

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL ADVISORY NEUROLOGICAL DISORDERS AND STROKE COUNCIL**

**Summary of Meeting¹
September 9-10, 2021**

The National Advisory Neurological Disorders and Stroke (NANDS) Council was convened for its 213th meeting on September 9-10, 2021 via Zoom remote meeting. Dr. Walter Koroshetz, Director of the National Institute of Neurological Disorders and Stroke (NINDS), served as Chairperson.

In accordance with Public Law 92-463, the meeting was:

Open: September 9, 2021: 1:00 p.m. to 6:20 p.m. for the review and discussion of program development, needs, and policy; and
Closed: September 10, 2021: 1:00 p.m. to 6:00 p.m. for the consideration of individual grant applications.

Council members present:

Dr. Allan Basbaum	Dr. Kenneth Maynard
Dr. S. Thomas Carmichael	Ms. Eileen Murray
Dr. Hollis Cline	Dr. Gina Poe
Ms. Susan Dickinson	Dr. Ekemini Riley
Dr. Nita Farahany	Dr. Timothy Ryan
Dr. Aaron Gitler	Dr. Sameer Sheth
Dr. David Hackney	Dr. N. Edwin Trevathan
Dr. Karen Johnston	Ms. Christin Veasley
Dr. Claudia Lucchinetti	Dr. Arnold Kriegstein

Ex officio members present:

David Brody, M.D., Ph.D., Department of Defense
Christopher Bever, Jr., M.D., Department of Veterans Affairs

Council Roster (Attachment 1)

The entire meeting was held virtually over Zoom and all observers including members of the public attended virtually.

Some members of the public present for portions of the open meeting included:

Kathy Sedgwick, NOVA Research Company

¹For the record, it is noted that members absent themselves from the meeting when the Council is discussing applications (a) from their respective institutions or (b) in which a real or apparent conflict of interest might occur.

Federal attendees are listed at the end of these minutes.

I. Call to Order and Opening Remarks

Dr. Koroshetz welcomed Council members, visitors, and staff to the 213th meeting of the National Advisory Neurological Disorders and Stroke Council.

II. Report of the Director, Division of Extramural Activities, NINDS

Dr. David Owens (Deputy Director of the DEA) gave this report since the Director (Dr. Robert Finkelstein) was absent.

Approval of Council Minutes—Dr. Owens requested, and the Council voted approval of the May 26-27, 2021, Council meeting minutes.

The following future Council meeting dates were confirmed:

Wed & Thurs, February 2-3, 2022

Wed & Thurs, May 18-19, 2022

Wed & Thurs, September 7-8, 2022

NEW 2023 DATES

Wed & Thurs, February 1-2, 2023

Wed & Thurs, May 31, 2023-June 1, 2023

Wed & Thurs, September 6-7, 2023

Expedited Review Process—Each Council round, a subset of Council members approves applications in advance of the meeting with scores within the payline. This expedited review process focuses on applications for which there are no unresolved issues. Dr. Owens thanked Council members Nita Farahany, Ed Trevathan, and Arnold Kriegstein for handling this responsibility for this meeting and the fiscal year. For the current Council round, 62 applications were eligible to be expedited. A portion of these awards already have been issued, and the others will be issued after Council.

Extramural Announcements

All extramural introductions were posted to the NINDS Electronic Council Book (ECB).

III. Report of the Director, NINDS

Dr. Walter Koroshetz, Director, NINDS

Leadership Changes—Dr. Koroshetz summarized recent leadership changes at NIH. Dr. Michael M. Gottesman will step down as NIH Deputy Director for Intramural Research (DDIR) after 28 years of service in this role; NIH is launching a nationwide search for his replacement. Dr. Marie A. Bernard has been named NIH Chief Officer for Scientific Workforce Diversity; she served as Deputy Director of the National Institute on Aging (NIA) since October 2008. Dr. Christopher P. Austin has stepped down as Director of the National Center for Advancing Translational Sciences (NCATS); Dr. Joni Rutter is serving as NCATS Acting Director.

Ms. Mary Ann Sofranko has been appointed as NINDS Executive Officer. Having served as Acting Executive Officer on two occasions, Ms. Sofranko is an expert in administrative management and addressing complex personnel issues as well as an advocate for disability hiring.

Budget—Three scenarios for Fiscal Year (FY) 2022 include a Continuing Resolution (CR), which is essentially a 0 percent increase from last year; the FY2022 House Mark Budget, which provides a 6.2 percent budget increase for NINDS; and the FY2022 President’s Budget, which includes a 5.4 percent increase for NINDS. Both draft budgets include \$43 million to NINDS for pain research in the NINDS base budget.

