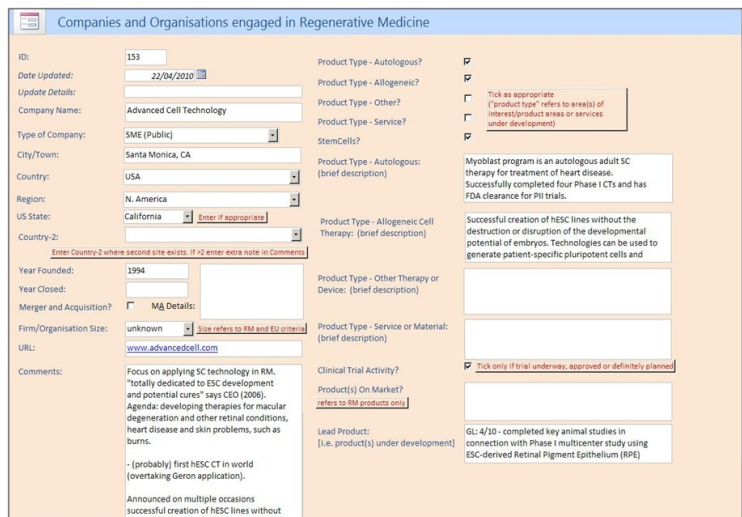


SATSU Annual Review: 2010-2011

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The screenshot shows a detailed form for 'Advanced Cell Technology'. Key fields include: ID: 153; Date Updated: 22/04/2010; Company Name: Advanced Cell Technology; Type of Company: SME (Public); City/Town: Santa Monica, CA; Country: USA; Region: N. America; US State: California; Year Founded: 1994. The form also includes sections for Product Type (Autologous, Allogeneic, Other, Service), Stem Cells, Clinical Trial Activity, and Lead Product (GL4/10). A comment box contains text about the company's focus on applying SC technology in regenerative medicine (RM) and ESC development, mentioning macular degeneration and heart disease research.

Screen shot of the new global database developed by SATSU during 2010-11 relating to corporate activity in the regenerative medicine field

SATSU's Focus

Established in 1988, SATSU is an internationally recognised social science research centre exploring the dynamics, practices, and possibilities of contemporary science and technology. Its principal focus is on the biosciences, health, digital media and social networking including new forms of democratic governance, and the broader regulatory universe within which these are found.

Our approach is to provide both theoretical and empirically-grounded critical analyses of these fields, and to undertake interdisciplinary and policy-relevant research informed by both conventional and novel methodological techniques.

SATSU currently has 14 members and is directed by Professor Andrew Webster. The Unit collaborates with colleagues working in dedicated research centres in the UK and internationally within the field of science and technology studies, social media, and science and technology policy. We also welcome applications for PhD study through the new Science and Technology Studies PhD doctoral training programme.

From the Director



This year has been another busy year for the Unit with projects either coming to an end or new ones starting, which we report on elsewhere in the Review. The success of our research is entirely dependent on the contributions from all our members. Over the years, colleagues have come and gone, and this year is no exception. Graham Lewis, who has retired, will become an Honorary Research Fellow so while stepping down from a full workload, will continue to contribute on a number of research fronts (see page 16 for more on this), while three colleagues will be moving on to new research or teaching posts elsewhere: Catherine Montgomery to Oxford, Michael Morrison to Egenis in Exeter, and Laura Machin to a lectureship at Lancaster. We are delighted that they have all secured these new positions, especially at a time of considerable uncertainty in the academic labour market, again reflecting the quality of their work and future contribution to the field. We were delighted that Siân Beynon-Jones will be remaining at the Unit, having won one of the very competitive three-year Wellcome Trust research fellowships in biomedical ethics, to pursue her work concerning the meaning(s) of 'gestational time' in abortion provision.

We continue to develop our research on our three broad fronts: the sociology of the biosciences, social media/informatics and regulation and governance of science. The year has seen the first pursued principally through our

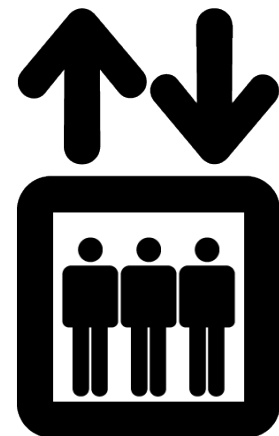
work on regenerative medicine, cord blood banking, pharmacogenetics, and xenotransplantation, and clinical trials while the informatics work has focused on developing our interests in social robotics (with colleagues at Twente), social media and data aggregator systems and citizenship and social media; regulatory issues are, where appropriate, embedded into these substantive fields of inquiry.

Other developments this year relate to the very successful launch of the FP7COST network – 'Bio-objects and their Boundaries: Governing Matters at the Intersection of Society, Politics and Science'. We report on this later in the Review but it is worth noting here that the network is attracting widespread interest from Europe and beyond with new members joining from Australia, New Zealand, the US and is being superbly led by Ingrid Metzler, from the University of Vienna. As Vice-Chair, I am assisting Ingrid in the management of the programme.

The ESRC's Doctoral Training Centre at York (developed as a joint endeavour with our 'White Rose' partners, the Universities of Leeds and Sheffield) has got underway with the first studentships starting in October 2011. SATSU will be heavily involved in the STS pathway and we are keen to encourage prospective students to apply in the future. The PhD programme responds to the ESRC's strategic research challenge 'New Technology, Innovation and Skills'. It combines 6 leading departments and centres within the WR DTC that will provide core and advanced training, asking how social, economic and political drivers shape new technologies, why some new technologies enjoy public confidence and rapid take up and why others do not and what media-related, regulatory and legal processes shape this.

This year we have taken the opportunity to develop new proposals for sub-

mission in the near future: these relate to the role of elite civil service science in shaping policy, a follow-up to the REMEDiE project, and risk regulation in the context of safety-critical software engineering.



Finally, my role as Director of SATSU has been undertaken while also meeting my responsibilities as Academic Coordinator for the Social Sciences, overseeing 11 departments at the University (York's equivalent of a 'Dean'). While this has meant I have had to deal with a wide range of demands it has also meant that I have been able to identify new opportunities for collaboration across campus, which I will report on in next year's Review.

