1653 he was invested as Lord Protector and he presided over a court which adapted many of the forms and rituals of England’s former monarchs. He employed a master of ceremonies and a poet laureate, and foreign ambassadors were entertained with masques at Whitehall. In 1657 Cromwell was offered the crown and the title of King Oliver I. He refused, but he underwent an elaborate ‘coronation’ during which he accepted a sceptre and was addressed as ‘his Highness’. The impact of this peculiarly royal aspect of England’s republic on the cultural life of the country and on the development of British monarchy has not been fully acknowledged. The English republic is best understood as a kind of lost reign in the longer story of British monarchy: less a republican failure than an astonishing attempt to reinvent kingship.
CITIZEN-ARTIST: CREATIVE CITIZENSHIP IN OCCUPIED SPACES

Through a comparative study, Igor Štiks explores the new modes of citizenship that emerge in the interplay of place, creativity, and self-rule to be found in occupied public spaces, and asks whether we are witnessing a growing social and political trend within occupied space? Which citizenship rights do citizens actually (re)claim through occupation, autonomy, and creativity?

At this point it is important to underline that I am not concerned with the popularised ‘creative class’, nor with the ‘creative citizenship’ or ‘participatory society’, since these usually involve apolitical phenomena, at best active citizenship, but certainly not the activist citizenship that we can see at work during occupations. Also, I do not intend to analyse general ‘protest art’ but precisely those acts of creativity that we find in occupied spaces and that are only possible within those spaces.

In my approach, creative citizenship should involve two dimensions. On one hand, we find creative enactments of citizenship: new practices of citizenship in organisation (self-rule, decision-making process, collective actions and deliberations). On the other, there are acts of creativity: those artistic, artisanal, and engineering practices (graffiti, stencils, posters, performances, filming, writing, readings, construction, engineering innovations, and bricolage) that are enabled by occupations that, in turn, can powerfully shape citizenship acts themselves.

My research will start with a comparative study of various occupations in Athens (public spaces such as city neighbourhoods, parks, or theatres such as Embros), Rome (Teatro Valle), and Zagreb (university). Can we detect similar instances of creative citizenship at work in these different cases? If we detect important variation and difference, is it due to the different character of the occupied space or other elements such as the social, political, and historical context? The comparison will test my initial hypotheses that ‘occupied space’ is always part of a larger historical, political, and social space that itself must be accounted for when we analyse acts of creative citizenship, and that we are witnessing a growing transnational social and political trend.

Dr Igor Štiks
University of Edinburgh
Early Career Fellowship

My study explores the contemporary interactions between the occupation of public spaces, inventive forms of self-rule, and artistic expression. I understand creative citizenship as both creativity in political organising and as creative practice within occupied spaces. Drawing inspiration from critical political and legal theory, my research contributes to our understanding of the fields of citizenship and urban cultural studies, as well as to scholarship on social movements and engaged art.

Although non-hierarchical decision-making and self-organisation have been widely discussed by observers of – and participants in – the ‘Occupy’ movement (David Harvey, David Graeber or Noam Chomsky), and ‘occupy art’ has been widely publicised, less scholarly attention has been given to the new type of emerging citizenship found in the interaction between occupied spaces, political innovations in self-rule, and artistic creativity. My research will focus on temporary occupied spaces where the mutual interplay of place, creativity, and citizenship occurs. I will build upon the distinction proposed by citizenship scholar Engin Isin between ‘active’ citizenship (as formal citizens’ activities usually regulated by the authorities) and ‘activist’ citizenship that creates a new political and social dynamic, as well as new political subjectivities and actors.

I propose to begin my exploration of occupied spaces through two initial research questions: how does creativity in political organisation of occupied spaces manifest itself? And what kinds of art or artefacts are produced in these spaces? The answers to these questions lead to my central research questions. How and why do certain autonomous political practices enable or inspire artworks? How do creative products affect political practices within occupied space? Which citizenship rights do citizens actually (re)claim through occupation, autonomy, and creativity?
CARTOGRAPHY BETWEEN EUROPE AND THE ISLAMIC WORLD 1100-1600

Above. Map of Sicily; folios 32b -33a, Book of Curiosities, Bodleian Library MS Arab C 90.
A new network of scholars of European and Islamic cartography is developing new comparative approaches in tracing the points of continuity and difference between these two rich traditions of mapmaking.

Dr Alfred Hiatt
Queen Mary, University of London
International Network

Europe and the Islamic world both enjoyed rich cartographic traditions during the period 1100–1600, and recent scholarship has done much to draw out the contexts and meanings of pre-modern mapmaking. Such scholarship asks us to reconsider modern notions of the nature and function of maps: in the Middle Ages, for example, navigation was just one possible function of a map, which might more often be used as a political statement, or a means of representing historical events.

The Leverhulme Network ‘Cartography between Europe and the Islamic World, 1100–1600’ aims to build on the best of recent work on the history of maps by bringing together experts on both cartographic traditions. The Network emerges from the conviction that too often in the past the study of cartography in Europe and the Islamic world has progressed along parallel lines. Where scholars have attempted to draw comparisons, the results have not always been founded on a secure methodology. The time frame chosen for the project is deliberately broad, extending from the introduction of certain key works of Arab learning to Europe in the twelfth century to the Age of Discoveries, both periods of demonstrable intellectual interaction between Europe and the Islamic world. Within this time frame, a number of places and moments of contact between traditions come to mind: twelfth-century Spain; the court of Roger II of Sicily; Spanish, Italian and Maghribi portolan (harbour-finding) maps; fourteenth- and fifteenth-century Italian cartography; and the Ottoman geographer Piri Reis. The task of the Network will be to explore these known points of contact, but also to see if others can be established.

The Network is currently working towards a major international conference, to be held at Queen Mary, University of London, in September 2014. The conference will encourage participants not simply to put European and Islamic maps side by side, but instead to develop rigorous comparative approaches, based on their knowledge of local and regional contexts. The hope is that these new comparative approaches will enable us to draw conclusions about the presence or absence of cross-cultural intersections on maps, and about the continuities and differences that existed across traditions.

The Network’s most recent workshop brought together experts on cartography from across Europe, and provided much food for thought. Interestingly, participants found themselves pondering the differences between Islamic and European traditions more than the similarities and overlaps. For example, it was in Europe that mapmaking had a more explicitly religious purpose, and in Europe that maps were more likely to be found outside of manuscript contexts. Within the Islamic tradition, by contrast, the links between terrestrial cartography and cosmology (the understanding and depiction of the heavens) seem ultimately much tighter and more consistent than in Europe.

Pursuing these and other differences – whether differences of context, style, or attitudes to maps – will be an important task of the conference in September 2014.
Below. A street in one of the working-class suburbs of Dakar.
DEATH IN THE FAMILY IN URBAN SENEGAL: BEREAVEMENT, CARE AND FAMILY RELATIONS

The first in-depth study of bereavement in urban Africa, Ruth Evans’ research in Senegal will make a highly original contribution to a discussion that has until now focused on death and bereavement in the developed world.

Dr Ruth Evans
University of Reading
With Jane Ribbens McCarthy, Sophie Bowby and Joséphine Wouango
Research Project Grant

The loss of a close adult relative is a significant life transition that almost everyone experiences at some point. In the Global South, the death of a spouse, parent, sibling or other relative may have a range of significant practical, financial and emotional impacts on people’s lives, resulting in mourning and grief, intergenerational transfers of wealth, changing caring responsibilities, changing livelihoods, decisions to migrate, and increased poverty. This research project will provide the first in-depth understanding of responses to death, care and family relations in urban Africa.

We will investigate the material and emotional significance of an adult death in families of different socio-economic status and ethnicity in the dynamic urban context of Senegal. This research will make a highly original contribution to death and bereavement studies, which have previously been rooted in western, medicalised and individualised frameworks.

Indeed, the notion of ‘bereavement’ itself will be interrogated for its theoretical assumptions and cultural relevance.

Its complex social and cultural context makes Senegal a particularly appropriate location in which to explore the dynamics of loss and care following the death of a family member. It has a high rate of urbanisation compared to other African countries, with nearly half of the population living in urban areas. Family relations and inheritance practices in Senegal are underpinned by the ‘triple heritage’ of African, Islamic and colonial influences. Economic crisis, urbanisation, and increasing competition for land, combined with the large, often multigenerational, nature of households, means that increasing pressures are placed on the growing number of families living in urban areas. Chronic poverty affects twenty-seven per cent of households in Dakar and thirty-seven per cent of households in other cities.

Conventional religious and customary norms such as polygamy, mourning rituals and inheritance practices are changing in cities. My earlier exploratory research in Senegal suggested that inheritance disputes were more likely in urban areas, especially among co-wives in polygamous marriages where the husband had significant assets.

This study will build on my previous research and provide empirical evidence about the significance of a close family death on different family members in Dakar and Kaolack, two cities with diverse populations. Families will be selected to reflect a range of socio-economic backgrounds, enabling us to explore varying levels of vulnerability to poverty. Particular attention will be paid to young people’s experiences of a close family death. The research will investigate how continuing bonds with the deceased are expressed across different temporal and spatial contexts.

We will analyse the ways in which practices of care among the living, and continuing bonds with the deceased, are affected by gender and intergenerational relations, and their social and place-based contexts. The research will also identify the policy and practice implications in order to improve the social protection of bereaved family members in African cities.
Ahmad Karimi-Hakkak is a public intellectual, a translator of important works into English and Persian, and an internationally acclaimed scholar of Persian literature and culture. He has published extensively on classical and modern Persian poetry and prose in Iran, the Iranian diaspora in Europe and the United States, on Persian-speaking countries such as Afghanistan and Tajikistan, and on Iranian cinema. Professor Karimi-Hakkak also has extensive experience in building academic programmes in Iran and the United States. His most recent success, the Centre for Persian Studies at the University of Maryland, renamed in 2012 as the Roshan Centre for Persian Studies, is a testimony to his leadership in research, networking, administration, and outreach.

Ahmad Karimi-Hakkak is visiting SOAS, University of London from the University of Maryland where he has been Professor of Persian since 2004. His visit comes at an opportune time for SOAS, which established its Centre for Iranian Studies in 2010 and launched its MA in Iranian Studies in 2012 as part of an ongoing effort to invigorate and develop Iranian and Persian Studies. Having a world-leading expert on Persian language, literature, and culture, whose expertise straddles scholarly projects and outreach activities, will have far-reaching effects on staff and students, and on teaching, research, and outreach at SOAS.

During his visit, Professor Karimi-Hakkak will contribute to discussions on how to develop and broaden the scope of the Iranian Studies programme at SOAS, how to foster links with the Iranian community in the UK and beyond, and how to raise the profile of Iranian Studies at SOAS. In addition to leading research seminars and teaching classes, Professor Karimi-Hakkak will give three Leverhulme Lectures. These will demonstrate the richness and beauty of Persian literature and its relevance to politics, provide insights into integrating cinema into literary studies, and show how a rigorous and interdisciplinary approach can make the study of Persian literature and culture more exciting.

Professor Karimi-Hakkak will be bringing to SOAS his research project, ‘Writing Home: Expatriate Iranian Literature in Historical Perspective’, which explores the theme of exile in Persian poetry and prose literature, tracking a variety of ideas about identity and community and notions of what it means to be from, and belong to, a particular place. With the condition of exile becoming an increasingly dominant mode of existence in the world, Professor Karimi-Hakkak’s work opens up important new vistas for research.

Professor Karimi-Hakkak’s work on the literature of exile and belonging complements an existing SOAS research programme led by Dr Nima Mina, which is using the literary and media productions of Iranian communities in Europe to examine how exiled communities interact with the political, social, and cultural conditions of their host societies. The clear synergy between the two projects promises a rich and robust research outcome for both.
Dr Aline Miller  
University of Manchester  
Philip Leverhulme Prize in Engineering

The needs of the ageing population in the Western world are driving the development of more advanced healthcare technologies. One of the areas that materials scientists have identified as a priority over the next ten years is the development of highly functional, tailored soft materials for regenerative medical applications, such as scaffolds for wound repair, drug delivery devices and biosensors. Under certain conditions peptide molecules can spontaneously organise into a range of highly ordered nanostructures and these self-assembling systems have been highlighted as one of the most promising building blocks for such application areas.

My previous research has focused on the development of a technological platform that exploits the self-assembling and gelation properties of short peptides to engineer biomaterials for a range of applications. The platform is based on understanding and mastering all the materials design steps involved: from producing the individual molecules, to controlling their self-assembling pathway, and developing prototype materials based on the specific requirements of the intended application. Such technology has thus far focused on essentially bare, unresponsive peptide hydrogels.

The next stage in our research will be to increase the sophistication of our peptide hydrogels by delivering a rule-based approach for the fabrication of multi-component, responsive, and active fibrous materials specifically for the targeted, temporal delivery of growth factors to control cell behaviour and/or anti-microbial peptides for wound repair, drug, and gene or protein therapeutics. This is being achieved by embedding responsive and active peptide-polymer conjugate molecules within our fibrillar peptide hydrogel; this enables the functionalisation of fibres that can expose or hide drug molecules in response to a specific change in the physiological environment of the hydrogel, which effectively acts as an on/off trigger for drug delivery. The properties and response of the hydrogel can thus be designed to tailor the site and kinetics of drug release, minimising any toxic effect on healthy cells or tissue. The material will be delivered specifically at the desired site via injection or spraying, both approaches having already been demonstrated as viable routes in my lab.

The award of the Philip Leverhulme Prize will give me the time and flexibility over the forthcoming years to increase the level of sophistication of my materials, to work with clinicians to discuss specific material requirements, and to move away from model systems and translate my materials into the clinic. My group will also work towards developing prototype drug delivery vehicles for targeting cancer and other disease states. This prize will also provide crucial travel funds to allow me to publicise my work further on the international stage with the aim of fostering new end-user collaborations that will increase the range and impact area of my group’s work. Any breakthroughs we make in this area promise to enhance the lives of patients and increase the quality of clinical practice and targeted care pathways.

Below, FEFEFKFK peptide nanofibres entangling to form a three-dimensional hydrogel whose structure is akin to an extracellular matrix.
THE RELIGIOUS LIFE OF DURA-EUROPOS

What can a small town on the periphery of the Roman world tell us about religious life in the ancient world? Ted Kaizer’s interdisciplinary approach seeks to provide a comprehensive history of the religious sites at Dura-Europos, and an insight into worship outside the main cult centres of the ancient world.

Dr Ted Kaizer
Durham University
Major Research Fellowship

Situated on the bank of the Euphrates in present-day Syria, Dura-Europos was founded as a Macedonian colony by one of the successors to Alexander the Great, and came consecutively under Parthian and finally Roman control, until it was destroyed by the Sasanians shortly after the middle of the third century. The unique archaeological history of this small town on the Euphrates makes for an ideal case study of all aspects of the religious culture of a relatively minor locality on the periphery of the Roman world. Excavations have revealed inscriptions and graffiti in at least ten ancient languages; sculptures and frescoes which uniquely combine elements of classical and oriental art; the most important papyrological dossier of any military unit in the Roman world; documents relating to the local economy; and, above all, more than a dozen pagan sanctuaries, including a Mithraeum, a painted synagogue of world-renown and the earliest Christian house church, all set in a rigorous grid-iron city plan and surrounded by well-preserved fortifications.

