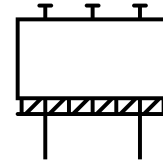


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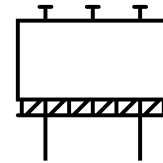
# Dissemination of educational resources and development of a biosecurity network

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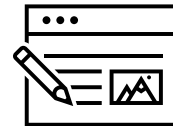
Sixteenth Session of the Advisory Board on Education and Outreach – 17 April 2024



**Malcolm Dando**, Bradford University and London Metropolitan University

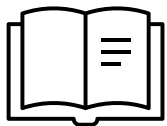


**Lijun Shang**, Biological Security Research Centre (BSRC) London Metropolitan University

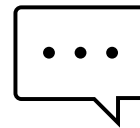


**Iris Magne**, Biological Security Research Centre (BSRC) London Metropolitan University

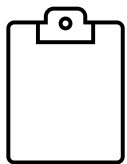
# SOME PREVIOUS PUBLICATIONS



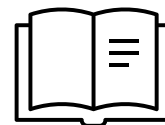
Preventing Chemical Weapons (2018)



Cartoons paper



Education Survey Paper



Essentials of Biological Security  
(2024)

# Preventing Chemical Weapons Book (2018)

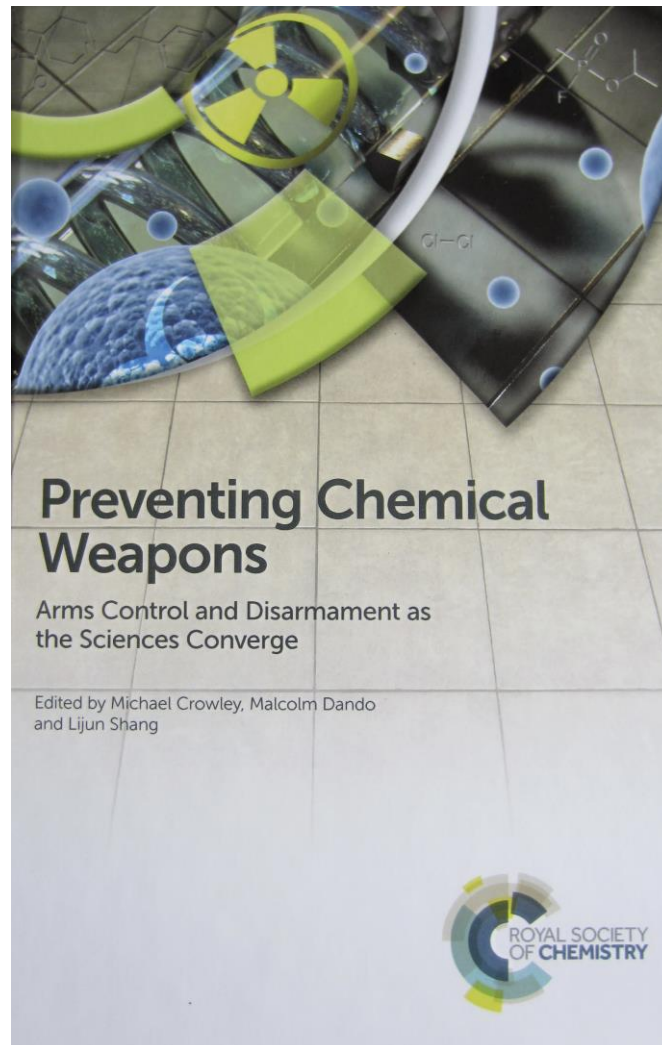
**Section I:** Introduction

**Section II:** The Chemical and Biological Weapons Prevention and Disarmament Regime Today

**Section III:** Advances in Chemistry and Biology

**Section IV:** Implications for Arms Control and Disarmament

**Section V:** The Role of Civil Society



## Themes

1. The **CWC and BTWC** need to be considered together
2. **Scientific and Technological** change is critical
3. **Civil Society** has an important role to play in support of the regime

# Series of cartoons: Innovation Required

- Series of **cartoons** explaining the issue of dual-use and the role of the BTWC and CWC
- Issues of **translation** and the necessity to make the information available in different languages



# Biosecurity Education Survey: Data Required

- 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 Tianjin Guidelines 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