Professor Andrew Webster

Visitors to SATSU

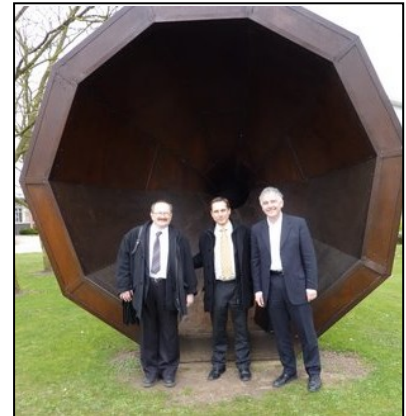
Vincenzo Pavone



Following a successful visit earlier in the year, Vincenzo (from the Institute of Policy and Public Property in Madrid) re-joined SATSU for several weeks in Autumn 2010. Whilst visiting SATSU, he presented a stimulating paper concerning 'the political economy of pre-implantation screening/genetic diagnosis in Spain' (now forthcoming in *Science, Technology and Human Values*).

Dr Gyula Kasza & Dr Zoltan Lakner

In April, we were pleased to welcome (back!) to the Unit Dr Gyula Kasza, a former member of the Marie Curie Training Site, now Head of Division of Public Relations at the Hungarian Ministry of Agriculture and Rural Development. While here, he and his colleague, Dr Zoltan Lakner (Corvinus University, Budapest) discussed the ways in which their work on public engagement with science could be informed by the work we have conducted in this area, meeting Siân Beynon-Jones to discuss our FP7 project on citizen participation. We also explored how research units might be established in universities in Hungary within the STS field and how they might be structured.



Above: Zoltan Lakner, Gyula Kasza and Andrew Webster (outside the 'Beyond and Within' steel sculpture next to Wentworth College – the sculpture is designed to create 'a quiet presence within space' – just like SATSU!).

Funding News

Dr David Beer has successfully been awarded funding from the Royal Academy of Engineering for a project on recording engineers. Dr Beer is being funded to work alongside the primary investigator Dr Jez Wells from electronics. For further information see:

<http://www.york.ac.uk/sociology/about/news-and-events/news/2011/engineer-debate/>.

Dr Siân Beynon-Jones has been awarded a three year Wellcome Trust research fellowship in biomedical ethics. See page 12 for a summary of the project.

Dr Michael Morrison was part of a grant proposal that received funding from the Spanish Plan Nacional funding scheme in 2011. The award provides funding over a three year period to carry out a comparative study of the bioeconomies of assisted reproduction and regenerative medicine in Spain and the UK. The project is headed by Dr Vincenzo Pavone of the Institute of Public Policy in Madrid and is also intended to build stronger collaborative links between STS/medical sociology research in the two countries.

Forthcoming Events

SATSU and the Oxford Internet Institute are jointly supporting this year's *Information, Communication & Society (iCS)* Journal symposium entitled 'A Decade in Internet Time'. It will be held in Oxford 21-24 September and organised by Brian Loader (SATSU), Bill Dutton (OII) and Sarah Shrive-Morrison (SATSU). The outstanding list of international speakers includes Christine Borgman, danah boyd, Manuel Castells, Vint Cerf, Laura De Nardis, Andrew Graham, Wendy Hall, Eszter Hargittai, Lisa Nakamura, Ted Nelson and Barry Wellman. A selection of the best papers will be put together for a special issue of *iCS*.

SATSU teams up with Y Touring Theatre Company



SATSU's PhD student Kim is currently acting as an expert advisor for a Wellcome Trust-funded theatre project exploring the ethical and social issues raised by the implementation

of pharmacogenetic technology. Kim is assisting the writers, directors and actors of Y Touring Theatre Company to produce an engaging and informative play which will tour nationally around schools and youth groups. Y Touring has previously staged productions dealing with controversial scientific advances such as stem cell research and xenotransplantation. More information about Y Touring's Theatre of Debate can be found here:

<http://www.theatreofdebate.com/>.

UK National Stem cell Network (UKNSCN) meeting, 30 March-1 April 2011

York hosted the annual UK NSCN meeting which brought about 450 delegates to the campus. One of the first events was a public engagement meeting on 'Stem Cells and Stem Cell Tourism' that was chaired by Andrew Webster and held in Kings Manor in the centre of the city. Later in the programme, Nik Brown hosted a special session on 'Ethics and Social Science in Stem Cells'.



Image: dream designs / FreeDigitalPhotos.net

Update on the Bio-objects Network

The FP& COST network, Boundaries: Governing Matters at the Intersection of Society, Politics and Science, has recently received additional funding from the European Commission, providing further resource for what is proving to be a popular network. Bio-objects refers to new living materials that disrupt formerly established boundaries and modes of ordering, as well as to 'old matters of life' that are 'revitalized' when brought into new spaces.

The network had its initial launch meeting in Brussels in October 2010, then its first major conference in Vienna, in a very hot few days in May 2011. The meeting was attended by over 100 delegates and explored some key issues associated with the meaning and value of the bio-object concept in opening new avenues of inquiry across the social and biosciences. The conference, which was a great success, examined how biological taxonomies and boundaries are being challenged and changed through bio-objects; the ways in which these bio-objects are governed, and the ways in which bio-objects become themselves means through which societies are being ordered and governed; and those generative relations that facilitate the emergence of bio-objects and that are themselves modified through the emergence of bio-objects. The opening keynote, by Andrew Webster, was entitled 'Bio-objects, Bio-subjects and Bio-agents: Tracking socio-material realities'. The paper discussed the relation between the three and how this articulation underpins the 'bio-objectification' process.



Test Tube Lids. Image: Suat Eman / FreeDigitalPhotos.net

World-wide University Network workshop on Biocapital, University of Bristol, 27 April 2011



SATSU members Andrew Webster, Nik Brown, Michael Morrison and Siân Beynon-Jones participated in the first of a series of World-wide University Network workshops on Biocapital, organised by Professor Donna Dickenson (School of Social and Community Medicine, University of Bristol). The workshop brought together scholars from a range of backgrounds (including STS, law, ethics, feminist theory, and geography) to engage in a lively cross-disciplinary conversation focused upon a point of common concern: the transnational dynamics of the commercialization of human cells and tissues.