My research project sets out to produce a comprehensive overview of the history of all temples and shrines at Dura-Europos and to provide full details of how all the relevant finds can be linked to individual places of worship. One of the main obstacles to our understanding of religious life in Dura-Europos is the academic tendency to adhere to the names which the original excavators long ago assigned to the different sanctuaries. Most of the names that link a temple with only one particular deity – such as ‘the temple of Adonis’ or ‘the temple of Bel’ – simply do not reflect cultic reality, a point that can also be made for many other places in the Near East (such as Palmyra, Hatra, and the cities of the Decapolis). The project’s interdisciplinary approach will combine ancient history with archaeology, classical and Semitic epigraphy, and with iconography. An in-depth study of the multifarious patterns of worship at Dura-Europos could have important implications for the study of local religious life outside the main cult centres and the large cities of the Hellenistic and Roman Near East, and indeed for religious life in the classical Levant in general.

In addition to the main project, I will be involved in an international project, directed by the Academia Belgica in Rome, to republish all the works of the great Belgian scholar Franz Cumont. Two volumes are on Dura-Europos, where Cumont excavated in 1922 and 1923, and these will provide an invaluable historiographical foundation for the main project.

The further exploration of the potential of Dura-Europos to enhance our understanding of virtually all aspects of history in the late Hellenistic, Parthian and Roman periods is still in its infancy. The current project aims to contribute to granting this small town its rightful place in the centre of modern scholarship on the Graeco-Roman world.
Below. Cult relief of Zeus Kyrios-Baalshamin, AD 31/32.
STRESSED OUT? ‘VILLAGE’ CHIMPANZEES IN AFRICA

Are there nutritional advantages for wild animals that are willing to risk the stress of close contact with people? Matthew McLennan’s research takes him to western Uganda to explore the interaction between stress, nutrition, and health in populations of wild chimpanzees living alongside farming villages.

Dr Matthew McLennan
Oxford Brookes University
Early Career Fellowship

Humans are an inescapable feature of most environments inhabited by wildlife today. In the tropics, rapidly expanding human populations and the conversion of natural habitats for agriculture has meant that wild animals increasingly share habitats with people and compete with them for space and resources. The extent to which living alongside people is ‘stressful’ for wildlife is poorly known for most species.

Hormones called glucocorticoids are released into the bloodstream in response to stressful stimuli. Glucocorticoids help mobilise energy reserves while suppressing non-essential functions, helping an animal cope with the stressor. Although short-term increases in glucocorticoid output are beneficial, chronic stress disrupts physiological processes critical for health and survival, including the immune response, which can increase an animal’s susceptibility to harmful pathogens. As wild animals are increasingly forced into proximity with people, understanding the impact of stress on the health of endangered species has become a priority area of applied research.

Our closest relative, the chimpanzee, is primarily a forest-dweller and tends to fare badly under human pressure, as evidenced by rapidly-declining populations throughout its range in tropical Africa. Nevertheless, recent research has revealed that chimpanzees can survive in disturbed habitats close to people providing they are not hunted for meat. This unexpected resilience can be attributed to their ecological and behavioural flexibility, which enables them to respond adaptively to human-driven landscape changes. This flexibility is most clearly seen in the chimpanzee’s propensity to supplement a natural diet with nutritionally-dense agricultural crops. But exploiting high-quality human foods is a risky strategy for wildlife: crop-raiding chimpanzees risk hostile encounters with farmers, which can result in injury and occasional death. Such confrontations are presumably highly stressful for the apes. Moreover, increased contact with human and domestic animal waste in agricultural landscapes exposes chimpanzees to novel pathogens, such as gastrointestinal parasites.

My research explores interactions between stress, nutrition and health in wild chimpanzees coexisting with farmers in western Uganda. Specifically, it examines whether crop-raiding enables chimpanzees to avoid seasonal energetic stress during periods of low wild food availability, thus increasing our understanding of the nutritional drivers of chimpanzee foraging decisions in human-dominated landscapes. I will also investigate whether predicted rises in glucocorticoid output during lean seasons – resulting from the more frequent confrontations with people that crop-raiding entails – make chimpanzees more vulnerable to potentially deleterious parasite infections, or whether, alternatively, the nutritional advantages of feeding on energy-rich crops counter the immune-suppressive effects of elevated stress. This multidisciplinary project brings together the fields of endocrinology, nutritional ecology, conservation biology and parasitology, and aims to improve our understanding of how human habitat changes and increased contact between people and wildlife impacts on species of conservation concern.

Two adult male chimpanzees crossing a road in front of villagers in Uganda.
Could quantum light be exploited to develop less invasive alternatives to current techniques for probing biological samples? Stefano Pirandola’s research aims to answer this question by developing and testing a novel quantum-enhanced spectrophotometer.

Dr Stefano Pirandola
University of York
Research Fellowship

The development in physics of imaging and spectroscopic tools – such as the microscope, the laser, magnetic resonance imaging and X-ray imaging – has revolutionised biological sciences, chemistry, and medicine. The working mechanisms of these tools are based on our knowledge of the fundamental physical laws that rule the interaction between radiation and matter. But as the new field of quantum information has prompted us to revisit and deepen our understanding of these laws, scientists are asking the question: ‘Can this new science provide us with novel and more advanced techniques that could be used in biological science and medicine?’

My research project aims to answer this question. The general goal is to demonstrate how quantum light can be exploited to perform non-invasive low-energy probing of biological samples, such as human tissue, or cell cultures in growth media. The reason for using quantum light is that it is able to detect small perturbations and defects even when only a small number of photons are irradiated through a test sample. Since the proposed technique aims to be non-invasive, it could also be implemented in a real-time fashion with repeated and continuous observations performed on the same sample.

To prove the principles of this new application of quantum light, I will design and study a model quantum-enhanced spectrophotometer. Spectrophotometers are widely used in experimental biology, for example, in measuring the number of cells in growth media, or the amount of DNA/RNA after cellular extraction. The devices in use today are based on deuterium or tungsten lamps, strong thermal sources that emit a lot of photons, whose effect on the sample can be deleterious, especially at the UV regime. In a quantum version of these instruments, the thermal sources will be replaced by more advanced quantum sources which are characterised by low energy, but strong quantum correlations. In this way a few non-invasive photons will be able to extract all the relevant information from the sample, without causing any deterioration.

The potential advantages of a quantum-enhanced spectrophotometer could be significant, not only for the possibility of non-invasive real-time probing of fragile materials, but also for increasing the sensitivity so that it is able to detect extremely small variations of concentration. In the long term this study could be used not only in biology but also in medicine, where the absorbed radiation dose is a problem in many imaging tests, including X-ray imaging and CT scans.

Bottom. Rice farming in proximity to a phosphorous fertiliser plant, 2009.
LIVING WITH POLLUTION
IN RURAL CHINA

Anna Lora-Wainwright’s groundbreaking ethnographic research in China explores themes of illness, development and agency, questioning common narratives about how rural Chinese relate to pollution, and highlighting people’s deep ambivalence about the drive to modernisation.

Dr Anna Lora-Wainwright
University of Oxford
Philip Leverhulme Prize

China’s environmental pollution preoccupies academia, policy makers and the wider public alike. The media – both within China and outside it – regularly features food safety scandals, large-scale pollution accidents, and widespread routine pollution. Pollution and environmental health are increasingly the cause of lawsuits, petitions, NGO involvement, and mass protest. Although most environmental suffering takes place far from the purview of journalists, courts and NGOs, the daily grind of ‘living with pollution’ has received scant attention. It is widely agreed that citizens may play an important role in pollution regulation, yet very little is known about the intricate processes through which citizens understand and respond to environmental health threats.

My research since 2007 has aimed at addressing this gap. Through unprecedented access to severely polluted sites and fruitful collaborations with Chinese colleagues and with local governments, I have explored villagers’ hugely diverse everyday struggles with pollution. This has involved in-depth qualitative fieldwork in villages affected by resource extraction and processing, including a lead-mining town and a village which mines and processes phosphorous to produce fertiliser. My work looks beyond high-profile cases of successful resistance and focuses on the much more common scenarios in which pollution victims suffer in silence; are unsuccessful at ending pollution; or are co-opted by polluting enterprises into seeing it as inevitable. Studies of environmental consciousness have tended to focus on urban middle classes, giving the false impression that rural populations are either unaffected, do not know or do not care.

My research overturns this bias to show that rural Chinese do not accept pollution in their vicinity out of ignorance or because they only care about economic benefits. Instead, I argue that the ways in which they relate to pollution involve deeply social and moral decisions. In doing so, I highlight people’s deep ambivalence about development and modernisation and some of the new fault-lines of inequality and social conflict which they generate.

The Philip Leverhulme Prize will enable me to complete a monograph titled Living with Pollution in Rural China and to work on three interrelated projects. I will examine the human costs of resettlement and urbanisation, describing how land grabs affect villagers, their livelihoods, and their sense of self in a village I have studied for a decade. In collaboration with Tom Johnson and Jixia Lu, I will document how evidence of environmental health harm from waste incineration is mobilised and contested in rural China, and chart the development of lay-expert collaborations and citizen science. My research will also look at how those involved in processing waste electrical equipment understand and evaluate its economic benefits and environmental health harm, raising questions over sustainability, comparative environmental justice, and human rights. As a whole, this research will shed light on topics of great currency in the study of contemporary China, such as the relationship between state and society, state legitimacy, citizens’ agency, social justice, and welfare. It will also raise important questions for the comparative study of environmental health movements.
A new Leverhulme Trust-funded programme is offering a ‘proto-professional’ learning environment for exceptionally talented young conductors

**Professor John Wallace**
Royal Conservatoire of Scotland
Arts Scholarship

In 1847 the Glasgow Athenaeum was established to provide further education for adults in the fields of commerce, science and the arts. Over 150 years later and the original Athenaeum has undergone several transformations, growing in excellence and reputation and becoming a world-renowned academy for the performing arts. Today, the principal activity of the Royal Conservatoire of Scotland (RCS) is the provision of learning, teaching and research in the performing arts. It is the UK’s only conservatoire to offer the complete spectrum of the performing arts disciplines: music, drama, dance, production, and screen. RCS is home to over eight hundred and fifty students from around the world, studying at both undergraduate and postgraduate level.

In 2013 the Leverhulme Trust awarded a grant for a new conducting scholarships programme at RCS, allowing us to bring a new vocational element to our existing training for conductors. The programme, which is a step on from study at master’s degree level, will offer three exceptional young conductors the chance to work in a professional performance environment, gaining experience of conducting renowned orchestras such as the Royal Scottish National Orchestra, Norrköping Symphony Orchestra, Red Note Ensemble and WDR Sinfonieorchester. They will also work with student composers, premiering works during the annual RCS Plug Festival. The aim of the programme is to produce an environment where truly deeper, higher and broader learning can take place. The level of the course is thus stretching the boundaries; to use a recent Olympic metaphor, the course is going beyond gold to platinum.

Fergus Macleod joined the RCS as a Leverhulme Conducting Fellow in 2013. Since then he has performed with the orchestra of Scottish Opera and Red Note. According to Fergus, the fellowship offers a valued opportunity to gain experience: “The breadth and variety that the programme offers is truly unique. The combination of working with world-class professional ensembles, assisting Donald Runnicles at the BBC Scottish Symphony Orchestra, working with students in the Conservatoire, and being mentored by an internationally-recognised conductor such as Garry Walker is immensely beneficial.”

The breadth of artistic disciplines at RCS means that conducting scholars will be able to work in a variety of different performance contexts, from symphony orchestra to ballet and opera. Many of the opera houses of Europe and beyond are thirsty for graduates who can flourish in this multidisciplinary environment. This intense and immersive programme of training aims to take emerging conductors of talent and commitment and create expert leaders who are of a sufficient level to gain the respect of their professional peers.
Below. Fergus Macleod, one of the two Leverhulme Conducting Fellows at the Royal Conservatoire of Scotland.
Dr Jenni Barclay  
University of East Anglia  
Research Project Grant

Ascension is a volcanic island located in the equatorial waters of the South Atlantic. Discovered by a Portuguese seafarer in 1501, it remained uninhabited until the British established a garrison in 1815 to deter any French interest following the detention of Napoleon Bonaparte on the nearby island of St Helena. It has been occupied ever since and remains an important communications centre to this day.

On Ascension we find an active volcanic system, with the morphology of deposits on the island suggesting that the last eruption happened within the last thousand years. But no one has ever witnessed an eruption from Ascension, and there is no historical record of its activity and no dedicated monitoring system that we could use in evaluating potential volcanic hazards. This kind of situation is not uncommon globally. Our new project explores how we can use recent advances in geochronology, geochemistry and volcanology to improve how we understand and anticipate future activity in these settings.

Our work brings together a diverse team of researchers from the University of East Anglia, Durham University, the British Geological Survey and the Scottish Universities Environmental Research Centre at the University of Glasgow.

Understanding the time-size distribution of eruptions from a specific volcanic system provides the most important first step in determining both long and short-term volcanic hazards. We are going to push this approach to the analytical limit by capitalising on new techniques in argon-argon (40Ar-39Ar) geochronology to attempt to date and characterise every sub-aerial (land-based) eruption in the system. This marries the very best in analytical geochronology with expert characterisation of the deposits.

Recent advances in geochemistry allow us to probe the erupted products, and in particular their crystal cargo, to interrogate the underlying causal processes behind the switch from dormancy to eruption. A second strand of the project will use these techniques to understand those perturbations that occur in the run-up to individual eruptions and those that relate to long-term changes in eruptive style. Our hypothesis is that using this multidisciplinary approach in interrogating a volcanic system will enrich our ability to anticipate future activity.

A third strand will incorporate our findings into a new volcanic hazard assessment protocol and analyse the value of these new data to those who will have to make decisions in the face of volcanic activity, providing an almost unique end-to-end exploration of fundamental new science and its role in volcanic hazard assessment.

The beaches and mountains of this sub-tropical volcanic island provide a unique opportunity to characterise a diverse and fascinating eruptive history, allowing us to develop and test new ways to work on this type of system. Like our geological forefathers we hope the long days in the field will fertilise discussions that fuel our ability to tackle the problem of understanding volcanic eruptions and their impacts on civilisation.
Below. Basaltic lava flows snake their way around small scoria cones on Ascension Island.

PHILIP GUSTON AND THE ALLEGORY OF PAINTING

In the first major study of allegory in Guston’s later work, Karen Lang’s research will explore how the artist turned from abstraction to allegory as a way to restore vitality to his painting.

Dr Karen Lang
The University of Warwick
Major Research Fellowship

This project will study the American artist Philip Guston’s late painting (1968-1980), when he turned from an abstract to a figurative mode. When Guston’s new style was unveiled at New York’s Marlborough Gallery in 1970, the critics were stumped – and they fumed. These critics knew the artist as a respected member of the New York School of ‘Abstract Expressionism’. It did not help that the new style appeared to poke fun at the tenets of abstraction created by the critics. Abstraction was no joke. The New York School was the most famous style of painting in the Western world at the time, and its artist-members and critic-initiates had built their reputations on it. Turning from the propped-up heights of abstraction to a folksy, even dime store, mode of figuration, Guston used allegory to bring the suppressed into view.