Funding—NINDS is projecting a 14th percentile payline for FY2022. If NINDS operates under a year-long CR, noncompeting funds will need to be trimmed to maintain the projected payline. NINDS can hold the 14th percentile payline with the President’s Budget without touching noncompeting funds. Two factors are holding the payline at this level—a steady rise in the number of grant applications received and an inflation-driven increase in the average cost per grant. The cost of targeted projects (e.g., Brain Research Through Advancing Innovative Neurotechnologies[®] (BRAIN) Initiative, Helping to End Addiction Long-termSM Initiative (HEAL) has risen to nearly 50 percent of the budget.

Advancing Fundamental Neuroscience Research—NINDS is examining gaps in grant mechanisms, research resources, and opportunities to advance fundamental neuroscience research (i.e., understanding the basis of nervous system function from the perspective of molecules, cells, circuits, and whole-organ systems). Having declined steadily between 1997 and 2013, the number of NINDS basic/basic research grants has stabilized compared with basic/disease-related, applied/translational, and applied/clinical. Research Project Grants (RPGs) from BRAIN funding opportunity announcements (FOAs) account for a small but increasing proportion of the basic/basic portfolio. The Fundamental Neuroscience Task Force is analyzing the NINDS portfolio for themes, suggestions, and next steps to catalyze and prioritize opportunities to support progress in this important area.

NINDS During COVID—Dr. Koroshetz acknowledged NINDS staff for rising to the challenge over the past 18 months. While working from home during a public health emergency, they have handled a bigger budget, more applications, and more grants; issued more FOAs; and managed multiple new regulatory and administrative requirements.

Rigor and Transparency—Two new NINDS FOAs seek to facilitate the teaching of fundamental principles of rigorous biomedical research. This will be achieved through developing an online educational resource for use by a broad range of researchers in an array of learning environments: [Materials to Enhance Training in Experimental Rigor](#) (METER) and [Creating an Educational Nexus for Training in Experimental Rigor](#) (CENTER). Applications are due October 21, 2021.

Advanced Research Projects Agency for Health (ARPA-H)—President Biden’s budget includes funds for establishing ARPA-H at NIH to champion innovative ideas in health and medicine. Based on the Defense Advanced Research Projects Agency (DARPA) model, ARPA-H aims to benefit the health of all Americans by catalyzing health breakthroughs that cannot be accomplished readily through traditional research or commercial activity.

RECOVER: Researching COVID to Enhance Recovery—Congress has appropriated \$1.15 billion to support studies in an intensive effort to learn about the recovery process following COVID infection and why some individuals have prolonged symptoms. The [RECOVER Initiative](#) will

enroll up to 15,000 diverse research volunteers for an ambitious program designed to get answers and test them in clinical trials to improve outcomes.

Accelerating Medicines Partnership for Parkinson’s Disease (AMP-PD)—A public-private partnership between NIH, the U.S. Food and Drug Administration (FDA), the Michael J. Fox Foundation, and others has been established to conduct research to [advance development of PD therapies](#). Work has included harmonization of clinical and biomarker data from across existing cohorts; deep molecular characterization (e.g., whole-genome sequencing, proteomics, transcriptomics); and construction of a portal through which researchers can access and mine these data.

Ultra-Rare Gene Therapy (URGenT) Network—The first FOAs are about to be released for the [URGenT Network](#), a phased program with multiple entry points that will support principal investigators (PIs) with a lead gene therapy candidate for ultra-rare neurological disorders that affect as few as 1 in 50,000 people.

Blueprint Medtech—NINDS and the National Institute of Biomedical Imaging and Bioengineering (NIBIB) are working together to support [accelerated development of cutting-edge medical devices](#) for diagnosis and treatment of nervous system disorders.

BRAIN® Initiative—Dr. Koroshetz summarized recent activities of the BRAIN Initiative. Publications from the [cell census network case study](#) on cell types in human, nonhuman primate, and mouse and the [Brain Connectivity Workshop series report](#) on whole-brain microconnectivity are now available online. A recent meeting of the BRAIN Neuroethics Working Group included discussion about ethics of research participant compensation, a common but controversial practice. As described in [NOT-MH-21-310](#), applicants for most BRAIN Initiative grants are required to articulate strategies that advance a project’s scientific and technical merit through inclusivity.

Increasing Diversity—Through [NOSI: NOT-OD-21-049*](#), NIH Research Project Grant (R01) Applications from Individuals from Diverse Backgrounds, Including Under-Represented Minorities, NINDS encourages a more diverse pool of PIs to contribute to NINDS research areas via R01 applications and aims to advance scientific discovery by enhancing the diversity of perspectives brought to fulfill the NINDS mission.

