

## **CURRICULUM VITAE OF MALCOLM DANDO**

### ***Date of birth***

### ***Place of birth***

### ***Home address***

### ***Title of current position***

Leverhulme Emeritus Fellow, University of Bradford.

### ***Previous positions***

2009-2016 Honorary Visiting Professor of International Security, University of Bradford.

1994-2008 Professor of International Security, University of Bradford

1982-1994 Senior Lecturer, University of Bradford

1979-1982 Lecturer, University of Bradford

1976-1979 Senior Research Fellow, University of Sussex (Operational Research)

1973-1976 Research Fellow, University of Sussex (Operational Research)

1972-1973 Research Fellow, St Andrews University (Neuroscience)

1971-1972 Research Fellow, University of Oregon (Neuroscience)

1970-1971 Research Fellow, University of Michigan (Neuroscience)

### ***Education***

2002 DSc University of Bradford (for work on strengthening the Biological and Toxin Weapons Convention)

1969 PhD St Andrews University (Neuroscience)

1965 BSc St Andrews University (Zoology)

### ***Recent and current research***

I am a Fellow of the Royal Society of Biology and my recent and current research has continued to be on two themes: the advances in science that could be of concern in relation to the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC) and what might be done to mitigate these risks through awareness-raising and education of life and associated scientists. In regard to the first theme, I have a book contract with Dr. Michael Crowley to deliver a manuscript to the

Royal Society of Chemistry in October 2024 titled *Controlling Novel CNS-Acting Biochemical Agents Derived from Advances in Civil Neuroscience: An Examination of this Existential Risk from a Holistic Arms Control Perspective*. In regard to the second theme, I have been involved with Professor Shang in the buildup of the London Metropolitan University Biological Security Research Centre.

### ***Some Relevant Past Publications (Books)***

Shang, L., Weiwen, Z. and Dando, M. R. (Eds.) (2024) *Essentials of Biological Security: A Global Perspective*. Wiley, Hoboken, NJ, USA.

Dando, M. R. (2023) *The Chemical and Biological Nonproliferation Regime after the Covid-19 Pandemic: Dealing with the Scientific Revolution in the Life Sciences*. Palgrave Macmillan/ Springer/Nature, Cham, Switzerland

Crowley, M. and Dando, M. R. (2022) *Toxin and Bioregulator Weapons: Preventing the Misuse of the Chemical and Life Sciences*. Palgrave Macmillan/ Springer/Nature, Cham, Switzerland.

Dando, M. R. (2020) *Neuroscience and the Problem of Dual Use: Neuroethics in the New Brain Research Projects*. Springer/Nature, Cham, Switzerland.

Crowley, M., Dando, M.R. and Shang, L. (Eds.) (2018) *Preventing Chemical Weapons: Arms Control and Disarmament as Sciences Converge*. Royal Society of Chemistry, London.

Whitby, S., Novossiolova, T., Walther, G. and Dando, M.R. (Eds.) (2015) *Preventing Biological Threats: What You Can Do*. University of Bradford, Bradford. Available at <http://www.brad.ac.uk/social-sciences/peace-studies/research/publications-andprojects/guide-to-biological-security-issues/>.

Kelle, A., Nixdorff, K. and Dando, M. (2012) *Preventing a Biochemical Arms Race*. Stanford University Press, Stanford, Ca.

Dando, M. (2006) *Bioterror and Biowarfare*. Oneworld Publications, Oxford.

Wheelis, M. Rozsa, L. and Dando, M. (2006) *Deadly Cultures: Bioweapons Since 1945*. Harvard University Press, Harvard, Mass.

Kelle, A., Nixdorff, K. and Dando, M. (2006) *Controlling Biochemical Weapons: Adapting Multilateral Arms Control for the 21st Century*. Palgrave, Basingstoke.

Dando, M. (2002) *Preventing Biological Warfare: The Failure of American Leadership*. Palgrave, Basingstoke.

Dando, M. (2001) *The New Biological Weapons: Threat, Proliferation and Control*. Lynne Rienner, Boulder, Co.

