Editorial

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Interdisciplinary and transdisciplinary analyses should be crucial if we are to understand the ways in which contemporary developments in the life sciences are unfolding. This issue of *BioSocieties* offers a set of articles which exemplifies the potential of interdisciplinary research, and highlights some of the practical, intellectual and ethical challenges faced by those who are engaged in such projects.

In their analysis, ‘The end of the epidemiology wars’, Janet K. Shim and L. Katherine Thomson examine differences between two distinct approaches utilized within epidemiology that have sometimes found themselves in fierce debate. Specifically, *inductive* data-driven approaches have come into open conflict with *deductive* theory-driven approaches. This article suggests that these different research styles embody distinctive ethical stances with differing views of both scientific credibility and social responsibility. The authors frame some of the potential disciplinary consequences.

Different kinds of relations between disciplines form the focus of Adrian Mackenzie’s paper, which continues our recent concern with synthetic biology. Mackenzie examines the core issue of ‘design in synthetic biology’, analyzing the movement of design processes into biology and their role in the production of biological constructs such as metabolic pathways, minimal genomes and biological standard parts. He suggests that such design processes are reshaping what counts as biological work and biological substance, and also have wider implications for participation in biotechnology. Of course, some of the concerns regarding synthetic biology relate to its potential for accidental or deliberate release of synthetic pathogenic organisms. This shows clearly how ‘ethics’ have become intrinsic, not just to questions of application and policy, but also to the very practice of biomedical research.

In his timely analysis, Carlo Caduff explores ‘Changing priorities: Pandemic influenza and the politics of participation in the United States’. He argues that the mode of circulation, distribution and allocation of pandemic vaccine has recently been refashioned in the light of priorities that emerged during a process of public engagement, and that this has reformulated the question of how to dispense a scarce pharmaceutical resource in a public health emergency.

The hope that biomedical research will realize its potential, in both medical and economic senses, is, of course, not limited to ‘the West’. Joy Zhang examines the case of Chinese stem cell research, focusing on ‘The organization of scientists and its relation to scientific productivity’ in the face of a seemingly paradoxical situation. Chinese government funding of R&D ranks third in the world, yet China ranks only 17th in terms of scientific productivity per unit of investment. The detailed ethnographic research presented in this article suggests that the reasons may lie not so much in the research capacities of individual scientists, but in the very structural and infra-structural organization of Chinese professional bioscience teams.

Over recent years, the development and marketing of psychiatric pharmaceuticals has attracted much critical attention from a range of disciplinary perspectives. In his examination of this issue, Kalman Applbaum focuses on what he terms ‘shadow science’, examining the marketing of Zyprexa by Eli Lilly in the light of evidence of potential adverse effects of this drug. He suggests that this illustrates ‘the globalization of pharmaceutical damage control’. The article draws on ethnographic research in Japan to describe how Lilly dealt with a problem posed for the take-up of Zyprexa there by the requirement to include a new warning label and to send out a warning to prescribers in a ‘doctor’s letter’. Applbaum uses the case of Japan to explore the encounter between global marketing of pharmaceuticals and national context.

Continuing the psychiatric theme, and the intersection of the scientific, the social and the ethical in biomedicine, Ingrid Baart examines ‘the contingency of psychiatric genomics in a Dutch research consortium’. Her focus is on the practices and perspectives of scientists, funding agencies, patients’ organizations and patients in two long-term, large-scale Dutch psychiatric research consortia mapping the origin and development of psychosis, anxiety and depression. She concludes that the research pathways are contingent on many extrinsic factors including international developments, differences in perspective on the nature of psychiatric disorders, differing traditions in psychiatry, and the input of patients and patients’ organizations into the research.

BioSocieties is always keen to publish work that does not take the form of the standard academic paper. In this issue, we are pleased to carry a Workshop Report that focuses directly on the issue of transdisciplinarity. In ‘How do we collaborate? Social science researchers’ experience of multidisciplinary in biomedical settings’, Barbara Prainsack, Mette Nordahl Svendsen, Lene Koch and Kathryn Ehrich describe the debate among an international group of social scientists focused on their collaborative research experiences in biomedical settings. The discussions that transpired in this workshop cast light on some central issues that arise in these difficult but crucial practices of transdisciplinary research in biomedicine.

Adele E. Clarke
Nikolas Rose
Ilina Singh