

# Newsletter

Issue 1 | May 2013

Supporting international multidisciplinary workshops at Surrey



“ In this issue, we showcase this year's winners and include an update on recent multidisciplinary events supported by the Institute of Advanced Studies. As you will see, the events covered a range of topics – from Dickens to Drones. They involved colleagues from all Faculties and attracted more than 200 international scholars from 25 countries, many of whom left very favourable comments about the meetings and their stay at Surrey. Several outcomes that have been generated by recent events are highlighted in this newsletter.”

Professor Nigel Gilbert  
Director  
Institute of Advanced Studies

The Institute of Advanced Studies (IAS) at the University of Surrey makes awards to staff to support the arrangement of international multi-disciplinary workshops at the University. This academic year twenty bids were evaluated by the University's Distinguished Professors and Faculty representatives, who have awarded five grants of up to £5000 each as contributions towards the costs of running the events.

## Winners 2012/2013:

### Mathematical Modelling of the DNA Damage Response

*Dr. L.B. Meira, Department of Biochemistry and Physiology; Dr. R. Elliott, Department of Nutrition and Metabolism; Dr. P. Aston, Department of Mathematics*

### Greening Economics, Greening Society: What is the Role of the EU?

*Prof. A. Warleigh-Lack, Centre for Research on the European Matrix (CRonEM), School of Politics; Prof. R. Malcolm, School of Law; Prof. S. Morse, Centre for Environmental Strategy; Prof. D. Uzzell, School of Psychology*

### Neutron Stars: Nuclear Physics, Gravitational Waves and Astronomy

*Dr. A. Rios and Dr. P. Stevenson, Department of Physics*

### Anion-Exchange Membranes for Energy Generation Technologies

*Prof. J. Varcoe and Dr. S. Poynton, Department of Chemistry*

### Corporeal Computing: A Performative Archaeology of Digital Culture

*Dr. N. Salazar Sutil, Prof. P. Boenisch, Dr. M. Blanco Borelli, and Dr. S. Franklin, School of Arts and Prof. P. Krause, Department of Computing*

The deadline for the next workshop grant competition is **Friday 18th October 2013**. The competition is open to all academic and research staff. Organisers are expected to 'match' the funding provided by IAS with funds from other sources, including registration fees. For further information, current and past events, please visit [www.ias.surrey.ac.uk](http://www.ias.surrey.ac.uk).

Mathematical Modelling of the DNA Damage Response

Greening Economics, Greening Society:  
What is the Role of the EU?

Neutron Stars:  
Nuclear Physics, Gravitational Waves and Astronomy

Anion-Exchange Membranes for Energy Generation Technologies

Corporeal Computing:  
A Performative Archaeology of Digital Culture

## Events 2012:

### Regulatory and Institutional Frameworks for Markets for Ecosystem Services

6 – 7 June 2012

The Environmental Regulatory Research Group at the School of Law and the Centre for Environmental Strategy at the University of Surrey in collaboration with the Environmental Law Program at the George Washington University Law School hosted an international workshop on regulatory and institutional frameworks for markets for ecosystems services. Using markets to protect and restore ecosystems, and the many services they provide, is gradually gaining policy and institutional legitimacy across the globe. The workshop's key theme was to investigate the critical regulatory and institutional considerations, including the forms which are being pursued to ensure success and ease of adoption. Two outputs are planned from this workshop: a special issue of the *Journal of Transnational Environmental Law* (due in Spring 2013) and an edited book published by Edward Elgar (due in summer 2013).



### The Hyacinthaceae: Chemistry, Pharmacology, Taxonomy and Ethnobotany

14 – 15 June 2012



The international symposium on The Hyacinthaceae: Chemistry, Pharmacology, Taxonomy and Ethnobotany was organised by the Department of Chemistry in collaboration with partners from South Africa, Austria and Italy. The Hyacinthaceae is one of the most important plant groups from a phytochemical, pharmacological, toxicological, agricultural and ethnobotanical perspective. From causing stock deaths and being used as a homicide agent, to providing compounds with great potential as anti-inflammatories, the constituents of the Hyacinthaceae are of great interest. The event was a unique opportunity for a multidisciplinary group of researchers to come together to focus on this particular plant group. The group at Surrey has benefitted by now having access to Wisley Gardens plant material and plant material from Madagascar through one of the Austrian groups. A substantial review on the Phytochemistry and Ethnobotany of the Hyacinthaceae has been requested by Natural Products Reports. It will strengthen the Surrey group's position as the leading chemistry group working on the Hyacinthaceae.



