



the social science stem cell initiative

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The UK Stem Cell Bank - An Institutional Ecology

In 2003, the United Kingdom has established the world's first Stem Cell Bank (SCB) to be a repository for stem cell lines in the UK and elsewhere, and to make them available for use by both academic and commercial laboratories around the world. This project follows the one year ESRC funded pilot project 'Curating and Husbandry in the UK Stem Cell Bank' (Project No. Res-00022-1136) that explored this novel development through an ethnography of the Bank, its committees, and associated laboratories.

This project, also ESRC funded, consolidates the research initiated during the pilot phase as the Bank expands its operations in a number of areas during this two year period. These are to facilitate the *deposit of clinical grade* as well as research grade material, to allow *withdrawal* of material for research and developmental purposes, to ensure greater *standardisation* through the International Stem Cell Initiative (ISCI), and to support the *development* of a similar Bank in Spain.

The Research

The research aims to establish how a contingently assembled husbandry practice emerges, composed of distinctive subjects, the sites where they work, and the cell lines they curate. The key research questions include:

1. How are applications to deposit and access embryonic cell lines assessed case by case?
2. How are qualified and well-characterised donations accepted from within and outside the UK?
3. How are controls required by the regulatory authorities applied?
4. In what ways will the deposit of Clinical Grade hES lines alter the Banks practices?
5. How will the Bank operate as the technical hub of the ISCI project?
6. How will the collaboration between the UK Stem Cell Bank and the development a similar Bank in Spain shape both institutions?

Methods

Observation: Direct observation of the interaction within scientific teams, such as team meetings, laboratory work, etc. as well as direct observation of meetings of the steering group and management group, departmental meetings, and selected outside meetings with regulatory and other bodies.

Interviews: A series of in-depth interviews with steering group and management group members, lead scientists and associates, through to technicians, and quality assurance personnel, in the UK and Spain.

Documentary Sources: Regulatory instruments, official reports, commentaries, research papers and conference proceedings, published and unpublished.

Substantive Findings So Far

The project has developed an analysis of the Bank's Quality Assurance, record keeping and standardisation practices in relation to the 'Cell Line Information Form'. We stress the importance of close personal relationships between staff at the Bank and donating laboratories to facilitate the transition of the inherently tacit cell culturing knowledge necessary for this task. Furthermore we describe the importance of this translation from embodied knowledge into a bureaucratically accessible knowledge in the production of social legitimacy. These ideas were presented at the EASST '06 conference.

The project has developed a complementary analysis of the Bank's Steering Committee, exploring the negotiation of legitimacy between the committee and wider publics as well as that between the interdisciplinary membership themselves. The analysis stresses the deferments of trust that are central to their interactions both internally and externally. This has been presented in different forms at the Egenis '05 and CESAGen '06 conferences.

The project has drawn upon both these findings and a further analysis of the Bank's relationship to those bodies that regulate it the HTA & the MHRA to stress the importance of translations between the Banks social networks and bureaucratically accessible artefacts for the continued co-determined legitimacy of the Bank and wider stem cell science.

The project is developing an analysis of the performative architecture of the Bank in relation to the nuanced notion of sterility operationalised by the Banks Quality Assurance system. We explore how competing metaphors of sterility produce socially legitimate stem cell science in different social spheres. This has been presented at Society for the Social Studies of Science '06 conference.

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