

ISSTI Newsletter

THE INSTITUTE FOR
THE STUDY OF SCIENCE
TECHNOLOGY AND INNOVATION

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Welcome

June is a busy time for ISSTI: we have just returned from our Annual Retreat (more on page 2); a lecture and workshops have been held on organisational routines, with US Professors Martha Feldman and Brian Pentland (see page 6); and the second ISSTI Interdisciplinary Masterclass is underway as this newsletter is being prepared.

This newsletter welcomes the move of the Science Studies Unit to its new home in Chisholm House in High School Yards. This faces Old Surgeons Hall, which houses the Research Centre for Social Sciences (RCSS) hosting much of our technology studies research, and the ESRC Centre for Socio-Economic Research on Innovation in Genomics (Innogen).

This co-location will bring benefits through closer interaction between teaching and research staff and postgraduate students. It creates a major concentration of expertise in the interdisciplinary analysis of science, technology and innovation in the High School Yards area.



The location is pleasant - and an intriguing one given our interest in life science technologies.

Here it was that Dr Robert Knox ran anatomy classes with dissections of corpses supplied by Burke and Hare secured initially by graverobbing and latterly by murder. A brief account of the intriguing history of Chisholm House (built in 1764) and Old Surgeon's Hall (1697) can be found at <http://www.geos.ed.ac.uk/public/hsy/>. New postal address: The Science Studies Unit, The University of Edinburgh, Chisholm House, High School Yards, Edinburgh EH1 1LZ.



Reading the Heavens: The Crawford Collection in the History of Astronomy

See page 3 for full report

Researching the Public Interest: Workshop report

See page 4 for full report

Studies of Science Studies in Edinburgh

John Henry contributes to Roger Stuewer's series 'The Physical Tourist' and to a series of reports by the Royal Society

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Research News

ISSTI Retreat 2008

An annual two-day retreat is now a regular feature of the ISSTI calendar. Earlier this month some forty ISSTI staff and postgrads spent a relaxed but concentrated time at Carberry Tower near Musselburgh, with a mixture of guest lectures, presentations on current research, sessions on theoretical and methodological themes, and informal discussions.

Arie Rip (Twente), who collaborated with ISSTI in the ATBEST project on emerging technologies, pursued some of the questions raised in that work and sketched out a framework and agenda for STS research on areas like nanotechnology. Elizabeth Shove (Lancaster) focussed on more mundane technologies and practices, presenting an analysis based on her book (with Watson, Hand & Ingram) *The Design of Everyday Life*. An enjoyable game of floorball in the evening helped participants understand her points about contingency in the development of practices and rules.

Talks on performativity in SSK work by Barry Barnes (Exeter) and Juan Pablo Pardo-Guerra took up again the theme explored by Donald MacKenzie at last year's retreat. The notion is being put to work in a range of areas and was picked up in other talks including Luciana D'Adderio's on recreating dependable production processes. The tension was still evident, however, between accounts of institutions as performed and more structural explanations.

Similarly the sociology of expectations, a current of work discussed by guest Nik Brown (York) at the 2007 retreat at Kelso, is evidently being widely adopted, and Neil Pollock showed how it can usefully be deployed, in his account of a consultancy's central role in the appraisal of software providers.

Discussions led by ISSTI postgraduates on other themes – on theorising context, on animal/human boundaries, and on problems in research that crosses language and cultural boundaries – once again tuned in well to widespread preoccupations. They showed how the annual retreat has come to provide a fruitful opportunity for ISSTI members to identify and explore common concerns and approaches underlying what might appear disparate currents of work.



Guest Arie Rip talks to the ISSTI retreat at Carberry House

Update: Postgraduate Course in Translational Medicine

Innogen colleagues are continuing to contribute to the online post-graduate programme in Translational Medicine in collaboration with the University of Edinburgh School of Medicine and Veterinary Medicine.

The first year entrants to the Certificate level of the course (14 students from a variety of clinical, scientific and policy backgrounds) are due to complete in July 2008, and the Diploma level will be added to the programme in October 2008.