The figurative style of the late painting has been the subject of scholarly study and fascination, engaging art historians, artists, poets, and literary scholars. Yet while the late style has been discussed in the terms dictated by the initial critics of the 1970s, and studied in terms of style change, to answer the question of why Guston changed gears from abstraction to figuration, this will be the first project on Guston’s allegory of painting.

During the 1970s, allegory, figuration and eventually the practice of painting itself were put under the ban in contemporary criticism and in scholarly writing in the History of Art. Publicly declaring his new figurative paintings to be allegories, Guston received the reply: ‘surely you’re not serious’. In the History of Art, allegory is generally contrasted with the symbol. The symbol binds object and meaning together. Allegory uncouples object and meaning, opening an abyss or a relay of meaning that invites and resists interpretation. The medieval theory of allegory included the untimely (defunct and ‘unpresentable’ aspects of form and content) and the inexpressive (material rendered ‘unsayable’ according to concepts and definitions in circulation). Since allegory had been effectively wiped off the map of modernist painting and criticism (most notably in Clement Greenberg’s famous essay, ‘Modernist Painting’ of 1960), these aspects retreated from view. Pulling back the curtain on abstraction, Guston concentrated on awkward and lifeless objects to restore vitality he believed had been lost in abstract painting. In the artist’s last decade, the untimely and the inexpressive became significant features of a new language of painting.

When Guston declared his new paintings to be allegories, he had in mind the German literary critic Walter Benjamin’s sense of the term. Benjamin’s theory of allegory offered the artist a means to describe what he had been aiming for, intuitively. As Walter Benjamin had argued in his 1928 theory of allegory, Guston, through painting night after night, discovered life in humble objects that defied what might be expected of the inorganic. Moving first to a small format and the depiction of a single object, then to large canvases with one and sometimes many objects, Guston sought to re-enchant the world of painting.
By drawing upon alternative linguistic traditions, Geoffrey Khan’s research will lead to the publication of the most comprehensive and accurate description of Biblical Hebrew.

**Professor Geoffrey Khan**
(principal investigator)
and Dr Aaron Hornkohl
University of Cambridge Research Project Grant

Biblical Hebrew has long been an object of scholarly attention. Until now, however, the linguistic description in Biblical Hebrew reference works has been marred by certain inadequacies. First, it has almost without exception focused on a single linguistic tradition – the Tiberian – despite the fact that evidence for a variety of written and oral traditions is known. While there is no denying the centrality of the Tiberian Masoretic tradition for the study of both the text and language of the Hebrew Bible, alternative traditions should not be ignored. Some of these have been studied in detail, for example, the Samaritan written and oral tradition, so that the relevant data need only be integrated into a more composite description of Biblical Hebrew. In other cases, most notably the non-Tiberian Biblical reading traditions in the Cairo Genizah, the living reading traditions of Persia (Iran) and Central Asia, and the language traditions represented in the Biblical Dead Sea Scrolls, the material awaits systematic investigation. The new reference grammar aims to remedy the unsatisfactory situation according to which this rich variety in the written and reading traditions finds virtually no representation in Biblical Hebrew reference works.

Moreover, the presentation of the Tiberian tradition of Hebrew in past and current grammars of Biblical Hebrew is in many crucial respects artificial and inaccurate. This regrettable state of affairs arose through no fault of the modern grammarians, but rather as an accident of history.

For reasons that are not entirely clear, at some point in the Middle Ages after the written notation known as the Tiberian vocalisation system had been adopted as the standard in written Hebrew Bibles in Jewish communities, knowledge of its pronunciation was lost. Only recently has it been rediscovered through reconstruction on the basis of medieval grammatical treatises that describe the pronunciation in detail and thanks to Biblical manuscripts written in such a way as to make the pronunciation of vowels unambiguous. The new grammar will make the historically authentic pronunciation of the standard Tiberian reading tradition accessible to all students of Biblical Hebrew.

Preparation of the new grammar will not proceed from scratch, but will consist of a comprehensive revision of the universally respected and still widely used 1910 edition of Wilhelm Gesenius’ *Hebrew Grammar* (ed. by Emil Kautzsch; trans. by Arthur E. Cowley. Oxford: Clarendon). This much-loved work is in dire need of revision and I have been commissioned by Oxford University Press to update it. The new volume, tentatively entitled *The Oxford Grammar of Biblical Hebrew: Based on Gesenius’ Hebrew Grammar*, will wed scholarly advances and the original Grammar’s reputation.

The project is trebly significant in that it promises the most comprehensive and historically accurate description of Biblical Hebrew along with a long-overdue update of what arguably remains the most influential of Biblical Hebrew reference works. The innovative character of these goals and their potential for impact in the field make the project particularly worthy of the support of the Leverhulme Trust.
A Genizah fragment of a medieval Masoretic Hebrew Bible (Genesis 26, Cambridge University Library T-S NS 76.19).
Clockwise from top left:
*Nepenthes rafflesiana* pitchers growing in their natural habitat in Brunei, Northwest Borneo; The scanning electron micrograph (SEM) shows the specialised microstructure of the collarlike upper pitcher rim; With an environmental SEM, it is possible to visualise the continuous water film that forms on the wet *Nepenthes* pitcher rim; Wet *N. mirabilis* pitcher rim in the field; Most leaves are poorly wettable and water forms distinct droplets on the surface.
Insects affect human life and economy more than any other animal class. But while the diligence of pollinators is essential for our food supply, disease-transmitting insects and agricultural pests pose serious challenges. In response to the onslaught of voracious insects, plants have evolved a vast repertoire of defence strategies. Defensive plant chemicals have been studied extensively, and many have become important pharmaceuticals for human use. Much less is known about mechanical plant defences such as insect-repellent slippery surfaces, which are most elaborate in insect-trapping pitcher plants. Harnessing their powers for the protection of our crops or for bio-inspired insect-repellent wall paints could help to reduce pesticide use in agriculture or improve the hygiene in hospitals and kitchens. To this end, we need to understand how these surfaces work and how they are formed during plant development.

I am particularly interested in a group of anti-adhesive plant surfaces that are ‘activated’ by wetness. These surfaces, found on the upper rim of the pitcher traps of Asian Nepenthes plants, are perfectly safe for insects to walk on under dry conditions but become extremely slippery when they are wetted by rain or condensation. Water does not form droplets on the pitcher rim, as it would on most plant surfaces, but spreads to form a very thin, continuous fluid film. Insect feet slip on this water film much like a car tyre slips on a wet road.

The interesting thing about this mechanism is that it is only temporarily active. This makes it very hard for insects to evolve mechanisms to avoid or circumvent the trap. In a hypothetical crop plant with such a surface, it would be neatly washed clean of all insects during every rainfall, but during dry periods would offer access for beneficial insects such as pollinators, predators and parasitoids, thereby preventing specialist pest species from ‘monopolising’ an otherwise well-protected host.

With my project, I hope to lay the foundations for this ambitious future vision. I will focus on two key questions. First, what exactly causes the unusual wettability of the pitcher rim? And second, how does the plant ‘make’ these specialised surfaces? To answer the first question, I will collaborate closely with chemists and physicists to disentangle the effects of surface chemistry, topography, and possible other influence factors. I will also compare the key features of the Nepenthes pitcher rim surface to those of similarly wettable trapping surfaces of other, independently evolved groups of pitcher plants. In answering my second research question, I venture into the unknown: the development of the specialised surface structures on the pitcher rim has never been studied. My approach will use histological and morphological techniques to simply describe what happens when and identify key stages of development. I will then employ molecular techniques such as candidate gene and transcriptome analysis to reveal the genetic basis of the surface formation.
In this series of interviews, previous award-holders tell us ‘what happened next’, explaining the role that Leverhulme Trust funding played in the progress of their research and careers.
Supported by sustained funding from the Leverhulme Trust, Chris Stringer’s ten-year programme of research has completely overturned the accepted story of the occupation of Britain by ancient humans.

When Professor Chris Stringer first proposed the Ancient Human Occupation of Britain project (AHOB), he hoped it would put Britain on the palaeontological map. At the time, despite having one of the richest prehistoric records in the world, maps of the expansion of early humans often left Britain off entirely.

Amongst Britain’s palaeological treasures was a wealth of material excavated from Boxgrove in Sussex – much of it still to be studied. The collection included flint artefacts and hominin bones dated to around 500,000 years ago, making this the earliest recognised evidence of humans in Britain.

Chris, a leading palaeontologist at the Natural History Museum, says: “It was clear that there was still a lot of work to be done on the Boxgrove material. There were also new analytical techniques coming online, including improved methods for radiocarbon dating, and we were convinced that a major programme of dating sites of early human settlement in Britain would add a lot to the story.”

In 2001, the Leverhulme Trust awarded the AHOB project £1.2 million for five years, with two subsequent awards in 2006 (£1 million) and 2009 (£1.1 million). The programme enabled a 50-strong interdisciplinary team from more than 20 different institutions to focus on getting the most out of Britain’s palaeological record, both through new excavations and through re-examining historic collections using state-of-the-art analytical techniques.

“With over a million pounds of funding we could think of doing things that we had never even contemplated before because they were on too big a scale,” Chris says.

The project’s excavation work focused on two sites in East Anglia, Pakefield in Suffolk and Happisburgh in Norfolk. In 2004, the AHOB team confirmed that they had found evidence of human activity in Pakefield sediments dating back around 700,000 years. Meanwhile, 20 miles further north, massive erosion at Happisburgh was uncovering one of Britain’s most remarkable palaeolithic landscapes.

Excavations on the Happisburgh foreshore revealed animal bones with signs of butchery and more than 70 flint tools and flakes, in sediments 900,000 years old.

The Happisburgh finding pushed back the human occupation of Britain to nearly double the age of the Boxgrove settlement and also caused a rethink of our understanding of early human behaviour: Early humans were thought to need a Mediterranean climate to thrive, but the environmental data from Happisburgh points to conditions similar to those of present-day southern Scandinavia suggesting that these people had already learned to adapt to the cold.

In May 2013, members of the AHOB team walking on the beach at Happisburgh spotted hollows resembling human footprints exposed at low tide. Analysis confirmed that these were indeed footprints, and that they were made by humans living around the time of the Happisburgh settlement. Finding these, the earliest known human footprints outside Africa, raised the international significance of the Norfolk site to a new level.

“One of our aims when we began the project was to really put Britain on the map. We wanted to let the rest of the world know how good a record Britain has, and I think we have done that,” Chris says. “We are very grateful for the support of the Leverhulme Trust,” he adds “without it, it is highly unlikely that we would have done the excavations at Pakefield or Happisburgh.”
Neanderthal model in the exhibition "Britain: One Million Years of the Human Story".
An Early Career Fellowship not only enabled Helen Frowe to carry out ground-breaking and provocative research on the ethics of war and the moral status of non-combatants, but also acted as a springboard to a senior lectureship.
Professor Rein Ulijn describes his pioneering research as a combination of chemistry and materials science, at the interface of biology, with a sprinkle of nanoscience thrown in. His lab, at the University of Strathclyde, uses this highly multidisciplinary approach to develop novel bio-inspired materials designed to detect and adapt to their environments.

Biology builds adaptive materials from a basic toolbox of 20 amino acids, combined into larger molecules called peptides; Rein’s innovative materials are built from very simple versions of these peptides, “Peptides are biology’s expression language, with a rich chemistry that opens up enormous possibilities to create new bio-inspired materials,” Rein explains.

Since taking up his first academic appointment at the University of Manchester in 2003, Rein has exploited his ‘minimalistic biology’ approach to design and create a library of simple peptide building blocks that self-assemble to form functional gel-like materials. However, this self-assembly approach has its limitations. Rein is interested in creating materials that mimic biological tissue – making them useful for cell culture and, ultimately, tissue engineering – and biological tissues have levels of complexity far beyond anything that can be achieved using conventional self-assembly.

With the support of a Leverhulme Trust Research Leadership Award (2007-2013), Rein has built a unique and successful research group focused on developing a new approach in which enzymes are used to guide the self-assembly process.

“The research supported by this award helped us get a far greater understanding of how we can control the assembly of much more complex materials that can interface with biology,” Rein says – but the award also acted as a catalyst to achieve much more: opening up different directions of research; attracting further awards and recognition; and developing a culture of creativity in the lab.

“Awards like these really embrace creativity; the flexibility makes it easy to deviate a little from the original plan and I think it sent out a very clear message to my group that it is OK to think outside the box and to ask fundamental curiosity-driven questions,” he explains. Of those who benefited from training in Rein’s group, funded by the award, five have progressed to postdoctoral research and four to industrial or independent academic positions.

Over the duration of the award, Rein also made rapid progress in his own career. At the University of Manchester, he was promoted from Senior Lecturer to Reader in 2008, moving shortly afterwards to take up a WestChem Chair at the University of Strathclyde, where he is also Vice Dean of Research. In 2010, Rein was awarded a €1.5 million ERC Starting Grant, and his inventive research has been recognised with numerous prestigious awards including the Norman Heatley Medal in 2013 and the Royal Society Wolfson Research Merit Award in 2014.

What’s next for Rein? Another move – this time to the City University of New York to lead a nanoscience initiative in the Advanced Science Research Centre, due to open in September 2014.

“It is a really exciting opportunity for me,” Rein says, “and because it is a research-focused position – and incredibly well-funded – I’ll be able to continue the theme of bio-inspired nanoscience and grow it to a whole new level.”
“In fact every, literally every large-scale or paid job I’ve had since 2009 came directly from connections I made during the Leverhulme bursary”
Right. Blanche’s Leverhulme bursary production of *Moliere or the League of Hypocrites*, written by Mikhail Bulgakov in 1931: a play that had not been staged in London for over 30 years.
PROFESSOR GARETH STANSFIELD

“I think the Trust was ahead of the curve in terms of understanding the relationship between academic endeavour and the development of wider public knowledge and engagement”

A succession of Leverhulme awards have helped to cement Gareth Stansfield’s reputation as a leading expert on the politics of Iraq and as a major contributor to contemporary debates on ethnicity in the Middle East

In the aftermath of the US-led invasion of Iraq in 2003, Gareth Stansfield was uniquely placed to provide academic advice on the best way forward. His research, supported by a Leverhulme Trust Early Career Fellowship (then called a Special Research Fellowship), was exploring how reintegration could be achieved in Iraq – then effectively a country of two parts: Iraq in the south and Iraqi Kurdistan in the north.

When he applied for the fellowship, Gareth had recently returned from five years working in Iraq, during which he completed a PhD in Kurdish politics (awarded by Durham University in 2001). “At the time, Iraqi politics wasn’t really on any academic radars, partly because it was seen as far too difficult to work there. In that way, the application to the Trust was really speculative … but anyone following the news could see what was happening in American policy after 9/11; the rhetoric towards Saddam; the drum beats of war,” he says. “I think the Trust was ahead of the curve in terms of understanding the relationship between academic endeavour and the development of wider public knowledge and engagement. On a subject as keen as Middle Eastern Politics and instability it was right on the money.”

