

Contributors

Michael Barr is Research Councils UK Fellow and Lecturer at Newcastle University, England. His research focuses on the implications of the rise of China, especially Sino-Western relations. He was Visiting Fellow at the Chinese Academy of Medical Sciences in 2008 and has lectured widely in China on bioethics and biosecurity issues.

Louise Bezuidenhout completed her PhD in cardio-thoracic surgery at the University of Cape Town, South Africa, and has worked as a post-doctoral scientist in the department of cardiovascular sciences at the University of Edinburgh, UK. In 2008 she was the recipient of an EU scholarship for the Erasmus Mundus Masters of Bioethics programme run by the Catholic University of Leuven, Radboud University Nijmegen and the University of Padova. These dual interests in science and bioethics led her to enrol for a PhD in sociology at the University of Exeter under Professor Brian Rappert (to be completed in 2012). Louise is the recipient of a scholarship from the Wellcome Trust to work on the collaborative project on building sustainable capacity in dual-use bioethics. Her research focus is on the conceptualisation of the dual-use debate by life scientists in developing countries, and how different social surroundings affect involvement in dual-use debates.

Nancy D. Connell is Professor of Medicine at the University of Medicine and Dentistry of New Jersey (UMDNJ)-New Jersey Medical School. She is also director of the UMDNJ Center for BioDefense, which was established in 1999 and is the recipient of \$11.5 million in congressional recommendations (2000–06) for research into the detection and diagnosis of biological warfare agents and biodefence preparedness. Dr. Connell is also director of the Biosafety Level 3 Facility of UMDNJ's Center for the Study of Emerging and Re-emerging Pathogens and chairs the Recombinant DNA Subcommittee of the university's Institutional Biosafety Committee. She has worked with several international programmes on dual-use issues. She is past chair of the National Institutes of Health's Center for Scientific Review Study Section HIBP (Host Interactions with Bacterial Pathogens), which reviews bacterial-pathogenesis submissions to the National Institute of Allergy and Infectious Diseases. She is current chair of the F13 infectious diseases and microbiology fellowship panel. Dr. Connell's involvement in biological-weapons control began in 1984, when she was chair of the Committee on the Military Use of Biological Research, a subcommittee of the Council for Responsible Genetics, based in Cambridge, Massachusetts. Dr.

Connell received her PhD in microbial genetics from Harvard University. Her major research focus is the interaction between *Mycobacterium tuberculosis* and the macrophage.

Malcolm Dando is Professor of International Security at the University of Bradford. A biologist by original training, his main research interest is in the preservation of the prohibitions embodied in the Chemical Weapons Convention and the Biological Weapons Convention at a time of rapid scientific and technological change in the life sciences. His recent publications include *Deadly Cultures: Biological Weapons Since 1945* (Harvard University Press, 2006), which he edited with Mark Wheelis and Lajos Rozsa.

Christian Enemark is Senior Lecturer in the Centre for International Security Studies, University of Sydney, and founding Director (Sydney) of the National Centre for Biosecurity. His research and teaching interests include the security implications of infectious-disease threats, including biological weapons, and the ethics and laws of armed conflict. Prior to completing a PhD at the Strategic and Defence Studies Centre, Australian National University (ANU), Christian worked as a policy advisor in the Parliament and Attorney General's Department of New South Wales. In 2007 and 2008 he was a Visiting Fellow of the ANU John Curtin School of Medical Research and a member of the National Consultative Committee on International Security Issues (Department of Foreign Affairs and Trade). Christian is presently a Visiting Fellow at the Centre for Applied Philosophy and Public Ethics at ANU, and Chief Investigator for a three-year Australian Research Council project on 'Infectious Disease, Security and Ethics'. He was Principal Investigator (Australia), funded by the Alfred P. Sloan Foundation, for a 2009 pilot programme of seminars on the dual-use dilemma in the life sciences.

