

Literature for VMFP08, Medicine Meets Geopolitics: Threats and Opportunities from Emerging Biotechnologies applies from the spring semester 2025

Literature established by The Master's Programmes Board on 2024-09-27 to apply from 2025-01-01

*Denotes highly recommended reading

Strategic technologies

**Summary of NATO's Biotechnology and Human Enhancement Technologies Strategy, 2024.*

https://www.nato.int/cps/en/natohq/official_texts_224669.htm

**DNA as a universal chemical substrate for computing and data storage, Yang S et al. 2024.* (accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Science & Technology Trends 2020-2040, NATO STO, 2020.

https://www.nato.int/nato_static_fl2014/assets/pdf/2020/4/pdf/190422-ST_Tech_Trends_Report_2020-2040.pdf

Biometrics recognition using deep learning: a survey, Minaee S et al. 2023 (accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Cyberbiosecurity

**Cyberbiosecurity: From Naive Trust to Risk Awareness, Peccoud J et al. 2017.* (accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

**Data sharing practices and data availability upon request differ across scientific disciplines, Tedersoo L et al. 2021.* (open access)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8381906/>

Cybersecurity for Connected Medical Devices, Ray A, 2021. (e-textbook accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Cybersecurity for eHealth: A Simplified Guide to Practical Cybersecurity for Non-Technical Healthcare Stakeholders & Practitioners, Ogu EC 2021.

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Biosecurity and international policy

**The Need for Modernization of Biosecurity in the Post-COVID World*, DeEulis D & Giordano J 2022. (open access)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9044947/>

**The Biosecurity Threat Environment*, Walsh PF 2018.

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Intelligence and information security

**The psychology of espionage*, Wilder UM 2017. (open access)

<https://www.cia.gov/resources/csi/static/psychology-of-espionage.pdf>

**An alternative framework for agent recruitment*, Burkett R 2013. (open access)

<https://www.cia.gov/resources/csi/static/9ccc45dc156271d11769e5205ec49c29/Alt-Framework-Agent-Recruitment-1.pdf>

**Introduction to Statistical Methods for Biosurveillance with an Emphasis on Syndromic Surveillance*, Fricker RD 2013. (accessible with LU student account). Focus on Parts I:1, II:3.

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Espionage by Europeans, Jonsson M & Gustafsson J 2022. (open access)

<https://www.foi.se/rest-api/report/FOI-R--5312--SE>

Health related disinformation

**Systematic Literature Review on the Spread of Health-related Misinformation on Social Media*, Wang Y et al. 2019. (open access)

<https://www.sciencedirect.com/science/article/pii/S0277953619305465>

**Russian and US news media coverage of Ukrainian biological laboratories*, Sundelson AE et al. 2023. (open access)

<https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=2148&context=jss>

**RESIST 2 Counter Disinformation Toolkit*, 2022, UK Government. (open access)

<https://gcs.civilservice.gov.uk/publications/resist-2-counter-disinformation-toolkit/>

The Smallpox Chiefs: Bioterrorism and the Exercise of Power in the Pacific Northwest, Lutz JS and Carlson KT, 2024. (accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

Cases of misuse of medical research

**A Short History of Biological Warfare: From Pre-History to the 21st Century*, Carus WS, 2017. (open access)

https://ndupress.ndu.edu/Portals/68/Documents/occasional/cswmd/CSWMD_OccasionalPaper-12.pdf

**The history of biological warfare*, Frischknecht F, 2003. (open access)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1326439/>

Risk assessment of biotechnology and mitigation of misuse

**Genome Editing and Biological Weapons*, Paris K 2023. (accessible with LU student account). Focus on chapters 1, 4, 5 and 7.

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

**Weaponized genomics: potential threats to international and human security*, Chattopadhyay S et al, 2023. (accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>

**Safely balancing a double-edged blade: identifying and mitigating emerging biosecurity risks in precision medicine*, DeEulis D & Giordano J 2024. (open access)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10987748/>

Genetic engineering and biological weapons, van Aken J and Hammond E 2003. (open access) included as a reference of risks as seen 20 years ago.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1326447/>

Health and Human Rights

Health and Human Rights in a Changing World, Grodin M et al. (eds.) 2013. (e-textbook accessible with LU student account)

<https://ludwig.lub.lu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&live&scope=site>