the social science stem cell initiative

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

The Global Politics of Human Embryonic Stem Cell Research

The rights and wrongs of human embryonic stem cell (hESC) research are hotly debated and policies vary dramatically across the world: from countries that outlaw it to others that are investing heavily in developing the field. The aim of this project is to analyse the global political economy of hESC science, creating a worldwide map of research and policy and assessing the implications for the UK.

Key findings

- Global dynamics: international competition is growing as emerging economies invest in research and development.
- Europe: bioethics experts have facilitated compromise in EU research policy, despite strong conflict between the policies of different member-states.
- China: China has made major investments and significant progress towards developing cutting-edge hESC research.
- UK policy: The UK needs to regulate international collaboration and this can be achieved by working with centres of excellence overseas to certify good practice that meets UK standards.

Global hESC map

We have mapped regulatory regimes for hESC research (national, regional and international) as well as public and private investment in the field. We are currently interviewing stakeholders in key countries, including Australia, China, India, Japan, South Korea, the UK and the US. In addition to policymakers and hESC researchers, we have interviewed journalists, social scientists, bioethicists, venture capitalists and enterpreneurs.

Our research confirms that the therapeutic promise of hESC research has sparked strong international competition. Countries are investing in the basic research necessary to develop the field, re-examining their regulatory arrangements, and seeking to attract transnational life sciences companies. Furthermore, international competition is increasing in intensity with the entry of new players, such as China and India.

Regional dynamics: Europe

Public debate on hESC research in the European Parliament has been raw and challenging, characterised by the stark presentation of conflicting positions. In contrast, bioethics experts are under pressure to develop practical solutions and their discussions are characterised by flexibility and adaptation. This flexibility in enhanced by a currency that invests varying cultural value according to the source, date of creation and age of the embryo used in hESC research.

Country focus: China

China has made major investments and significant progress towards developing cutting-edge hESC research, drawing on the world-class skills and scientific contacts of overseas-trained researchers. China's regulatory regime for hESC research is designed to support these returning scientists by facilitating international collaboration and bears a strong resemblance to UK legislation. Leading Chinese scientists are keen to make sure their work meets international standards, including ethics as well as technical standards: this is a prerequisite for publication in international scientific journals.

Country focus: India

India has begun to invest in research and development in health biotech. The government has created a National Task Force on Stem Cell Research and encouraged the development of domestic Indian private venture capital. Aided by reform of the patenting system, Indian venture capital is targeting life science research and the health biotech sector and associated international alliances are growing rapidly. However, India's position in the basic science of hESC is at present weak, reflecting the country's general difficulty in retaining and recruiting high quality scientists, both overseas-based Indian scientists and foreigners.

Policy engagement

The project engages with the public and with stakeholders such as scientists, the commercial sector and policymakers. We maintain a dialogue with UK policymakers regarding our research and its policy implications, participating in regional and national networks and advisory committees.

Outputs

Publications from this project have appeared in Nature Biotechnology, BioSocieties, International Affairs, Body and Society and Regenerative Medicine. Further articles are forthcoming in Global Governance and Science, Technology and Human Values, and New Genetics and Society. In addition, to promote a dialogue about the implications of its findings, the research team has produced a series of working papers. These are available from the project website:
http://www.ioh.uea.ac.uk/biopolitics

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