*This Notice was RESCINDED on October 25, 2021, please see [NOT-OD-22-019](#)

NIH Efforts to Address Harassment and Discrimination—The NIH Re-integration ([NOT-OD-21-134](#)) enables individuals adversely affected by unsafe or discriminatory environments resulting from unlawful harassment to rapidly transition into new, safer, more supportive research environments. The Re-entry Supplements Program ([PA-18-592](#)) provides mentored research training opportunities to individuals whose research careers were interrupted for family responsibilities. Based on recommendations from the Advisory Council to the Director (ACD) Working Group on Sexual Harassment, NIH established standard procedures for individuals to [inform NIH of harassment and other serious concerns](#), including a web form, email address, phone line, and list of NIH resources for reporting sexual and racial harassment and other inappropriate behavior. In addition, NIH has updated guidelines for Enhancing Diversity and Creating Safe Environments in Conferences by NIH Grants and Cooperative Agreements (see [NOT-OD-21-053](#)).

NINDS Nonprofit Forum: Progress through Partnership—NINDS hosted a forum in July to provide opportunities for nonprofit leaders to network and engage with NINDS staff. Forum session recordings are available on the NINDS website at <https://www.ninds.nih.gov/About-NINDS/Who-We-Are/Nonprofit-Forum>.

Alzheimer’s Disease and Related Dementias (AD/ADRD)—NINDS manages 10 percent of the ADRD funds provided to the NIA. The National Plan to address AD/ADRD includes frontotemporal degeneration (FTD), vascular contributions to dementia (VCID), and Lewy Body Dementia (LBD). Funds go to solicited and unsolicited research coded as ADRD; last year’s payline for these awards was at the 28th percentile.

Health Disparities and Inequities in Neurological Disorders Workshop (HEADWAY)—The NINDS Office of Global Health and Health Disparities has organized a [workshop](#) aimed at identifying evidence-based, feasible, widely scalable interventions to diminish disparities and inequities in neurological disorders.

IV. Discussion of Director’s Report

Council members asked about and commented on the proportion of NINDS programs that are supported by targeted versus nontargeted funding; ARPA-H project concepts and potential overlap with NCATS; and the AMP-PD portal. BRAIN Initiative Director Dr. John Ngai clarified that the BRAIN Initiative is interested in attracting PIs who bring diverse perspectives to bear; [relevant resources](#) are available on the BRAIN Initiative website.

V. NINDS Data Science Planning

Dr. Lyn Jakeman, Associate Director, Division of Neuroscience, NINDS

Dr. Susan Gregurick, Associate Director for Data Science Director, NIH Office of Data Science Strategy (ODSS), NIH

Dr. Gregurick highlighted NIH and NINDS data science strategies to create a modernized, integrated, biomedical ecosystem that goes beyond [FAIR](#) (**F**indable, **A**ccessible, **I**nteroperable, **R**eusable) principles. The Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability ([STRIDES](#)) Initiative is a partnership with Amazon Web Services (AWS), Google Cloud, and Microsoft Azure that provides state-of-the-art data storage and cloud computing capabilities, researcher training, and innovative technologies (e.g., artificial intelligence, machine learning algorithms). Funded NINDS Projects in the ODSS high-value datasets program include a zebrafish brain electron microscopy dataset; migration of the Parkinson’s Disease Biomarkers Program to the cloud; and development of a cloud-based magnetic resonance imaging (MRI) image processing and storage system for the Translational Neuroradiology Section.

The [NIH Cloud Platform Interoperability \(NCPI\)](#) collaboration between NIH and external partners aims to create a federated genomic data ecosystem using guidelines and technical standards to empower end-user analyses across participating NIH cloud platforms.

Dr. Gregurick outlined the Final NIH Policy for Data Management and Sharing ([NOT-OD-21-013](#)) that becomes effective January 2023. The Policy requires extramural and intramural researchers to plan for preservation, management, and sharing of scientific data and accompanying metadata, taking potential restrictions and limitations into account. To prepare for implementation of the Policy, ODSS issued solicitations for optimized funding for NIH data

repositories and knowledge bases; support for existing data repositories to align with FAIR and TRUST (**T**ransparency, **R**esponsibility, **U**ser focus, **S**ustainability, and **T**echnology) principles; and administrative supplements to enhance software tools for open science.

