

Biosecurity Education and International Biological Security Education Network (IBSEN)

Professor Lijun Shang

l.shang@londonmet.ac.uk



ABEO & BSRC side event

27th November 2024 (1:15 – 2:45 pm)

Oceania 1 Room, World Forum, The Hague

Outline

- Biological Security and its education gaps
 - The Education and Awareness Gap (WHO)
 - Survey of Biosecurity Education Projects (LMU)
 - Main Problems in Biological Security Education implementation
- A Potential Solution: Global network
 - IAEA/INSEN & OPCW/ABEO
 - IBSEN (LMU BSRC)
 - Newsletter 1: Lessons learned from INSEN
 - Newsletter 2: Lessons learned from AEBO
 - Further plans
 - More integrative issues on Newsletter
 - Projects linked to the book
 - The handbook for implementation and evaluation

Biological Security and its education gaps

- BWC has regular conference and intersessions, code of conduct

China, Pakistan and Brazil (2022) BWC/CONF.IX/PC/WP.10

“6. Education and Training

Scientists, along with their professional associations in industry and academia, should work to maintain a well-educated, fully-trained scientific community that is well versed in relevant laws, regulations, international obligations and norms. Education and training of staff at all levels should consider the input of experts from multiple fields, including social and human sciences, to provide a more robust understanding of the implications of biological research. Scientists should receive ethical training on a regular basis.”

- The Education and Awareness Gap (WHO)

The WHO Global Framework (2023)

“A chronic and fundamental challenge in biorisk management is a widespread lack of awareness that work in the area of the life sciences could be conducted or misused in ways that result in health and security risks to the public. The lack of awareness is unsurprising, given that biorisks are often overlooked or underemphasized in both educational curricula and on-the-job training. If they are unaware of the potential for misuse and potential malicious application, stakeholders cannot accurately weigh the risks and benefits of proposed research or order. Lack of awareness can also mean that stakeholders are unprepared when new technologies are being introduced as diagnostics, treatments or vaccines...”

- **Survey of Biosecurity Education Projects (LMU) 2021**

Biosecurity Education survey using 21 closed and open questions **to assess the biosecurity education projects** carried out in the last two decades

1. **Elements required to implement the code of conduct missing**

Scientists largely unaware of the dangers of dual use

2. The **biosecurity education projects are uncoordinated**

A variety of projects carried out but not coordinated

3. These **deficiencies could be efficiently addressed and remedied**

IBSEN and OPCW/ABEO provide models of ways forward

4. **Advanced science & technology bring new challenges**

Interdisciplinary research from chemistry and biology subjects

International Biological Security Education Network

Dual-use oversight: Is the scientific community fit for Purpose? What should be done if it is not? [_Shang, et al.](#)

<https://doi.org/10.1016/j.jobb.2023.11.001>

“The rapid advances in biology and the diversity of life sciences combined with technology development add extra challenges for biological security education, in particular how to keep up to date, as well as manage global dissemination and effectiveness. All these issues should be addressed during the development of the IBSEN. If this work is successful, it could significantly improve the possibility of implementation of the BTWC’s new strategy on the review of science and technology and State Parties’ national policy on the Biological Security Strategy in the coming years...”

The IBSEN Website

- The IBSEN project started **in Feb 2024** and its website is **live since March 2024**.
- It will host the *Quarterly Newsletter* and the educational tools developed as part of the project.
- It is the **essential tool to engage with an academic community and policymakers** and raise awareness about the work of the IBSEN.



QR code to the IBSEN website

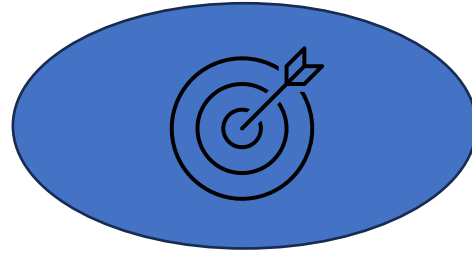
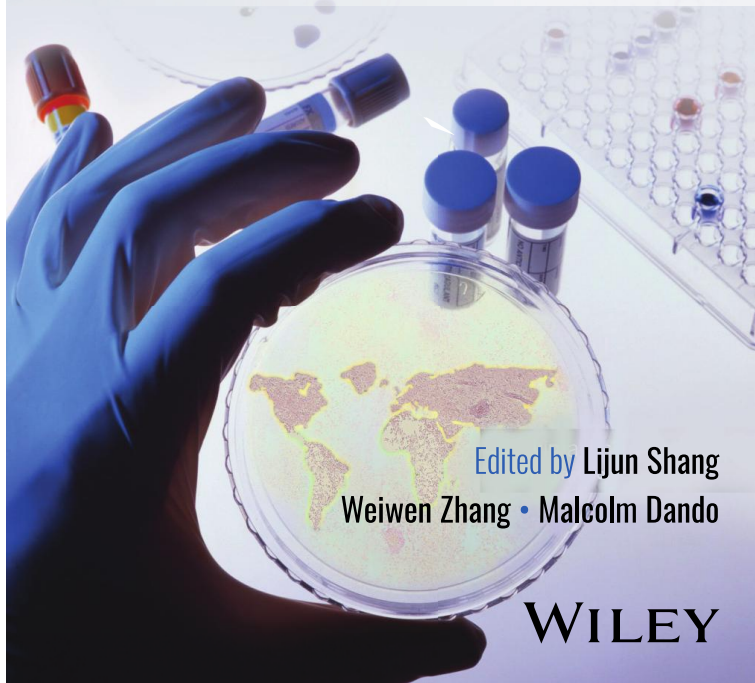
IBSEN Quarterly Newsletter

- *Quarterly Newsletters* over two years will be **the main means of engaging a large number of interested people.**
- First Newsletter published in **May 2024** and the main article discussed the lessons learned from the **International Nuclear Security Education Network (INSEN).**
- Second Newsletter published in **Oct 2024** focus on **the work of the ABEO and implication to IBSEN.**
- **Publication** mainly stored on the website and **Newsletter** to be sent via email to the contact database.

Essentials of Biological Security: Textbook Required

Essentials of Biological Security

A Global Perspective



Objective

To rapidly produce a one-stop-shop resource to help people teach biological security in support of the Tianjin Guidelines.



Design

Authors asked to keep a very tight schedule of outline, first draft, and final draft so as to have a book published within a year.

Five sections and 20 chapters. All chapters short (5,000 word suggested limit) with key points, summary and few references (5 suggested limit and key ones starred).

Aim to enable translations into multiple languages and to engage authors from around the world.

Future work

- More integration issues on Newsletter
- Translation of the book to different languages including 5 other UN official languages
- Projects linked to the book i.e. developing education materials
- Workshops to discuss the biosecurity education according to national and cultural circumstances
- Developing a handbook on implementation and assessment

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Professor Lijun Shang
Biological Security Research Centre (BSRC)
London Metropolitan University, UK
l.shang@londonmet.ac.uk