

Coordinating Vulnerability Disclosure for Biosecurity Sequence Screening Tools

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Abstract

Founded in 2024, the SBRC is a broad consortium of biosecurity stakeholders who collectively maintain a standard definition of “sequences of concern” based on a scientific assessment of biosecurity risk from synthetic nucleic acids. One of the key focus areas for the SBRC is coordinated response to vulnerabilities in biosecurity sequence screening tools. Unlike with typical cybersecurity vulnerabilities, the vulnerabilities in biosecurity screening tools most often studied tend to be correlated across tools and result from changes in biological understanding and the diverse curation issues in publicly-available data resources. As a result, SBRC members have already needed to participate in multiple coordinated responses to potential vulnerabilities, including the Microsoft-led Paraphrase study and the BGU-led split-toxins study. The SBRC has developed data-sharing agreements based on standard cybersecurity practices for managing disclosure and is now working to establish a standing working group to better coordinate the efforts of responsible red-teaming organizations and tool maintainers.

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