

Tessa Alexanian

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Selected Work Experience

- 2023 **[Temporary] Senior Program Associate** – Open Philanthropy – California, USA
Three month work trial with the Biosecurity and Pandemic Preparedness team, with a focus on information hazard management and longtermist biosecurity field-building.
- 2020 – 2022 **Safety & Security Program Officer** – iGEM Foundation – International
Created incentives and programs within the iGEM Competition to encourage responsible, safe, and secure synthetic biology. Assessed risk for hundreds of student projects. Created biosecurity policies for the competition. Ran international workshops on BWC verification, use of synthetic biology beyond containment, and cultures of responsibility.
- 2016 – 2020 **Automation & Software Engineer** – Zymergen – California, USA
Developed software to write and execute automated protocols used daily by scientists in an organism factory. Standardized protocols, wrote driver software, and provided on-call support for liquid handlers, robot arms, plate readers, and other lab robots.
- 2013, 2014 **Bioinformatics Assistant** – Princess Margaret Genomics Center – Ontario, Canada
Over two internships, developed PMGC's first next-generation sequencing pipeline and examined mouse and human tissue interactions using microarray and sequence data. Benchmarked bioinformatics tools to determine best practice analysis.

Education, Fellowships

- 2010 – 2015 **BASc. Systems Design Engineering** – University of Waterloo – Ontario, Canada
Graduated on Dean's Honours List. NSERC Undergraduate Research Award (2012, 2015); SFF Award for Technical Writing (2012, 2014); Velocity \$1K Fund Finalist (2014).
- 2023 **Fellow** – Ending Bioweapons – International
Part-time fellowship coordinated by the Council on Strategic Risks.
- 2022 **Fellow** – Emerging Leaders in Biosecurity Initiative – International
Part-time fellowship coordinated by the Johns Hopkins Center for Health Security.

Publications, Etc.

- 2022 **iGEM and Gene Drives: A Case Study for Governance** – Health Security
P. Millett, T. Alexanian, M.J. Palmer, S. A. Weiss Evans..

- 2021 **The Youth Declaration for Biosecurity** – UNODA
T. Alexanian, M. Ameneiros, F. Aziz, G. Essix, C. Isaac, S. Namdeo, M.S. Lawal..
- 2021 **Implementing adaptive risk management for synthetic biology: Lessons from iGEM’s safety and security programme** – Engineering Biology
P. Millett, T. Alexanian.
- 2020 **Device-agnostic System For Planning And Executing High-throughput Genomic Manufacturing Operations** – US Patent No. 16/758823
K. Ahmadizadeh, T. Alexanian, B. Frewen. P. Ganesan, A. Kimball, W.j. Mania, Z. Palchick, E. Rhode, D. Webster..

Selected Projects

- 2020 **Catalyst Biosecurity Summit** – California, USA
Spearheaded a one-day conference on innovation for biological risks, supported by a grant from the Effective Altruism Long Term Future Fund.
- 2018 – 2020 **East Bay Biosecurity** – California, USA & Remote
Meetup group discussing biosecurity and pandemic preparedness. Founding member and recipient of a 2018 Center For Effective Altruism Community-Building grant.

Selected Presentations

- 09-2022 Biosecurity: a governance perspective
EAGxBerlin
- 02-2022 Dealing with Dual Use: how do we know which biology projects might be misused?
Stanford Existential Risk Initiative Conference
- 04-2021 Is there a biosecurity information deficit? Does it matter?
ABSA Biosecurity Symposium
- 10-2020 How do we build a culture of responsible disclosure?
Global Community Bio Summit
- 06-2020 Biotech Robotic Cloud Labs: During the Pandemic and Onwards
Panellist for virtual After iGEM Discussion
- 05-2019 Life isn’t logical! It’s hard to put NOR gates in bacteria!
!!Con 2019