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Editors' Introduction

BioSocieties engages with scientific, medical and technical fields that are advancing at a rapid, often bewildering pace. Yet it also engages with social domains that react with a different temporality to embed those advances in the complexities of social belief systems and practical hopes and fears. While we should not lose our wonder at the discoveries reported almost on a daily basis, we should also remember that, in the life sciences as perhaps nowhere else, the ultimate test of these discoveries will be the benefit, or otherwise, that they can confer on the lives of human beings—not only those in the affluent sectors of the wealthy West, but also those whose life chances are determined more by social disadvantage, poverty and prejudice than by high-tech science and medicine. The articles and material collected in this issue of *BioSocieties* exemplify the complexity of these issues.

Recent developments in bioscience and biomedicine seem to mark a step change in our capacity to re-engineer life at the molecular level. The prospects and perils of such re-engineering are perhaps at their sharpest in synthetic biology. J. Craig Venter has been at the forefront of these developments and, on the occasion of the publication in the UK of his autobiography, *A life decoded* (Penguin, 2007), he participated in a panel discussion at the London School of Economics and Political Science. We publish the transcript of that discussion in this issue of *BioSocieties*. Venter's previous work with Celera Genomics on the sequencing of the human genome (in fact, partly his own genome) attracted much socio-political criticism. But his work in systems biology, like his expeditions to collect previously unknown genetic material from oceanic species, has been marked by a professed concern to put his science to work to solve urgent human problems, and to engage in 'upstream' discussions of the social and ethical drivers and implications. This concern is evident in the debate we publish here, which also, sadly, was one of the last public appearances of Professor Peter Lipton, an outstanding historian and philosopher of science and a member of the Nuffield Council on Bioethics, whose untimely death we also mark in this issue.

Much of the furore over the work of Celera, and more generally of the role of commercial enterprise in the biomedical sector, has focused on allegations of 'commodification'—claims by critics that something fundamental is violated when the components of life become commodified, patented, bought and sold for profit. Such criticisms are often without empirical grounding and prove to be wide of the mark when actual empirical examples are studied. This is demonstrated clearly in the paper by Dixon-Woods, Wilson, Jackson, Cavers and Pritchard-Jones: in the case of childhood cancer, patients and families, when treated with concern and respect by doctors and researchers they trust, show remarkable common sense and resilient altruism. Indeed the gift relationship plays an important, perhaps crucial, part in the contemporary 'knowledge-based bioeconomy', dependent as it is upon donations of organs, tissues, reproductive components and genetic information.

The social embeddedness of bioscientific and biomedical thought is also shown in two of the other articles in this issue, both of which direct our focus away from Euro-America. Margaret Sleeboom-Faulkner explores the changing ways in which Chinese biomedical thought has encountered the issues of cloning and human embryonic stem cell research. Ayo Wahlberg explores the tensions and interchanges between the forms of truth espoused by two medical models that might seem to be fundamentally opposed—herbal medicine

with its individualized and holistic approach, and evidence-based medicine, with its emphasis on the isolation of active ingredients and the statistical demonstration of safety and efficacy. In each case, the simplistic oppositions between West and East, with their unspoken orientalist assumptions, are shown to be misleading.

The final section of this issue of *BioSocieties* focuses on a rather different use of biological data: the growing field of biometrics. Beginning with an interview with John Daugman, the leading figure in the invention of iris-pattern-based biometrics for identification, especially in border control, we continue with a series of commentaries on an influential recent report on forensic uses of bio-information issued by the Nuffield Council on Bioethics. The body itself cannot lie—this is the belief that underpins the hopes and fears surrounding the use of biometrics for identification in so many practices. But yet again, however technologically advanced the science may be, the social implementation of this thesis proves more problematic, raising long-standing issues that are not dissolved by technological advances: not just those of false positives and false negatives, but questions about who collects the material, who stores it, who has access to it, who interprets it and, perhaps more fundamentally, within what socio-political strategies it is to be put to use. The different perspectives on these issues from five different countries help us recognize, yet again, that while knowledge may be global, its uses must always be understood in their specific local contexts.

Finally the Editors would like to thank three outgoing members of the Editorial Board—Joseph Dumit, Paul Rabinow and Steven Shapin—for their work for *BioSocieties* since its inception. We would like to welcome three new members to the Board: Adriana Petryna, Associate Professor of Anthropology and Associate Fellow, Center for Bioethics, University of Pennsylvania; Martin Johnson, Professor of Reproductive Sciences, University of Cambridge; and Charles Rosenberg, Ernest E. Monrad Professor of Social Sciences, Harvard University. The Editors would also like to express their sincere thanks to those who have helped the Journal by refereeing papers for *BioSocieties* over the past two years—their names are listed below.

Referees for *BioSocieties* Volumes 1 and 2:

John Abraham, Andy Alaszewski, Tom Baker, Barry Barnes, Michael Barr, Martin Bauer, Maurizio Bonati, Kirstin Borgerson, Mike Bury, Megan Clinch, Melinda Cooper, Mitchell Dean, Larry Diller, Mick Dillon, Tristana Dini, Joe Dumit, John Durant, Steven Epstein, Richard Ericson, Marian Fraser, David Frazzini, Mike Fortun, Steve Fuller, Sahra Gibbon, Monica Greco, Janice Graham, Chris Hamilton, Stephen Harrison, Adam Hedgecoe, Nick Hopwood, Klaus Høyer, Lotte Huniche, Annette Jensen, Stephen Katz, Ann Kelly, Irving Kirsch, Maren Klawiter, Lene Koch, Andrew Lakoff, Hannah Landecker, Nicolas Langlitz, Chris McCourt, Adrian Mackenzie, Rob Mitchell, Eric Mykhalovskiy, Carlos Novas, Pat O'Malley, Aihwa Ong, Dimitris Papadopoulos, Bronwyn Parry, Paul Patton, Alain Pottage, Barbara Prainsack, Kane Race, Brian Rappert, Julian Reiss, Celia Roberts, Marsha Rosengarten, Mike Saks, Anders Skrondal, Andrew Smart, Catherine Snow, Stefan Sperling, Marilyn Strathern, George Szmukler, Karen-Sue Taussig, Jeff Thomas, Stefan Timmermans, Bryan S. Turner, Richard Tutton, Paul Unschuld, Benedetto Vitiello, Scott Vrecko, Raymond De Vries, Ayo Wahlberg, Cathy Waldby, Lorna Weir, Kevin White, Catherine Will, Elizabeth Wilson.