Dr James Mittra, Dr Jane Calvert and Prof Joyce Tait (Innogen and ISSTI) are developing a large portion of the content for the Diploma course. We are currently receiving applications for this groundbreaking distance-learning programme. Applicants can find out more about Translational Medicine and how to apply for the course on the following website: <http://www.transmed.ed.ac.uk/index.html>

We are also pleased to announce that our colleagues in the Medical School have been awarded funding from the Scottish Translational Medicine and Therapeutics Initiative (STMTI), which will contribute to the creation of 10 studentships for the Translational Medicine Programme each year for five years. Details of these scholarships will be published in due course.

Interdisciplinary eHealth research

On June 2nd, the University hosted an event highlighting the range of interdisciplinary eHealth research and practice in Edinburgh and Lothian. The meeting was opened by the Principal, Professor Sir Tim O'Shea, and included presentations from Professor Sir Muir Gray, NHS Chief Knowledge Officer and Gordon Graylish, Vice President of Intel Europe, amongst others. The meeting was well attended by academics, NHS service providers, and representatives of the Scottish Government eHealth Directorate, NHS Connecting for Health, Scottish Enterprise and industry.

The NHS Connecting for Health Evaluation Programme has recently released a new report on the impact of eHealth technologies, developed by Aziz Sheikh, Claudia Pagliari and colleagues within Community Health Sciences and Imperial College London.



Reading the Heavens: The Crawford Collection in the History of Astronomy at the Royal Observatory of Edinburgh

Monica Azzolini of the School of History, Classics and Archaeology, and John Henry of the Science Studies Unit, have been awarded a £6000 grant by the Royal Society of Edinburgh to enable them to set up a workshop on "Reading the Heavens: The Crawford Collection in the History of Astronomy at the Royal Observatory of Edinburgh".

The Crawford Collection is the best privately amassed astronomical library anywhere in the world, having been collected by James Ludovic Lindsay, twenty-sixth earl of Crawford and ninth earl of Balcarres (1847–1913). In 1888, appalled by the plans of the British Government to terminate the office of Astronomer Royal for Scotland and to close down the Royal Observatory on Calton Hill in Edinburgh (now Edinburgh's City Observatory), Crawford bequeathed his superb collection of astronomical instruments and his library of the history of astronomy to the nation of Scotland, provided that a new observatory was built, and a new astronomer royal appointed.

The new Edinburgh Royal Observatory on Blackford Hill was opened by Crawford in 1896 and his collection of 15,000 books and manuscripts has been housed in the Library of the Royal Observatory of Edinburgh ever since. It is now, therefore, one of the top five libraries of the history of astronomy in the world, holding its own with the collections of the Paris Observatory, the Observatory at Uppsala University, the Royal Astronomical Society in London, and the Pulkova Observatory in St. Petersburg—a remarkable tribute to Crawford as a collector.

The library includes a 15th-century 'gridle' almanac with the phases of the moon and the days for the administration of medication; the earliest edition of Sacrobosco's *Sphaera Mundi* (1478), the chief university textbook in astronomy throughout medieval Europe; a hand-coloured copy of Apianus's *Astronomicum Caesareum* (1540); the truly outstanding copy of Copernicus's *De Revolutionibus Orbium Coelestium* (1543) with copious manuscript annotations by Erasmus Reinhold, the leading astronomer in the generation after Copernicus (which has been singled out by Owen Gingerich as the single most historically important copy of this epoch-making work—see his *Annotated Census of Copernicus' De Revolutionibus* (Nuremberg, 1543, and Basel, 1566), Leiden, 2002, pp. 268–78); many rare books on early Arabic astrology; over 1000 tracts on comets (almost certainly the biggest collection of cometography anywhere); and important works by Tycho Brahe, Kepler, Galileo (including Galileo's *Sidereal Messenger* of 1610), and many others. It is an extraordinarily complete collection, unique for its history and coherence.

Unfortunately, in spite of its undeniable importance, the Collection is hardly ever used. The aim of the workshop, which will take place at the end of March 2009, is to bring together a number of leading historians of astronomy from all over the world, to enable them to see and use the collection. The organisers see this as the first stage of a continuing effort, including further bids for grants, publications based on the collection, an on-line catalogue and other enhancements, to make this world-class library known throughout the world.

