

118TH CONGRESS
2D SESSION

S. 5426

To require the Science and Technology Directorate in the Department of Homeland Security to develop greater capacity to detect and identify illicit substances in very low concentrations.

IN THE SENATE OF THE UNITED STATES

DECEMBER 4, 2024

Mr. CORNYN (for himself, Mr. OSSOFF, and Mr. LANKFORD) introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

A BILL

To require the Science and Technology Directorate in the Department of Homeland Security to develop greater capacity to detect and identify illicit substances in very low concentrations.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLES.**

4 This Act may be cited as the “Detection Equipment
5 and Technology Evaluation to Counter the Threat of
6 Fentanyl and Xylazine Act of 2024” or the “DETECT
7 Fentanyl and Xylazine Act of 2024”.

1 **SEC. 2. ENHANCING THE CAPACITY TO DETECT AND IDEN-**
2 **TIFY DRUGS SUCH AS FENTANYL AND**
3 **XYLAZINE.**

4 Section 302 of the Homeland Security Act of 2002
5 (6 U.S.C. 182) is amended—

6 (1) in paragraph (13), by striking “and” at the
7 end;

8 (2) in paragraph (14), by striking the period at
9 the end and inserting “; and”; and

10 (3) by adding at the end the following:

11 “(15) carrying out, in coordination with the
12 Drug Enforcement Administration, research, devel-
13 opment, testing, evaluation, and cost-benefit anal-
14 yses to improve the safety, effectiveness, and effi-
15 ciency of equipment and the effectiveness and effi-
16 ciency of reference libraries for use by Federal,
17 State, local, Tribal, and territorial law enforcement
18 agencies for the accurate detection of drugs, such as
19 fentanyl and xylazine, including—

20 “(A) portable equipment that can detect
21 and identify drugs with minimal or no handling
22 of the sample;

23 “(B) equipment that can separate complex
24 mixtures containing low concentrations of drugs
25 and high concentrations of cutting agents into
26 their component parts to enable signature ex-

traction for field identification and detection;
and

“(C) technologies that use machine learning or artificial intelligence (as defined in section 5002 of the National Artificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401)) and other techniques to predict whether the substances in a sample are controlled substance analogues or other new psychoactive substances not yet included in available reference libraries.”.

SEC. 3. REQUIREMENTS.

In carrying out section 302(15) of the Homeland Security Act of 2002, as added by section 2, the Under Secretary for Science and Technology shall—

(1) follow the recommendations, guidelines, and best practices described in the Artificial Intelligence Risk Management Framework (NIST AI 100–1) or any successor document published by the National Institute of Standards and Technology; and

(2) establish the Directorate of Science and Technology’s research, development, testing, evaluation, and cost-benefit analysis priorities under such section 302(15) based on the latest available infor-

1 mation, including specific drugs identified as threats
2 in—

3 (A) the latest Homeland Threat Assess-
4 ment published by the Department of Home-
5 land Security;

6 (B) the latest State and Territory Report
7 on Enduring and Emerging Threats published
8 by the Drug Enforcement Administration; or

9 (C) any successor documents.

10 **SEC. 4. RULE OF CONSTRUCTION.**

11 Nothing in this Act may be construed to limit the
12 authority of agencies currently managing, overseeing, or
13 otherwise involved in drug equipment and reference librar-
14 ies.

○