ODSS efforts to build the data science workforce include artificial intelligence (AI) training; tools, frameworks, and guidelines for creating human- and machine-readable datasheets; and improving AI-readiness of existing Institute and Center (IC)-supported data ([NOT-OD-21-094](#)); NINDS has received three AI-readiness supplements. In addition, ODSS-funded supplements to National Institute on Minority Health and Health Disparities [Research Centers in Minority Institutions](#) are creating data science training opportunities with historically black colleges and universities and Hispanic-serving institutions.

Dr. Jakeman presented a high-level overview of NINDS data science planning, including development of a data management and sharing plan for implementation by the January 2023 NIH policy deadline. This includes how NINDS Program Officers will evaluate the adequacy of data management and sharing plans for proposed research.

NINDS subcommittees have set targets to expand planning and coordination, secure access, and interoperability, with federated solutions; incentivize broad sharing of high-quality data that are findable and reusable; advance analytic tools and expand partnerships to accelerate neuroscience research; develop skills and knowledge at the intersection of data science and neuroscience; and define roles and develop resources that facilitate responsible compliance and simplify oversight.

Discussion

The Office of Extramural Research will provide guidance for reviewing data plans. Several recent Requests for Information (RFIs) have solicited feedback related to informed consent and structuring of controlled access data that are so important for data aggregation; for example, [Streamlining Access to Controlled Data from NIH Data Repositories](#).

Dr. Gregurick and Council members commented on challenges related to common clinical data elements, the need for serious data harmonization research and community input toward streamlining data curation, and mitigating bias in dense and sparse data.

Council members pointed out the need for tools to assist grantees with development of data management plans, particularly those who lack data science expertise. Data from basic/basic research may be particularly difficult to standardize for sharing; a personalized bioinformatics genomic group could establish a format, orchestrate upload, and respond to data requests.

VI. Promoting Effective Mentorship

Dr. Stephen Korn, Director, Office of Training & Workforce Development (OTWD), NINDS

Dr. Korn presented an overview of NINDS mentorship activities, including NINDS National K12 institutional career development awards, the Landis Award for Outstanding Mentorship, and NINDS workshops on mentorship organized by the OTWD and the Office of Programs to Enhance Neuroscience Workforce Diversity (OPEN). Funding success rates for NINDS National K12 scholars are high, which Dr. Korn attributes to the program's emphasis on strong oversight, mentorship, and community building for both scholars and applicants.

Over the past 4 years, NINDS has supported 26 Landis Awardees in tenure-track or equivalent positions for their [dedication to superior mentorship and training](#) through a \$100,000 supplement to an R01 for the purpose of supporting additional mentorship and training.

T32 FOA mentorship requirements include a formal oversight plan to ensure outstanding mentorship, a plan for access to appropriate role models, and attendance at an annual workshop.

Dr. Korn described outcomes from a meeting focused on strategic planning for training, mentorship, diversity, equity, and inclusion. A priority request from trainees was for NIH to help students escape from toxic lab environments and mentors. He noted that NINDS has many activities in place designed to enhance mentorship of clinician and PhD trainees at different career stages; however, there is little to incentivize institutions to invest in better mentorship and protect trainees from poor mentorship or toxic mentorship situations.

Discussion

Council members suggested convening a council of deans and leaders of academic medical centers to discuss these concerns and provide their unique insights; circulating a compilation of best practices; and providing tools to help institutions uncover and measure mentorship quality. NINDS can play an active role in shifting mentorship from passive to active engagement and from a one-direction to a bidirectional structure with examples of institutional programs that address diversity and inclusion.

VII. HEAL InitiativeSM Update

Dr. Linda Porter, Director, Office of Pain Policy, NINDS

Dr. Porter provided an overview of the [HEAL Initiative](#) and how the Initiative has evolved. HEAL was established in an effort to balance opioid and pain management research toward addressing the national opioid crisis. HEAL joins the power of science—more than 500 research projects—with the power of community—collaborations across disciplines, communities, and care settings and partnerships with stakeholders.

HEAL research to enhance pain management includes preclinical research (e.g., discovery and validation of novel targets for safe and effective treatment, preclinical screening platforms) and translational research (e.g., device-based treatment). Accomplishments in these areas include patents for small-molecule modulators of pain; validation of a portable thermoelectric device to inhibit pain signals; and an Investigational New Drug (IND) for a first-in-class chronic pain treatment. Clinical research in pain management focuses on pain mitigation, reduced reliance on opioids, and improved quality of life. Accomplishments in this area include an iterative model to inform precision medicine for chronic low back pain, an FDA IND for use of buprenorphine for pain management, and COVID 19 adaptations.

