

117TH CONGRESS
2D SESSION

S. 4014

To authorize the Director of the National Science Foundation to award grants to support research on the disruption of regular cognitive processes associated with COVID–19 infection, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 6, 2022

Ms. DUCKWORTH (for herself, Mr. CASSIDY, and Mr. BROWN) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

A BILL

To authorize the Director of the National Science Foundation to award grants to support research on the disruption of regular cognitive processes associated with COVID–19 infection, and for other purposes.

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 “Brycen Gray and Ben
5 Price COVID–19 Cognitive Research Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act—

1 (1) the term “Director” means the Director of
2 the National Science Foundation;

3 (2) the term “eligible entity” means an institu-
4 tion of higher education (as such term is defined in
5 section 101 of the Higher Education Act of 1965
6 (20 U.S.C. 1001)) or a consortium composed of non-
7 profit organizations and institutions of higher edu-
8 cation; and

9 (3) the term “National Academies” means the
10 National Academies of Sciences, Engineering, and
11 Medicine.

12 **SEC. 3. FINDINGS.**

13 Congress makes the following findings:

14 (1) The COVID–19 pandemic has disrupted
15 nearly every aspect of life across the globe. Further-
16 more, it has produced major disruptions of individ-
17 ual’s physical and mental health, including with re-
18 spect of children and adolescents.

19 (2) Historical epidemiological perspectives sug-
20 gest an association between exposure to general res-
21 piratory viruses and subsequent disruption of reg-
22 ular cognitive processes.

23 (3) Early research suggests that 1 in 3 individ-
24 uals diagnosed with a COVID–19 infection experi-

1 ences a disruption of regular cognitive processes
2 within 6 months of such diagnosis.

3 (4) Research is urgently needed to better un-
4 derstand why disruption in regular cognitive proc-
5 esses occur in patients as a consequence of a
6 COVID–19 infection and how long such disruptions
7 can continue after recovery.

8 (5) The National Science Foundation has a
9 deep history of supporting interdisciplinary, basic re-
10 search that spans the social, behavioral, and funda-
11 mental biological sciences and paves the way for sci-
12 entific advancements.

13 **SEC. 4. NATIONAL SCIENCE FOUNDATION RESEARCH.**

14 The Director shall award grants to eligible entities,
15 including through the RAPID funding mechanism, on a
16 competitive, merit-reviewed basis to support interdiscipli-
17 nary research on the disruption of regular cognitive proc-
18 esses associated with both short-term and long-term
19 COVID–19 infections, including with respect to children
20 and adolescents. Such research may include the following:

21 (1) Foundational studies on the effects of cog-
22 nition, emotion, and neural structure and function
23 relating to any disruption of regular cognitive proc-
24 esses associated with COVID–19 infection.

1 (2) Analysis of findings on the disruption of
2 regular cognitive processes associated with COVID–
3 19 infection, including the development of predictive
4 theoretical frameworks to guide future research.

5 (3) Development of physical and conceptual
6 tools needed to evaluate cognition, emotion, and neu-
7 ral structure and function of the brain as a con-
8 sequence of a COVID–19 infection, and the potential
9 relevance of such infection to the disruption of reg-
10 ular cognitive processes.

11 (4) Studies on the relevance of psychological
12 and psychosocial factors, including major disruptions
13 of physical health, mental health, and economic sta-
14 bility associated with the COVID–19 pandemic, on
15 the disruption of regular cognitive processes, includ-
16 ing an identification and evaluation of such factors.

17 (5) Any other activities the Director determines
18 will support interdisciplinary research and collabora-
19 tion on the disruption of regular cognitive processes
20 associated with COVID–19 infection, including with
21 respect to children and adolescents.

22 **SEC. 5. NATIONAL ACADEMIES STUDY ON THE DISRUPTION**
23 **OF COGNITIVE PROCESSES ASSOCIATED**
24 **WITH COVID–19 INFECTION.**

25 (a) STUDY.—

1 (1) IN GENERAL.—Not later than 45 days after
2 the date of enactment of this Act, the Director shall
3 enter into an agreement with the National Acad-
4 emies to study and produce a report on the disrup-
5 tion of cognitive processes associated with COVID-
6 19 infection. The study shall—

7 (A) review the research literature and iden-
8 tify research gaps regarding Federal programs
9 and activities with roles in addressing both
10 short-term and long-term consequences associ-
11 ated with COVID-19 infection;

12 (B) assess the necessity of establishing
13 causal inference approaches into research on
14 the impacts of COVID-19 infection on cognitive
15 processes to determine reverse causation;

16 (C) evaluate and make recommendations
17 regarding the coordination of research and data
18 collection, including with respect to children
19 and adolescents, to identify the disruption of
20 regular cognitive processes associated with
21 COVID-19 infection, including long-term
22 COVID-19;

23 (D) evaluate impacts of COVID-19 infec-
24 tion on populations under-represented in cog-

1 nitive literature, such as poor, rural, and minor-
2 ity populations; and

3 (E) make recommendations regarding ways
4 to coordinate engagement with researchers and
5 stakeholders from institutions of higher edu-
6 cation, industry, public health organizations,
7 State and local governments, local educational
8 agencies, and non-profit organizations to ensure
9 that research, information, and best practices
10 relating to the disruption of regular cognitive
11 processes associated with COVID–19 infection,
12 including long-term COVID–19, are shared
13 among such entities.

14 (2) COMPLETION.—The study required under
15 paragraph (1) shall be completed by not later than
16 the date that is 16 months after the date of enact-
17 ment of this Act.

18 (b) REPORTS.—

19 (1) BY THE NATIONAL ACADEMIES.—Upon
20 completion of the study under subsection (a), the
21 National Academies shall transmit to the Director
22 and Congress a report on such study.

23 (2) BY THE DIRECTOR.—Not later than 3
24 months after receipt of the report under paragraph
25 (1), the Director shall transmit to Congress a sum-

1 mary of the Director's plans, if any, to implement
2 the recommendations of the National Academies
3 contained in such report.

4 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

5 There is authorized to be appropriated to the Direc-
6 tor to carry out this Act \$10,000,000 for fiscal year 2023,
7 to remain available through fiscal year 2025, of which
8 \$1,000,000 is authorized to carry out the study and
9 produce the reports under section 5.

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