David Friedman holds a MSc degree in microbiology from Tel Aviv University (1972) and a PhD in Immunology from the Weizmann Institute, Rehovot (1976). After one year of post-doctoral training (1977) in the Max-Planck Institute for Immunobiology, Freiburg, Germany, he joined the Israeli Defense Forces (IDF). For nearly 25 years, Dr. Friedman served in the IDF and then in the Israeli Ministry of Defense (IMOD) and retired as a colonel (1992). Dr. Friedman served mainly in the R&D directorate, and was responsible for planning and R&D projects in the field of chemical/biological defense. In the IDF he was Head of the Chem/Bio Protection Division and in the IMOD he served as Special Assistant for Bio/Chem defense. In 2004, Dr. Friedman joined the Jaffee Center for Strategic Studies (JCSS), Tel-Aviv University, now called Institute for National Security Studies (INSS). Dr. Friedman is currently a senior research associate in INSS and his research focuses on WMD, non-conventional terrorism, with particular attention to strategies for non-proliferation, counter-proliferation of chemical and biological weapons, focusing mainly on combating bioterrorism. In addition

Dr. Friedman is an adviser to organisations such as the Israeli Academy of Sciences, the National Security Council, the Ministry of Defense, the Ministry of Foreign Affairs and the Ministry of Health.

François Garraux works as a policy adviser on arms control and disarmament in the Swiss Federal Department of Defence, Civil Protection and Sport. Prior to this, he worked in the communication and media branch of the same Department, as well as abroad for the Swiss Federal Department of Foreign Affairs. François Garraux is a staff officer in the Swiss Armed Forces. He graduated in contemporary Asian studies at the University of Amsterdam, as well as in the history and science of media at the University of Bern.

Jane Johnson is a post-doctoral research fellow in clinical and public-health ethics at the Philosophy Department of Macquarie University, where she pursues a wide range of philosophical and research interests. Her PhD (completed at the University of Sydney) examined, using the philosophical resources of Kant and Hegel, the problem of justifying legal punishment and she is currently working on a project regarding the ethical issues generated by innovative surgery. Strong interests in nonhuman animals and teaching have led Jane into research on the ethical and epistemological implications of using animals in biomedicine, and philosophical pedagogy.

Giulio M. Mancini is a researcher and programme officer at the Landau Network-Centro Volta (LNCV), Italy, on nuclear and biological-weapons proliferation, prevention and disarmament, and biosafety/biosecurity enhancement tools and policies. He coordinates the LNCV project on Biosecurity and Dual Use Education. He holds an MSc in International Relations and European Integration and a BSc in Political Science, both from the Catholic University of Milan.

Brendan McCluskey was appointed the Executive Director of the Office of Emergency Management and Occupational Health and Safety at the University of Medicine and Dentistry of New Jersey (UMDNJ) in 2006, and directs security for the university's Biosafety Level 3 laboratories. He had previously held positions as Deputy Director of the Center for BioDefense (2001–04) and as Acting Director of the Chemical, Biological, Radiological, Nuclear, and Explosive Center for Training and Research (2004–06) at the university. He has served as a member of the Governor's Task Force on Campus Safety (New Jersey) since 2007. Mr. McCluskey is a Certified Emergency Manager and serves as Chair of the Universities and Colleges Caucus of the International Association of Emergency Managers. He was appointed an Assistant Professor in the Graduate School of Biomedical Sciences at UMDNJ in 2002, where he teaches courses on bioterrorism, weapons of mass destruction, and homeland security. Until 2009, Mr. McCluskey was also an Assistant Professor at Kean University, where he

taught courses in public administration, bioterrorism, and public-health policy. Mr. McCluskey received his J.D. (2006) from Rutgers University School of Law, and his BA (1997) and MPA. (2001) from Kean University.

Masamichi Minehata is a post-doctoral research fellow at the Bradford Disarmament Research Centre (BDRC) of the University of Bradford's Department of Peace Studies. Under the auspices of the UK Prime Minister's Initiative on International Research Cooperation (British Council), from 2008 to the beginning of 2010 he worked on the joint project between the BDRC and the National Defense Medical College of Japan to develop an online educational module resource for life scientists about dual-use issues. His current research focuses on the education of life scientists about these issues in Asian countries under the Alfred P. Sloan Foundation of the United States.