In addition to providing a forum within which to discuss the development of future collaborative work, the event gave SATSU the opportunity to present key research findings concerning regenerative medicine and promissory narratives (Michael Morrison) as well as 'immunitary bioeconomies' (Nik Brown).

The next meeting of the network will be in October 2011.



Image: renjith krishnan / FreeDigitalPhotos.net

Publications

Throughout 2010/11, SATSU colleagues have worked hard to disseminate their research findings in publications and conference papers

- Allen-Robertson, J. & Beer, D. (2010) 'Mobile ideas: tracking a concept through time and space', *Mobilities* 5(4): 529-545.
- Atkinson, R. & Beer, D. (2010) 'The ivory tower in the city: engaging urban studies after *The Wire*', *City* 14(5): 529-544.
- Bahadur, G., Morrison, M., Machin, L. (2010) 'Beyond the 'embryo question': human embryonic stem cell ethics in the context of biomaterial donation in the UK, *Reproductive Biomedicine Online* 21: 868-874.
- Bao-chaung, H. (2011) Risk and socio-technical systems: a study of Taiwanese Campus Accident Reporting System. PhD thesis, University of York.
- Beer, D. (2010) 'Mobile music, coded objects and everyday spaces', *Mobilities* 5(4): 469-484.
- Beer, D. (2011) 'Urban knowledge through popular culture: some reflections on everyday encounters with the melodramatic city', *Lo Squaderno: Explorations in Space and Society* 19: 67-70.
- Beer, D. & Penfold-Mounce, R. (2010) 'Researching glossy topics: the case of the academic study of celebrity', *Celebrity Studies* 1(3): 361-366.
- Beynon-Jones, S. & Brown, N. (2011 in press) 'Time, timing and narrative at the interface between UK technoscience and policy', *Science and Public Policy*.
- Beynon-Jones, S. & Brown, N. (2011 in review) 'Transpecies innovation: hybrid European governance', *Innovation: the European Journal of Social Sciences – special issue on the Regulatory Dynamics of Therapeutics in Europe*.
- Brown, N. (2011 in press) 'Beasting biology: the politics of hybridity at the margins of the human', in Tamminen, S. and Vermeulen, N. (eds) *Bio-objects*. Ashgate.
- Brown, N., Machin, L., McLeod, C. (2011) 'Immunitary bioeconomy: the economization of life in the international cord blood market', *Social Science and Medicine* 72 (7): 1115-22.
- Brown, N. & Beynon-Jones, S. (2011 in review) 'Reflex regulation: an anatomy of promissory science governance', *Health, Risk and Society*.
- Cook, P., Kendall, G., Michael, M. & Brown, N. (2011) 'The textures of globalisation: biopolitics and the closure of xenotourism', *New Genetics and Society* 30 (1): 101-114.
- Penfold-Mounce, R., Beer, D., Burrows, R. (2011) 'The Wire as social science fiction?' *Sociology* 45(1): 152-167.
- Lupiáñez-Villanueva, F., Hardey, M., Torrent, J., Ficapal, P. (2010) 'The integration of Information and Communication Technology into medical practice', *International Journal of Medical Informatics* 79: 478-491.
- Lupiáñez-Villanueva, F., Hardey, M., Torrent, J., Ficapal, P. (2011) 'The integration of Information and Communication Technology into nursing', *International Journal of Medical Informatics* 80:133-140.
- Machin, L.L., Brown, N., McLeod, D. (2011 in press) 'Two's company-three's a crowd': the collection of umbilical cord blood for commercial stem cell banks in England and the midwifery profession, *Midwifery*.
- Machin, L.L., Brown, N., McLeod, D. (2011 in review) "The right to donate in umbilical cord blood banking for stem cell therapies" *Health Policy*.
- Monaghan, L.F. & Hardey, M. (2011) 'Bodily sensibility: vocabularies of discredited male bodies' in Rich. E., Monaghan L.F. & Aphanor, L. (eds) *Debating Obesity: Critical Perspectives*. New York: Palgrave Macmillan.
- Montgomery, C.M. (2011 in review) 'Protocols and participatory democracy in a North-South product development partnership'. *Sociology of Health & Illness*.
- Montgomery, C.M. (2011 in review) 'Lubrication & fluidity: co-producing gender and technology in HIV prevention research'. *Social Studies of Science*.
- Montgomery, C.M. & Pool, R. (2011 in press) 'Critically engaging: integrating the social and the biomedical in international microbicides research'. *Journal of the International AIDS Society (JIAS)* special issue: 'Bridging the Social and the Biomedical: Engaging the Social and Political Sciences in HIV Research'.

Publications

- Morrison, M. and Cornips, L (in press) Exploring the role of dedicated online biotechnology news providers in the innovation economy. *Science, Technology and Human Values* .
- Reed, D.J. & Monk, A. (2011) Inclusive design: beyond capabilities towards context of use, *Universal Access in the Information Society (UAIS) special issue on Innovations in User Sensitive Design, Research and Development*, 10(3).
- Tamminen, S. & Brown, N. (2011) 'Nativitas: capitalising genetic nationhood', *New Genetics and Society* 30 (1): 73-99.
- Tamminen, S., Vermeulen, N. & Webster, A. (eds.) *Bio-Objects: Life in the 21st Century*, London: Ashgate. 2011.
- Webster, A. Douglas, C. & Sato, H. (2010) 'Emergence of asbestos-related health issues and the development of regulatory policy in the UK', in H. Sato (ed) *Management of Health Risks from Environment and Food*, London: Springer, pp63-100.
- Webster, A. Douglas, C. & Sato, H. (2010) 'BSE in the United Kingdom' in H. Sato (ed) *Management of Health Risks from Environment and Food*, London: Springer, pp 221-267.
- Webster, A. (2010) 'Law, ethics, religion, and clinical translation in the 21st century— A discussion with Andrew Webster', *Stem Cells* 28:1915–1917.