### Dickens and the Visual Imagination

9 – 10 July 2012

This international two-day conference, marking the bicentenary of the birth of Charles Dickens, was organised by the University of Surrey's School of English and Languages and co-hosted by the Paul Mellon Centre for Studies in British Art, London. The conference considered Dickens's fascination with sight and the visual, and studied the ways in which the visual qualities of his writing have affected his reputation and the reception of his work, both in the Victorian era and today.





This international event brought together academics from a range of disciplines, including English Literature, Art History, and Law, to present different perspectives on the theme of Dickens and the visual. Through its focus on Dickens' 'visual imagination', the conference made an important and innovative contribution to the study of Dickens' work and cultural reception in his bicentenary year. The event also helped to reinforce Surrey's links with the Paul Mellon Centre and with English Literature departments in the University's partner institutions, specifically the University of Delhi and North Carolina State University.

## "Hitting the Target?" How New Capabilities are Shaping Contemporary International Intervention

12 – 13 July 2012

This international, multidisciplinary, workshop was hosted by cii – the Centre for International Intervention (School of Politics). The workshop's objective was to explore how new selective precision strike capabilities available to military and intelligence forces are shaping approaches to international intervention. It aimed to be a forum for dialogue between different academic disciplines, as well as between academia and policy-makers/practitioners. The poster exhibition featured artwork by Carl Gopalkrishnan, imagining the hidden narratives that drive political decisions, and drone strike photographs from Pakistan by Noor Behram.



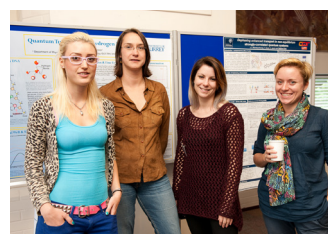
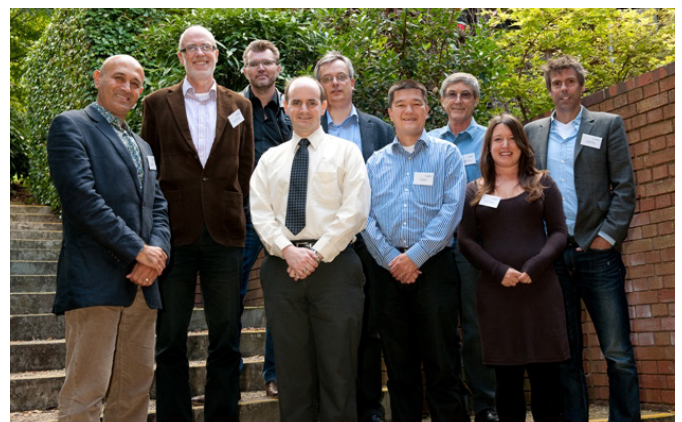
A policy brief "Hitting the Target" was produced in conjunction with RUSI, the Royal United Services Institute, and plans are well advanced for an edited volume incorporating some of the contributions to the workshop.



## Quantum Biology: Current Status and Opportunities

17 – 18 September 2012

The workshop, sponsored by the Institute of Advanced Studies, BBSRC (Biotechnology and Biological Sciences Research Council) and MILES (Models and Mathematics in Life and Social Sciences), proved to be a great success and was attended by some of the leading researchers in this exciting new interdisciplinary field from across the world. Topics covered included reports on recent experiments in biology and the latest theoretical calculations to model a range of biological processes. In bringing together such a diverse group of scientists, the workshop was hugely successful in sowing the seeds for future collaborations and potential funding opportunities for further research. Most importantly, it has established the work being carried out at Surrey on the international scene. Filmed talks from the workshop are available at [www.ias.surrey.ac.uk](http://www.ias.surrey.ac.uk).