Other HEAL accomplishments include harmonization of patient-reported pain outcomes data from all of the HEAL pain studies.

Dr. Porter described strategies for enhancing HEAL stakeholder engagement and diversity, including workshops; supplements to increase participant diversity, inclusion, and engagement

in clinical studies; and the HEAL Community Partner Committee that provides input from individuals affected by pain and/or opioid use disorder.

Dr. Porter presented five proposed HEAL-supported research concepts.

- 1. Coordinated Approaches to Pain Management in Health Care Systems** aims to address a gap in implementation of effective pain management strategies by bringing effective models of coordinated pain care into healthcare systems, with emphasis on populations with greatest need. *A Council member recommended incorporating practitioners in this concept.*
- 2. Advancing Health Equity in Pain and Comorbidities** aims to advance health equity and improve chronic pain management in underserved populations by developing and implementing evidence-based, tailored interventions to mitigate symptoms and improve health outcomes.
- 3. Advanced Postdoctoral-to-Independent Career Transition Award in Pain and Substance Use Disorder (SUD) Research** goals include targeted expansion and enhancement of diversity of the independent investigator workforce for pain and SUD.
- 4. Enhancing the Clinical Pain Research Workforce** aims to build collaboration across the spectrum of pain research; enhance a diminishing workforce by supporting expansion of an enduring, more diverse scientific workforce to perform high-quality clinical pain management research; and create an environment for early stage investigators to interact with one another, patients, and experienced researchers.
- 5. Translational Tools to Facilitate Clinical Trials for Pain Therapeutics and Treatment Decisions in Pain Management** aims to develop measures to facilitate Phase II clinical trials for pain therapeutics or improve treatment decisions in pain management.

Discussion

A motion was made, seconded, and carried to approve these concepts.

VIII. Update on the NINDS Intramural Research Program (IRP)

Dr. Nina Schor, Deputy Director, NINDS, and Acting Scientific Director, NINDS IRP

Dr. Schor provided an update on the NINDS IRP. Noting that Dr. Lorna Role stepped down from the position of NINDS Scientific Director in May 2021, she indicated that recruitment of the next Scientific Director is an IRP priority. Other IRP priorities include defining strategic objectives and priority programs; promotion and recruitment of faculty and staff in accordance with programmatic vision; and enhancement and collaborative leveraging of the diversity of intramural faculty and staff.

New NINDS IRP staff include Dr. Rebecca Gottesman, Chief, NINDS Stroke Branch; Dr. Meng-Meng Fu, a Stadtman Investigator; Dr. Desmond Brown, Surgical Neurology Branch; Dr. Mark Wagner, Basic Neurosciences Program; Dr. Irene Cortese, Basic Neurosciences Program; and Dr. Sara Inati, Electroencephalography Section Assistant Clinical Investigator.

Recent accomplishments of NINDS intramural team members were highlighted. Dr. Kareem Zaghoul was awarded tenure. Dr. Richard Youle won the American Academy of Arts and Sciences 2021 Breakthrough Prize. Dr. Avindra Nath was designated the 2021 Soriano Lecturer by the American Neurological Association. Dr. Antonina Roll-Mecak was a 2021 American

Academy of Neurology Frontiers in Neuroscience Lecturer. Dr. Zayd Khaliq will present his work in the 2021-22 NIH Director's Seminar Series. Dr. Koroshetz received the American Neurological Association Award for Excellence for Outstanding Contributions in a Senior Administrative Role.

New collaborative spaces at NIH include the [Center for Alzheimer's and Related Dementias](#) (CARD) and equipping, staffing, and optimizing the NIH Clinical Center to include children under the age of 3 years in its inpatient population.

Dr. Schor outlined workforce development activities and priorities. She commended members of the NINDS Return to the Physical Workplace Committee for their work and summarized statistics showing growth in publications and training during COVID.

Dr. Schor highlighted two programs: an NIA-NINDS collaboration to build a repository of isogenic-induced pluripotent stem cell lines and a study of post-acute sequelae of COVID-19.

Discussion

Council members commented on the proposed formation of affinity groups and inclusion of children in the post-acute sequelae of COVID study.

IX. Initiatives Requiring Concept Clearance (IRP)

1. Reissue: CDE/Monitoring/Data Archive Contract Recompetition

Carolina Mendoza-Puccini

2. Reissue: Stroke Preclinical Assessment Network (SPAN)

Francesca Bosetti

3. Reissue: BRAIN Initiative: Research Resources Grants for Technology Integration and Dissemination U24

Natalie Trzcinski

4. Reissue: Prospective Observational Comparative Effectiveness Research in Clinical Neurosciences

Adam Hartman

5. Reissue: Data Harmonization, Curation and Secondary Analysis of Existing Clinical Datasets

Christine Swanson-Fischer

6. Reissue: Small Vessel VCID Biomarker Validation Consortium Coordinating Center (U24)

Rod Corriveau

7. Reissue: Development of Biomarkers or Biomarker Signatures for Neurological & Neuromuscular Disorders

Carol Taylor-Burds

Council voted to approve reissue of the above initiatives (items 1–7).