Conference Papers

- Jamie, K. 'Implementing pharmacogenetics into pharmacy practice: a (re)professionalising project?', British Sociological Association Annual Conference, 6-8 April 2011, London School of Economics, London, UK.
- Jamie, K. and Machin, L.. 'How can researcher engagement with ethics committees shape social science research?', Gatekeepers & Social Research: Hindrance or Facilitation? Colloquium, 16 June 2011, Birkbeck Institute for Social Research, London, UK.
- Jamie, K. 'Implementing pharmacogenetics into pharmacy practice: a (re)professionalising project?', MedSoc Annual Conference, 14-16 September 2011, University of Chester, Chester, UK.
- Montgomery, C.M.. 'STS goes South? Con/traversing public/health' British Sociological Association Annual Conference, 6-8 April 2011, London School of Economics, London, UK.
- Montgomery, C.M.. 'Power and the HIV prevention trial: a Foucauldian analysis', 1st International HIV Social Science and Humanities Conference: Locating the Social, 11-13 June 2011, Durban, South Africa.
- Morrison, M. 'Visions of health and wealth: the role of expectations in commercial regenerative medicine', IAS/WUN symposium on Biocapital and Bioequity, 17 April 2011, Institute for Advanced Studies, University of Bristol, UK.
- Morrison, M.. 'Dynamics of cell science and commercial niches in regenerative medicine', REMEDiE closing conference, Bringing Regenerative Medicine to the Clinic: Trials and Tribulations in Europe and Beyond, 18-19 April 2011, University of the Basque Country, Bilbao, Spain.
- Morrison, M. 'Dynamics of cell science and commercial niches in regenerative medicine', British Sociological Association Annual Conference, 6-8 April 2011, London School of Economics, London, UK.
- Morrison, M. 'Regenerative medicine: prospects and challenges', 7 February 2011, Institutos de Políticas v Bienes Públicas, CSIC, Madrid, Spain.
- Szczeppek Reed, B., Elizabeth , L., & Reed, D. 'Performing teaching and the teaching of performance: a conversation analytic investigation of vocal masterclasses'. IEMCA Conference, 10-14 July 2011, Fribourg, Switzerland.
- Reed, D. 'Dancing interaction', The Second International Symposium on Culture, Creativity, and Interaction Design, 4-5 July 2011, Northumbria University, UK.
- Reed, D. & Light, A. 'Contested vulnerabilities in the performativity of age and technology'. Practicing Science and Technology, Performing the Social, EASST 2010, 2-4 September 2010, Trento, Italy.
- van Oost, E. & Reed, D.J. (2010) 'Towards a sociological understanding of robots as companions', Proc of HRPR 2010, [conference paper and also reviewed and accepted for publication in proceedings].

Brown Bag Seminar Series

Autumn Term



The SATSU Brown Bag seminar series provides a relaxed forum for the presentation, discussion and debate of cutting-edge research relevant to the study of science, technology and medicine. This past year we have again welcomed a wide range of invited speakers to the

series, both from the University of York and elsewhere. In the run-up to their dissemination meeting in Brussels with MEPs and Members of the European Commission, SATSU staff involved in the REMEDIe project - Andrew Webster, Graham Lewis and Michael Morrison - began the Autumn term's seminar series by presenting a synopsis of their key findings concerning regenerative medicine in Europe. Nicholas Pleace, from the Centre for Housing Policy at the University of York, discussed the troubling implications of the ways in which data processing systems are being utilised in

the management of welfare for 'high cost, high risk' populations. Drawing on research findings from the cross-nationally comparative CIT-PART project, SATSU's Siân Beynon-Jones and Nik Brown talked about the distinctive temporal dynamics of the UK's approach to the regulation of the biosciences. Finally, Kim Jamie – a PhD student within SATSU – presented an insightful analysis of the potential role of pharmacogenetics in the (re) professionalisation of the work of UK pharmacists.

attempt to provide an in-depth empirical analysis of the much-discussed phenomenon of 'Medical Tourism'. Finally, Felicity Matthews – a newly appointed lecturer from York's Department of Politics – presented findings from her prize-winning doctoral research concerning the governance challenges that Whitehall faces in its attempts to tackle climate change.

Spring Term

The Spring term began with a (literal) bang, with SATSU PhD student James Allen-Robertson's aurally-dynamic presentation of his findings concerning the growing use of digital media in the (re)creation of sampled music. Christine Knight, from the Genomics Forum at the University of Edinburgh, visited SATSU to share her insights concerning the rhetoric of low carbohydrate food movements, in particular, their reliance upon scientific discourses concerning human evolution. Neil Lunt and Laura Machin, from the York Management School, discussed their new research project, which represents the first major

those working within an emerging biotechnological field such as regenerative medicine construct concerning its development.

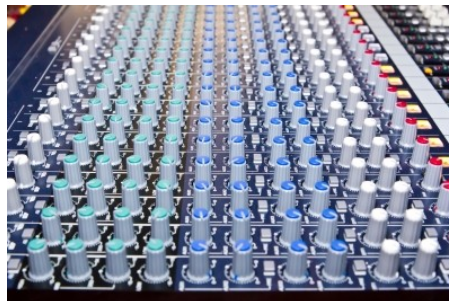


Image: tungphoto / FreeDigitalPhotos.net

Finally, the summer term also allowed us to hear from an external speaker – Lamprini Kaftantzi from the LSE – whose doctoral work concerning the experiences of UK bio-entrepreneurs intersects directly with core SATSU research themes.



