(h) Partnerships with other Federal agencies

The Secretary may request, accept, and provide funds from other Federal departments and agencies, State, United States territory, local, or Tribal government agencies, private sector for-profit entities, and nonprofit entities, to be available to the extent provided by appropriations Acts, to support a research project or partnership carried out under this section. The Secretary may not give any special consideration to any agency or entity in return for a donation.

(i) Stakeholder engagement

In carrying out the activities authorized in this section, the Secretary shall—

(1) collaborate with a range of stakeholders including small businesses, institutes of higher education, industry, and the National Laboratories;

(2) leverage the collective body of knowledge from existing artificial intelligence and machine learning research; and

(3) engage with other Federal agencies, research communities, and potential users of information produced under this section.

(j) Definitions

In this section:

(1) Secretary

The term ''Secretary'' means the Secretary of Energy.

(2) Department

The term ''Department'' means the Department of Energy.

(3) National laboratory

The term ''national laboratory'' has the meaning given such term in section 15801 of title 42.

(4) Eligible entities

The term ''eligible entities'' means—

(A) an institution of higher education;

(B) a National Laboratory;

(C) a Federal research agency;

(D) a State research agency;

(E) a nonprofit research organization;

(F) a private sector entity; or

(G) a consortium of 2 or more entities described in subparagraphs (A) through (F).

(k) Authorization of appropriations

There are authorized to be appropriated to the Department to carry out this section—

(1) $200,000,000 for fiscal year 2021;

(2) $214,000,000 for fiscal year 2022;

(3) $228,980,000 for fiscal year 2023;

(4) $245,000,000 for fiscal year 2024; and

(5) $262,160,000 for fiscal year 2025.

(Pub. L. 116–283, div. E, title LV, § 5501, Jan. 1, 2021, 134 Stat. 4545.)

§ 9462. Veterans' health initiative

(a) Purposes

The purposes of this section are to advance Department of Energy expertise in artificial intelligence and high-performance computing in order to improve health outcomes for veteran populations by—

(1) supporting basic research through the application of artificial intelligence, high-performance computing, modeling and simulation, machine learning, and large-scale data analytics to identify and solve outcome-defined challenges in the health sciences;

(2) maximizing the impact of the Department of Veterans Affairs' health and genomics data housed at the National Laboratories, as well as data from other sources, on science, innovation, and health care outcomes through the use and advancement of artificial intelligence and high-performance computing capabilities of the Department;

(3) promoting collaborative research through the establishment of partnerships to improve data sharing between Federal agencies, National Laboratories, institutions of higher education, and nonprofit institutions;

(4) establishing multiple scientific computing user facilities to house and provision available data to foster transformational outcomes; and

(5) driving the development of technology to improve artificial intelligence, high-performance computing, and networking relevant to mission applications of the Department, including modeling, simulation, machine learning, and advanced data analytics.

(b) Veterans health research and development

(1) In general

The Secretary of Energy (in this section referred to as the ''Secretary'') shall establish and carry out a research program in artificial intelligence and high-performance computing, focused on the development of tools to solve large-scale data analytics and management challenges associated with veteran's healthcare, and to support the efforts of the Department of Veterans Affairs to identify potential health risks and challenges utilizing data on long-term healthcare, health risks, and genomic data collected from veteran populations. The Secretary shall carry out this program through a competitive, merit-reviewed process, and consider applications from National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

(2) Program components

In carrying out the program established under paragraph (1), the Secretary may—

(A) conduct basic research in modeling and simulation, machine learning, large-scale data analytics, and predictive analysis in order to develop novel or optimized algorithms for prediction of disease treatment and recovery;

(B) develop methods to accommodate large data sets with variable quality and scale, and to provide insight and models for complex systems;

(C) develop new approaches and maximize the use of algorithms developed through artificial intelligence, machine learning, data analytics, natural language processing, mod-

eling and simulation, and develop new algorithms suitable for high-performance computing systems and large biomedical data sets;

(D) advance existing and construct new data enclaves capable of securely storing data sets provided by the Department of Veterans Affairs, Department of Defense, and other sources; and

(E) promote collaboration and data sharing between National Laboratories, research entities, and user facilities of the Department by providing the necessary access and secure data transfer capabilities.

(3) Coordination

In carrying out the program established under paragraph (1), the Secretary is authorized—

(A) to enter into memoranda of understanding in order to carry out reimbursable agreements with the Department of Veterans Affairs and other entities in order to maximize the effectiveness of Department research and development to improve veterans' healthcare;

(B) to consult with the Department of Veterans Affairs and other Federal agencies as appropriate; and

(C) to ensure that data storage meets all privacy and security requirements established by the Department of Veterans Affairs, and that access to data is provided in accordance with relevant Department of Veterans Affairs data access policies, including informed consent.

(4) Report

Not later than 2 years after December 27, 2020, the Secretary shall submit to the Committee on Energy and Natural Resources and the Committee on Veterans' Affairs of the Senate, and the Committee on Science, Space, and Technology and the Committee on Veterans' Affairs of the House of Representatives, a report detailing the effectiveness of—

(A) the interagency coordination between each Federal agency involved in the research program carried out under this subsection;

(B) collaborative research achievements of the program; and

(C) potential opportunities to expand the technical capabilities of the Department.

(5) Funding

There is authorized to be appropriated to the Secretary of Veterans Affairs to carry out this subsection $27,000,000 for fiscal year 2021.

(c) Interagency collaboration

(1) In general

The Secretary is authorized to carry out research, development, and demonstration activities to develop tools to apply to big data that enable Federal agencies, institutions of higher education, nonprofit research organizations, and industry to better leverage the capabilities of the Department to solve complex, big data challenges. The Secretary shall carry out these activities through a competitive, merit-reviewed process, and consider applications from National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

(2) Activities

In carrying out the research, development, and demonstration activities authorized under paragraph (1), the Secretary may—

(A) utilize all available mechanisms to prevent duplication and coordinate research efforts across the Department;

(B) establish multiple user facilities to serve as data enclaves capable of securely storing data sets created by Federal agencies, institutions of higher education, nonprofit organizations, or industry at National Laboratories; and

(C) promote collaboration and data sharing between National Laboratories, research entities, and user facilities of the Department by providing the necessary access and secure data transfer capabilities.

(3) Report

Not later than 2 years after December 27, 2020, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report evaluating the effectiveness of the activities authorized under paragraph (1).

(4) Funding

There are authorized to be appropriated to the Secretary to carry out this subsection $15,000,000 for each of fiscal years 2021 through 2025.

(d) Definition

In this section, the term "National Laboratory" has the meaning given such term in section 15801(3) of title 42.

(Pub. L. 116–260, div. Z, title IX, § 9008, Dec. 27, 2020, 134 Stat. 2600.)