Walt Willett Enlightenment Lecture



The University of Edinburgh, in association with the ESRC Innogen Centre and Genomics Forum, hosted a public lecture on the Optimal Diet for 21st Century Living delivered on 12th June by Professor Walter Willett (Harvard School of Public Health). Professor Willett is a one of the world's leading experts in nutrition and public health and has pioneered discoveries about which nutritional factors link to chronic diseases such as diabetes, heart disease and obesity. He is also the author of two best-selling books on healthy eating and in 2007 he was the second most cited researcher in clinical medicine in the world.

The Enlightenment Lectures are described by the Principal of The University of Edinburgh as 'an opportunity for the people of modern Scotland to hear about what world-leading politicians, philosophers, scientists and economists of our time understand by Enlightenment in the 21st Century'.

Faced with problems such as the obesity epidemics, Professor Willett's research could be of vast importance in the 21st century: by improving our diet we can improve the health of the entire population.

Please visit www.genomicsnetwork.ac.uk/innogen to download a recording of the lecture.

Selected New ISSTI publications

Bostanci, A & Calvert, J, 'Invisible Genomes: the Genomics Revolution and Patenting Practice', *Studies in the History and Philosophy of the Biological and Biomedical Sciences*, Vol. 39, 2008, pp.109-119

Bunduchi, R, Graham, I, Smart, A & Williams, R, 'Homogeneity and heterogeneity in information technology private standard settings - the institutional account', *Technology Analysis & Strategic Management*, Vol.20, No.4, 2008, pp 389 – 407

Crozier, I, editor and author of a 40,000 word critical introduction to *Havelock Ellis and John Addington Symonds, Sexual Inversion [1897]*, Palgrave, London, 2008. ISBN-10: 0230008038

Crozier, I, 'Havelock Ellis, Eugenicism', *Studies in History and Philosophy of Biological and Biomedical Sciences*, Vol. 39, 2008, pp.187-194

Crozier, I, 'Nineteenth-Century British Psychiatric Writing about Homosexuality Before Havelock Ellis: the Missing Story?', *Journal for the History of Medicine and Allied Sciences*, Vol.65, 2008, pp. 65-102

D'Adderio, 'The Performativity of Routines: Theorising the Influence of Artefacts and Distributed Agencies on Routines Dynamics', *Research Policy*, Vol.37, 2008, pp.769-789

Forbes, N & Wield, D, 'Innovation dynamics in catch-up firms: process, product and proprietary capabilities for development', *Industry and Innovation*, Vol.15, No.1, 2008, pp.69-92

Henry, J, 'The Fragmentation of the Occult and the Decline of Magic', *History of Science*, Vol. 46, 2008, pp.1-48

Haddow, G & Cunningham-Burley, S, 'Tokens of Trust or Token Trust?: The Case of Population Genetic Data Collections' in Greene, A, Brownlie, J & Howson, A (eds), *Trust, Health and Illness*, Routledge, London, 2008, pp.152-173

Kale, D & Wield, D, 'Exploitative and explorative learning as a response to the TRIPS agreement in Indian Pharmaceutical firms', *Industry and Innovation*, Vol.15, No.1, 2008, pp 93-114

O'Malley, M, Powell, A, Davies, J & Calvert, J, 'Knowledge-Making Distinctions in Synthetic Biology', *BioEssays*, Vol. 30, No.1, 2008, pp.57-65

Rosiello, A, (guest editorial) 'Re-thinking Innovation Systems in Life Sciences: Implications for Regional Innovation Policy', *European Planning Studies*, Vol.16, No.3, 2008, pp.329-335

Rosiello, A & Orsenigo, L, 'A Critical Assessment of Regional Innovation Policy in Pharmaceutical Biotechnology', *European Planning Studies*, Vol.16, No.3, 2008, pp.337-357

Williams, B, Entwistle, V, Haddow, G & Wells, M, 'Promoting Research Participation: Why Not Advertise Altruism?', *Social Science and Medicine*, Vol.66, No.7, 2008, pp.1451-1456