Image: George Stojkovic / FreeDigitalPhotos.net

Summer Term

The summer term provided an important opportunity for audiences to hear and discuss the findings of some of the exciting work being developed by SATSU's own Research Fellows. Catherine Montgomery began the series by illustrating the insights that a Foucauldian analysis brings to the entrenched debate surrounding the merits of 'participatory democracy' in North-South product development partnerships. Drawing on work which he has conducted for SATSU's REMEDIe project, Michael Morrison outlined his novel theoretical insights concerning the promissory work which is done via the *histories* which

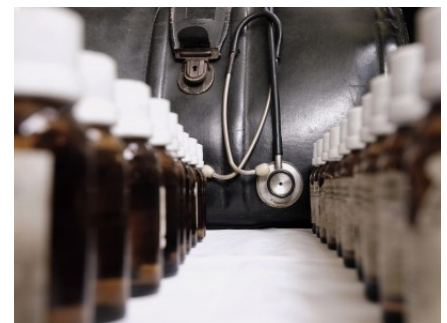


Image: vitasamb2001 / FreeDigitalPhotos.net

REMEDiE: Regenerative Medicine in Europe

Professor Andrew Webster
Dr. Graham Lewis
Dr. Michael Morrison

The REMEDiE project has now formally come to a conclusion, and did so with a particularly successful and enjoyable final conference held in Bilbao, made possible by the excellent support and organisational skills of our Spanish colleagues at the University of the Basque Country.

The REMEDiE project has examined in considerable detail the development of the field of regenerative medicine (RM), defined as the application of novel biomaterials – specifically cells (including stem cells), genes (via gene therapy) and biodegradable scaffolding materials, to achieve a regenerative effect. Three main aspects of the field are explored in the final report which will appear on the REMEDiE website and is freely available - the economic (innovation-related), the political (especially governance related) and the bioethical (including legal dimensions) – to compare Europe with other parts of the globe.

One of the key findings documented in the report is that there is a significant European-based commercial sector, with c120 companies – the vast majority (112) small biotech firms less than 10 years old - working in the domain of regenerative medicine, including 51 cell therapy companies, of which the majority strongly favour therapies using cells from a patient's own body (autologous cell therapy) over products using cells derived from an unrelated donor or donors (allogeneic cell therapy) with very little interest in hESC approaches. The industry is concentrated in major hubs in France, Germany, and the UK, dependent on strong regional (publicly-funded) platforms.

There are major scientific and regulatory hurdles ahead as clinical trials increase, especially the ability to standardise cell batches for phase III trials, when the biological variation in cell



REMEDiE Partners outside the University of the Basque Country, the Guggenheim Museum seen in the background.

behaviour must be shown to be within tolerable limits across multiple clinical sites to gain regulatory approval. While the US is extremely strong, its lead on some fronts is declining as more and more clinical trials in autologous therapies gather pace elsewhere. Most trials are still in Phase 1, and focused on three areas: the cardiovascular, the gastrointestinal and the central nervous system. It is very likely that the next decade will be dominated by products and processes deploying autologous customised batch therapies rather than extensively available techniques.

Regulatory and political practices vary across Europe and globally. The report discusses the ways in which the sourcing of tissue – notably oocytes for research – is subject to regulatory oversight and the degree to which this is effective. It also identifies some key differences in the political cultures shaping the field as one moves from the USA to Europe to China.

Findings in relation to key ethical and legal issues (and their overlap) are also summarised. Consensus on controversial topics, such as those relating to regenerative medicine, is fragile and often challenged on moral and political grounds. Moreover, consensus tends to collapse rapidly as innovation dis-

turbs agreed moral boundaries.

The full report, which has been drawn on by the UK Office of Life Sciences/ Department of Health's own joint review of the field, concludes with a range of detailed policy recommendations relating to the governance, enabling and strengthening of the field and its regulatory, corporate and clinical promise. The project was also reported at a special meeting convened with European MEPs, hosted by the UK MEP Linda McAvan and subsequently by the Director of Health Biotechnology at the European Commission.

Considerable attention is often given to the notion of 'technological readiness levels', initially developed by the DoD in the US and used across many sectors, including regenerative medicine (as in the Research Councils UK's *Forward Look* – to be published at the end of 2011). While such modelling helps identify the various components that need to be in place to establish an effective and validated platform for a sector, equally important is what we might call 'organisational readiness'. Future social science research needs to address this relationship between technological and organisational readiness across the different health care systems of Europe.

The Political and Moral Economy of Umbilical Cord Blood Banking

Dr. Nik Brown
Dr. Laura Machin
Dr. Danae McLeod

This project (£264,000 - ESRC) was completed in January of 2011 after two years of intensive research into the complex and sophisticated worlds of cord blood banking. The project sought to explore changing patterns in the organisation, donation and deposition of blood stem cells. In particular, to explore new forms of consumption, parental responsibility and the changing balances between public and commercial bioscience that are emerging as a result of cord blood banking.

There are a number of key findings associated with the project which are at various stages of dissemination:

Cord blood banking and race

One of the first undertakings of the project was to generate political economic data on the scale, size and global distribution of the CB banking sector. Drawing upon available quantitative data in combination with interviews with leading international CB banking stakeholders we were able to chart the economic pricing of CB units, their trade across national borders, and the emergence of a globally sophisticated infrastructure for typing, storing and matching donated units for deployment in treatment. In particular we were able to explore the relationship between CB banking and the complex question of race/ethnicity given that the rationale of most banks has been to collect from minority populations who are under-represented in predominantly Caucasoid bone marrow registries. Theoretically we draw on Roberto Esposito's conception of the 'immunitary paradigm' to write of the emergence of 'immunitary bioeconomy'. This paper has now been accepted for publication in *Social Science and Medicine*.

Competing values – between 'use' and 'exchange' value

Another important finding emerges directly from our focus group research with expectant parents. Without exception over the course of these sessions (4hrs in total per group), expectant parents tended to focus on the timing of the clamping and cutting of the cord. CB collection tends to rely upon immediate clamping of the cord in order to benefit from increased collection volume and TNC (Total Nucleated Count). However, for expectant parents, this feature of CB collection tended to raise the possibility that their newborn infant could be denied something of immediate clinical benefit. Most expectant parents were neutral on this question prior to the commencement of the focus groups but expressed a preference towards delayed clamping by the end of the meetings.

A number of possibilities follow from this:

1. That older clinical traditions of delayed CB clamping may be reinvigorated.
2. That the increased public profile given to CB by the banking sector may contribute to that reinvigoration with increasing numbers of new parents including delayed clamping in their birth plans.
3. That both these practices may be bringing into conflict competing systems of valuing CB. We theoretically develop this through bioeconomic writing on 'use' and 'exchange' value.