The questions Gareth addressed during his fellowship at the University of Exeter took on even greater salience in the light of regime change and he was increasingly engaged by the British Government for advice on post-conflict dynamics. When the Leverhulme Fellowship finished in 2004, Gareth was appointed to a Lectureship in Middle East Politics at Exeter. “I’m not sure that I would have got an academic post without the Leverhulme award,” he says. “My focus on Kurdish politics in Iraq was extremely niche … the award allowed me to broaden my focus and consider the whole range of issues that would affect Iraq, rather than just one.”

A year later, Gareth was promoted to Reader and, with the support of a Leverhulme Research Fellowship, went on to study the growing conflict between Arabs, Kurds and Turkmen over the disputed Iraqi city, Kirkuk.

His book Crisis in Kirkuk: The Ethnopolitics of Conflict and Compromise led directly to his appointment in 2008 as Senior Political Advisor to the United Nations on the negotiations between the different warring factions.

From 2007–2012, Gareth held a Leverhulme Trust Research Leadership Award for a broader, more thematic project on global issues of ethnicity and politics. The research cluster and programme of events this supported has reinvigorated debates on the importance of understanding ethnicity in politics, and established Exeter as one of the main focal points of ethnopolitical study in Europe.

Shortly after winning this award, Gareth was promoted to Professor of Middle East Politics. He is now Director of the Institute of Arab and Islamic Studies and is the pre-eminent voice on Iraq and Iraqi Kurdistan. “The work I started as a PhD student, and that was then supported throughout by the Leverhulme Trust, addresses very complex thorny issues of ethnicity that will form the political landscape in the Middle East region over the next century,” he says. “It positions me to engage in these debates on subjects that are exceptionally important now, as for example the Kurds of Iraq move towards possible independence, or as Syria struggles with its very deep and significant civil war.”
The flexibility of an Early Career Fellowship helped Jenni Rodd balance family commitments with establishing a successful research career working on the cognitive neuroscience of language comprehension.

Dr Jenni Rodd wants to know what is going on in your head right now. What processes in your mind and brain allow you to understand the meaning of a sentence? We take it for granted but understanding what is meant by a string of words is no simple task, not least because the words often have multiple meanings. The English language is particularly difficult – at least 80% of common English words have more than one dictionary definition.

During her first fellowship, at Cambridge University, Jenni used behavioural experiments to start to unravel the thought processes we use to understand sentences. A Leverhulme Trust Early Career Fellowship (ECF), awarded in 2003, enabled her to combine that traditional psycholinguistic approach with the recently developed neuroscientific technique, functional Magnetic Resonance Imaging (fMRI). Using fMRI, Jenni could scan people’s brains to find which regions were more active as they were using the thought processes she identified.

The ECF was initially to be based at Cambridge but shortly after it was awarded, Jenni was offered a lectureship at University College London, “That complicated things” she says “but the Trust was really flexible, allowing me to transfer the fellowship to UCL. It turned out to be brilliant because I had the security of knowing that I had a lectureship in place but I wasn’t immediately tied down by teaching and admin; I was eased into academic life gently.”

“And then things got very complicated,” Jenni adds. This time the complication was motherhood. “Again the Trust was fantastic, extending the award after my maternity leave and then allowing me to return to the fellowship part-time,” she says.

After another period of maternity leave and part-time work, Jenni is now a senior lecturer and Director of the Word Lab at UCL. She used a refinement of the – usually incredibly noisy – fMRI technique which includes periods of quiet, so enabling brain scan experiments involving spoken as well as written sentences. Using this technique, Jenni and her associates have identified a network of brain regions that are more active when we hear sentences that contain ambiguous words.

The ultimate goal of this research is to construct models of how different aspects of speech comprehension operate within a healthy adult brain. Such models could help in the diagnosis and treatment of brain injuries and illnesses that cause difficulties in processing words and their meanings. Understanding human thought processes could also help the artificial intelligence community – despite some recent progress, computers are still notoriously bad at understanding natural language.

However, findings from an ongoing project, also funded by the Leverhulme Trust, suggest that we may not be quite such good role models as we thought. The researchers found unexpectedly large variations in brain activity between individuals – mostly undergraduates at UCL – particularly when challenged with difficult sentences such as: The jam was on the motorway. Behavioural tests showed that the differences in brain activity reflected similar differences in people’s ability to understand the sentence; in this case, to understand that the meaning of jam had more to do with traffic than toast. “We’ve been taking it for granted that we are all good at language so we were really quite shocked at how bad some of the participants were,” Jenni says.
Blue bird-of-paradise *Paradisaea rudolphi*, painted by William Hart in 1891, as he imagined the male (top) would be when displaying, but it was later discovered that the male displays hanging upside down.
Alongside his internationally-recognised work on avian reproduction, Tim Birkhead has also broken new ground in Leverhulme Trust-funded historical research on bird-keeping and ornithology.

Tim Birkhead’s father probably thought it had been a mistake sharing his enthusiasm for bird watching with his young son. As a teenager, Tim’s interest in birds – watching them in the wild and in an aviary in his garden – soon eclipsed his enthusiasm for attending school, and he remembers his exasperated father trying to persuade him to knuckle down to study, warning, “You’re never going to make a living out of watching birds.”

Luckily for Tim, his dad was wrong. Now a professor of behavioural ecology at Sheffield University, Tim has broken new ground in his research on avian reproductive biology. Securing the caged birds for this research in the 1980s brought Tim into contact with bird keepers and he became fascinated by the culture of bird-keeping, and the debt science owes to the ‘men who kept birds in sheds’. Tim saw that bird-keeping was how the science of ornithology got started and he was awarded funding from the Leverhulme Trust to produce a book exploring this idea. Beginning the research – “rooting around in libraries looking at old books” – he quickly realised that the focus on bird-keeping was too narrow, and the project expanded to become the history of ornithology as a whole, from its early beginnings in Greece to the present day. “The central theme in The Wisdom of Birds was the acquisition of knowledge: how we know what we know about birds,” Tim explains, “The title is a play on John Ray’s book The Wisdom of God (1691), which marked the beginnings of the scientific study of the natural world.”

The Wisdom of Birds (published by Bloomsbury, 2008), touched only on recent ornithological topics; Tim’s next ambitious goal, again supported by the Leverhulme Trust, was to trace how modern ornithology transformed our understanding of entire fields of biology. Tracing the discipline from the mid-nineteenth century, when shotguns were the ornithologist’s field equipment of choice, through the transformative shift to studies of living birds, his engaging new book weaves in stories of the pioneering ornithologists – their personalities, insights, debates and mistakes – who influenced the course of scientific progress. Co-authored with Jo Wimpenny and Bob Montgomerie, the book was published in February 2014 as Ten Thousand Birds: Ornithology since Darwin.

Reflecting on the most memorable aspects of the research for the book, Tim says: “The whole thing was exhilarating, but interviewing those ornithologists who lived through that era and getting their different perspectives was wonderful. A couple of undergraduate students transcribed our recordings of the interviews; they told me they found it utterly inspiring just listening to these people talking about their careers and how they got started.”

Why the Leverhulme Trust? “Most of my scientific research is funded by research councils which seem narrowly focused, bureaucratic and deeply impersonal; the Leverhulme Trust is the exact opposite of that, and that’s also inspiring. It has given me the intellectual freedom both to develop my interdisciplinary ideas and make the findings of my research accessible to a wide audience.”
The Leverhulme Trust’s support for emergent thinking helped Harriet Bulkeley forge international collaborations in a new interdisciplinary field, addressing how cities respond to climate change.

Addressing climate change is an urgent global issue but despite over 20 years of international meetings and treaty-making, there still seems little agreement on who is responsible or what should be done. Yet, according to a new body of research, while international negotiations have lurched from stalemate to stalemate, alternative forms of climate politics have emerged ‘beyond the state’ with the potential to lead us in much more productive directions.

One of the pioneers of this research is Harriet Bulkeley, a Professor in the Department of Geography, Durham University. In 2001, she was awarded a Leverhulme Trust Early Career Fellowship (then called a Special Research Fellowship), to support her research into the role of cities in climate protection. Based at Cambridge University, the fellowship gave her the time to write Cities and Climate Change, co-authored with Michele Betsill, a political scientist at Colorado State University. As major emitters of greenhouse gases, often in locations particularly vulnerable to climate change, cities were already seeking to develop local solutions; Cities and Climate Change, published by Routledge in 2003, broke new ground by presenting cities as part of the global solution.

The fellowship also enabled Harriet to forge collaborations with other researchers around the world, creating a new interdisciplinary field studying how cities respond to climate change, “When I started the fellowship, I couldn’t have predicted that I would encounter other scholars who were doing the same kind of research independently. But the way the Leverhulme funding is structured allows you to be contingent and emergent... I was able to join forces, channelling the output and tenor of the work to develop a new field of enquiry,” she explains.

Taking this work forward, Harriet has studied hundreds of innovative and experimental urban climate projects around the world. This research highlighted the growing importance of the city as an arena for climate change politics with a really strong role for municipal governments, corporations, community groups and NGOs, but little evidence of a role for international organisations or national governments.

“We tend to think of climate change as a global issue that needs global responses but if you look at what’s happening to respond to climate change, most of the activity is not happening at the international level,” Harriet says. “So much of government effort, funding, resources and science is focused on supporting the international negotiations, but the work I’ve done suggests that we need to be putting at least as much effort into supporting cities.”

Harriet is currently writing a book, Accomplishing Climate Governance, based on work supported by a Philip Leverhulme Prize awarded in 2007. In it, she looks at a range of different types of climate politics that have emerged in the UK – often appearing to have little to do with either climate or politics to see who is making them happen and how. They include examples from HSBC, Hexham Hydro, Tesco, and Energyshare – a somewhat unlikely alliance between British Gas and Hugh Fearnley-Whittingstall.

“This work is helping to further unpack and extend our ideas about climate politics: of how governing takes place and where it is located,” she says. “It’s telling us that although international negotiations are really important, they’re not the only game in town.”
Since holding a Major Research Fellowship over ten years ago, Andrew Whiten’s pioneering, interdisciplinary research on primate social learning has enabled a greater understanding of what it means to be human.

Andrew Whiten is Professor of Evolutionary and Developmental Psychology at the University of St Andrews. His research focuses on primate social learning to address questions about the origins of the human mind and of our deeply cultural nature. Supported by a Leverhulme Trust Major Research Fellowship (MRF), awarded in 2003, Andrew developed experimental methods to study social learning and the transmission of traditions and cultures in primates – both children and chimpanzees – uncovering surprising similarities and even more surprising differences between humans and our closest living relatives.

When Andrew applied for the fellowship, the idea that chimpanzees had a rich culture was hotly debated. Studies of groups of wild chimpanzees had revealed that each community displayed a unique array of specific behaviours or traditions that could be described as its local culture. However, not everyone was convinced that these patterns of behaviours could be directly compared with human culture, not least because there was little evidence that chimpanzees were capable of such complex social learning.

“The fellowship allowed us to do the first primate studies – which we’ve called ‘diffusion’ studies – showing that novel behaviours could spread by social learning in groups of chimpanzees,” Andrew says. The experiments were performed with captive groups of chimpanzees, but designed to mimic behaviours in the wild. A female chimp from each of two groups was shown one of two possible techniques – poking or lifting – to deal with an artificial foraging task; when reunited with their respective groups, their companions soon learned the method used by their ‘expert’. Surprisingly, even when some members of the group independently worked out the other foraging technique, they nevertheless reverted to the norm of their group. This was the first demonstration of social conformity in apes, a trait previously regarded as a hallmark of human culture.

In another set of experiments, young chimps and three-year old children watched a familiar human adult perform a series of actions to retrieve a treat from an opaque box. They then watched the same sequence performed, but this time the box was transparent, making it obvious that some steps were unnecessary.

“To our great surprise, we found that the children copied all the actions in both scenarios; whereas the chimpanzees did what we expected an intelligent imitator would do, missing out the irrelevant steps when the box was transparent,” Andrew says. The finding that toddlers overimitate puzzled developmental psychologists, leading to a thriving industry of research investigating the causes and significance of this phenomenon. At first assumed to be a phase we would grow out of, the tendency to over-imitate has since been shown to increase as we mature, and to be a common human trait.

“Over the last ten years, social learning has become an explosive area with the work we did during the MRF much cited and built on by ourselves and others. And the diffusion experiments are now being used to study social learning in the wild, bringing us full circle,” Andrew says. “The wonderful thing about the Leverhulme position was that it gave me the opportunity to do an interdisciplinary project that was comparative – to tie together work funded by the BBSRC on non-human primates and work funded by the ESRC on children – so we could ask questions about the similarities and differences and infer the evolutionary foundations of culture.”
Andrew takes his place in front of the *My Primate Family Tree* mural at the University of St Andrews Living Links to Human Evolution Research Centre in Edinburgh Zoo; a primate field station set up with the support of his Royal Society Leverhulme Trust Senior Research Fellowship (2007).
AWARDS MADE

Find listings for all awards made by the Trust in 2013. Details are given for each of the twelve funding schemes across the Sciences, Social Sciences and Humanities.
AWARDS MADE IN 2013

Research Project Grants

**Sciences**

**Dr Patti Adank**  
University College London  
The role of speech motor resonances in spoken language processing  
£150,989

**Dr James Adelman**  
University of Warwick  
The easyNet system for implementing and visualising cognitive models  
£253,912

**Dr Mete Atature**  
University of Cambridge  
Revealing magnetic phenomena at oxide interfaces via diamond-based nano-MRI  
£249,792

**Dr Jennifer Barclay**  
University of East Anglia  
Timing is everything: anticipating future eruptive activity on Ascension Island  
£242,932

**Dr Benedetta Bassetti**  
University of York  
Effects of orthography on phonology in second language speakers of English: pronunciation, phonological awareness, speech perception and spelling  
£181,486

**Dr Ian Bastow**  
Imperial College London  
The building of North America: evidence from seismology  
£126,349

**Dr Marco Beato**  
University College London  
The tuning of motor circuits by recurrent excitation and inhibition  
£196,355

**Professor Kai Bongs**  
University of Birmingham  
Understanding and exploiting quantum processes in nature  
£249,910

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**Dr Martin Booth**  
University of Oxford  
Three-dimensional photonic engineering of diamond using adaptive optics  
£237,648

**Dr Melanie Britton**  
University of Birmingham  
Magnetic resonance imaging of aluminium and zinc electroplating in ionic liquids  
£149,951

**Dr Mark Brosnan**  
University of Bath  
Computer-delivered social stories to reduce challenging behaviour in ASD  
£210,761

**Professor Manfred Buck**  
University of St Andrews  
Supramolecular self-assemblies as nanotemplates for electrodeposition  
£104,436

**Professor Larry Bull**  
University of the West of England  
Embodied evolutionary computing design: vertical axis wind turbine case study  
£92,420

**Professor Stephen Busby**  
University of Birmingham  
New roles for old transcription factors  
£124,368

**Professor Roger K Butlin**  
University of Sheffield  
The role of natural selection in divergence between aphid host races  
£129,902

**Professor Cristian Capelli**  
University of Oxford  
The genetic landscape of southern Africa human populations  
£177,880

**Dr Paola Carbone**  
University of Manchester  
Effect of responsive copolymers on the structure of phospholipid bilayers  
£150,482