8. Biomarkers and Outcome Measures for Functional Neurological Disorders

Codrin Lungu

The proposed concept would cover the spectrum of biomarker and clinical outcome assessment (COA) development, analytical validation, clinical validation, and clinical trial readiness.

Council voted to approve moving forward with this concept.

9. Identification of Clinical Outcome Assessments for Ultra-Rare Neurological and Neuromuscular Diseases

Jill Morris

The proposed concept would support natural history studies to identify and evaluate the utility of COAs that will be used to determine efficacy in clinical trials of candidate therapeutics for ultra-rare neurological and neuromuscular disease.

Council voted to approve moving forward with this concept.

10. NINDS Doctoral Readiness Program

Michelle Jones-London

The proposed concept is a pilot program for a well-structured, 2-year research experience at an institution with an outstanding graduate training environment and a peer network. The goal is to provide neuroscience research experience, neuroscience education, and skills development to research-oriented postbaccalaureate participants from diverse backgrounds.

Council voted to approve moving forward with this concept.

11. NeuroBioBank Communications and Outreach

Daniel Miller

The proposed concept is for a competitive contract to coordinate outreach across NeuroBioBank sites and develop strategies to raise public awareness and reach underserved and hard-to-enroll groups.

Council voted to approve moving forward with this concept.

X. Review of Conflict of Interest, Confidentiality, and Council Procedures; Council Consideration of Pending Applications

This portion of the meeting was closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2).

Conflict of Interest – Regulations concerning conflict of interest were reviewed. Council members were reminded that materials furnished for review purposes and discussion during the closed portions of the meeting are considered privileged information. All Council members present signed a statement certifying that they had not been involved in any conflict-of-interest situations during the review of grant applications.

Confidentiality – During the closed session, any information that is discussed and the outcome of any recommendation are considered privileged information. They may not be discussed outside of the closed session. If an applicant requests support for his or her application from a Council member, the Council member must respond that he/she is not permitted to discuss the application. Any inquiry should be referred to Dr. Robert Finkelstein, NINDS Advisory Council Executive Secretary, who then will refer the question to the appropriate staff member for response.

Research Training and Career Development Programs – The Council reviewed a total of 361 research career development and institutional training grant applications with primary assignment to NINDS, and 220 of them (61 percent) were scored in the amount of \$21.6 million

first-year direct costs. It is anticipated that, of the research career development and institutional training grant applications competing at this Council, NINDS will be able to pay first-year direct costs of approximately \$8.5 million (88 grants).

Research Project and Center Awards – The Council reviewed a total of 1,432 research project and center applications with primary assignment to NINDS, and 840 of them (59 percent) were scored/percentiled in the amount of \$313.3 million first-year direct costs. It is anticipated that, of the research grants competing at this Council, NINDS will be able to pay first-year direct costs of approximately \$75.5 million (254 grants).

Senator Jacob Javits Neuroscience Investigator Awards – The Senator Jacob Javits Neuroscience Investigator Awards are made to distinguished investigators who have a record of scientific excellence and productivity, who are actively pursuing an area of research of strategic importance, and who can be expected to continue to be highly productive for a seven-year period. Candidates are nominated and selected at each Council meeting. Council approved three Javits nominations at this meeting: Jonas, Elizabeth Ann, MD (Yale University), Dong, Xinzhong, Ph.D. (John Hopkins University), and Crino, Peter B. MD, Ph.D. (University of Maryland).

Small Business Innovation Research and Small Business Technology Transfer Award Programs – The Council reviewed a total of 163 Small Business Innovation Research (SBIR) and Small Technology Transfer Award (STTR) grant applications with primary assignment to NINDS, and 87 of them (53 percent) were scored in the amount of \$40.9 million first-year direct costs. It is anticipated that, of the SBIR and STTR applications competing at this Council, NINDS will be able to pay first-year direct costs of approximately \$7.9 million (15 grants).

XI. Adjournment

The meeting was adjourned at 6:00 p.m. on Friday, September 10, 2021.

