



the social science stem cell initiative

Stem Cell Research in Context

A Comparative Study on the Dynamic Relationship Between Science, Medicine & Society

Researchers: Katrin Gehring and Susanne Weber

Britain and Germany currently represent opposite ends of a spectrum of restrictions applied to stem cell science in Europe. From 1990 onwards different regimes of governing research on human embryos were established, facilitating embryonic stem cell research in the UK and largely restricting it in Germany. As a result, the UK has invested substantially in embryonic stem cell research while Germany has strongly supported research using adult stem cells. This project aims to explore the ways in which local morals and ethics, science policy and regulation themselves affect the course of science and technology.

Research Questions

- How do practices of public governance influence research questions and practices in stem cell science?
- How are different fields of stem cell science affected by legal and ethical regulation and science policies?
- Does 'stem cell science' represent a homogeneous field of scientific inquiry or is it an expression of a particular science policy agenda?

Aims

1. To map and compare research practices in different areas of stem cell science in laboratories in the UK and in Germany.
2. To present a case study on the ways in which stem cell science is influenced by legal and ethical regulation and science policies such as dedicated funding.
3. To analyse how international scientific achievements feed into the formulation of local or national research agendas and regulatory frameworks.
4. To critically examine how national and EU regulation, economics, national ethics and local morality shape science pathways and research practices.

Dimensions of Analysis

On both the national and the crossnational level:

- Types of stem cells used – comparison of practices across facilities
- Applied vs. basic science – comparison of different disciplinary approaches to stem cell science
- Practitioners' perceptions of and attitudes towards their Science

Methods

- Ethnographic observation in different laboratories in Germany and the UK
- Indepth interviews with team members, representatives from funding agencies and commercial research
- Textual analysis of the scientific and governance literature

Translational Space: Stem Cell Treatment of the Heart Researcher: Jean Harrington

Heart repair is one of the few areas in which stem cell applications are currently developing fast. Some options have entered into clinical trial phase. The intersection between biology, physiology, established diagnostic and therapy practices, regulation and ethical issues is crucial for understanding social change. The objective will be to produce a critical discussion of stem cell biotechnology and its practical and conceptual effects. This Ph.D. project will be presented through a detailed case study on the emerging science and its effect on established medical practices and concepts. It will also cover the mutual influence between the laboratory and the clinic and the impact of regulation.

Research questions

- Are stem cell treatments smoothly implemented in clinical practice?
- Do stem cell knowledge, concepts and techniques translate readily into clinical treatments for the heart?
- Does cardiac medicine change, and if so how, through stem cell science?

Methods include ethnographic observation in laboratories and at professional meetings and interviews with staff in laboratories and clinics.

EU Stem Cells: a Case Study in Scientific Cooperation Researcher: Marco Liverani

In the last decade biomedicine has emerged as a crucial area for improving the performance and competitiveness of European scientific research. As a result the EU has promoted initiatives and networks in order to facilitate coordinated efforts across laboratories and institutes of member countries. However, striking differences between national profiles in regulation and resulting scientific practices appear to counteract the establishment of a homogeneous European platform for biomedical research. This Ph.D. project aims to explore the dynamics of cooperation and integration in stem cell science within the EU framework programme of research and development.

Research questions

- How do stem cell scientists from diverse national and cultural backgrounds work together and reach agreements?
- How is knowledge shared and transmitted among laboratories involved in stem cell networks?
- What are the dynamics of inclusion (and exclusion) in such projects?

Methods include observation and interviews using qualitative and quantitative analysis.

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