**Dr Donatella Cassetta**  
University of St Andrews  
Advanced atom traps for precise rotation sensing  
£249,791

**Dr David Cassidy**  
University College London  
Gravitational free fall experiments with positronium  
£147,622

**Dr Adrian Chaplin**  
University of Warwick  
Transition metal-based [2]rotaxanes for the investigation of alkane activation  
£160,874

**Professor Deborah Charlesworth**  
University of Edinburgh  
Evolution of suppressed recombination between the X and Y chromosomes of a plant  
£106,696

**Dr Victor Chechik**  
University of York  
Chemistry at cold plasma–liquid interfaces  
£153,237

**Professor David Clary**  
University of Oxford  
Calculation of rates of chemical reactions  
£131,003

**Professor Hilary Downes**  
Birkbeck, University of London  
Forming the Earth and other rocky planets  
£169,716

**Professor John Gerard Doyle**  
Armagh Observatory  
The contribution of jets and sporadic events to the coronal heating puzzle  
£249,678

**Dr Ingrid Dreveny**  
University of Nottingham  
Molecular basis of ciliary trafficking: lessons from Bardet Biedl proteins  
£150,721
Dr Denis Drieghe  
University of Southampton  
Phonological processing during Arabic reading  
£155,779

Dr Dorothy Duffy  
University College London  
Modifying semiconductors by exciting electrons  
£158,285

Professor Maurice Elphick  
Queen Mary, University of London  
Neuropeptide ‘cocktails’: is there a message in the mix?  
£119,640

Dr David Fermin  
University of Bristol  
Novel dehydrogenase-based architectures for electrocatalytic conversion of liquid fuels  
£141,512

Professor Vincent Fusco  
Queen’s University Belfast  
Near field subwavelength resolution imaging in lossy inhomogeneous media  
£173,435

Dr Elizabeth Gibson  
University of Nottingham  
Dye-sensitised NiO photocathodes for solar fuel generation  
£95,779

Dr Richard Goodey  
City University London  
Interaction between new and existing buried infrastructure  
£155,950

Dr Anjali Goswami  
University College London  
Walking the cat back: evolutionary mechanics and modularity of felid locomotion  
£219,910

Dr David Grainger  
University of Birmingham  
How do cells protect their genes from pervasive transcription?  
£141,388

Professor Murray Grant  
University of Exeter  
Re-engineering plant defences to nullify phytopathogen virulence strategies  
£200,129

Professor Claire Grierson  
University of Bristol  
How plant roots cohere with soil  
£251,769

Dr Ramon Grima  
University of Edinburgh  
Pushing the frontiers of stochastic modelling in biology: intrinsic noise in non-dilute conditions  
£124,461

Dr Paul Harris  
University of Brighton  
A mathematical model of the formation and growth of cavities in the spinal cord  
£101,947

Professor Elisabeth Hill  
Goldsmiths, University of London  
The role of motor abilities in the development of typical and atypical social behaviour  
£216,005

Dr Richard Holland  
Queen’s University Belfast  
The mystery of bird migration: testing hypotheses of true navigation  
£159,214

Dr Zhaorong Huang  
Cranfield University  
Self-powered electrochemical promotion of catalysis  
£213,370

Professor John Hutchinson  
Royal Veterinary College, University of London  
The evolutionary biomechanics of sesamoid bones in vertebrate limbs: a synthesis  
£284,288

Professor Alan Johnston  
University College London  
Temporal characteristics of gaze perception  
£244,098

Dr Rufus Johnstone  
University of Cambridge  
Adaptive modelling of human infant growth  
£144,340
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<tr>
<th>Name</th>
<th>Institution</th>
<th>Project Description</th>
<th>Funding (£)</th>
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<tr>
<td>Professor Gareth Jones</td>
<td>University of Bristol</td>
<td>Ecosystem services, bats and biodiversity: an evidence-based approach in Malawi</td>
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<td>Dr Mark W Jones</td>
<td>Swansea University</td>
<td>Advanced visualisation techniques for urban modelling/simulation</td>
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<td>Dr Yuri Kalnishkan</td>
<td>Royal Holloway, University of London</td>
<td>Online self-tuning learning algorithms for handling historical information</td>
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<td>Dr Aris Karastergiou</td>
<td>University of Oxford</td>
<td>Real time discovery on next generation telescopes with graphics processing units</td>
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<td>Dr Barbara Kasprzyk-Hordern</td>
<td>University of Bath</td>
<td>Wastewater profiling for community-wide human exposure assessment from environmental endocrine-disrupting chemicals in personal care and consumer products</td>
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<td>Dr Vitaliy Khutoryanskiy</td>
<td>University of Reading</td>
<td>Developing in vitro approaches for testing mucoadhesive drug delivery systems</td>
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<td>Dr Dmitry Krizhanovskii</td>
<td>University of Sheffield</td>
<td>Soliton phenomena in strongly light-matter coupled microcavities and waveguides: fundamentals and applications</td>
<td>£162,644</td>
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<td>Dr Leonid Kulakov</td>
<td>Queen’s University Belfast</td>
<td>A phage metagenomics approach to forecast the evolution of microbial communities</td>
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<td>Dr Pedro Lacerda</td>
<td>Queen’s University Belfast</td>
<td>A laboratory and telescopic study of the colours of icy solar system objects</td>
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<td>University of Bristol</td>
<td>Applying homotopy type theory in logic, metaphysics and philosophy of physics</td>
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<td>Dr Robert Leech</td>
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<td>Vocal learning and the importance of noise</td>
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<td>University of Exeter</td>
<td>Controls on ocean redox structure and atmospheric oxygen during the Proterozoic</td>
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<td>Professor Philip Lightfoot</td>
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<td>New chemical paradigms in the search for quantum spin liquids</td>
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<td>Professor Adrian Lister</td>
<td>Natural History Museum</td>
<td>Evolutionary patterns in deer on Mediterranean islands</td>
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<td>Professor Stefan Maier</td>
<td>Imperial College London</td>
<td>Nano-particle assisted super-resolution microscopy for live cell imaging</td>
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<td>Dr Virpi Lummaa</td>
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<td>Causes and consequences of parasite infection in Myanmar timber elephants</td>
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<td>Dr Illya Mandel</td>
<td>University of Birmingham</td>
<td>Testing general relativity with ground-based gravitational-wave observations</td>
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<td>Dr Louise Martin</td>
<td>University College London</td>
<td>Prehistoric hunting strategies in Jordan: reconstructing prey behaviour and ecology</td>
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<td>Dr Karen McComb</td>
<td>University of Sussex</td>
<td>Emotional awareness as a basis for social success in a non-human: the domestic horse</td>
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<td>Professor Francis McGlone</td>
<td>Liverpool John Moores University</td>
<td>Investigation of the role of 5-HT in psychological responses to affective touch</td>
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<td>Professor Paul McGraw</td>
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<td>The effect of abnormal visual experience early in life on cortical representation</td>
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<td>Mr Anthony Miller</td>
<td>Royal Botanic Garden Edinburgh</td>
<td>Conserving the flora of the Socotra Archipelago: integrating evolution into conservation</td>
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<td>University of Southampton</td>
<td>High harmonic spectroscopy as a tool for the study of photochemical reactivity</td>
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<td>Dr Wesley Moran</td>
<td>University of Huddersfield</td>
<td>Iodonium salts: new varieties and novel reactions</td>
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<td>University of Oxford</td>
<td>Synthesis and reactions of novel alkaline earth and rare earth metal-metal bonds</td>
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<td>Dr Darren Obbard</td>
<td>University of Edinburgh</td>
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<td>Dr Cock van Oosterhout</td>
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<td>Testing a paradigm-shifting new theory of MHC evolution</td>
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<td>Dr Anastasia Papavasiliou</td>
<td>University of Warwick</td>
<td>Statistical inference of complex systems through rough paths</td>
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<td>Dr Karen Polizzi</td>
<td>Imperial College London</td>
<td>How does yeast Golgi organisation contribute to protein glycosylation?</td>
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Professor Robert Poole
University of Sheffield
Carbon monoxide (CO) and CO-releasing molecules (CO-RMs) as adjuvants to antibiotics
£224,515

Dr Emmanuel Pothos
City University London
Quantum similarity: harnessing the flexibility of human similarity judgments
£98,962

Dr Matthew Powner
University College London
Phosphoro-Strecker reaction: amino acid synthesis and phosphoryl activation
£189,794

Professor Alexander Premet
University of Manchester
Finite W-algebras: quantisation and the Gelfand-Kirillov conjecture
£147,507

Dr Natalie Powner
University College London
Asymmetric reductive desymmetrisation of feedstocks by electron transfer
£149,616

Professor Kathleen Rastle
Royal Holloway, University of London
Moving beyond the monosyllable in models of skilled reading
£161,537

Professor Katharine Reid
University of Nottingham
Time-resolved measurements in the molecular frame
£154,132

Dr Luke Rendell
University of St Andrews
Developing a data-driven multi-agent model for studying humpback whale song
£119,556

Dr James Russell
University of Cambridge
The development of episodic foresight in young children: spatiotemporal binding
£91,398

Professor David Saad
Aston University
Islands of equilibrium in a non-equilibrium world
£155,624

Professor Mark S P Sansom
University of Oxford
Design of biomimetic nanopores
£171,571

Professor Julie Scholes
University of Sheffield
Understanding virulence in Striga, a major parasite of African cereal crops
£241,718

Professor Michael Siva-Jothy
University of Sheffield
Characterising insect haemocyte function in vivo
£244,327

Professor Trevor Smart
University College London
Photo-modulation of native GABA-A receptors in the brain
£299,217

Dr Marie Smith
Birkbeck, University of London
Exploration of typical and atypical development of flexible face-processing strategies
£112,203

Dr Claire Spottiswoode
University of Cambridge
The role of phenotypic plasticity in driving a remarkable adaptive radiation
£183,593

Dr Benjamin W Tatler
University of Dundee
Learning and representing three-dimensional environments from multiple two-dimensional dynamic views
£144,477

Dr Nickolay Trendafilov
Open University
Sparse factor analysis with application to large data sets
£173,257

Dr Abigail Tucker
King’s College London
Evolution of mammals: a comparative study of the developing middle ear
£197,593

Dr James Tucker
University of Birmingham
Expanding the range and versatility of ferrocene nucleic acids
£118,436

Dr Lyudmila Turyanska
University of Nottingham
Colloidal semiconductor nanocrystals with dual functionality
£150,170

Dr Chris Venditti
University of Oxford
Climatic, environmental and tectonic influences on prehistoric human development in Iran
£176,559

Dr Richard Walker
University of Oxford
Executive control, working memory and literacy skills in bilingual children
£217,890

Dr Meesha Warmington
University of York
Determining the molecular links between transcription and recombination
£181,241

Dr Andrew Wilson
University of Leeds
Towards bionic proteins: tertiary structures from non-natural building blocks
£244,987

Professor Stephen Wimperis
University of Glasgow
Structure and function of immobilised enzymes by solid-state NMR spectroscopy
£160,233

Dr Jonathan Worrall
University of Essex
Fat(al) attraction of cytochrome c: a new approach to study protein-lipid interactions
£162,175
Dr Wolfgang Wüster
Bangor University
Going with the flow?
The genetic and genomic basis for snake venom evolution
£101,951

Dr Johannes Zimmer
University of Bath
A novel passage from particles to PDEs far from equilibrium
£192,378

Social Sciences

Dr Philip Boland
Queen’s University Belfast
From plantation to peace: Derry/Londonderry as the UK’s first City of Culture
£197,819

Dr Lynda Boothroyd
Durham University
Impact of media access and local ecology on beauty ideals in Nicaragua
£249,918

Professor Rupert Brown
University of Sussex
The indirect experience of hate crime: the victim group response
£247,602

Dr Jenny Byrne
University of Southampton
A longitudinal study to explore the impact of pre-service teacher health training on early-career teachers’ roles as health promoters
£56,630

Dr Mitchell Callan
University of Essex
Personal relative deprivation and status consumption
£129,479

Dr Giacinta Cestone
City University London
Internal labour and capital markets in French business groups
£130,070

Professor David Simon Cowan
University of Bristol
Shared ownership: crisis moments
£71,686

Dr Jadunandan Dash
University of Southampton
Assessing current and future tropical cyclone vulnerability in east India
£87,626

Dr Ruth Evans
University of Reading
Death in the family in urban Senegal: bereavement, care and family relations
£135,532

Professor Martin Everett
University of Manchester
Collecting and analysing secondary covert social network data
£247,940

Mr John Forth
National Institute of Economic and Social Research
Workplace employment relations: an Anglo-French study
£218,649

Professor Barry Godfrey
University of Liverpool
After care: youth justice and its long-term impacts 1850-1945
£85,506

Dr Rachel Harris
SOAS, University of London
Sounding Islam in China: a multi-sited ethnographic study
£304,601

Dr Jennifer vanHeerde-Hudson
University College London
The changing socio-economic profile of PPCs and MPs in Britain 1945-2015
£98,271

Professor Carolyn Hoyle
University of Oxford
Last resorts: decisions and discretion at the Criminal Cases Review Commission
£110,338

Professor Deborah James
London School of Economics and Political Science
Creative interventions: innovation in public legal services after Legal Aid
£122,387

Dr Danny McGowan
Bangor University
Demand shocks and productivity: evidence from a natural experiment
£30,294

Professor Michael Moore
University of Warwick
The finance microstructure approach to the economics of exchange rates
£198,554
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<th>Name</th>
<th>Affiliation</th>
<th>Project Description</th>
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<td>Professor Linda Mulcahy</td>
<td>London School of Economics</td>
<td>Design and due process: facilitating participation in the justice system</td>
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<td>Dr Fiona Nunan</td>
<td>University of Birmingham</td>
<td>Networking for fisheries co-management on Lake Victoria, East Africa</td>
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<td>Dr Theodoros Papaioannou</td>
<td>Open University</td>
<td>Unpacking the role of industry associations in diffusion and governance of health innovations in developing countries</td>
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<td>Dr Martyn Pickersgill</td>
<td>University of Edinburgh</td>
<td>Neuroscience and family life: the brain in policy and everyday practice</td>
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<td>Professor Brian Rappert</td>
<td>University of Exeter</td>
<td>Beyond the digital divide: sharing research data across developing and developed countries</td>
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<td>Professor Chris Reed</td>
<td>University of Dundee</td>
<td>Dialogue-based exploration of argument and mediation space</td>
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<td>Dr Chris Stiff</td>
<td>University of Keele</td>
<td>Campus citizen behaviours: predicting students’ pro-social behaviours</td>
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<td>Dr Harriet Tenenbaum</td>
<td>University of Surrey</td>
<td>Children’s reasoning about peer rejection based on status</td>
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<td>Dr Leon Watts</td>
<td>University of Bath</td>
<td>Investing care and appreciating effort in the use of personal communication technology</td>
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### Humanities

**Dr Nick Ashton**  
University of Cambridge  
How resilient were Neanderthals and modern humans in southwest Asia to climate change? Reinvestigating Shanidar Cave  
£470,805

**Professor Graeme Barker**  
University of Cambridge  
How resilient were Neanderthals and modern humans in southwest Asia to climate change? Reinvestigating Shanidar Cave  
£470,805

