

the social science stem cell initiative



Spaces of Stem Cell Science Exploring Processes of Translational Research

This research examines the processes of translational research in stem cell science. The goal is to contribute to the development of interdisciplinary understanding of the interactions between the lab and the clinic across the social and the biomedical sciences. The project develops our earlier ESRC Stem Cell Initiative research on: 'Mapping stem cell research in action: an ethnography of the bench-bedside interface'. This research focused on cell transplantation in the fields of diabetes and liver disease, and explored the social science themes of ethics, expectations, the body, and science and technology studies (STS). In contrast, this new research project focuses on 'disease in a dish' approaches to stem cell translation (i.e. stem cells as tools for unravelling mechanisms of disease and for drug development) in the fields of neuroscience and diabetes. The new themes of risk, Bourdieu and geographies of science continue our theoretical and methodological blending of STS and medical sociology. The project combines new ways of writing about our earlier data with additional research on some of the themes which have emerged during this qualitative work.

The Fellowship develops a programme of research through six interrelated objectives which:

- I. Explore views from the bench and the bedside on risk, stem cells, and cell transplantation.
- 2. Use Bourdieu's concepts of field, habitus and different forms of capital, as a novel way of understanding stem cell science and translational research.
- Examine the spaces of stem cell science, and develop a stream of research on the geographies of stem cell research and translational processes.
- Investigate neuroscientists' expectations of stem cell science, particularly the differing speeds of translation of embryonic, fetal and neural stem cells from the lab to the clinic.
- 5. Study models of stem cell science, particularly 'cell transplantation' and 'disease in a dish' as competing paradigms of translational research.
- Compare and contrast scientists' views of stem cell science and translational research in California and the United Kingdom.

Fieldwork will largely be undertaken in stem cell labs and networks in the United Kingdom and in California, USA. Access has been obtained from the directors of two major embryonic/adult stem cell labs and their associated centres and networks, in these two locations.

This Fellowship builds on my research collaboration with the four 'mapping stem cell innovation' co-applicants: Professor Williams (Medical Sociology, KCL), Professor Michael (Sociology of Science & Technology, Goldsmiths), Professor Farsides (Bioethics, Sussex), and Professor Cribb (Ethics & Public Policy, KCL), and adds a collaboration with Dr Demeritt (Geography of Science, KCL). The study will continue to develop links with local, national, and global networks of social and bioscience stem cell researchers, the UK Stem Cell Initiative and the 'Social Science Stem Cell Network' in California (particularly with UCSF/UCB). This study will be of benefit to government, advisory bodies and user groups, and will contribute to public debate about stem cell research and therapies.

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