

On the Need for an International Biosecurity Education Network

Maeva Khachfe

Biological Security Research Center

London Metropolitan University



<https://www.londonmet.ac.uk/>
<https://www.londonmet.ac.uk/research/centres-groups-and-units/biological-security-research-centre/>



**Biological Security Research Centre
(BSRC)**

Recent relevant publications

CORRESPONDENCE | 27 September 2022

Dual-use research needs international oversight

[Simon Whitby](#)✉, [Malcolm Dando](#) & [Lijun Shang](#)



There is a worldwide deficit in expertise and training of ethical-review personnel (see, for example, go.nature.com/3rkpt1b). This is of particular concern for 'dual-use' research that could have both beneficial and harmful consequences.

Nature

Journal Pre-proofs

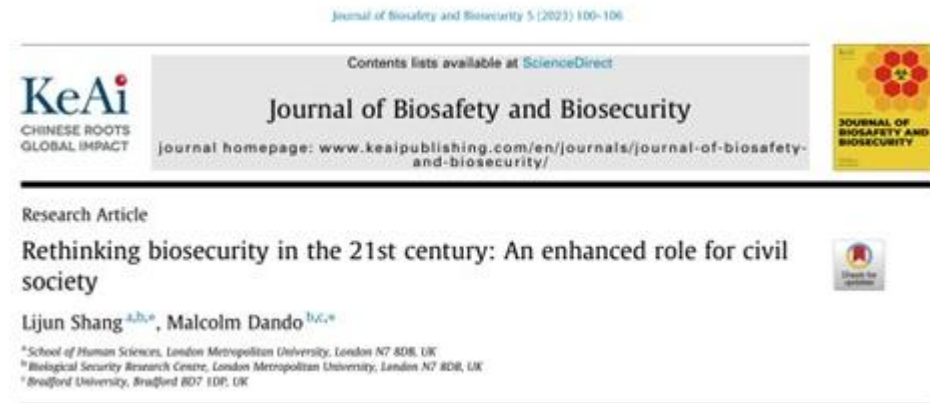
Dual-Use Oversight: Is the Scientific Community Fit for Purpose? What Should Be Done if it is Not?

Lijun Shang, Kathryn Millett, Malcolm Dando

PII: S2588-9338(23)00050-X
DOI: <https://doi.org/10.1016/j.jobb.2023.11.001>
Reference: JOBB 134

To appear in: *Journal of Biosafety and Biosecurity*

Received Date: 11 October 2023
Revised Date: 31 October 2023
Accepted Date: 5 November 2023



Rethinking Biological Security Education in order to help strengthen the Biological and Toxin Weapons Convention (BTWC)

Lijun Shang^{1,2}, Malcolm Dando^{1,3}

¹ School of Human Sciences, ² Biological Security Research Centre, London Metropolitan University, London, N7 8DB; ³ University of Bradford, Bradford, BD7 1DP

Intersec., Nov/Dec. 2023 in press

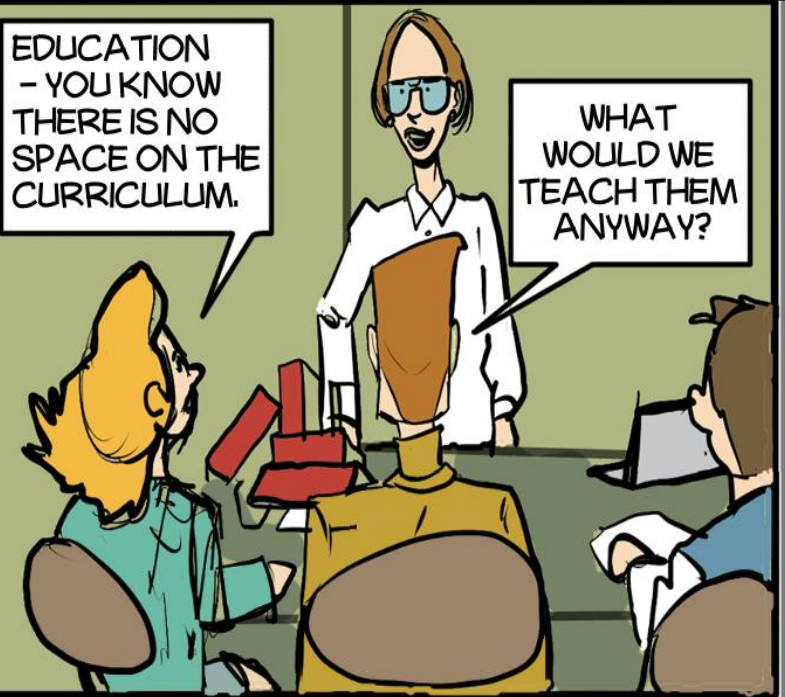
Codes of Conduct

AS SCIENTISTS, WE HAVE A DUTY TO ENSURE THAT OUR WORK IS USED ONLY FOR PEACEFUL PURPOSES. IT'S IMPORTANT THAT WE TEACH ABOUT THIS.