**Dr Silvia M Bello**  
Natural History Museum  
Cutmark micro-morphometrics and the stage of carcass decay: a pilot study using three-dimensional microscopy  
£89,389

**Dr Paul Botley**  
University of Warwick  
Isaac Casaubon in England (1610-1614): a critical edition of his correspondence  
£184,040

**Dr Andrew Burnett**  
British Museum  
Coinage, policy and civic life in the Roman imperial provinces at the end of the Severan Age (AD 218-244)  
£157,113

**Professor Andrew Chamberlain**  
University of Manchester  
An investigation of ancient animal mummies using diagnostic radiographic imaging  
£246,725

**Professor Guy Cook**  
King’s College London  
People, products, pests and pets: the discursive representation of animals  
£249,951

**Professor Nicholas Cronk**  
University of Oxford  
Constructing contemporary history in the Enlightenment: Voltaire historian  
£115,530

**Professor James Crow**  
University of Edinburgh  
Engineering the Byzantine water supply: procurement, construction and operation  
£250,795

**Dr S William G Davies**  
University of Southampton  
Palaeolithic origins of ceramic technology: innovative and creative revolutions  
£136,663

**Professor Mark Edmonds**  
University of York  
Working stone, making communities: technology and identity in prehistoric Orkney  
£243,207

**Professor Clive Gamble**  
University of Southampton  
Seasonality, mobility and storage in Palaeolithic hunting societies  
£163,228

**Professor Elizabeth Graham**  
University College London  
The role of past human activity in structuring modern landscapes and soils  
£210,554

**Professor Colin Haselgrove**  
University of Leicester  
(Re)dating Danebury hillfort and later prehistoric settlements in the environs: a Bayesian approach  
£242,743

**Dr Jules Holroyd**  
University of Nottingham  
Bias and blame: do moral interactions modulate the expression of implicit bias?  
£220,608

**Professor Ronald E Hutton**  
University of Bristol  
The figure of the witch: the European witch-hunt in full cultural context  
£220,799

**Professor Richard P Ingham**  
Birmingham City University  
A bilingual thesaurus  
£108,329

**Professor Adrian Johnstone**  
Royal Holloway, University of London  
Notions and notation: Babbage’s language of thought  
£222,540

**Professor Geoffrey Khan**  
University of Cambridge  
Untapped manuscripts and reading traditions for a new Biblical Hebrew grammar  
£136,175

**Dr Marion Löfler**  
University of Wales  
Knowledge transfer and social networks: European learning and the revolution in Welsh Victorian scholarship  
£85,302

**Dr William Lyons**  
University of Bristol  
Scripture, dissent and Deaf space: St Saviour’s, Oxford Street  
£244,911

**Dr Stephen Parker**  
University of Worcester  
Faith on the air: a religious educational broadcasting history c.1920 to present  
£219,050

**Professor Anne Marie Rafferty**  
King’s College London  
From microbes to matrons: infection control in British hospitals 1870-1970  
£223,827

**Professor Lord Colin Renfrew**  
University of Cambridge  
Icon and centre in the Cycladic early Bronze Age: the implications of Keros  
£148,329

**Professor Stephen Rippon**  
University of Exeter  
Planning in the early medieval landscape: technology, society and settlement  
£98,381

**Dr Leigh Shaw-Taylor**  
University of Cambridge  
Transport, urbanisation and economic development in England c.1670-1911  
£278,418

**Professor Florian Urban**  
Glasgow School of Art  
The New Tenement  
£179,389
Mr David Whitley  
University of Cambridge  
In living memory: the place and uses of learning poetry  
£135,677

Dr Abigail Williams  
University of Oxford  
A new history of reading and authorship in the eighteenth century  
£206,386

Professor Matthew Worley  
University of Reading  
Punk, politics and British youth culture 1975-85  
£110,569

Dr Alex Clark  
University of Leicester  
The topological spectrum of general point patterns  
£98,449

Professor P A Davidson  
University of Cambridge  
Waves and turbulence in rotating, stratified and electrically conducting fluids  
£88,018

Dr Simon Goodwin  
University of Sheffield  
A UK-Thai programme of observational and theoretical research into binary stars  
£64,500

Dr Alistair Jump  
University of Stirling  
Assessing ecosystem recovery after extreme drought-related dieback events worldwide  
£126,527

Dr Stefan Krause  
University of Birmingham  
Where rivers, groundwater and disciplines meet: a hyporheic research network  
£108,574

Professor Pat Monaghan  
University of Glasgow  
Interdisciplinary network on telomere biology  
£98,000

Dr Jason W A Robinson  
University of Cambridge  
A spectroscopic study of spin-polarised superconductor proximity effects  
£124,770

Dr Robert Ryan  
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Understanding bacterial cell-cell signalling as a route to control disease of rice  
£97,000

Dr Mary Bosworth  
University of Oxford  
The Leverhulme International Network on External Border Control  
£123,210

Dr Paolo Dardanelli  
University of Kent  
Why centralisation and decentralisation in federations? A comparative analysis  
£97,079

Professor Katrin Flikschuh  
London School of Economics and Political Science  
Domesticating global justice: global normative theorising in African contexts  
£103,264

Dr Frederic Malherbe  
London Business School  
The international aspects of banking crises: theory and implication for banking regulation  
£124,696

Dr Wilfried Swenden  
University of Edinburgh  
Continuity and change in Indian federalism  
£112,803

Professor Elleke Boehmer  
University of Oxford  
Planned violence: post/colonial urban infrastructures and literature  
£26,289

Dr Alison Brown  
University of Aberdeen  
Blackfoot collections in UK museums: reviving relationships through artefacts  
£50,731

Dr Daniel Grimley  
University of Oxford  
Hearing landscape critically: music, place and the spaces of sound  
£118,154

Dr Alfred Hiatt  
Queen Mary, University of London  
Cartography between Europe and the Islamic world 1100-1600  
£44,567

Professor David Moon  
University of York  
Exploring Russia’s environmental history and natural resources  
£123,005

Social Sciences

Dr Ben Anderson  
Durham University  
Governing emergencies  
£76,910
**Dr Laura Moretti**  
University of St Andrews  
Daniele Barbaro (1514-70): in and beyond the text  
£75,459

**Professor Andrew Nevins**  
University College London  
Coordinated research in the experimental morphosyntax of South Slavic languages  
£122,765

**Professor Nicholas Thomas**  
University of Cambridge  
Multiple modernisms: twentieth-century artistic modernisms in global perspective  
£120,143

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### Humanities

**Dr James Harold Barrett**  
University of Cambridge  
Northern journeys: reimagining the medieval revolution and its aftermath  
£160,061

**Professor Rachel Beckles Willson**  
Royal Holloway, University of London  
Reorientations and a musical instrument in migration  
£166,362

**Professor Giovanni Capoccia**  
University of Oxford  
Reshaping democracy after authoritarianism: responses to neo-fascism in Europe  
£162,154

**Professor Sarah Coakley**  
University of Cambridge  
Knowing darkly: systematic theology on the problem of sin and redemption  
£157,954

**Professor Samuel Cohn Jr**  
University of Glasgow  
Epidemics: waves of disease, waves of hate, from the plague of Athens to AIDS  
£135,331

**Professor Alex Danchev**  
University of St Andrews  
Magritte: a life  
£154,188

**Professor Nigel Fabb**  
University of Strathclyde  
Epiphanies in literature: a psychological and literary linguistic account  
£142,777

**Professor Matthew Fox**  
University of Glasgow  
Roman materialism  
£131,852

**Professor Simon Franklin**  
University of Cambridge  
Information technologies in Russia: a social and cultural history c.1450-1850  
£102,878

**Professor Miranda Fricker**  
University of Sheffield  
Blame and forgiveness: negotiating shared moral understanding  
£99,204

**Professor Maggie B Gale**  
University of Manchester  
A social history of British performance cultures 1900-1939: law, surveillance and the body  
£146,800

**Dr Emily Gowers**  
University of Cambridge  
Maecenas: transformations of an Augustan patron  
£100,840

**Professor Katherine Hawley**  
University of St Andrews  
The importance of being competent: ethics and epistemology  
£94,445

**Professor Ben Highmore**  
University of Sussex  
Habitat and the making of taste 1964–2011  
£137,637

**Professor Lorna Hutson**  
University of St Andrews  
Shakespeare’s Scotland 1503–1616  
£126,476

**Professor Alvin Jackson**  
University of Edinburgh  
The Union: a new political history  
£141,563

**Professor Julian Johnson**  
Royal Holloway, University of London  
Music, voice and language in French musical thought  
£104,257
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<tr>
<th>Name</th>
<th>Institution</th>
<th>Project Description</th>
<th>Award Amount</th>
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<tr>
<td>Dr Ted Kaizer</td>
<td>Durham University</td>
<td>The religious life of Dura-Europos</td>
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<td>Dr Karen Lang</td>
<td>University of Warwick</td>
<td>Philip Guston and the allegory of painting</td>
<td>£160,359</td>
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<td>Professor Daniel Maudlin</td>
<td>University of Plymouth</td>
<td>Different places, same spaces: the inn and the traveller in the Atlantic world</td>
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<td>Professor Catherine Maxwell</td>
<td>Queen Mary, University of London</td>
<td>Scents and sensibility: perfume in Victorian literary culture</td>
<td>£105,812</td>
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<td>Dr James McDougall</td>
<td>University of Oxford</td>
<td>Fragments of empire: lives and afterlives of colonialism in France and Africa</td>
<td>£156,461</td>
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<td>Dr Deborah Oxley</td>
<td>University of Oxford</td>
<td>Weighty matters: anthropometrics, gender and health inequality in Britain’s past</td>
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<td>Professor Kevin Passmore</td>
<td>Cardiff University</td>
<td>The Maginot Line in history, culture and memory</td>
<td>£130,538</td>
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<td>Professor Tobias Reinhardt</td>
<td>University of Oxford</td>
<td>A commentary and a critical edition of Cicero’s Academica</td>
<td>£158,447</td>
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<td>Dr Susan J Stabler</td>
<td>University of St Andrews</td>
<td>A completely new edition of Byron’s Don Juan</td>
<td>£133,075</td>
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<td>Professor Victor Tadros</td>
<td>University of Warwick</td>
<td>To do, to die, to reason why: the ethical lives of combatants</td>
<td>£152,274</td>
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<td>Professor Miles Taylor</td>
<td>University of York</td>
<td>The sovereign people: parliament and representation in Britain since 1760</td>
<td>£93,181</td>
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<td>Professor Heather Widdows</td>
<td>University of Birmingham</td>
<td>Perfect me!</td>
<td>£94,224</td>
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**Early Career Fellowships**

Early Career Fellowships provide fifty per cent of the salary costs of a three-year research position, up to £23,000 a year, with the host university providing the balance. Research expenses of £6,000 a year are also available.

**Sciences**

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Project Description</th>
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<tr>
<td>Dr Christos Anastopoulos</td>
<td>University of Sheffield</td>
<td>Understanding the nature of electroweak symmetry breaking (EWSB)</td>
<td>£130,538</td>
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<td>Dr Eline van Asperen</td>
<td>Liverpool John Moores University</td>
<td>Establishing fungal spores as a proxy for herbivore impacts on ‘natural’ forests</td>
<td>£130,538</td>
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<td>Dr Nicolas Barry</td>
<td>University of Warwick</td>
<td>The design, chemistry and applications of carborane-containing nanoparticles</td>
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<td>Dr Albert Bartók-Pártay</td>
<td>University of Cambridge</td>
<td>High-throughput materials modelling from first principles</td>
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<td>Dr Ulrike Bauer</td>
<td>University of Bristol</td>
<td>Plants in full armour: mechanical defence at the plant surface</td>
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<td>Dr Alex Best</td>
<td>University of Sheffield</td>
<td>Co-evolutionary cycles in host–parasite interactions</td>
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<td>Dr Luke Boulter</td>
<td>University of Edinburgh</td>
<td>The migration of progenitor cells through solid organs and cancers</td>
<td>£158,447</td>
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<td>Dr Alexander Buell</td>
<td>University of Cambridge</td>
<td>Divide and study: molecular scale understanding of protein aggregation</td>
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<td>Dr Eric Dykeman</td>
<td>University of York</td>
<td>Physical virology: a novel approach to virus assembly and evolution</td>
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<td>Dr Stefanie Frank</td>
<td>University of Kent</td>
<td>Engineering bacterial microcompartments for recombinant protein production</td>
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<td>Dr Martin Gradhand</td>
<td>University of Bristol</td>
<td>Spin-dependent transport in superconductors</td>
<td>£158,447</td>
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<td>Dr Mark Greenaway</td>
<td>University of Nottingham</td>
<td>Using two-dimensional crystal stacks to transform high-frequency electronics and atom chips</td>
<td>£158,447</td>
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<tr>
<td>Dr Suzanne Imber</td>
<td>University of Leicester</td>
<td>Rough winds do shake the magnetosphere of Mercury</td>
<td>£158,447</td>
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<tr>
<td>Dr Roeland de Kat</td>
<td>University of Southampton</td>
<td>Feathers on the wing: understanding aeromechanic performance of feathered wings</td>
<td>£158,447</td>
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<td>Dr Tonya Lander</td>
<td>University of Oxford</td>
<td>Pollination in human-modified landscapes: the pollinator’s perspective</td>
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<td>Dr Jan Lellmann</td>
<td>University of Cambridge</td>
<td>Regularisation strategies for global optimality in variational imaging</td>
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<td>Dr Lourdes Lopez-Merino</td>
<td>Brunel University</td>
<td>Posidonia as environmental archive: long-term ecology and conservation views</td>
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AWARDS MADE

Dr Alison MacLeod
Royal Holloway, University of London
Annually-resolved abrupt climate variability across the North Atlantic region

Dr Anna Maltsev
University of Bristol
Local eigenvalue statistics and universality for random non-hermitian matrices

Dr James McLaughlan
University of Leeds
Nanobombs for breast cancer diagnosis and therapy

Dr Matthew McLennan
Oxford Brookes University
Stressed out? Impact of stress and nutrition on the health of ‘village’ chimpanzees

Dr Stefano Pagliara
University of Cambridge
Understanding the mechanisms of active membrane transport: a synthetic approach for drug design

Dr Alejandra Pascual-Garrido
University of Oxford
Mapping chimpanzee artefacts: what can they reveal about hominin evolution?