Williams, B, Entwistle, V, Haddow G & Wells M, 'Placing Evidence in Context: a Response to Fry's Commentary', *Social Science and Medicine*, Vol.66, No.7, 2008, pp.1461-1462

Researching the Public Interest

Kathryn Hunter, Wendy Marsden (AHRC Script Centre) and Catherine Lyall (ESRC Innogen Centre) organised the first interdisciplinary workshop under the aegis of Roberts funding for early career researchers in March. Entitled "Researching the Public Interest", the principal aim of this event was to encourage cross-College initiatives and explore avenues of future collaborative research in and around the concept of the public interest, with a focus on medical and health-related activities, in the broadest sense.

The University of Edinburgh has particular strengths in this area and can draw on expertise from the College of Medicine and Veterinary Medicine and also a wide range of other research centres and groupings from across the other colleges, including:

- AHRC Research Centre for Studies in Intellectual Property and Technology law (SCRIPT)
- Centre for International Public Health Policy
- ESRC Centre for Social and Economic Research on Innovation in Genomics (Innogen)
- E-health Research Network
- Data Protection and Regulation

- pursuing a public interest mandate in medical research
- revisiting the need for consent in medical research
- assessing the challenges and opportunities of the electronic health record

Anne Sofie Laegran from Edinburgh Research and Innovation concluded the event with a discussion of some of the practicalities of developing collaborative research proposals.

A follow up event is planned for September which will enable participants to shape the future training and career development agenda in this particular cross-disciplinary field.

Contact catherine.lyall@ed.ac.uk or kathryn.hunter@ed.ac.uk

David Edge studentship for 2008/09

The David Edge studentship for 2008/09 has been awarded to Jamie Robertson. Jamie has an Honours Masters in Astrophysics and has been working in the Centre for Communication Interface Research (CCIR) at the University of Edinburgh on issues of computer usability.



The studentship provides support for a full-time student in 2008-09 in the MSc Science and Technology Policy and Management. It is awarded by ISSTI in honour of the life and achievements of David Edge (1932-2003), founder of the Science Studies Unit, a central figure in the development of the field of Science and Technology Studies, and a valued colleague and mentor over many years to people now working in the field at Edinburgh and beyond.

The award was well contested, with a pleasing number of high quality applications. ISSTI looks forward to welcoming Jamie and a much expanded cohort of students into the degree in September. The MSc now has a third specialist route in Energy and Environment, alongside those in Information and Communication Technologies and Life Sciences and Biotechnology.



The workshop sought to encourage postgraduate and early-career researchers to come together, to draw on the experience of more senior colleagues and to form new networks of collaboration. Through a mix of short presentations examining different aspects of the public interest from within the health care setting and a series of discussions and poster presentations, participants considered topics such as:

Events

Understanding Technology 10 July 2008

National Museums Scotland, in collaboration with ISSTI, is launching a series of public lectures entitled Understanding Technology for 2008 and 2009.

The series starts on Thursday 10 July with leading sociologist of technology Professor Trevor Pinch from Cornell University: 'In the Moog: the Social Construction of the Electronic Music Synthesizer'.

Future speakers include David Bloor, David Edgerton and Colin Divall. The Understanding Technology lectures are held in the Dunfermline Room, National Museums Scotland, Chambers Street, Edinburgh, starting at 3pm.

Admission is free. To ensure a place, please register with Maureen Kerr on 0131 247 4274 or m.kerr@nms.ac.uk.



Professor Martha Feldman and Professor Brian Pentland Workshop and Lecture Report



Professors Martha Feldman and Brian Pentland with co-organisers of the Organizational Routines events, Luciana D'Adderio and Neil Pollock.