Dando, M. (1996) *A New Form of Warfare: The Rise of Non-Lethal Weapons*. Brassey's, London.

Dando, M. (1994) *Biological Warfare in the 21st Century: Biotechnology and the Proliferation of Biological Weapons*. Brassey's, London.

### ***Some recent publications (Articles)***

Shang, L., Millett, K. and Dando, M. R. (2023) Dual-use oversight: Is the scientific community fit for purpose? What should be done if it is not? *Journal of Biosafety and Biosecurity*, **5**, 153 - 154.

Novossiolova, T., Whitby, W., Dando, M.R. and Shang, L. (2022) Strengthening biological security COVID-19: Using cartoons for engaging life science stakeholders with the Biological and Toxin Weapons Convention (BTWC). *Journal of Biosafety and Biosecurity*, **4**, 68 – 74.

Shang, L., Mprah, M., Ravi, I. and Dando, M. R. (2022) Key issues in the implementation of the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists: A survey of biosecurity education projects. *Biosafety and Health*, **4**, 339 – n346.

Shinomiya, N., Minan, J., Go, Y., Dando, M. R., and Shange, L. (2022) Reconsidering the need for gain-of-function research on enhanced potential pandemic pathogens in the post-COVID-19 era. *Frontiers in Bioengineering and Biotechnology*, 10:966586.

Crowley, M. and Dando, M. R. (2022) Central nervous system weapons dealt a blow. *Science*, **375**, 153 – 154.

Novossiolova, T., Whitby, S., Dando, M. R. and Pearson, G. S. (2021) The vital importance of a web of prevention for effective biosafety and biosecurity in the twenty-first century. *One Health Outlook*. Available at <https://doi.org/10.1186/s42522-021-00049-4>.

Novossiolova, T., Dando, M. R. and Martinelli, M. (2021) Enhancing the Utility of Codes of Conduct and Biological Security through Active Learning. *ACS Chemical Health and Safety*. Available at <https://doi.org/10.1021/acs.chas.1c00047>.

Novossiolova, T. and Dando, M. R. (2020) Neuroscience-Based Weapons. In M. Martinelli and R. Trapp (Eds.) *Evolving CBRNe and Missile Technology Challenges*. Springer.

Whitby, S. and Dando, M. (2019). Ethics, neuroscience, and public policy: a case study of raising neuroscientists' awareness of the problem of dual use. In Lever, A. and Poama, A. (Eds.), *The Routledge Handbook of Ethics and Public Policy*. (pp. 526-540). London: Routledge.

Novossiolova, T., Whitman, J. and Dando, M.R. (2019) Altering an appreciation system: Lessons from incorporating dual use concerns into the responsible science education of biotechnologists. *Futures*, 108, 53 - 60.

Nixdorff, K., Borisova, T., Komisarenko, S. and Dando, M. R. (2018) Dual-use nano-neurotechnology: An assessment of the implications of trends in science and technology. *Politics and the Life Sciences*, Fall, **37** (2), 181 – 202.

Crowley, M., Shang, L. and Dando, M. R. (2018) Preventing chemical weapons as sciences converge: Focus must extend beyond 20<sup>th</sup>-century technologies. *Science*, **362**(6416), 753 -755.

Shang, L., Crowley, M. and Dando, M. R. (2018) Close loophole for chemical weapons. *Nature*, **562**, 344.

Dando, M. R. (2018) Advances in understanding targets in the Central Nervous System. Chapter 8 in M. Crowley, M. R. Dando and L. Shang (Eds.) *Preventing Chemical Warfare: Arms Control and Disarmament as the Sciences Converge*. Royal Society of Chemistry, London.

Crowley, M. Shang, L. and Dando, M.R. (2018) Preserving the norm against chemical weapons: A civil society initiative for the 2018 4<sup>th</sup> Review Conference of the Chemical Weapons Convention. *Futres*, **102**, 125 – 133.

Dando, M. R. (2016) Find the time to discuss new bioweapons. *Nature*, **535**, 9.

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**Malcolm DANDO**

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