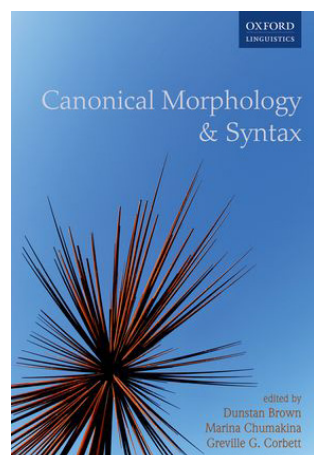
## Recent Outcomes



### Whitehall policy brief 'Hitting the Target?'

A Whitehall Report 'Hitting the Target?' incorporating papers following from the July 2012 *Hitting the Target?* workshop was produced in collaboration with the Royal United Services Institute (RUSI). The report presents a series of analyses on the ethical, strategic and technological dimensions

of contemporary intervention. The report was launched at RUSI on 26 March 2013.



### Edited volume

#### *Canonical Morphology and Syntax*

Edited by Dunstan Brown, Marina Chumakina, and Greville G. Corbett

Oxford University Press, November 2012

First book-length coverage of the canonical method.

### Forthcoming edited volume

Dr Jeremy Barham has been awarded a contract by Oxford University Press for an edited volume called 'Rethinking Mahler'. It will contain 17 chapters which are reworkings of papers given by speakers at the Mahler conference. The book is due to be published in 2014.

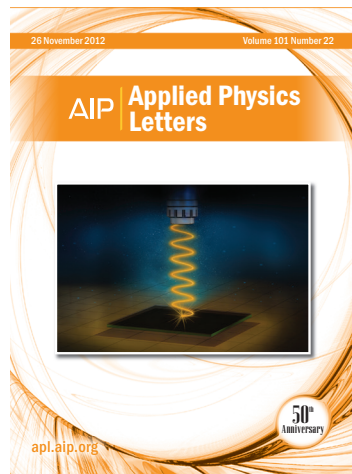
### Grant

"Assessment of mood stabilizers on sleep and circadian rhythms", Investigator-Initiated research grant funded by industry, 12 months, ~£158K.

Dr. Raphaëlle Winsky-Sommerer, Prof. Derk-Jan Dijk and Dr. Simon Archer, Surrey Sleep Research Centre.

### Collaborative agreement

A workshop organised by Prof. Lisa Roberts led to an agreement with the NSCU which will enable two Surrey VBS graduates to enter the NCSU Veterinary Medicine programme each year.



### Collaborative journal article

*Temperature and Bi-concentration dependence of the bandgap and spin-orbit splitting in InGaBiAs/InP semiconductors for mid-infrared applications*

Appl. Phys. Lett. 101, 221108 (2012);

New collaboration between Surrey (Prof. S. Sweeney and Dr. I. Marko) and University of Delaware (Prof. J. Zide) on InGaAsBi alloys.

### Forthcoming book

*Quantum Life – From biogenesis to cancer: how fundamental physics is revolutionising biology* by Jim Al-Khalili and Johnjoe McFadden

To be published in 2014 by Bantam Press (in UK) and Random House (in US)

"Entering a new area of research is daunting. When you have been commissioned by one of the world's largest publishers to write the definitive book on the subject, it is even more overwhelming. Therefore, the international workshop on quantum biology we ran at Surrey was vital in enabling us to meet, listen to and discuss ideas with the most active researchers in this new and exciting field from around the world. It has also provided us with the contacts we desperately need for our own research and for the book we are now writing." (Prof. Jim Al-Khalili)

### Comments from participants:

"It was a great pleasure to have been part of this historic meeting, which brought together a diverse group of hyacinthac specialists from around the world. Such an event was long overdue. Congratulations on organising a positive workshop that involved such a stimulating and enthusiastic group of scientists." (Neil Crouch, South Africa, The Hyacinthaceae Workshop)

"This was a fabulously organised, highly informative conference." (Dickens conference participant)

"Excellent and stimulating meeting. Good to see a large contingent of young people." (Paul Davis, USA, Quantum Biology Workshop)

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