Brian Rappert is an Associate Professor of Science, Technology and Public Affairs in the Department of Sociology and Philosophy at the University of Exeter, UK. His long-term interest has been the examination of how choices can be, and are, made about the adoption and regulation of security-related technologies, particularly in conditions of uncertainty and disagreement. His recent books include *Controlling the Weapons of War* (Routledge, 2006), *Biotechnology, Security and the Search for Limits* (Palgrave, 2007), *Technology & Security* (ed., Palgrave, 2007), *Biosecurity* (co-ed., Palgrave, 2009). His most recent, *Experimental Secrets* (UPA, 2009), offers a novel approach for investigating and writing about the place of absences in social inquiry.

James Revill is a final year doctoral candidate studying the Evolution of the Biological and Toxins Weapons Convention at Bradford's Disarmament Research Centre. Over the course of completing his thesis he has been engaged in a number of research projects focused on biological weapons, biosecurity and development, but also issues related to South Asian security through his role in the Pakistan Security Research Unit at Bradford. However, he has been particularly active in the sphere of biosecurity education, an interest that has been pursued through employment as a Research Fellow by the Landau Network Centro Volta in Italy and as a Visiting Research Fellow with Bradford Disarmament Research Centre in the UK.

Michael J. Selgelid earned a BS in Biomedical Engineering from Duke University and a PhD in Philosophy from the University of California, San Diego. He is a Senior Research Fellow in the Centre for Applied Philosophy and Public Ethics (CAPPE) at the Australian National University, where he is also Director of a World Health Organisation (WHO) Collaborating Centre for Bioethics and Deputy Director of the National Centre for Biosecurity. He has held previous appointments at the University of Sydney and the University of the Witwatersrand in Johannesburg, South Africa. His research focuses on ethical

issues associated with infectious disease and genetics. He co-authored *Ethical and Philosophical Consideration of the Dual-Use Dilemma in the Biological Sciences* (Springer, 2008) and co-edited *Ethics and Infectious Disease* (Blackwell, 2006).

Nariyoshi Shinomiya is Professor of the Department of Integrative Physiology and Bio-Nano Medicine at the National Defense Medical College (NDMC), Japan. After he finished the Graduate Course of Medicine of NDMC in 1991, he worked as Associate Professor at the Department of Biology, NDMC (1993–97) and at the Department of Microbiology, NDMC (1997–2007), and then moved to the present position. His specialty includes microbiology and immunology, molecular oncology, diving medicine, and bioethics. His recent work on bioethics has focused on the dual-use issues and education for life scientists.

Judi Sture is the Head of the Graduate School at the University of Bradford, England, where she leads two doctoral research training programmes. She lectures in Research Ethics and Research Methodology and is closely involved in devising and developing postgraduate and ethics policy and practice at the University and beyond. As a member of the Wellcome Trust Dual-Use Bioethics Group and associate member of the Bradford Disarmament Research Centre she is engaged with colleagues from a number of UK and overseas universities in developing a bioethics approach to counter biosecurity threats in the life sciences. Judi holds a BSc(Hons) in Archaeology (University of Bradford), in which she specialised in the study of human skeletal remains, and a PhD (University of Durham) in biological anthropology, focusing on environmental associations with human birth defects. Her research in biological anthropology continues, including further work on developmental defects. She is currently engaged in analysis of skeletal remains held at the Museum of London and is working with the British Association for Biological Anthropology and Osteoarchaeology on developing ethical practice in the profession.

Simon Whitby is a Research Councils UK-sponsored Senior Research Fellow and the Director of Bradford Disarmament Research Centre at the University of Bradford. His research interests include the examination of the characteristics and use of military programmes that target crops with biochemical agents. His 2001 book *Biological Warfare Against Crops* represents the first substantive study of state-run activities designed to target food crops with biological warfare agents.

Joy Yueyue Zhang is a Wellcome Trust-funded PhD candidate at the BIOS Centre of the London School of Economics and Political Science. Her thesis investigates Chinese regulation of stem-cell research in the context of cosmopolitanisation. She completed her first degree in Medicine at Peking University.