

118TH CONGRESS
1ST SESSION

S. _____

To direct the Administrator of the Environmental Protection Agency to establish a consortium relating to exposures to toxic substances and identifying chemicals that are safe to use.

IN THE SENATE OF THE UNITED STATES

Mr. PADILLA introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To direct the Administrator of the Environmental Protection Agency to establish a consortium relating to exposures to toxic substances and identifying chemicals that are safe to use.

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 TITLE.**

4 This Act may be cited as the “Supercomputing for
5 Safer Chemicals Act” or the “SUPERSAFE Act”.

6 **SEC. 2. SUPERCOMPUTING FOR SAFER CHEMICALS**
7 **(SUPERSAFE) CONSORTIUM.**

8 (a) ESTABLISHMENT.—

1 (1) IN GENERAL.—The Administrator of the
2 Environmental Protection Agency (referred to in
3 this section as the “Administrator”), in consultation
4 with the heads of relevant Federal agencies (includ-
5 ing the Secretary of Health and Human Services
6 and the Secretary of Energy), shall form a consor-
7 tium, to be known as the “Supercomputing for Safer
8 Chemicals (SUPERSAFE) Consortium” (referred to
9 in this section as the “Consortium”). The Consor-
10 tium shall include the National Laboratories of the
11 Department of Energy, academic and other research
12 institutions, and other entities, as determined by the
13 Administrator, to carry out the activities described
14 in subsection (b).

15 (2) INCLUSION OF STATE AGENCIES.—The Ad-
16 ministrator shall allow the head of a relevant State
17 agency to join the Consortium on request of the
18 State agency.

19 (b) CONSORTIUM ACTIVITIES.—

20 (1) IN GENERAL.—The Consortium shall use
21 supercomputing, machine learning, and other similar
22 capabilities—

23 (A) to establish rapid approaches for large-
24 scale identification of toxic substances and the
25 development of safer alternatives to toxic sub-

1 stances by developing and validating computa-
2 tional toxicology methods based on unique high-
3 performance computing, artificial intelligence,
4 machine learning, and precision measurements;

5 (B) to address the need to identify safe
6 chemicals for use in consumer and industrial
7 products and in their manufacture to support
8 the move away from toxic substances and to-
9 ward safe-by-design alternatives; and

10 (C) to make recommendations on how the
11 information produced can be applied in risk as-
12 sessments and other characterizations for use
13 by the Environmental Protection Agency and
14 other agencies in regulatory decisions, and by
15 industry in identifying toxic and safer chemi-
16 cals.

17 (2) MODELS.—In carrying out paragraph (1),
18 the Consortium—

19 (A) shall use supercomputers and other
20 virtual tools to develop, validate, and run mod-
21 els to predict adverse health effects caused by
22 toxic substances and to identify safe chemicals
23 for use in products and manufacturing; and

24 (B) may utilize, as needed, appropriate bi-
25 ological test systems to test and evaluate ap-

1 proaches and improve their predictability and
2 reliability in industrial and regulatory applica-
3 tions.

4 (c) PUBLIC RESULTS.—The Consortium shall make
5 model predictions, along with supporting documentation,
6 available to the public in an accessible format.

7 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
8 authorized to be appropriated to the Administrator to
9 carry out this section—

- 10 (1) for fiscal year 2023, \$20,000,000;
11 (2) for fiscal year 2024, \$30,000,000; and
12 (3) for each of fiscal years 2025 through 2027,
13 \$35,000,000.