See:

<http://www.york.ac.uk/res/cordblood/>

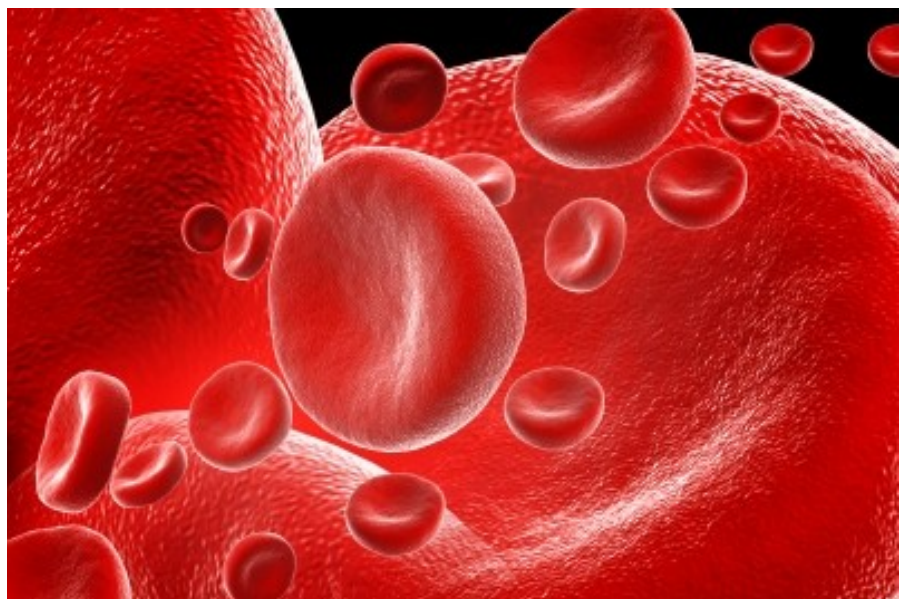


Image: renjith krishnan / FreeDigitalPhotos.net

Impact of Citizen Participation on Decision Making in a Knowledge Intensive Policy Field (CIT-PART)

Dr. Nik Brown
Dr. Siân Beynon-Jones

The CIT-PART project (funded through the European Commission Framework Programme-7) is utilising a cross-national comparison of xenotransplantation policy-making as a case study through which to explore the opportunities which exist for citizen participation in policy processes concerning science and technology. Within SATSU, Nik Brown and Siân Beynon-Jones have been leading Work Package 12 of this project, which draws on interviews and documentary material to provide an analysis of the UK's xenotransplantation policy process. Their CIT-PART project partners are working on a range of country case studies which include Austria, Switzerland, Canada, Denmark, Italy, Latvia, the Netherlands and Sweden.

Fieldwork and data analysis for Work Package 12 are now complete, along with the final report which summarises its key findings. On the basis of this report, the UK team have been developing a series of papers, the first of which uses cross-national comparison to capture the distinctively rapid, reactive, temporal dynamics of UK policy-making concerning xenotransplantation. This paper has already been accepted for publication as part of a special issue of *Science and Public Policy*, which explores the possibilities of citizen participation in science policy-making in a range of country contexts. Their second paper, which they were recently invited to present at a cross-disciplinary workshop concerning *Research with Living Beings* at Keele University (30th June-1st July 2011), builds upon this work by comparing the UK's regulation of xenotransplantation with its governance of another set of transpecies entities, namely, embryos comprising both animal and human

materials. The UK team are currently extending these analytical insights concerning British regulators' approach to transpecies entities by addressing European-level governance of this issue, and have been invited to submit a paper based upon this work to a special issue of *Innovation - The European Journal of Social Science Research*, which will address the regulatory dynamics of therapeutic technologies in Europe.

The wider CIT-PART project has now entered its third and final year, which will centre upon cross-national comparison of the completed country case studies. Key preliminary insights into this process were gained during the fourth project workshop, which was held in Trento in September 2010 in order to coincide with the CIT-PART team's organisation of their well-attended stream - *Practicing Public Engagement in Controversial Science and Technology* at the European Asso-

ciation for the Study of Science and Technology conference (September 2nd to 4th 2010).

The UK team presented papers both here and at the productive fifth project workshop in Copenhagen (2nd-4th May 2011), which was devoted entirely to the issue of cross-national comparison, and which provided a forum within which to agree three cross-cutting themes to be developed through a series of cross-partner collaborative publications. These publications will inform both the final CIT-PART project report and the end-of-project dissemination event in Brussels, which will be designed to ensure that its findings are communicated both to the European Commission and to a wide range of other stakeholders.



Image: Tom Curtis / FreeDigitalPhotos.net

‘Making sense’ of the ethics of gestational time in the abortion clinic

SATSU Research Fellow Siân Beynon-Jones has been awarded a three year Wellcome Trust research fellowship in biomedical ethics to conduct a new research project, entitled ‘Making sense of the ethics of gestational time in the abortion clinic: A comparative analysis of clinical and lay understandings’. This project will build upon Siân’s doctoral research concerning the construction and negotiation of knowledge about abortion by Scottish health professionals. In particular, it draws upon her findings concerning the ethical frameworks which health professionals mobilise in explaining their differential approach to patients who request abortions at ‘earlier’ and ‘later’ points in pregnancy.

In recent years, the issue of gestational time and abortion has been debated extensively in both the media and in Parliament. However, surprisingly little is known about how UK women who seek abortion conceptualise the meaning of the gestational timing of the procedure. Accordingly, one of the key concerns of this project is to address this gap in the literature. Building on Siân’s previous findings concerning how individual health professionals classify the significance of the gestational timing of abortion, the project will also investigate how the meaning of gestational time becomes framed in more ‘public’ professional spaces (for example, during training and in peer-reviewed literature).

In comparing women’s and health professionals’ experiences of negotiating the meaning of the timing of an abortion, the project will identify the kinds of ethical problems which arise from health professional-patient interactions concerning this issue. In doing so, its ultimate goal is to explore routes towards the resolution of such problems, and thus, the improvement of the delivery of an important aspect of women’s reproductive healthcare. With this aim in mind, the research will be conducted in close consultation with health professionals involved in abortion provision to ensure the dissemination of its findings to key end-users.