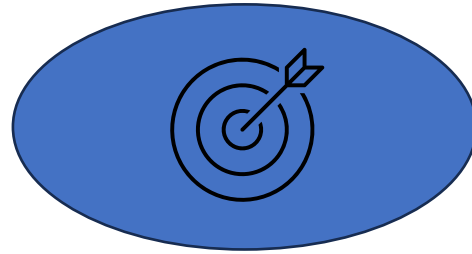
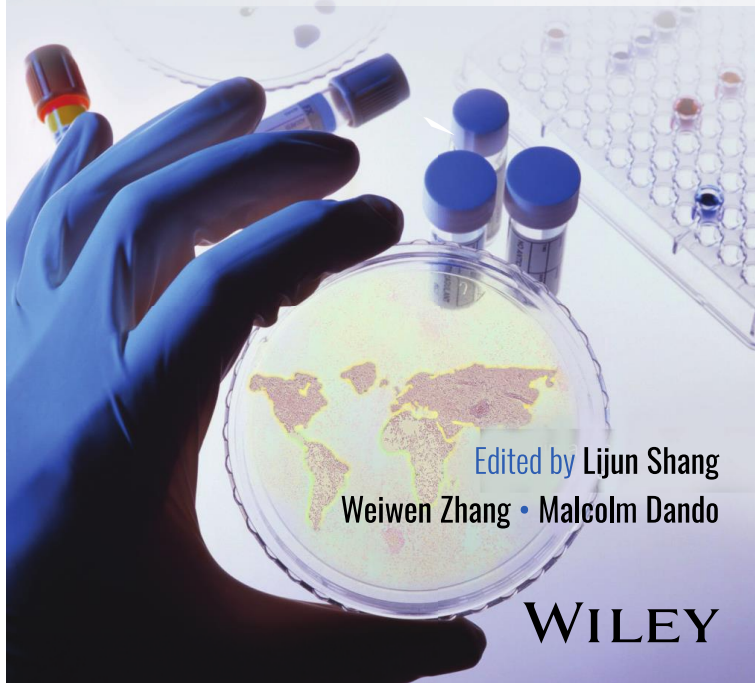
# Education Tools: Active Learning Required

- **Team-based-learning (TBL)**
  - TBL Handbook (*Biological Security Education Handbook: The Power of Team-Based Learning*, Tatyana Novossioloa)
  - **Threshold concepts:**  
Transformative, Troublesome, Irreversible, Integrative, Bounded  
Discursive, Reconstitutive, Liminality
- **Training-the-trainer methodology possible**
- **Podcast demonstration available**

