Editorial

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This issue demonstrates the remarkable range of contemporary science, technology and medicine studies and its global reach. We see an eruption of new actors (individual and collective) as stakeholders, regulators and consumers of science and medicine in the debates about biomedicine and its proper applications, as well as radically different basic assumptions – for instance, the recasting of food as a form of environmental exposure. At the same time, North/South biases and presumptions of universality continue to be present in biomedical research, here vis-à-vis the specifics of the HIV/AIDS virus itself. And a ‘dark side’ of stem cells is beginning to emerge into the light within this too often hype-filled arena. Once more, empirically rich research in this area is the grounding of conceptual innovation, and the implications of these innovative papers will go well beyond their specific research sites.

In his article, ‘Creating the ‘ethics industry’’, Duncan Wilson considers the shift in the management and discussion of biomedicine in which issues once considered by doctors and scientists are now allocated to deliberative bodies and debated by philosophers, lawyers, theologians and lay representatives. This new approach, known as ‘bioethics’, has become the norm in regulatory committees and public debate. He argues that this new domain of bioethics emerged in Britain during the 1980s because it fulfilled, and linked, the concerns of various concentric groups, becoming a vital intermediary between politics, the public and biomedicine; hence the growth and endurance of what some term an ‘ethics industry’.

In ‘Viral cartographies: Mapping the molecular politics of global HIV’, Johanna Crane uses fieldwork conducted among North American and Ugandan HIV researchers to track the evolution of molecular HIV science in global context. She describes how the molecular ‘maps’ upon which knowledge claims about HIV were made (including claims about treatment and drug resistance) are based on HIV strains found primarily in patients in North America and Europe, and raises questions about what this implies for patients and scientists in Africa and other regions in the global south. She suggests that this reflects a ‘molecular politics’ in which the global inequalities of the AIDS epidemic are embedded within the very materials and tools scientists use to study HIV, with clinical, political and epistemological consequences.

In ‘Food as exposure: Nutritional epigenetics and the new metabolism’, Hannah Landecker examines nutritional epigenetics, which studies the effects of nutrition on gene expression. She argues that this reveals a wider shift in the understanding of food and metabolism. Rather than the chemical conversion of food to energy and body matter of classic metabolism, food is now also a conditioning environment that shapes the activity of the genome and the physiology of the body. What she terms an ‘experimental image of human life’ generated in rodent models generates concepts of food as a form of molecular

exposure with profound implications for how food is perceived, manufactured and regulated, as well as for social theories and analyses of the social body.

In 'Converging histories, reconsidered potentialities', Alison Kraft examines the recent rise to prominence of stem cell therapeutics, based on the hopes of harnessing their unique proliferative powers to create novel cell therapies for many currently incurable diseases. Although this vision served as an animating force for stem cell research, an earlier chapter of stem cell research is often forgotten: bone marrow transplantation (BMT) whose clinical pedigree of BMT stretches back to the late 1950s'. Further, alongside the therapeutic utility of the blood stem cell lies a 'dark side' in which 'the cancer stem cell' emerges in the pathogenesis of some forms of cancer. As in so many other areas, it seems that the more that is known about stem cells the less certain we are about their capabilities and their potential. This article focuses on the leukaemias, and considers how these twin aspects of stem cells contain lessons for the future, emphasizing once again the value of learning from the past.

In his article 'On the means of bio-production', Hallam Stevens considers bioinformatics and the making of knowledge in a high-throughput genomics laboratory. The article draws on an ethnographic account of a high-throughput genomics laboratory (Eli and Edythe L., Broad Institute, Cambridge, MA) to show how the means through which biological data is produced exerts a determinative effect on the kind of knowledge that is generated by the laboratory. Describing this cycle of production and consumption as 'bioinformatics', the article demonstrates the centrality of computers and computing to the knowledge production process in contemporary biology.

In 'Knowledge games, truthfulness, and organ transplants regulation', Marie-Andree Jacob examines how different relations to knowledge are enacted among experts working in the governance of kidney transplants. The article draws on fieldwork in transplant hospitals and bureaus, to analyse how legal knowledge transacts with expert and lay knowledge in the context of crucial yet pragmatic tasks such as assessing the 'intention to donate' and the 'altruistic motivations' of those who procure a kidney to someone in need. The law assigns its regulatory power to experts, who have to give their decisions a quasi-legal form, thereby giving legal forms and idioms an occasion to expand. The article argues that this legally managed multidisciplinary can incite experts to rely on their understanding on legal forms and lawyerly jargon, raising the crucial issue of what happens when legal knowledge gets into non-legal settings and is used by non-lawyers.

Among the many emergent areas of the life sciences that *BioSocieties* has addressed in its Books Forums are the neurosciences. This Books Forum contains reviews of several important recent contributions, including debates that engage cultural brains, neural histories, evolutionary advantage, underlying philosophical issues and future therapeutics. They provide useful windows onto this domain for non-experts and provocations for social scientists and neuroscientists alike.

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