NINDS employees present for portions of the meeting included:

Open Session:

Amy Adams
DeAnna Adkins
Ram Arudchandran
Taryn Aubrecht
Debra Babcock
Julia Bachman
Kelly Baker
Rebecca Baker
Linda Bambrick
Karen Barnes
Jennifer Beierlein
Patrick Bellgowan
Karrah Benson
Richard Benson
Rebecca Berman
Marci Bollt

Naomi Booker
Francesca Bosetti
Chris Boshoff
Giulia Bova
Ann-Marie Broome
Jeremy Brown
Ryan Calabrese
Emily Caporello
Stacey Chambers
Maria Charlier
Daofen Chen
Bo-Shiun Chen
Severn Churn
Robin Conwit
Janice Cordell
Roderick Corriveau

Devon Crawford
Diana Cummings
Charles Cywin
William Daley
Karen David
Sara Dauber
Sara Dodson
Argenia Doss
Neel Dhruv
Kristin Dupre
Debbie Eng
Judy Fabrikant
Christina Fang
Carlos Faraco
Cassie Fields
Jane Fountain
Megan Frankowski
Natalie Frazin
Shannon Garnett
Marjorie Garvey
Maryam Ghaleh
Paul Girolami
Marie Gill
Jordan Gladman
Jim Gnad
Kalynda Gonzales Stokes
Maureen Gormley
Jasmine Grady
Susan Gregurick
Brooks Gross
Amelie Gubitz
Mohamed Hachicha
Maureen Hambrecht
Adam Hartman
Brain Haugen
Tish Hevel
Jane Hettinger
David Higgins
Rebecca Hommer
Mir Ahamad Hossain
Nina Hsu
Eric Hudak
Xan Humphries
Smriti Iyengar
Lyn Jakeman
Scott Janis
Sophia Jeon

Dave Jett
Lataisia Jones
Michelle Jones-London
Barbara Karp
Brenda Kibler
Jenny Kim
Yasmin Kloth
Jim Koenig
Steve Korn
Walter Koroshetz
Kranthi Kotha
Sahana Kukke
Maria Fe Lanfranco
Nick Langhals
Crystal Lantz
Timothy LaVaute
Crystal Lee
Miriam Leenders
Catherine Levy
Erica Littlejohn
Cara Long
Rosa Lopez
Codrin Lungu
Ernie Lyons
Laura Mamounas
Heidi Matos
Marguerite Matthews
Amber McCartney
Linda McGavern
Barbara McMakin
Carolina Mendoza-Puccini
Daniel Miller
Stephanie Mitchell
DP Mohapatra
Karen Molina
Jill Morris
Cristina Nigro
John Ngai
Glen Nuckolls
Ana Olariu
Oreisa O'Neil-Mathurin
Michael Oshinsky
David Owens
Mary Ann Pellemounter
Marlene Peters-Lawrence
Erna Petrich
Yvette Pittman

Leah Pogorzala
Linda Porter
Kevin Powell
Pragya Prakash
Rebecca Price
Shamsi Raeissi
Shanta Rajaram
Khara Ramos
Ranga Rangarajan
Yogendra Raol
K. Paul Rezaizadeh
Robert Riddle
Becky Roof
Cheryse Sankar
Joel Saydoff
Alisa Schaefer
Nina Schor
Paul Scott
Beth-Anne Sieber
Shai Silberberg
Adissa Silue
Andrew Singh
Shardell Spriggs
Natalia Strunnikova
Abhi Subedi
Maripierre Surpris
Christine Swanson-Fischer

Brooke Sydnor
Amir Tamiz
Anna Taylor
Carol Taylor-Burds
Felecia Taylor
Michael Tennekoon
Christine Torborg
Delany Torres
Natalie Trzcinski
Eric Tucker
Alexander Tuttle
Lauren Ullrich
George Umanah
Ursula Utz
Joanna Vivalda
Cheryl Wall
Laura Wandner
Anne-Sophie Wattiez
Keith Whitaker
Matthew White
Samantha White
Vicky Whittemore
Sarah Woller
Ling Wong
May Wong
Clinton Wright
Ran Zhang

Other federal employees present for portions of the meeting included:

Jonathan Bennett, CIT
Rob Folsom, CIT
Saskia Hendriks, NIH OD

Closed Session:

Amy Adams
DeAnna Adkins
Ram Arudchandran
Kari Ashmont
Taryn Aubrecht
Debra Babcock
Julia Bachman
Kelly Baker
Rebecca Baker
Linda Bambrick

Karen Barnes
Jennifer Beierlein
Patrick Bellgowan
Richard Benson
Bill Benzing
Rebecca Berman
Marci Bollt
Naomi Booker
Francesca Bosetti
Chris Boshoff

