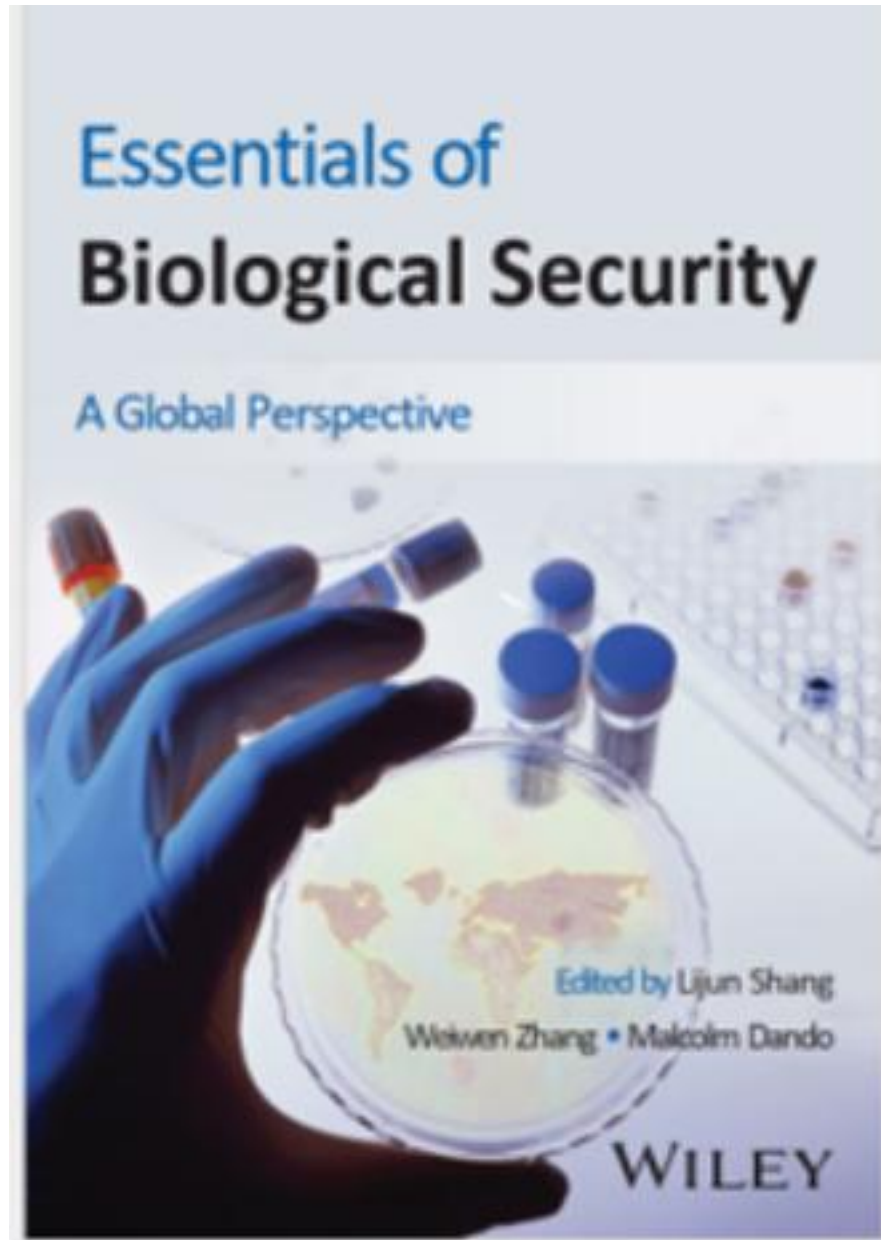


# Essentials of Biological Security: An Overview of the Biosecurity Education Resource Book

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## Outline

- Background
- Brief of structure
- Future developments and events

# Background

- Gaps in biosecurity education in life and related scientists
- No biosecurity education resources book currently
- **The aim of this book** will be to provide an essential resource to underpin the growth of biological security understanding during that period
- **The focus of this book** is on the life sciences and the Biological and Toxin Weapons Convention (BTWC) while we take **a broad view of the threat and the regulatory regime**, particularly to include mid-spectrum agents such as toxins and bioregulators and the Chemical Weapons Convention (CWC)

