MITRE’s Synthetic Biology Moonshot team is bringing systems engineering to the practice of synthetic biology.

Synthetic biology offers a distributed and sustainable manufacturing approach for many of the medicines, nutrients, chemicals, and materials people need. Funded by MITRE’s Independent Research and Development Program, the Synthetic Biology Moonshot team is re-engineering the synthetic biology workflow into a network called “BioNet” to facilitate increased collaboration and innovation within the field.

MITRE has a long history of developing platforms and alliances, like ATT&CK, Maternal Mortality and Morbidity Interactive Dashboard, Sara Alert, and CodeX, that connect government, academia, and industry to increase collaboration and accelerate solutions. BioNet brings together MITRE’s expertise across biology, engineering, software, and security to enable more innovation in synthetic biology, connecting researchers and organizations around the world as part of a disaggregated SynBio ecosystem.

“BIONET: A NETWORKED SYNTHETIC BIOLOGY ECOSYSTEM

The BioNet synthetic biology ecosystem will increase resiliency, foster innovation, democratize access, and encourage contribution from diverse organization types with distinct expertise, geography, and culture.

Marc Salti, Principal Investigator MITRE Synthetic Biology Moonshot Program
MITRE is building BioNet so it can operate as a trustworthy environment in which design, development, refinement, and deployment of synthetic biology projects are transformed by the “network effect.” BioNet will operate as a marketplace of organizations, capabilities, products, content, and ideas. A successful BioNet will empower more individuals and organizations to use biology as their technology of choice.

The goals of BioNet are:

- Create a global community to work together
- Enable and promote discovery of synthetic biology services and tools
- Improve synthetic biology by fostering reusable innovation
- Make it easy to develop and manage a project from end-to-end
- Facilitate global access to synthetic biology talent
- Provide a platform to commercialize synthetic biology products
- Be a trusted platform for payment, intellectual property (IP), and biosecurity

As the BioNet continues to be developed, **MITRE is looking for key partners to form the BioNet Alliance** to help shape the ecosystem and establish network governance. All organizations within the synthetic biology community are encouraged to participate.

The BioNet Alliance is seeking members working across SynBio who are interested in standardization, reusability, decentralized science, and seeing biology realize its potential as a technology.

For more information, please contact BioNet@mitre.org

MITRE’s mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.