# Essentials of Biological Security I: 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.**



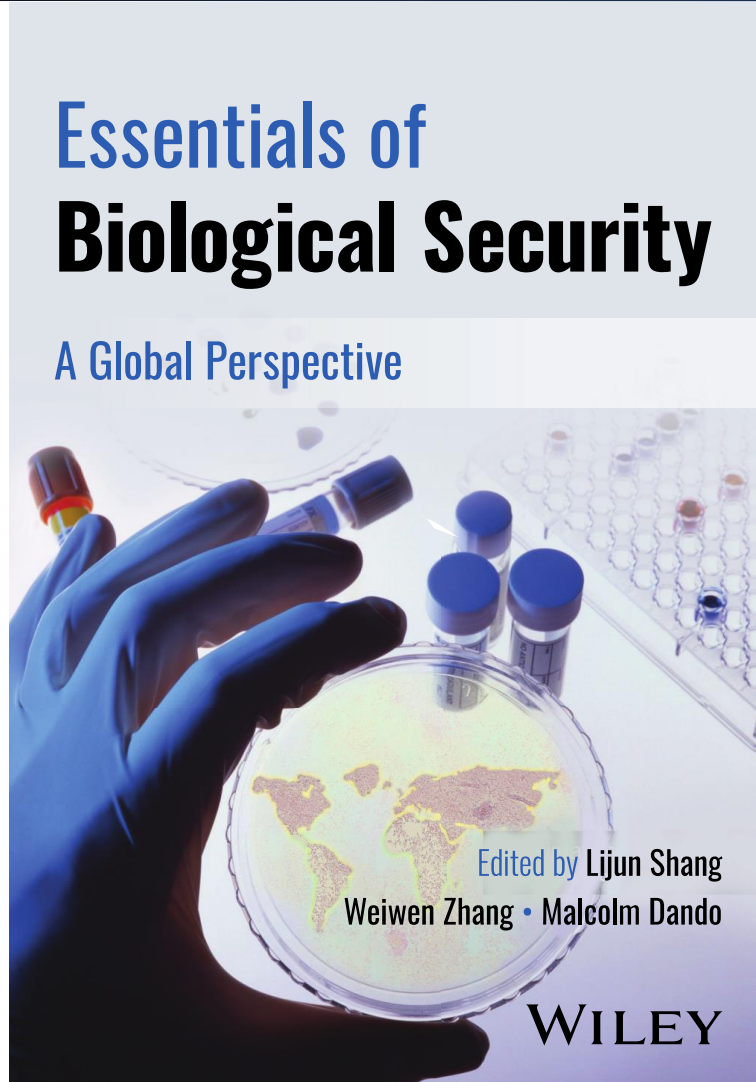
### Design

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.**

# Essentials of Biological Security II: Sections of the Textbook



The book is divided into 20 chapters in five sections:

- 1. Introduction and Overview (1 Chapter)**
- 2. The Threat (7 Chapters)**
- 3. The International Response (4 Chapters)**
- 4. The Role of Scientists (6 Chapters)**
- 5. The Future (2 Chapters)**



# WILEY

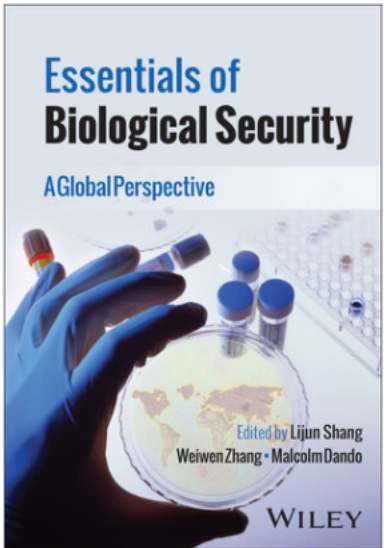
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## Essentials of Biological Security: A Global Perspective

Lijun Shang (Editor), Weiwen Zhang (Editor), Malcolm Dando (Editor)

ISBN: 978-1-394-18903-8 | February 2024 | 320 Pages

E-BOOK	PRINT	O-BOOK
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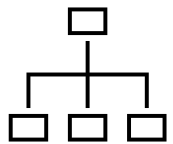
### DESCRIPTION

#### Essentials of Biological Security

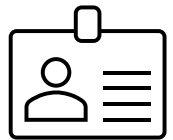
A guide to minimizing the threat of misusing benignly intended and dual-use biological research

EN [language icon]

# IBSEN Project



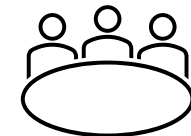
Structure



Contact Database



Website



Coordination meeting

# Structure of the IBSEN I

**Professor Lijun Shang**

Director BRSC,  
London Metropolitan  
University

**Professor Malcolm  
Dando**

Bradford University &  
London Metropolitan Uni

**Iris Magne**

Research Assistant,  
London Metropolitan  
University

**8 International Oversight Board Members** representing a broad geographic coverage

# Structure of the IBSEN II – The International Oversight Board

Dr Maria J. Espona

- Director of Argentina Information Quality (ArgIQ)

Prof Zabta K Shinwari

- Vice Chancellor of the Federal Urdu University of Arts, Science and Technology

Dr Dana Perkins

- Senior Science Advisor, Administration for Strategic Preparedness and Response (ASPR) U.S. Department of Health and Human Services

Prof Xue Yang

- Professor at Law School and a Senior Fellow at the Center for Biosafety Research and Strategy (CBRS), Tianjin University

Prof Brian Balmer

- Professor of Science Policy Studies at UCL

Prof Kathryn Nixdorff

- Professor in the Department of Microbiology and Genetics, Darmstadt University of Technology

Prof Halima Benbouza

- Director for Science and Technology at the National Council of Scientific Research and Technologies, Algeria

Dr Samira Senouci

- First Vice-President of the Moroccan Biosafety Association (MOBSA) and manager at LabSolutions

# The IBSEN Website

- The IBSEN 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

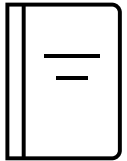
# IBSEN Contact Database

- *Objective:* create a **database of scholars, academics and policymakers who are interested in IBSEN** and have a background in biosecurity education.
- *Format:* The database is divided in **4 categories** to include High Schools, Universities, Continuing Professional Education, Government and International Organisations. It aims to have a **global coverage** to adapt the educational tools developed to different audiences and regions.
- *Current stage:* It currently has 100 contacts and aims to reach 200 by May 2024.