Doctoral Projects in SATSU

James Allen-Robertson

See page 14.

Peter Chang-Huang

See page 13.

Abbi Hobbs

Abbi submitted her PhD, funded by the ESRC, in June 2011 and is due to be examined shortly. From February to November 2011 she was leading the data collection and analysis in the UK for a European mixed methods social science research project on the public perception of biobanks (GEN-AU) which was funded by the Austrian Government. The research is informing the work of the European Commission FP7 funded Biobanking and Biomolecular Resources Research Infrastructure (BBMRI) in the construction of a pan-European biomedical and biological research infrastructure. The research is currently being written up for publication and wider dissemination. She is currently working for the UK Parliamentary Office of Science and Technology as an adviser in Physical Sciences, IT and Communications.

Kimberly Jamie

Kim’s PhD is funded by the ESRC and Pharmacy Practice Research Trust (PPRT) and focuses on the potential impacts of pharmacogenetic technology on the practice of pharmacy in England. The pharmacy sector is undergoing major changes, which are affecting the occupational role and status of pharmacists working in different practice areas and pharmacy settings. This PhD uses semi-structured interviews with a range of medical practitioners, pharmacists and pharmacy policy makers to assess pharmacists’ potential involvement in the process of delivering personalised medicine to patients and how this involvement might impact on their professional status and everyday practice. Kim has presented her work in this area at the BSA and MedSoc annual conferences.

SATSU welcomes enquiries about postgraduate study in SATSU’s key interest areas from potential home, EU and international students. Please contact andrew.webster@york.ac.uk or +44 (0)1904 324740.

Research Biographies

Doctoral Student: Bao-Chuang Huang (Peter)

Peter Huang joined SATSU in 2008 as a Ph.D student. With a background in Aviation Engineering in the R.O.C Air force Academy (1982-1986), he was responsible for the management of Packing, Handling, Storing and Transportation P.H.S.T. (1986-1992) and the management of Integration Logistic Support (1992-1997) in the R.O.C Air force. Due to his interest in social work, he took an MA degree in Social Work at Tunghai University (2003-2005), researching human resource management in the social welfare system during the period of a particular disaster. In the last decade of his military career, Peter was transferred to the Ministry of Education and was in charge of the analysis and management of campus security events across Taiwan (1997-2006).

Peter's doctoral thesis, 'Risk and socio-technical systems – A study of the Taiwanese campus accident reporting system', explored and distinguished the interaction and dynamic of risk management by examining the development and operation of a socio-technical management system and observing its modification and revision process within a hierarchical organisation.

The thesis focused on a socio-technical management system (the CSRS), which is designed by the government agency at the national level, relying on modern technology to identify, integrate and manage the phenomena of risks and 'accidents' occurring in schools and colleges in Taiwan. Focusing on this particular system, Peter explored the potential role of SCOT as a theoretical tool through which to reduce negative impacts stemming from the use of high technology in risk governance. Employing this perspective, Peter's thesis developed models for using a technical system for managing risk within a cultural context.

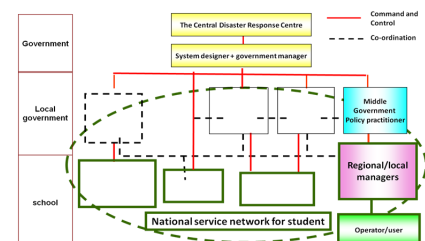


Peter recently presented his research at the 1st Summer School on ICTETHICS in June 2011 in Budapest, which was sponsored by the European Commission. He returned from the workshop to give a successful defense of his thesis at his viva in July. His examiners were Robin Williams, from the Science Technology and Innovation Studies Subject Group, University of Edinburgh and Brian Loader, from the University of York.

While in the UK, Peter (and his family) took the chance to visit many other European countries as well as UK venues, such as Cambridge, shown in the picture above.

In addition to risk governance, Peter also has research interests in the interaction between society and organizations, especially in fields relating to science and technology. Having completed his doctoral research, Peter has now returned with his family to Taiwan to pursue these research interests and to develop what we are sure will be a very successful academic career.

We look forward to our continuing research links with him, and to welcoming him back as a visitor to SATSU in the future.



Doctoral Student: James Allen-Robertson

James graduated from the University of York in 2007 with a BA in Sociology. Not ready to give up on academia he won an ESRC 1+3 award and stayed at York to take a Masters in Social Research, and then followed on to join SATSU for his PhD the following year in 2008.

His thesis, 'Digital Culture Industry', co-supervised by Prof. Roger Burrows and Dr. David Beer, is a unique historical account of how media retail went digital. The work charts the role of illicit piracy networks and technologies in the development of our contemporary mediascape and how the disruptions of these technologies have impacted wider western society. The work focuses on issues of ownership of digital media, the changing relationship between media vendors and users, the values and ethics of software engineers, the development of 'pirate politics' and the ways that the data medium has altered our experience and engagement with cultural products.

James' wider interests cover information technology, design, digital media, intellectual property law, data visualisation, archives, metrics and new forms of internet-based research. His recent publication, 'Mobile Ideas: Tracking a Concept through Time and Space' (*Mobilities*, 2010 Vol.5 No.4) is an account of utilising the internet as an archive of agency to track the dissemination of an idea from its author out to the wider world. His more recent thesis work also utilises the internet as a data source, applying documentary analysis to a wide array of digitally instantiated documents in order to trace the history of underground piracy systems. An exploration of the methodological issues of charting a 'Messy Sociological History' is due to be presented at the Information, Communication & Society Symposium, hosted at the Oxford Internet Institute in September 2011.



James also has an irrepressible habit for flashy media laden performances and has garnered a reputation within SATSU for his mixed-media presentations on 'The History of Piracy', and the explosive world of 'Music Mashups'. James intends to roll out these presentations via his research blog www.digitalcultureindustry.com in the coming months.