Dr George Pasparakis
University College London
Augmenting stem cell therapies with synthetic nanomaterials

Dr Frankie James Rawson
University of Nottingham
Interfacing cells with electrocatalytic sensors for real-time cell communication

Dr Elisabeth Stephens
University of Reading
Assessing ensemble flood forecasts at the key spatial and temporal scales

Dr Adam Sweetman
University of Nottingham
Atomically precise placement of single dopants using mechanochemistry

Dr Joseph Walding
Royal Holloway, University of London
Investigation of industrial applications of liquid argon detector technologies

Social Sciences

Dr Julie Soleil Archambault
University of Oxford
A concrete future: building dreams in peri-urban Mozambique

Dr Hannes Baumann
King’s College London
Capital and the ‘Arab Spring’: a comparative study of business elites and politics in Egypt, Jordan, Kuwait, Morocco, Saudi Arabia, Tunisia and the United Arab Emirates

Dr Lucy Bowes
University of Oxford
Resilience among children exposed to harsh, non-supportive parenting

Dr Kirsty Edgar
University of Bristol
Cost and benefit of adaptive strategies to past and future environmental change

Dr Thomas Grisaffi
University College London
Indigenous visions of democracy: an ethnographic study of political values and betrayal in the Chapare Province, Bolivia

Dr Judith Hebron
University of Manchester
The impact of primary-secondary school transition for children with ASD

Dr Jennifer Clare Heyward
University of Warwick
Geoengineering and climate justice: exploring the mutual challenges

Dr Mette High
University of Edinburgh
Fracking dreams: corporate morality and environmental politics in a new ‘energy economy’ in the United States

Dr Milena Kremakova
University of Warwick
Early career trajectories of STEM graduates in the UK and Germany

Social Sciences

Dr Jennifer Sigafous
University of Liverpool
Shaping social welfare law: the changing legal landscape for charities

Dr Igor Štiks
University of Edinburgh
Citizen-artist: creative citizenship in occupied spaces

Dr Hedi Viterbo
SOAS, University of London
The military-law-society triangle: a comparative study

Humanities

Dr William Abberley
University of Oxford
Tricks of nature: biology, mimicry and disguise in English culture 1860-1914

Ms Harriet Archer
Newcastle University
New poets: writing and authority in 1570s England

Dr Iain Bailey
University of Manchester
Modernism’s connoisseurs

Dr Federico Botana
Queen Mary, University of London
Visual pedagogy in Renaissance Tuscany

Dr Jerome Boyd Maunsell
Kingston University
Crossings: the writer as reporter 1890-1950

Dr Lee Broughton
University of Leeds
Interpreting representations of ‘North’ and ‘South’ in the Spaghetti West

Dr Virginia Campbell
University of Leeds
Social network analysis in Pompeii

Dr Lilah Grace Canevaro
University of Edinburgh
Women and objects in Greek epic

Dr Charlotte Charteris
University of Cambridge
Homosexuality and the literature of espionage and detection 1885-1945
Dr Katia Chornik  
University of Manchester  
Sounds of memory: music and political captivity in Pinochet’s Chile 1973-1990

Dr D’Maris Coffman  
University of Cambridge  
Intellectual origins of the Agricultural Revolution: the English Corn Returns and the state

Dr Amy Coker  
University of Manchester  
The vocabulary of offence in ancient Greek

Dr Matthew Davies  
University of Cambridge  
Applied agro-archaeology in eastern Africa

Dr Margit Dirscherl  
University of Bristol  
Transitory monuments: the literary aesthetics of the railway station

Dr Beci Dobbin  
University College London  
Shallowism: modernism and the idea of shallowness

Dr Mark Doffman  
University of Oxford  
Making time: a psycho-cultural study of group timing in contemporary music

Dr Hannah Kate Durkin  
University of Nottingham  
Anthropological artistry: early Black and Jewish women ethnographic film-makers

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University College London  
Crises and revolutions: migration and imagination across the Mediterranean

Dr Bronwen Everill  
King’s College London  
African trade and ethical consumption in the Atlantic world 1760-1840

Dr Peter Fane-Saunders  
Durham University  
Classical descriptions of buildings and the Renaissance vision of lost antiquity

Ms Corisande Fenwick  
University of Leicester  
Empire, emperor and Church: imperialism and religion in the new Byzantine West

Dr Adam Gilbert  
University of Sussex  
A moral history of the American war in Vietnam

Dr Lydia Hamlett  
Cambridge University  
Experiencing history painting: murals in Britain 1660-1725

Dr Nancy Evelyn Hawker  
University of Oxford  
Hebrew–Arabic contact in the speech of Palestinian members of the Knesset

Dr Simon Jackson  
University of Birmingham  
Mandatory development: the global history of development in the Middle East

Ms Elisabeth Leake  
Royal Holloway, University of London  
The Soviet invasion of Afghanistan in local, regional and global perspective

Dr Irina Marin  
University of Leicester  
Fear across borders: peasant violence and anti-Semitism in Tsarist Russia, Romania and Austria-Hungary 1880-1918

Dr Simon Mills  
University of Kent  
The English factory at Aleppo: knowledge, exchange and encounter c.1620-1760

Dr Teodor Mladenov  
King’s College London  
Moral identities and contemporary social policy: the case of disability

Dr Ros Murray  
Queen Mary, University of London  
Carole Roussopoulos and the rise of feminist video collectives in 1970s France

Dr Jenny Preston  
SOAS, University of London  
Art and dissent in eighteenth-century Japan

Dr James Christopher Robinson  
Durham University  
The medieval dialogue of reason and belief in modernist poetry

Dr Samantha Sherry  
University of Oxford  
The Soviet censor in the post-Stalin thaw

Dr Francesco Ventrella  
University of Sussex  
Connoisseurial intimacies 1870-1930

Dr William Viney  
Durham University  
The wonder of twins

Dr Léa Vuong  
University of Manchester  
‘Lis-la done louison’: discovering the words of Louise Bourgeois

Dr Katrin Wehling-Giorgi  
University of Warwick  
Abjecting the maternal: subversive mothers and the self in twentieth-century Italian literature

Dr Jenny Preston  
SOAS, University of London  
Art and dissent in eighteenth-century Japan

Dr James Christopher Robinson  
Durham University  
The medieval dialogue of reason and belief in modernist poetry

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**Research Fellowships**

**Sciences**

Professor Gert Aarts  
Swansea University  
Exploring the strong interaction under extreme conditions  
£44,245

Professor Philip Donoghue  
University of Bristol  
The evolution of plants and their microRNAs  
£44,752

Professor Mirna Dzamonja  
University of East Anglia  
Nice uncountable constructions  
£44,658

Dr May Witwit  
University of Bedfordshire  
Fictional and non-fictional representation of Arab women in British periodicals 1852-1939

Dr Stephan Harrison  
University of Exeter  
Glacial lake outburst floods and climate change  
£36,036

Dr Mark Haw  
University of Strathclyde  
Using optically-induced flow to understand and control nucleation and growth  
£42,451
Professor Andrew Jaffe  
Imperial College London  
The shape of the universe  
£44,982

Professor Alan Johnston  
University College London  
Modelling motion prediction  
£38,980

Dr Sebastian Müller  
University of Bristol  
Disorder in solar cells  
£44,591

Professor Carl Murray  
Queen Mary, University of London  
Collisional dynamics in Saturn’s F ring  
£43,194

Dr Stefano Pirandola  
University of York  
Quantum probing of biological samples (qBIO)  
£43,186

Professor David J Procter  
University of Manchester  
‘Pass the parcel’: metal-free couplings delivered by sulfur  
£38,237

Professor Michael Rathjen  
University of Leeds  
Calibrating the proof power of type theories  
£44,956

Professor Mark Rees  
University of Sheffield  
Size structured dynamics – integral projection models  
£42,983

Dr Sarah C Sherlock  
Open University  
A new model for argon exchange in natural minerals  
£42,940

Professor (Renee) Elizabeth Sockeet  
University of Nottingham  
Mining Bdellovibrio for useful antibacterials  
£43,662

Professor Paul Valdes  
University of Bristol  
Developing improved palaeo constraints on future climate change projections  
£43,863

Professor Stephen Warren  
Imperial College London  
Exploring the epoch of cosmological reionisation  
£44,876

Professor Stephen Wilson  
University of Strathclyde  
Small particles, big questions: understanding the complex behaviour of nanofluids  
£44,645

Social sciences

Professor Diamond Ashiagbor  
SOAS, University of London  
Social rights and the market: embedding trade liberalisation in regional labour law  
£35,535

Dr Rochana Bajpai  
SOAS, University of London  
The promise of politics: minority representation and democracy in India  
£38,743

Professor Andrew Dorman  
King’s College London  
The defence and security implications of Scottish Independence for both parties  
£25,549

Professor Andrew J Dougill  
University of Leeds  
Socio-environmental analyses of community carbon projects in Malawi and Zambia  
£36,007

Professor Nigel Driffield  
Aston University  
Foreign direct investment, knowledge flows and local economic development  
£37,134

Dr Anne-Meike Fechter  
University of Sussex  
Alternative actors in development?  
Understanding the role of ‘do-it-yourself aid’  
£44,949

Professor Francesca Gains  
University of Manchester  
Investigating the politics of regulatory impact: who pays? Who benefits?  
£44,763

Professor Sara Hobolt  
London School of Economics and Political Science  
The public constraint on European integration  
£39,915
Dr Sarah Hodges
University of Warwick
Biotrash: money, medicine and garbage in India
£9,224

Dr Stephen Humphreys
London School of Economics and Political Science
Law and privacy across borders
£42,995

Professor Andreas-Holger Maehle
Durham University
Medical confidentiality and patient privacy in historical perspective
£22,461

Dr Rob Mawby
University of Leicester
Police, media and public life
£31,423

Dr Anna Morcom
Royal Holloway, University of London
Neoliberalism and the transformations of musical culture in Tibet and beyond
£44,976

Dr Amrita Narlikar
University of Cambridge
The power of the poor: international economic negotiations in a globalising world
£44,463

Dr Harsh Pant
King’s College London
Rise of the BRICS and the changing global balance of power
£32,711

Dr Patrick Porter
University of Reading
The global village myth: distance, strategy and modern war
£39,161

Ms Carol Potter
Leeds Metropolitan University
Fathers of children with autism: needs, practices and service use
£42,395

Dr Muireann Quigley
University of Bristol
Influencing health: the normative legitimacy of health-affecting nudges at state level
£43,698

Professor Iain Ramsay
University of Kent
Personal insolvency in an age of austerity
£40,020

Dr Anna Souhami
University of Edinburgh
Governing youth justice
£42,552

Professor Richard Whittington
University of Oxford
Opening strategy: trajectory of a precarious profession
£27,909

Dr Alison Young
University of Oxford
Citizen engaged: democratic dialogue and the UK constitution
£26,715

Humanities

Dr Peter Ackema
University of Edinburgh
The grammar of person
£43,583

Dr Paul Basu
University College London
Reassembling N W Thomas’s anthropological mission to Sierra Leone 1913–14
£44,731

Dr Matthew Bevis
University of Oxford
Wordsworth at play: Romantic poetry and the comic turn
£23,201

Dr John Bew
King’s College London
Realpolitik: a brief history
£44,83

Dr Rebecca Bryant
London School of Economics and Political Science
Modernity alla Turch: fashioning the Turkish bourgeois subject
£38,365

Dr Amy Bryzgel
University of Aberdeen
Performance art in Eastern Europe
£44,988

Dr Brycchan Carey
Kingston University
Slavery and environmental consciousness in British colonial writing 1660–1840
£44,472

Dr Neil Cartlidge
Durham University
Confrontations in medieval culture: figures of opposition 1000–1600
£37,230

Dr Luca Castagnoli
Durham University
Ancient philosophers on memory, recollection and forgetting
£43,722

Dr Martin Chick
University of Edinburgh
A study of time, space and risk in the political economy of Britain since 1951
£18,603

Professor Gregory Claeys
Royal Holloway, University of London
Dystopia: a natural history
£10,459

Dr Maksymilian Del Mar
Queen Mary, University of London
Neil MacCormick: philosophy, law and politics
£42,269
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<th>Name</th>
<th>University/Institution</th>
<th>Project Title</th>
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<tr>
<td>Dr Thomas James Demos</td>
<td>University College London</td>
<td>Eco-aesthetics: contemporary art and the politics of ecology</td>
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<td>Dr Peter Dent</td>
<td>University of Bristol</td>
<td>Sculpture and skin: surface and depth in Italian Gothic sculpture</td>
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<td>Professor Eleanor Dickey</td>
<td>University of Reading</td>
<td>Latin loanwords in ancient Greek</td>
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<td>Dr Brice Dickson</td>
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<td>The Irish Supreme Court: a legal history</td>
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<td>Dr T E Furniss</td>
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<td>The literature and landscapes of Romantic geology in Scotland 1750-1820</td>
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<td>High modernism: a literary history of mountaineering 1890-1945</td>
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<td>Dr Anthony Gerbino</td>
<td>University of Manchester</td>
<td>Made to measure: cartography and the designed landscape in seventeenth-century France</td>
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<td>Dr Nicki Hitchcott</td>
<td>University of Nottingham</td>
<td>Rwanda genocide stories: fiction after 1994</td>
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<td>Dr Jon Hoover</td>
<td>University of Nottingham</td>
<td>God and space in the theology of Ibn Taymiyya (d.1328)</td>
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<td>University of Leicester</td>
<td>Crusading and conciliarism 1400-1500</td>
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<td>Professor Edward J Hughes</td>
<td>Queen Mary, University of London</td>
<td>Albert Camus: a controversial life, a contested legacy</td>
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<td>University of Southampton</td>
<td>England’s republic: ritual, ceremony and the lost reign 1649-1660</td>
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<td>Southern Europe in the age of revolutions: the 1820s in transnational context</td>
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<td>Mandelstam and the senses of poetry</td>
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<td>Dr Siobhan Lambert-Hurley</td>
<td>Loughborough University</td>
<td>The self unveiled: autobiographical writings by Muslim women in South Asia</td>
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<td>Edward Lear and dissent</td>
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<td>Money and market in Northern China on the eve of the Opium War: evidence from Tong Taisheng merchant account books 1800-1850</td>
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<td>Victoria and Albert Museum</td>
<td>The culture of bronze: making and meaning in the Renaissance</td>
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<td>Birkbeck, University of London</td>
<td>The tiger in the smoke: British visual culture 1945-1960</td>
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<td>Documentary film and the visual arts: questioning the frame</td>
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<td>Living with the dead: adaptive reuse of funerary monuments in Late Antique Egypt</td>
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<td>University of Oxford</td>
<td>Our experience of time</td>
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<td>Arab Athena: the Graeco-Roman past in the modern Middle East</td>
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<td>Neither use nor ornament: a cultural biography of clutter and procrastination</td>
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<td>Scripting Empire: West Indian and West African literature at the BBC 1939-1968</td>
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Dr Nicola Royan
University of Nottingham
Gavin Douglas and the reception of Scottish humanism
£34,901

Dr Andrew Russell
Durham University
Tobacco: a historical and cross-cultural analysis of a global phenomenon
£42,705

Dr Helen Smith
University of York
The matter of early modernity: matter, materials, objects
£44,538

Professor Fiona Stafford
University of Oxford
‘The Oxford English Literary History, Vol 7: Literature of the Romantic Period’
£40,396

Dr Anastasia Stouraiti
Goldsmiths, University of London
Rethinking metropolitan culture and empire in early modern Venice
£18,763

Dr Ellen Swift
University of Kent
Design for living: artefact function and everyday Roman social practice
£20,560

Dr Elizabeth Tingle
University of Plymouth
Indulgences after Luther: the fall and rise of pardons in the Counter-Reformation
£16,307

Dr Edward Venn
University of Leeds
Thomas Adès’s Asyla: analytical and critical perspectives
£23,792

Dr Andrew van der Vlies
Queen Mary, University of London
On hope and disappointment in contemporary South African literature and art
£44,547

Dr Todd Weir
Queen’s University Belfast
Secularism and antisecularism in Germany 1890-1933
£25,531