# Structure of the book

The book is divided into **20 chapters** in **five sections**:

1. Introduction and Overview

Chapter 1

2. The Threat

Chapters 2 - 8

3. The International Response

Chapters 9 - 12

4. The Role of Scientists

Chapters 13 - 18

5. The Future

Chapters 19 - 20

**Chapter 1: Biological Security After the Pandemic** Lijun Shang, Weiwen Zhang and Malcolm Dando

**Chapter 2: Falling between the Cracks and by the Sides: Can Disarmament Treaties Respond to Scientific and Technological Developments?** Jean Pascal Zanders

**Chapter 3: A Multifaceted Threat** Gemma Bowsher

**Chapter 4: Biological Weapons from the Ancient World to 1945** Brett Edwards

**Chapter 5: Biological Weapons from 1946 to 2000** Brian Balmer

**Chapter 6: The Problem of Dual Use in the 21st Century** Kathryn Nixdorff

**Chapter 7: Key Cutting-edge Biotechnologies Today** Xinyu Song, Weiwen Zhang

**Chapter 8: Convergence of Science and Technology** Ralf Trapp

**Chapter 9: Role of the Life Science Community in Strengthening the Web of Prevention for Biosafety and Biosecurity** Tatyana Novossiolo

**Chapter 10: 1925 Geneva Protocol and the BTWC** *Jez Littlewood*

**Chapter 11: Constraining the weaponization of pathogens and toxic chemicals through international human rights law and international humanitarian law** *Michael Crowley*

**Chapter 12: The Role of International Organisations in Biosecurity and the Prevention of Biological Warfare**  
Louison Mazeaud, James Revill, Jaroslav Krasny and Vivienne Zhang

**Chapter 13: Laboratory Biorisk Management as a Key Tool for Scientists to Understand Future Biological Threats and Strengthen the Biological Weapons Convention.** Mayra Ameneiros

**Chapter 14: Examples of Biorisk Management National Regulatory Frameworks** Dana Perkins and Lela Bakanidze

**Chapter 15: Lessons from ePPP Research and the COVID-19 Pandemic** Nariyoshi Shinomiya

**Chapter 16: The Hague Ethical Guidelines and the Tianjin Biosecurity Guidelines** Yang Xue

**Chapter 17: Engaging Scientists in Biorisk Management** Yuhan BAO, Alonso Flores

**Chapter 18: The Role of Ethics in Dealing with Dual Use** Leifan Wang

**Chapter 19: Where is the Governance of Dual-Use Science Going?** Nancy Connell and Gigi Gronvall

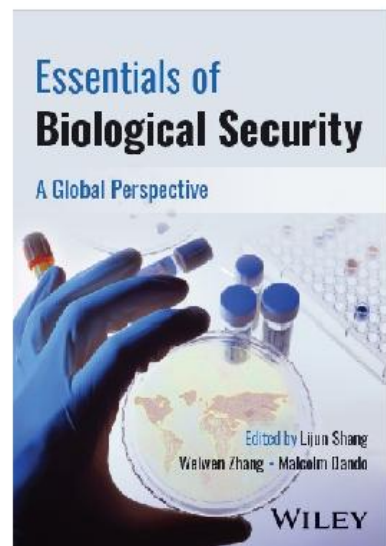
**Chapter 20: Towards an International Biosecurity Education Network (IBSEN)** Kathryn Millett and Lijun Shang

# Future developments and events

- Launching event in June 2024 at LMU
- Translation of the book to different languages including 5 other UN official languages, we are open to offers of assistance
- Workshops to discuss the biosecurity education according to national and cultural circumstances
- Developing International Biosecurity Education Network (IBSEN)

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## Essentials of Biological Security: A Global Perspective

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

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