After finally submitting his thesis, which is due in October 2011, James hopes to continue his work with an ESRC Post-Doctoral Fellowship and plans on producing a series of articles and a book based on his research.

Research Biographies

ESRC Postdoctoral Fellow: Catherine Montgomery

Catherine joined SATSU in October 2010 as an ESRC Postdoctoral Research Fellow working on a project entitled "Collaboratories for Health Technologies". Her work explores the intersections of Science & Technology Studies with Global Public Health, and seeks to further communication between these different epistemic communities.

Catherine has an eclectic background. Graduating from the University of Cambridge in 2001 with a BA Hons in Modern & Medieval Languages/History of Art, she then went on to complete an MSc in Reproductive & Sexual Health Research at the London School of Hygiene & Tropical Medicine (LSHTM). Between 2004 and 2010 she worked as a Research Fellow in the Department of Public Health & Policy at LSHTM and as a consultant to the Barcelona Centre for International Health Research (CRESIB). During this time, she co-ordinated the social science research component of a large, multi-country HIV prevention trial and contributed to anthropological studies of malaria control interventions.

Dissatisfied with the theoretical paucity of public health responses to the HIV epidemic, Catherine undertook a PhD (2006-2010) exploring the co-production of gender and technology in HIV prevention research. Using vaginal microbicides as a case study, she drew on Foucault, feminisms and STS sensibilities to interrogate the techniques of power through which transnational scientific networks are mobilised to test new health technologies, and how these affect scientific practices, knowledges and identities across socio-geographic boundaries. This account of the relations between science, society and technology drew on empirical research conducted in the UK and Africa with biotechnologists, trialists, trial participants and trial communities. By tracing an experimental HIV prevention drug across its sites of development and use, her work shed light not only on the technology itself, but also



Catherine, centre back, disseminating research findings in Zambia

on the networks of actors who both defined and were defined by its socio-scientific trajectory.

The implications of her thesis extend between the poles of applied public health research on the one hand and theoretical STS on the other, pushing both fields to consider their normative and theoretical imperatives. For STS, this research calls for an expansion of the analytic field to address the much neglected global South; for public health, which is largely trained on the global South, it calls for an appropriation of deeper sociological insight. Following on from this, Catherine is interested in exploring how novel scholarly practices, such as e-research and studio social science, could be used to facilitate critical and collaborative

engagement between the social and biomedical sciences, and between the so-called 'global North' and 'global South'. Her interest lies in involving users and STS scholars further upstream in the development of new health interventions, to explore how knowledge about health technologies might be created differently.

Catherine leaves SATSU in October 2011 to take up a post as a Research Fellow in Bioproperty at the Institute for Science, Innovation & Society (InSIS) in Oxford.

Website: <http://www.york.ac.uk/sociology/our-staff/research/montgomery/>

Laura Machin



Dr Laura Machin came to SATSU in January 2009 to take up a research post on the ESRC-funded Political and Moral Economy of Umbilical

Cord Blood Banking project (<http://www.york.ac.uk/satsu/stem-cell-banking/>). Laura took a lead role in gaining ethics approval, recruitment and conducting over 60 interviews with key stakeholders in the cord blood field. Laura most enjoyed being involved in the engagement activities that resulted from the contact with stakeholders, such as writing for the National Childbirth Trust and the British Society of Blood and Marrow Transplantation, attending the All Party Parliamentary Group for

Adult Stem Cells and Umbilical Cord Blood, and presentations to the Haematology Department at St James' Hospital in Leeds.

After the funding came to a close at the end of December 2010, Laura took up a new research post within the York Management School, for an ongoing NIHR-funded project exploring the implications of medical tourism for the NHS (<http://www.medicaltourismresearch.co.uk/>).

During this time, Laura was offered a Lectureship in Medical Ethics at Lancaster Medical School, where she is involved in teaching and research. Since taking up the Lancaster post in May 2011, Laura has maintained her contacts with colleagues at York, including assisting Ph.D. student, Kim Jamie, to produce a presentation and paper on NHS ethics.

In her short time at the Lancaster Medical School, Laura has been awarded

£6,500 from the National Gamete Donation Trust to conduct research into egg and sperm donor satisfaction (<http://www.ngdt.co.uk/donor-satisfaction-survey>), become the co-convenor of the BSA Human Reproduction Study Group (<http://www.britsoc.co.uk/specialisms/Human+Reproduction.htm>), and is acting as guest editor for the publication produced by the Association for Improvements in Maternity Services (<http://www.aims.org.uk/>).

When reflecting on her time at SATSU, Laura remembers the national and international visiting fellows to SATSU fondly, as well as the friendly and supportive environment that exists between research fellows. As Laura progresses in her career, she is aware that the reputation of SATSU and its colleagues reaches far and wide and is keen to live up to it!

Graham Lewis



Graham retired at the end of May, and while he will no doubt have more time for his passion for long-distance walking, tending to his allotment and

more modest interest in home-decorating, Graham will also stay firmly in touch through becoming an Honorary Research Fellow of the Unit. He joined us in 2001, working on a project that examined the promise of pharmacogenetics (PGx), drawing on his previous academic expertise relating to the regulation of the pharmaceutical industry, and indeed his much earlier professional experience working in the industry itself. He continued to work in the area and

was PI on an ESRC project as well as collaborator on a major DoH PGx programme and review of the field commissioned by the EC. He also played a key role as principal manager of a major contract the Unit had with Momenta, managing the ethics review for projects that were submitted via Momenta to a national health and social care research programme funded by the national lottery. Earlier in the Unit he was one of the core team that helped to shape the ESRC's Research Ethics Framework (now called the Framework for Research Ethics). He also helped to supervise research students who joined us from across Europe between 2001-5 on the Marie Curie training programme.

More recently, he has made a crucial contribution to the REMEDIÉ project as lead for the global database of firms, patenting and clinical trials activity in the regenerative medicine field, a database that the Unit intends to maintain

over the years ahead, and which is already attracting considerable policy and corporate interest.

Graham will continue to work on PGx and developments in 'personalised medicine', and more widely, help to develop a 'collaborative tools' project with other university colleagues and contribute towards the university's sustainability programme.

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