This month we have had the pleasure of hosting a double event by guest speakers Professor Martha Feldman (University of California Irvine) and Professor Brian Pentland (Michigan State University). Martha and Brian are Visiting International Fellows with the Advanced Institute of Management (AIM) research programme; the visit was organised and co-sponsored through Luciana D'Adderio's AIM Fellowship Making Innovation Dependable in collaboration with the Edinburgh Management School's San-Ei Gen Distinguished Speakers seminar series. The lecture on 'Organizational Routines: Generative Systems, Networked Narratives and Design' and the seminar 'Perspectives on the Empirical Study of Organizational Routines' were attended by Edinburgh colleagues from many different schools and research centres, and outsiders came from as far afield as Imperial College London, St Andrews, Newcastle, Lancaster and Cranfield.

For further information about Luciana D'Adderio's AIM fellowship and the events please see her Fellowship website at <http://www.dependableinnovation.org/>. For further information about AIM see <http://www.aimresearch.org/>.

Reinventing Life? 27-28 October 2008

The ESRC Genomics Network is hosting an international, interdisciplinary conference, 'Genomics and Society: Reinventing Life?' at Savoy Place, London on 27 and 28 October 2008.

The conference will focus on the future impact of genomics and provide the opportunity for knowledge exchange across society. Policy makers, academic researchers, industry representatives and citizens' groups will be interested to attend.

The Keynote Speakers will be Prof Paul Rabinow, Professor of Anthropology at the University of California at Berkeley and Dr Iain Gillespie, Head of the Biotechnology Division, OECD. For more information about the conference and to register, please see the attached flyer or visit <http://www.genomicsandsociety.org/> or email innogen@genomicsnetwork.ac.uk



International Conference on Genomics and Society: *Reinventing Life?*



Organised by the ESRC Genomics Network

London, 27-28 October 2008
Venue: Savoy Place (central London)

- How can society keep up with new advances in genomics?
- What will be the global impact of genomics based technologies?
- Will developments in genetic engineering reinvent life?

The opening keynote address will be given by Paul Rabinow, Professor of Anthropology at the University of California at Berkeley.

Parallel sessions include the following topics:

- Bioscenarios
- Biology as Engineering
- Genomics & Development
- Bioenergy
- Innovation, Firm Size and Growth in Pharma
- The Future of Human Germline Engineering
- Genetic Databases
- Public Engagement

This conference will focus on the future impact of genomics and provide the opportunity for knowledge exchange across society. Policy makers, academic researchers, industry representatives and citizens' groups will be interested to attend.

For further information and booking, please visit
www.genomicsandsociety.org
Email: Innogen@genomicsnetwork.ac.uk

Staff and Visitors

Joyce Tait gives evidence for House of Lords enquiry

On 30th April, Professor Joyce Tait attended one of the oral evidence sessions for the House of Lords Inquiry on Genomic Medicine at the request of the ESRC.



The discussion was based on the submission sent in by RCUK to which Innogen, Egenis, Cesagen and the Genomics Forum also contributed. Innogen also submitted a separate paper to the Inquiry incorporating contributions from Dr. Theo Papaioannou, Dr. James Mittra, Dr. Gill Haddow, Dr. Alessandro Rosiello. Professor Graeme Laurie and Shawn Harmon.

The transcript of the evidence session can be found on the http://www.parliament.uk/parliamentary_committees/lords_s_t_select/evidence2.cfm

Talking Stem Cells team to give paper at London School of Economics Workshop in July



Sarah Parry and Sarah Cunningham-Burley are giving a paper at *The Role of Social Science in Public Dialogue on Science, Technology and Medicine* workshop on 4th July at the London School of Economics.

On April 16th they successfully ran an event attended by 50 people on the tissues sources of stem cells. As part of the event people were asked

to vote on how they would spend public money in this area.

The voting results can be found at:

<http://www.talkingstemcells.ed.ac.uk/index.php?action=ShowArticle&id=88>. A report from the event will be put on the talking stem cells website in the coming weeks.



Jonathan Suk edits Science and Public Policy

Jonathan Suk, formerly of Genomics Forum guest edited the Feb.2008 issue of Science and Public Policy (vol. 35, no 1)



Marie Curie fellow at ISSTI

Daniele Fanelli trained as a behavioural ecologist at the universities of Florence, in Italy, and Copenhagen, in Denmark. After a PhD on the behaviour and genetics of Malaysian and Panamanian tropical wasps, he took a Master in Scientific Communication at the University of Milan. He writes about science for prominent magazines including New Scientist, L'espresso and Le Scienze, but he has also developed a profound interest for philosophical and sociological aspects of science.