Dr Matthew Woodcock
University of East Anglia
Pen and sword: the life and writings of Thomas Churchyard c.1529-1604
£2,299

Professor Jonathan N L Connor
University of Manchester
Novel theories for the dynamics of chemical reactions
£5,220

Dr Robert Henry Arnold Coutts
Imperial College London
Development of a gene-silencing vector for Aspergillus fumigates
£10,000

Professor George Fleet
University of Oxford
Iminosugars as pharmacological chaperones for lysosomal storage diseases
£19,600

Professor Veronica van Heyningen
University of Edinburgh
Regulating gene expression in eye development and disease
£21,460

Professor Herbert Huppert
University of Cambridge
Violent gas flows within the Earth, both natural and unintentional
£21,980

Professor Angus J MacIntyre
Queen Mary, University of London
Interactions between logic, algebra, geometry and number theory
£18,260

Professor John Norton
University of Essex
Towards a functional connectivity map of the human post-transcriptional regulome
£20,404

Emeritus Fellowships

Sciences

Professor Barbara Elizabeth Brown
University of the Highlands and Islands
Ageing in corals and the implications for coral reefs in the future
£18,208

Professor David Carter
Liverpool John Moores University
The Hubble Space Telescope/ACS survey of the Coma Cluster of galaxies
£15,978

Professor John Norton
University of Essex
Towards a functional connectivity map of the human post-transcriptional regulome
£20,404
Professor Anthony Parsons
University of Sheffield
Predicting Cs-137 contamination from the Fukushima nuclear accident using RFIDs
£19,000

Professor Jeffrey Penfold
University of Oxford
Manipulating surfactant adsorption using polyions and biogenic polyanimes
£22,000

Professor Sir Roger Penrose
University of Oxford
Mathematical theory of conformal cyclic cosmology
£21,996

Professor Douglas Ross
University of Southampton
Investigation of the discrete BFKL pomeron and its applications
£19,900

Dr Jordan Stoyanov
Newcastle University
Moment analysis of probability distributions
£21,400

Professor Jeffrey Williams
University of Dundee
The regulation of cellular differentiation in the model organism Dictyostelium
£21,500

Social Sciences

Professor William Brown
University of Cambridge
The protection of labour standards in a global economy
£19,231

Professor Partha Dasgupta
University of Cambridge
Time and the generations
£17,183

Professor Anthony Payne
University of Sheffield
Steering into the great uncertainty: the G20 as global governance
£9,200

Humanities

Professor Roy Armes
Middlesex University
Contemporary Arab film-making (outside Egypt and the Gulf)
£21,000

Professor David Bates
University of East Anglia
Normandy, William the Conqueror and the empire of the Normans
£7,610

Professor Edward Cowie
Earth Music 2/3: two major new compositions for symphony orchestra
£12,000

Professor David Ellis
University of Kent
Stendhal and the English
£4,980

Professor Michael Fielding
Institute of Education, University of London
Alex Bloom: pioneer of radical democratic education
£10,340

Professor Mike Gonzalez
University of Glasgow
Dialectics in action: the contribution of Jose Carlos Mariategui
£14,500

Professor Marian Hobson
Queen Mary, University of London
Determining and making available the music referred to in Le Neveu de Rameau
£17,772

Professor Nicholas de Lange
University of Cambridge
A history of the Jewish reception of Greek Bible versions in the Middle Ages
£7,800

Ms Elizabeth Lebas
University of Glasgow
Child welfare in post-war non-fiction cinema in Europe and Canada
£7,341

Professor Edna Longley
Queen’s University Belfast
Editing the selected writings on poetry by Edward Thomas 1878-1917
£3,200

Dr Margery Palmer McCulloch
University of Glasgow
Edwin and Willa Muir: a literary marriage and its Scottish/international context
£18,435

Professor Matthias Klaes
University of Dundee
History of economics collections in the digital age
£21,922

International Academic Fellowships

Professor Sir Fergus Millar
University of Oxford
Empire, Church and society in the Late Roman Near East
£16,727

Dr Andrew Noble
Scottish political poetry in the age of revolution 1770-1820
£8,610

Professor Helen Watanabe-O’Kelly
University of Oxford
The foreign consort and cultural transfer: Maria Amalia, Queen of Naples 1724-1760
£7,408

Sciences

Dr Stephen Alexander Rolfe
University of Sheffield
What role do cytokinins play in clubroot disease?
£13,013

Professor Attila Sik
University of Birmingham
Role of interneurons to control network patterns during behaviour
£8,980

Dr Margaret Watson
University of Aberdeen
Innovating knowledge translation for pharmacy practice and medicines safety
£7,500

Social Sciences

Professor Rosalind Edwards
University of Southampton
‘Mixed’ families: exploring fresh conceptual insights and fathering in New Zealand
£9,820

Dr Alaric Hall
University of Leeds
Constructing crisis: Icelandic cultural responses to the 2008 financial crisis
£20,531

Professor Matthias Klaes
University of Dundee
History of economics collections in the digital age
£21,922
Dr Susan Pickard  
University of Liverpool  
Collaboration with US colleagues in sociological research on ageing  
£17,500

Professor Matthew Weait  
Birkbeck, University of London  
Safer sex/unsafe law: HIV exposure liability and the meaning of risk  
£19,524

Dr Alex Wright  
Open University  
Bridging the academic/practitioner divide: strategy as performativity  
£15,389

**Humanities**

Professor Jane Ginsborg  
Royal Northern College of Music  
Interactive music performance research: cross-cultural collaborations  
£8,284

Dr Patricia MacCormack  
Anglia Ruskin University  
Collaboration with University of California Santa Barbara as The Animal Catalyst Network on Animality, Philosophy and Ethics  
£15,216

Professor Frank Trentmann  
Birkbeck, University of London  
Cultures of energy: materiality and transitions in twentieth-century history  
£9,998

Mr Steven Kerr, Canada  
Three-dimensional quantum gravity and the AdS/CFT correspondence  
£36,400

Mr Muhammad Khan, Pakistan  
MA Islamic Studies and research and production of contextually relevant material  
£20,355

Mr Heider Nasralla, Denmark  
European solo trombone traditions  
£42,138

Miss Grace Newcombe, Switzerland  
MA Early Music (Medieval and Renaissance)  
£36,860

Miss Natalia Petrovskaia, Italy  
The Italian convergence of the encyclopaedic traditions of Honorius Augustodunensis and Isidore of Seville  
£22,999

Mr Edward Richmond, France  
Catalysts for direct asymmetric SN1 reactions of alcohols  
£36,600

Mr Mr Alastair Barford, Italy  
Drawing programme, Charles H Cecil Studios  
£57,532

Mr Fadil Elobeid, France  
International security with regional specialisation on North and East Africa  
£59,450

Mr Geoff Gilfillan, Botswana  
Acoustic communication as a tool to manage the conflict between lions and people  
£55,036

Mr Grant Gulczynski, Bosnia & Herzegovina  
Doctor of Liberal Arts in Filmmaking  
£61,286

Ms Sharon Hook, Australia  
Can clusterin slow the propagation of amyloid lateral sclerosis (ALS)?  
£25,300

Study Abroad Studentships

Mr Alastair Barford, Italy  
Drawing programme, Charles H Cecil Studios  
£57,532

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£61,286

Ms Sharon Hook, Australia  
Can clusterin slow the propagation of amyloid lateral sclerosis (ALS)?  
£25,300
Miss Jennifer Rodriguez, Spain  
The marketing of women’s writing in the twenty-first century  
Spanish nation-state  
£18,041

Mr Thomas Smith, Germany  
English petitions to the papacy in the thirteenth century 1198-1304  
£35,100

Ms Tracy Underwood, France  
Evaluating and improving advanced lung radiotherapy techniques  
£34,400

Mr Jayson Young, Sweden  
Laboratory for sustainable architectural production  
£17,900

**Visiting Professorships**

Professor Jeremy J Baumberg  
University of Cambridge  
Visiting Professor: Professor Pavlos Savvidis  
£121,384

Professor Luke Bisby  
University of Edinburgh  
Visiting Professor: Professor Mark Green  
£11,250

Professor Peter Boxall  
University of Sussex  
Visiting Professor: Professor David Marriott  
£25,000

Professor Martin Clayton  
Durham University  
Visiting Professor: Professor Peter Keller  
£5,144

Professor Saul Estrin  
London School of Economics and Political Science  
Visiting Professor: Dr Susanna Khavul  
£63,800

Dr James Fowler  
University of Kent  
Visiting Professor: Professor Daniel Brewer  
£22,277

Dr Christina Goldschmidt  
University of Oxford  
Visiting Professor: Professor Louigi Addario-Berry  
£42,414

Dr John Hedley  
Newcastle University  
Visiting Professor: Professor Biswajit Ghosh  
£82,369

Professor Glyn Humphreys  
University of Oxford  
Visiting Professor: Professor Luis Fuentes  
£34,200

Dr Fu Jia  
University of Exeter  
Visiting Professor: Professor Zhaozhai Wu  
£27,514

Professor Fedor Kusmartsev  
Loughborough University  
Visiting Professor: Professor Eugene Mele  
£89,008

Professor Robert C Nichol  
University of Portsmouth  
Visiting Professor: Professor Matthew Bershady  
£10,900

Dr Wen-chin Ouyang  
SOAS, University of London  
Visiting Professor: Professor Ahmad Karimi-Hakkak  
£53,970

Professor Alison Ribeiro de Menezes  
University of Warwick  
Visiting Professor: Professor Thomas Glave  
£85,157

**Philip Leverhulme Prizes**

Prize-winners receive £70,000, which may be used for any purpose that would advance their research.

**Astronomy & Astrophysics**

Dr Richard Alexander  
University of Leicester  
Theoretical astrophysics

Dr Stefan Kraus  
University of Exeter  
High-angular resolution studies on star and planet formation

Dr Mathew Owens  
University of Reading  
Solar and heliospheric physics

Dr Mark Swinbank  
Durham University  
Galaxy formation and evolution, gravitational lensing, star formation

Dr John (Southworth) Taylor  
University of Keele  
Extrasolar planets

**Economics**

Dr Jane Cooley Fruehwirth  
University of Cambridge  
Applied microeconomics, social economics, education policy, policy evaluation

**Engineering**

Dr Haider Butt  
University of Birmingham  
Electrical engineering: nanotechnology

Professor Bharathram Ganapathisubramani  
University of Southampton  
Fluid mechanics

Dr Eileen Gentleman  
King’s College London  
Tissue engineering and regenerative medicine

Dr Aline Miller  
University of Manchester  
Engineering the self-assembly of biomolecules for regenerative medicine

Dr Ferdinand Rodriguez y Baena  
Imperial College London  
Mechatronics in medicine

**Geography**

Dr Ben Anderson  
Durham University  
Cultural and political geography

Dr Dabo Guan  
University of Leeds  
Climate change mitigation and adaptation

Dr Anna Lora-Wainwright  
University of Oxford  
Environment, health & development in China

Dr Erin McClymont  
Durham University  
Past climate and environmental change
Dr Colin McFarlane  
Durham University  
Urban geography

Dr David Nally  
University of Cambridge  
Historical and political geography

Dr Lindsay Stringer  
University of Leeds  
Environmental change and sustainable development in drylands

Modern Languages & Literature

Dr Kathryn Banks  
Durham University  
French literature, especially French Renaissance and the specifics of literary ‘thinking’

Dr Andrew Counter  
King’s College London  
Nineteenth-century French literature and culture

Professor Sally Faulkner  
University of Exeter  
Spanish cinema

Dr Lara Feigel  
King’s College London  
Late modernist literature and culture with a focus on the period 1930–1949

Dr David James  
Queen Mary, University of London  
Twentieth-century and contemporary writing

Dr James Moran  
University of Nottingham  
Twentieth-century theatre and performance

Dr Tim Smith  
Birkbeck, University of London  
Film perception, eyetracking and real-world visual cognition

Artist in Residence Grants

Professor Helen Baker  
Faculty of Arts, Design and Social Sciences, Northumbria University  
Artist in Residence: Mr Lionel Playford  
Installation and curation  
£15,000

Dr Ben Campkin  
Urban Laboratory, University College London  
Artist in Residence: Mr Rab Harling  
Photography  
£15,000

Professor William Chaplin  
School of Physics and Astronomy, University of Birmingham  
Artist in Residence: Mrs Caroline Devine  
Sound art installation  
£14,392

Dr Thomas Dixon  
School of History, Queen Mary, University of London  
Artist in Residence: Ms Clare Whistler  
Film-making, curation and performance  
£15,000

Dr Rhodri Hayward  
School of History, Queen Mary, University of London  
Artist in Residence: Mr Lloyd Newson  
Theatre  
£14,037

Professor Nicholas R Jennings  
Department of Electronics and Computer Science, University of Southampton  
Artist in Residence: Mr Steve Beard  
Film-making  
£14,700

Professor Stephen May  
Royal Veterinary College, University of London  
Artist in Residence: Mr Geoffrey Harrison  
Painting and drawing  
£15,000

Dr Noelle Odling  
School of Earth and Environment, University of Leeds  
Artist in Residence: Ms Sue Lawty  
Visual art  
£15,000

Professor Paul Overton  
Department of Psychology, University of Sheffield  
Artist in Residence: Dr Rachel Genn  
Installation and writing  
£14,674

Mr Brian Smith  
Shetland Museum  
Artist in Residence: Ms Raman Mundair  
Visual and digital art  
£15,000

Professor Adrian Sutton  
Department of Physics, Imperial College London  
Artist in Residence: Mr Matthew Galpin  
Sculpture, installation and performance  
£15,000

Dr Alison Williams  
School of Geography, Politics and Sociology, Newcastle University  
Artist in Residence: Dr Matthew Flintham  
Visual art  
£14,727

Dr Angie Voela  
School of Law and Social Sciences University of East London  
Artist in Residence: Mrs Barbara Loftus  
Visual art  
£11,493

Dr Jeff Warburton  
Department of Geography, Durham University,  
Artist in Residence: Ms Laura Harrington  
Filmmaking  
£15,000

Performing & Visual Arts

Mr Martin Callanan  
Slade School of Fine Art, University College London  
Electronic, online and networked art
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p71. Half of timber in Myanmar is still extracted by using trained elephants, because access by vehicles is difficult particularly in the mountainous areas, and such selective logging is more sustainable. Courtesy of Virpi Lummaa.
p72. Marble statue of the Roman Emperor Septimius Severus (AD 193-211), from Egypt. (BM 1802,0710.2). Courtesy of the British Museum.
p75. Sue Lawty, Lead Weave (detail) (woven and beaten lead). Courtesy of Jerry Hardman-Jones.
p80. One of Galileo’s sunspot observations, made in the summer of 1612. These historic records may help us understand how stellar magnetic fields are generated and how space-weather threats to humans and technology will change over the coming decade.
p83. A bust of Stephen Thomas made of him posthumously and included as a frontispiece to the second (1876) edition of The Literature of the Kymry.
p84. Head of a folded-arm figurine from the sanctuary on Keros. Courtesy of Lord Colin Renfrew.
p88. A parasitised brood of Jameson’s Firefinches. On the far right is a parasitic Purple Indigobird, perfectly mimicking their mouth markings. Courtesy of Claire Spottiswoode.