COMMITTEE ON SCIENCE SPACE AND TECHNOLOGY REPUBLICANS

H.R. 3029, the Nucleic Acid Standards for Biosecurity Act

SPONSOR: REP. ANDREA SALINAS (D-OR)
CO-SPONSOR: REP. RICH MCCORMICK (R-GA)

Strengthens biosecurity without regulation by supporting voluntary, stakeholder-driven nucleic acid synthesis standards, safeguarding innovation and national security.

Extended Summary:

H.R. 3029, the Nucleic Acid Standards for Biosecurity Act, takes a proactive and balanced approach to biosecurity in the biotechnology sector. It authorizes the National Institute of Standards and Technology (NIST) to conduct measurement research and convene a public-private consortium to inform the development of technical standards and best practices for screening custom synthetic nucleic acids—components used in advanced research across academia, industry, and government.

With advancements in AI and synthetic biology, the risk of misuse or undetected biological threats grows. This bill ensures that the U.S. leads on responsible innovation by helping the industry voluntarily adopt robust, consensus-based practices. The legislation is grounded in scientific expertise, practical guidance, and collaborative governance, not bureaucratic mandates.

The legislation emphasizes a commonsense path forward: providing tools to mitigate risks while protecting American leadership in biotechnology, economic competitiveness, and national security. It promotes technical guidance that industry can actually use, and ensures standards evolve alongside cutting-edge scientific developments.

Background:

- Biotechnology companies regularly synthesize nucleic acids used in research across sectors. However, inconsistent adoption of security screening practices has created vulnerabilities.
- Despite global conversations on standards, there's a clear need for U.S.-led initiatives to advance rigorous yet workable protocols for nucleic acid screening.
- Due to the complex nature of how DNA and similar molecules function, these standards must be informed by scientists, industry experts, and national security stakeholders alike.
- The bill allows NIST to organize a consortium including industry, academia, nonprofits, and users, ensuring broad input without heavy-handed regulation.