BWC Global Forum

Gene Drives and Engineered Ecology:
What can we expect from these advancing capabilities and what are their implications for the BWC?

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What is the problem?

- DIY Biology potentially introduces innovative life science solutions.
- However, the community is largely unregulated.
- Many questions with limited answers: Who are they? Where are they? What are they capable of achieving? What are their motivations? etc.
- Potential lack of safety and ethics training raises concerns.
- Do the risks outweigh the potential benefits?
We need to nurture youth from the young age.
What is our approach?

Research
- Desktop Research
- Survey
- Interview/Focus Groups

Improving Our Understanding of & Engagement with the DIY Biology Community

Communicating Opportunities & Challenges, Providing Science Advice & Fostering a Culture of Responsible Conduct of Research

Communication
- Policy Briefs/Articles
- Seminar/Workshops
- Conferences/Forums
The aim of this research is to study the global landscape of DIYBio and identify its associated motivations, challenges, and opportunities in different regions.

The overarching aim is to then develop unified and orchestrated local, regional, and global strategies for establishing and adapting policies to ensure that the benefits and potential of the DIYBio movement is maximized whilst minimizing the risks.
The aggregate risk perception across the five case scenarios

- In general, the majority of respondents identified 3 out of 5 scenarios as high risk.
- Highest perceived biorisk was recorded for the case scenario revolving around self-experimentation in gene therapy.
- In contrast, the majority of respondents ranked the scenario involving bioprospecting as low or moderate biorisk.
- The case scenario involving bioart recorded the highest percentage of low risk rating amongst the 5 case scenarios.
Global DIYBio and DIYBio-associated Spaces

https://www.surveymonkey.com/r/diybio
DIYBio Working Nature

In collaboration 79%

Individually 21%

https://www.surveymonkey.com/r/diybio
Type of Organisms used in DIYBio experiments

- Bacteria
- Fungi
- Mammals (including human)
- Plants
- Viruses/phages
- Other
- Not applicable
- Reptiles
- Fish
- Birds
- Archaea
- Amphibians
We need your help!

We need to more respondents especially from Europe and North & South America

https://www.surveymonkey.com/r/diybio

Thanks to:

Prof. Dr. Abhi Veerakumarasivam, GYA DIY-Bio WG co-chair
Dr. Bart Kolodziejczyk, GYA DIY-Bio WG co-chair
Dr. John Malone
The group aims to report on the prospects, risks, and opportunities around DIY Synthetic Biology. Additionally, the group provides training and policy recommendations to G20 and United Nations.