

MEMORANDUM OF UNDERSTANDING BETWEEN  
THE DEPARTMENT OF ENERGY AND WEILL FAMILY FOUNDATION  
REGARDING ARTIFICIAL INTELLIGENCE, NEUROLOGICAL DISORDERS  
AND RELATED SUBJECTS

**INTRODUCTION**

This Memorandum of Understanding (MOU) describes the intent of the Department of Energy (DOE) and Weill Family Foundation (hereinafter referred to as a “Party” in the singular or the “Parties” together) to cooperate in areas of artificial intelligence (AI) as it applies to multidisciplinary and translational research of neurodegenerative disorders, traumatic brain injury (TBI), and other priorities of the Parties.

AI is a foundational technology that is impacting the way we live, work, learn, discover, and communicate. It is a disruptive, multidisciplinary field seeking to train computer systems to autonomously perform tasks by learning patterns and infer within complex data, without explicit instructions, at scales beyond human abilities. Advances here will enhance our economic and national security, and improve our quality of life.

The Parties’ intent through this collaboration is to demonstrate the potential for AI based research breakthroughs that span from basic science focused on a better understanding of how the brain functions, to clinical and translational research focused on developing novel methods for preventing, treating, and repairing damage caused by diseases and disorders of the brain. This MOU also recognizes that the development and advancement of Artificial Intelligence tools and other innovative technologies for the study and understanding of neurological disorders and TBI could be enhanced through coordinated activities between DOE, the Weill Family Foundation, and interested third parties in academia, private industry, philanthropists, and governments on additional topics of mutual interest.

**PARTNER MISSIONS**

DOE

DOE is charged with advancing the national, economic, and energy security of the United States; promoting scientific and technological innovation in support of that mission; and supporting environmental remediation and radiation health. Although most DOE missions are directed to goals outside the life sciences arena, many of the materials, tools, and methods that DOE develops and employs have direct applicability to the biomedical sciences. DOE’s scientific and technological innovation mission in particular includes the development and deployment of technologies to support economic prosperity, including the application of technologies it develops in areas outside of the energy sphere, such as those benefiting public health and medicine. To this end, DOE’s role is focused on applying artificial intelligence research

capabilities and techniques to support innovative learning from ever larger and more complex data. At DOE, leadership in AI is progressing through the convergence of massive, complex, curated data sets suitable for AI, with the deep learning (DL) at extreme scales enabled by only the most high-end computers, such as DOE's world leading systems.

#### The Weill Family Foundation

The Weill Family Foundation makes philanthropic donations to strengthen public private partnerships facilitating transformational initiatives in cultural, educational, and health-related causes, including high-risk, high-reward research with the potential to transform the diagnosis, prevention, and treatment of neurological and psychiatric diseases. The Weill Family Foundation's philanthropic contributions include supporting the Weill Institute for Neurosciences (the "Weill Institute") at the University of California San Francisco ("UCSF"). The Weill Institute leverages UCSF's Neuroscience Graduate Program, a cross-disciplinary alliance of nearly 100 UCSF faculty members from 17 basic-science and clinical departments, to improve translational neurosciences patient care and research.

#### **GOALS**

The goals of this MOU are to establish a cooperative relationship between DOE and the Weill Family Foundation by defining potential focus areas for the collaborative pursuit of transformative scientific opportunities in biomedical and public health research relevant to the mission of each party, and to describe the Parties' intent to develop mechanisms and planning that foster collaborative efforts to accelerate progress in AI related areas, neurological disorders, and TBI. Both parties recognize that including other interested third parties as partners in proposed projects enhances resources, perspectives and expertise, and will work towards including relevant constituencies in proposed collaborations.

#### **OUTCOMES**

The Parties will analyze shared data, consistent with all applicable Federal laws, as well as other applicable and appropriate data sets advancing the development of next-generation AI technologies and other tools to further the scientific understanding of neurological disorders and acquired traumatic brain injury. This collaboration seeks to greatly advance knowledge and understanding of the brain and will have a profound impact on the lives of patients and families worldwide.

#### **ADMINISTRATION**

The Parties will coordinate their activities through identified points of contact for their respective organizations in addition to a variety of mechanisms such as joint steering group meetings and workshops to review progress in the science, identify areas for collaboration, and identify opportunities to bring scientists and other relevant third parties together to accelerate or enhance the development of tools to further the scientific understanding of traumatic brain injury.



The designated points of contact, which either Party may change by written notice to the other Party, shall be:

For DOE:

Dr. Dimitri Kusnezov  
US Department of Energy  
1000 Independence Ave SW  
Washington DC 20585

For Weill Family Foundation:

Sanford I. Weill  
C/O Weill Family Foundation  
680 Fifth Avenue, 22<sup>nd</sup> Floor  
New York, NY 10019

## **DISCLOSURE OF INFORMATION**

Proprietary and/or nonpublic information will not be disclosed under this MOU, unless such disclosure is governed by and in accordance with appropriate confidentiality disclosure agreements and applicable DOE policies and procedures, or to the extent such disclosure is permitted or required by law. Any information shared or disclosed under this MOU will only be in accordance with all Federal laws, including, but not limited to, The Privacy Act of 1974 (5 U.S.C. § 552a) and the Health Insurance Portability and Accountability (HIPAA) Privacy Rule.

## **INTELLECTUAL PROPERTY**

If the Parties decide that a particular activity may lead to the creation of intellectual property, they should consult with each other and enter into mutually acceptable, written agreements with respect to such activities and the intellectual property developed therefrom. Such agreements, including any specific provisions concerning the disposition of rights in intellectual property that may be developed through collaboration under this MOU will be in accordance with applicable DOE and interested third parties in academia, private industry, philanthropists, and government policies and procedures.

## **TERM, TERMINATION AND MODIFICATIONS**

- This MOU will become effective on the date of the last authorized signature by the DOE Secretary and Chairman of the Weill Family Foundation. It will remain in effect until amended or terminated by either party.
- There are no representations, warranties, agreements, or understandings, expressed or implied, written or oral, between or among the parties agencies hereto relating to the subject matter of this MOU that are not fully expressed herein.
- No amendments to this MOU shall be effective unless executed in writing, and by mutual consent of the parties.
- Either party may terminate its participation in this MOU by providing thirty (30) days advanced written notice to the other agency. Should both parties provide such notice of termination, this MOU will terminate upon the date of receipt of the latter of such notices.

## GENERAL PROVISIONS

- This MOU is a broad statement of DOE and the Weill Family Foundation's intent to collaborate in areas of mutual interest to DOE and the Weill Family Foundation and is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.
- This MOU is neither a fiscal nor a funds obligation document and any activities hereunder are subject to the availability of funds, resources, and personnel. Nothing in this MOU authorizes or is intended to obligate DOE or the Weill Family Foundation to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value or to enter into any contract, assistance agreement, interagency agreement, or other financial obligation. If financial support for an activity is deemed necessary and appropriate in the future, DOE and the Weill Family Foundation expect to separately fund these activities including any and all funding agreements (e.g., research grants, awards, cooperative agreements).
- This MOU in no way restricts either of the Parties from participating in any activity with other public or private parties, organizations, or individuals.
- All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations, and other legal requirements.

## APPROVAL

Rick Perry  
Signature

JUL 17 2019  
Date

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Signature

\_\_\_\_\_  
Date

Rick Perry  
Secretary  
Department of Energy

Sanford I. Weill  
Chairman  
Weill Family Foundation