EDUCATION - YOU KNOW THERE IS NO SPACE ON THE CURRICULUM.

WHAT WOULD WE TEACH THEM ANYWAY?



WE CAN TEACH ABOUT THE HISTORY OF BIOLOGICAL WEAPONS AND DUAL USE AS PART OF THE RESPONSIBLE CONDUCT OF RESEARCH.



WE CAN ALSO DISCUSS WITH STUDENTS THE DUAL-USE IMPLICATIONS OF EMERGING TECHNOLOGIES FOR EXAMPLE WHEN TEACHING GENE EDITING OR MICROBIOLOGY.

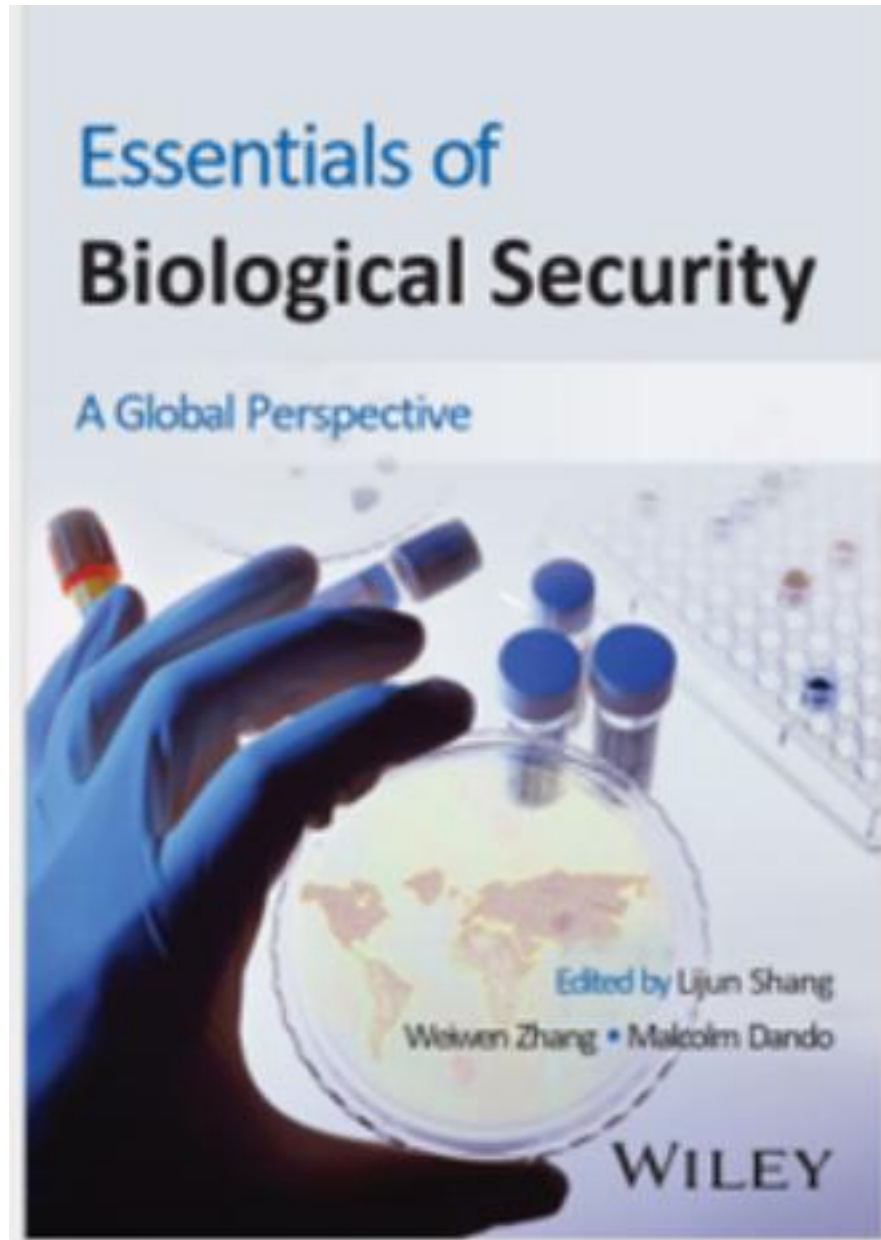


BUT WOULD THERE BE SOME BIOLOGICAL SECURITY TRAINING FOR LECTURERS FIRST?