Daniele has secured an EU Marie Curie fellowship to train at ISSTI under the supervision of Professors Joyce Tait and Robin Williams. By combining qualitative and quantitative methods, he will investigate the level of objectivity in the production and dissemination of knowledge in the natural and social sciences.

Innogen letter published in Nature Biotechnology

Jo Chataway, Joyce Tait and David Wield had a letter published in the May edition of Nature Biotechnology.

The letter was written in response to the March editorial on the recent International Assessment of Agricultural Science and Technology for Development (IAASTD).

Please the Innogen website for more details, www.innogen.ac.uk



Other News

Studies of Science Studies in Edinburgh

Those interested in the Edinburgh dimension to science studies may like to know of two recent commissions which John Henry was asked to write and which have now appeared in print.

The first is a contribution to Roger Stuewer's series in *Physics in Perspective* called "The Physical Tourist", in which historians of science are invited to provide a historical "tour" of a particular city, strictly for those interested in the history of physics.



John's article, "Physics in Edinburgh: From Napier's Bones to Higgs's Boson", appeared in *Physics in Perspective* 9 (2007), pp. 468-501. For those who are interested but don't have internet access to the journal, John has hard-copy off-prints and a pdf file of the article.

The second is a contribution to the series of Reports on the state of History of Science in various universities which appear occasionally in *Notes and Records of the Royal Society*. After informing the commissioning editor, Robert Fox, that a report on the state of history of science in Edinburgh would be very short, John was allowed to include non-historical aspects of science studies in Edinburgh, covering the whole sweep of ISSTI, and was therefore able to make a substantial report. This has now appeared as: "Historical and other Studies of Science, Technology and Medicine in the University of Edinburgh", *Notes and Records of the Royal Society*, 62 (2008), pp. 223-235. Again, John has old-fashioned off-prints, or can send the pdf file to anyone interested who cannot access *Notes and Records* on-line.



For those who are wondering whether John Henry ever does any serious academic work instead of providing ephemeral commissions, they might like to look at his most recent article, which offers a new solution to the still unsettled question as to

why belief in magic, among the learned, declined at the end of the seventeenth century: "The Fragmentation of the Occult and the Decline of Magic," *History of Science*, 46 (2008), pp. 1-48.

ESRC collaborative (CASE) studentship 2008

Innogen has been awarded a CASE studentship to look at Innovation and Regulation Interactions in the Development of Clinical Stem Cell Therapies

The project will investigate the range of viable public and private sector innovation trajectories, business models, and hybrid approaches to the development of embryonic stem cell therapies, taking into account related social, commercial and political drivers and barriers.

These issues are of fundamental interest to the disciplines of science and technology studies, innovation studies and strategic management, and are also a major concern to the two partner organisations, the Scottish Stem Cell Network and the Scottish National Blood Transfusion Service. The project will use an interdisciplinary methodology to meet the key objectives.

Contact James.mitra@ed.ac.uk for more info.

Promoting African Scholarship

Lawrence Dritsas, a Leverhulme Early Career Fellow in the Science Studies Unit, is celebrating the first publication produced by the Lembani Trust, a Zambia-based charity co-founded by him. Led by British, European and Zambian scholars, The Lembani Trust seeks to publish Zambian academics who have limited access to academic outlets, while also increasing the availability of scholarly writing about Africa, in Africa.

The first book, *African Realities*, is the posthumous memoir of Robinson Nabulyato, member of the Legislative Council of Northern Rhodesia and then speaker of the Zambian National Assembly from 1969-1988 and 1991 to 1998. The book was launched at a gala event in Lusaka in May by the current Speaker, Amusa Mwanamwambwa.



Three more books are currently in production. The Lembani Trust plans to expand their activities into other countries in southern Africa as soon as possible.

Lawrence can be contacted at L.Dritsas@ed.ac.uk