Giulia Bova
Ann-Marie Broome
Jeremy Brown
Ryan Calabrese
Roger Campbell
Emily Caporello
Stacey Chambers
Chi Chang
Maria Charlier
Denise Chatman
Thomas Cheever
Daofen Chen
Bo-Shiun Chen
Severn Churn
Robin Conwit
Janice Cordell
Devon Crawford
Diana Cummings
Charles Cywin
William Daley
Karen David
Sara Dauber
Sara Dodson
Argenia Doss
Neel Dhruv
Kristin Dupre
Debbie Eng
Judy Fabrikant
Christina Fang
Carlos Faraco
Cassie Fields
Nhi Floyd
Jane Fountain
Megan Frankowski
Heidi Matos Galicia
Maryam Ghaleh
Marie Gill
Jordan Gladman
Jim Gnadt
Kalynda Gonzales Stokes
Jasmine Grady
Brooks Gross
Amelie Gubitz
Mohamed Hachicha
Maureen Hambrecht
Adam Hartman
Brandon Hartsell

Brain Haugen
Janet He
Jane Hettinger
Rebecca Hommer
Mir Ahamad Hossain
Nina Hsu
Eric Hudak
Xan Humphries
Smriti Iyengar
Lyn Jakeman
Scott Janis
Sophia Jeon
Dave Jett
Li Jia
Lataisia Jones
Michelle Jones-London
Barbara Karp
Brenda Kibler
Jenny Kim
Brian Klein
Jim Koenig
Walter Koroshetz
Sahana Kukke
Christine Lam
Maria Fe Lanfranco
Nick Langhals
Crystal Lantz
Timothy LaVaute
Crystal Lee
Miriam Leenders
Catherine Levy
Erica Littlejohn
Liza Litvina
Cara Long
Rosa Lopez
Codrin Lungu
Quynh Ly
Ernie Lyons
Laura Mamounas
Heidi Matos
Marguerite Matthews
Amber McCartney
Linda McGavern
Barbara McMakin
Carolina Mendoza-Puccini
Daniel Miller
Stephanie Mitchell

DP Mohapatra
Karen Molina
Jill Morris
Paul Myers
Cristina Nigro
Glen Nuckolls
Ana Olariu
Oreisa O'Neil-Mathurin
Michael Oshinsky
David Owens
Tatiana Pasternak
Mary Ann Pelleymounter
Marlene Peters-Lawrence
Erna Petrich
Leah Pogorzala
Pragya Prakash
Rebecca Price
Shamsi Raeissi
Shanta Rajaram
Khara Ramos
Ranga Rangarajan
Yogendra Raol
K. Paul Rezaizadeh
Robert Riddle
Sarah Robinson- Schwartz
Becky Roof
Joel Saydoff
Alisa Schaefer
Nina Schor
Paul Scott
Shalini Sharma
Kelly Sheppard
Beth-Anne Sieber

Shai Silberberg
Adissa Silue
Andrew Singh
Shardell Spriggs
Natalia Strunnikova
Abhi Subedi
Maripierre Surpris
Christine Swanson-Fischer
Brooke Sydnor
Edmund Talley
Amir Tamiz
Anna Taylor
Carol Taylor-Burds
Michael Tennekoon
Natalie Trzcinski
Eric Tucker
Alexander Tuttle
Lauren Ullrich
George Umanah
Nsini Umoh
Ursula Utz
Joanna Vivalda
Laura Wandner
Anne-Sophie Wattiez
Keith Whitaker
Samantha White
Vicky Whittemore
Sarah Woller
Ling Wong
May Wong
Clinton Wright
Ran Zhang

Other federal employees present for portions of the meeting included:

Houmam Araj, NEI
Cate Bennett, CSR
Peter Guthrie, CSR
Aleksey Kazantsev, CSR
Anna Mazzucco, NIH OD
Suzan Nadi, CSR
Sarah Robinson Schwartz, NIH OD
Elyse Schauwecker, CSR

We certify that, to the best of our knowledge, the foregoing minutes and attachments are accurate and complete.

12/14/2021

Date



Robert Finkelstein, Ph.D.
Executive Secretary
National Advisory Neurological Disorders
and Stroke Council

Director, Division of Extramural Activities
National Institute of Neurological Disorders
and Stroke

12/13/2021

Date



Walter Koroshetz, M.D.
Chairperson

and Stroke Council

Director
National Institute of Neurological Disorders
and Stroke

These minutes will be formally considered by the Council at its next meeting. Corrections or notations will be incorporated in the minutes of that meeting.