YES - AND IT WILL BE POSSIBLE TO GET PROFESSIONAL CERTIFICATION. A BIOLOGICAL SECURITY WORKING GROUP OF STAFF AND STUDENTS WILL DEVELOP THE CODE.





to be published
June 2024

Recent relevant Publications

- Dual-use oversight: Is the scientific community fit for Purpose? What should be done if it is not? *Journal of Biosafety and Biosecurity*, 2023, <https://doi.org/10.1016/j.jobb.2023.11.001>
- A key role for scientists in strengthening the Biological Weapons Convention. *Front. Polit. Sci.* 5:1265008. 2023, doi: 10.3389/fpos.2023.1265008
- Rethinking biosecurity in the 21st century: An enhanced role for civil society. *Journal of Biosafety and Biosecurity*, 2023, <https://doi.org/10.1016/j.jobb.2023.07.004>
- Meeting the Challenges of Chemical and Biological Weapons: Strengthening the Chemical and Biological Disarmament and Non-proliferation Regimes. *Front. Polit. Sci.* 4:805 426. 2022, doi: 10.3389/fpos .2022.805426
- Strengthening the Biological and Toxin Weapons Convention after COVID-19. *Translational Toxicology and Therapeutics*, 2022, <https://pubs.rsc.org/en/content/ebook/978-1-83916-306-7>
- 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* (2022), doi: <https://doi.org/10.1016/j.bsheal.2022.08.003>
- Dual-use research needs international oversight. *Nature*. 2022, doi: 10.1038/d41586-022-03011-0. PMID: 36167995.

Recent relevant grants

Biological Security Research Centre at London Met awarded charity funds

A grant received by Joseph Rowntree Charitable Trust aims to help prevent misuse of biological developments and to enhance biosecurity education.

Date: 28 July 2023

The Biological Security Research Centre (BSRC) at London Met has been awarded a £81,785 grant from the Joseph Rowntree Charitable Trust (JRCT) to help enhance biosecurity education for life scientists in the UK and around the world over the next two years through the development of an International Biological Security Education Network.

The UK Biological Security Strategy makes clear that biological security involves the prevention of natural, accidental and deliberately caused disease in humans, animals and plants, and that this strategy has to be continually maintained and developed during this period of rapid scientific and technological change.

Recently the World Health Organization (WHO) pointed out in its Global Framework for the Responsible Use of the Life Sciences that: "A chronic and fundamental challenge is a widespread lack of awareness that work in this area – which is predominantly undertaken to advance knowledge and tools to improve health, economies, and societies – could be conducted or misused in ways that result in health and security risks to the public. Also, incentives



London Met's Biological Security Research Centre awarded new grant from Marmot Trust

The centre has been awarded a new grant from the Marmot Trust to monitor the Chemical Weapons Convention State Parties meetings for the next five years.

The Biological Security Research Centre's (BSRC) new grant will help monitor the Chemical Weapons Convention (CWC) meetings, particularly regarding the regulations of toxin, bioregulator and other such mid spectrum agents.

The main focus of the BSRC is on efforts to strengthen the Biological and Toxin Weapons Convention (BTWC), but from its inception it has argued that there is a biochemical threat spectrum ranging from classical chemical weapons, through to mid-spectrum agents and biological weapons. Led by Professor Lijun Shang, the research team suggests that the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC) should be considered together as the primary international agreements preventing the misuse of the chemical and life sciences in weapons.



The grant will support further research into preventing the misuse of the chemical and life

Planned events in 2024

- Book Launching (June)
- IBSEN workshop (July/August)

We welcome everyone who would like to collaborate with LMU BSRC in this task and the general BWC issues.

Acknowledgements - thanks to various grants from

the Joseph Rowntree Charitable Trust

London Metropolitan University &

collaborators around the world