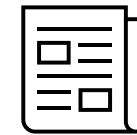
# First coordination meeting

- Policy Workshop 16 March *'Toward a collaborative, collective and integrative international CBRN security education: Coordination of International Policy Initiatives on Biosecurity Education'*.
- Participants included national and international experts from academic institutions, civil society and international organisations (UNIDIR, CWC ABEO, BWC ISU, IAEA/INSEN).
- **Regular dedicated workshops for further coordination seem vital to strengthening global and regional biosecurity education.**

# THE FUTURE



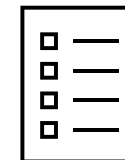
Book Launch



Quarterly Newsletters



Next Coordination and BWC meetings



Future Grants



# IBSEN Book Launch

- *Essentials of Biological Security: A Global Perspective*
- Book launch in **London in May/June**
- Book launch **later in Tianjin**
  - Sub-project to obtain **multiple reviews of the book**
  - Sub-project to **facilitate translations of the book**
- Development Possibilities
  - Sub-project to produce chapters as **Team-Based Learning Exercises**
  - Sub-project to produce **cartoons/animations**

# IBSEN Quarterly Newsletter

- *Quarterly Newsletters* over two years will be **the main means of engaging a large number of interested people.**
- First Newsletter set for publication in **May 2024** and the main article will be on the **International Nuclear Security Education Network (INSEN).**
- Second Newsletter will be published in the autumn and the main article will hopefully be on **the work of the ABEO.**
- Publication **mainly on the website and Newsletter to be sent via email to the contact database.**

# IBSEN Report to Geneva BWC meeting

- Reporting IBSEN developments to the meetings of the BTWC States Parties in Geneva is central to consolidating the network.
- Essential to stress the link to the effective and efficient implementation of the **Tianjin Guidelines**.
- Will have three people at the meeting and will make an effort to see as many delegations as possible to add to the contacts database.
- Hope to have a **Side Event** with a State Party sponsor.
- Will make a **Statement** if that is possible.
- Will have hard copies of the first **Quarterly Newsletter** for distribution.

# Second IBSEN Quarterly Newsletter

- Second Quarterly Newsletter hopefully with a main article on the structure and function of the **Advisory Board on Education and Outreach**.
- Publication probably in **September 2024** and available for the meeting of the CWC in the autumn and the BTWC meeting in December.
- Probable sections
  - Main article
  - Report on the IBSEN activities at the **August BTWC meeting**
  - Short reports on **other IBSEN activities**, for example in different regions
  - **Key new literature** notes
  - **Invitation to join the contacts database**

# Next coordination meeting

- Regular coordinated meeting will be arranged across the year (in person and online), 2<sup>nd</sup> one is scheduled in late 2024
- Will focus on 1) developing education curriculum and exchanges of regional practical excellence with a starting focus on selected countries such as Argentina, Pakistan, Japan and China
- 2) developing and collaborating with other initiatives from CWC, IAEA, etc with focus on developing collaborating grants and addressing common practical issues
- 3) developing communication strategy to attract fundings from State Parties and others for further development of education network

# Other IBSEN-Linked Grants

- **British Association** grant obtained to focus on preparation for a **Horizon EU Project application** on *'Prevention, detection, response and mitigation of chemical, biological and radiological threats to agricultural production, feed and food processing, distribution and consumption'* **through enhanced biosecurity education.**
- Organising **two specific workshops**: one to be held at the Biological Security Research Centre (BSRC) at London Metropolitan University, and second in partnership with the Dutch Defense Academy.
- Seeking long term support from various funding routes

## Acknowledgements

Thanks to various grant funders

Our collaborators around the world

Thank you!