

**Department Of Health and Human Services
Public Health Service
National Institutes of Health
National Advisory Neurological Disorders and Stroke Council**

**Summary of Meeting¹
September 4-5, 2024**

The National Advisory Neurological Disorders and Stroke (NANDS) Council was convened for its 224th meeting on September 4-5, 2024, in person and via Zoom. 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 4, 2024: 10:00 a.m. to 4:00 p.m. for the review and discussion of program development, needs, and policy; and

Closed: September 5, 2024: 10:00 a.m. to 11:30 a.m. for the consideration of individual grant applications.

Councilmembers present: Dr. Amy Brin Dr. Robert Brown Jr. Dr. Yishi Jin Dr. Jane Larkindale Dr. Jin-Moo Lee Dr. John H.R. Maunsell Dr. Louise McCullough Dr. Hank Paulson Dr. Gina Poe Dr. Ekemini Riley Dr. Timothy Ryan	Ad Hoc Council Members: Dr. Sepideh Amin-Hanjani Dr. Graeme Davis Daniel Doctoroff Dr. Florian Eichler Jennifer French Dr. Robert Gereau Dr. Frances Jensen Dr. Amy McGuire Kate Nicholson Dr. Roy Sillitoe Ex officio members present: Dr. Christopher Bever, Jr. Dr. Terry Rauch
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Council Roster (Attachment 1)

NINDS employees and members of the public in attendance (Attachment 2)

The meeting was held at the Neuroscience Center and virtually via Zoom.

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.

OPEN PORTION OF THE MEETING

I. Call to Order and Opening Remarks

Dr. Koroshetz welcomed Council members, visitors, and staff to the 224th meeting of the National Advisory Neurological Disorders and Stroke (NANDS) Council and thanked three Council members, whose terms were ending, for attending this meeting while new Council members were being approved. He also introduced five new Ad Hoc Council members.

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

Dr. David Owens, Acting Director, Division of Extramural Activities, NINDS

- A. Approval of Council Minutes — Dr. Owens requested, and the Council voted to approve, the May 14-15, 2024 Council meeting minutes.
- B. The following future Council meeting dates were confirmed:
 - Wednesday and Thursday, February 12-13, 2025
 - Wednesday and Thursday, May 14-15, 2025
 - Wednesday and Thursday, September 3-4, 2025
 - Wednesday and Thursday, February 11-12, 2026
 - Wednesday and Thursday, May 20-21, 2026
 - Wednesday and Thursday, September 9-10, 2026

C. Other Items

Expedited Review Process — In advance of each Council meeting, a subset of Council members are asked to approve a certain number of grant applications. This expedited review process focuses on applications with scores within the payline for which there are no unresolved issues. During this Council round, there were 45 applications that were eligible to be expedited. Dr. Owens thanked Council members Dr. Yishi Jin, Dr. Jane Larkindale, and Dr. Jin-Moo Lee for their review of these applications.

Dr. Lyn Jakeman announced the retirement of two longstanding NINDS staff, Dr. Jim Koenig and Dr. Jim Gnadt.

Extramural Announcements — All extramural announcements were posted to the NINDS Electronic Council Book (ECB).

III. Report of the Director, NINDS

Dr. Walter Koroshetz, Director, NINDS

NIH and NINDS Leadership Changes — Dr. Koroshetz announced the [selection](#) of Dr. Carolyn M. Hutter as Director of the NIH Office of Strategic Coordination (OSC). The OSC manages the NIH Common Fund that supports several important NINDS programs such as [Acute to Chronic Pain Signatures](#) (A2CPS), [Accelerating Leading-edge Science in ALS](#) (ALS²), [Faculty Institutional Recruitment for Sustainable Transformation](#) (FIRST), [Somatic Cell Genome Editing](#) (SCGE), and [Stimulating Peripheral Activity to Relieve Conditions](#) (SPARC). Dr. Koroshetz highlighted two priorities of NIH Director, Dr. Monica Bertagnoli, which were [bringing research into community primary care settings](#) and [supporting NIH's Asian researchers](#). He also announced that Dr.

Annapurna Poduri was selected to [serve](#) as NINDS Deputy Director and Dr. Andrea Meredith was selected to serve as Director of the Division of Extramural Activities.

NINDS Budget — Dr. Koroshetz reviewed the overall NINDS appropriation budget. After seeing annual budget increases starting in 2016, there was a 4.4% decrease in 2024—largely due to a decrease in funding for the Brain Research Through Advancing Innovative Neurotechnologies® (BRAIN) Initiative. Fiscal year (FY) 2025 will begin on October 1, 2024, with three potential budget scenarios: 1) the President’s proposed budget would restore the BRAIN Initiative but would not increase the budget to NINDS base budget for regular grants, 2) the House mark also would not restore the BRAIN Initiative, and 3) the Senate mark would restore the BRAIN Initiative at a slightly higher level than the President’s proposed budget.

Dr. Koroshetz noted that NINDS would therefore likely be operating with a flat base budget in FY 2025 and may need to operate under a Continuing Resolution after the fiscal new year of October 1, 2024. Dr. Koroshetz reviewed budgets for the Helping to End Addiction Long-term (HEAL) Initiative, Alzheimer’s Disease and Related Dementias (AD/ADRD), and the Undiagnosed Disease Network (UDN), noting that the increased appropriation from \$4 million to \$18 million for UDN may end in FY 2025. Notably, the Senate FY 2025 mark would include a separate \$10 million for ALS research.

In total, NINDS manages approximately \$3 billion annually. Approximately two thirds comes to the NINDS’s base budget. Until a FY2025 budget is passed NINDS will set an interim payline of the 8th percentile. NINDS continues to prioritize vulnerable investigators and trainees to ensure the future of neuroscience research and research eliminate health disparities and inequities in neurologic conditions and care. Dr. Koroshetz noted that the cost of research has significantly increased due to inflation, which is the major factor in the inability to award as many grants as previous years. NINDS also increased administrative cuts to non-modular budgets to offset the increasing cost of grants. There are no administrative cuts to modular budgets, or training mechanisms.

Brain Research Through Advancing Innovative Neurotechnologies® (BRAIN) Initiative – Dr. Koroshetz highlighted a [study](#) published in the *New England Journal of Medicine*. The study aimed to record neural activity in a paralyzed individual with ALS who had a preserved Broca’s area. By recording the neural network in the Broca’s area, the research team could identify the phonemes for particular firing patterns. These phonemes were fed into a deep learning network to predict what the next phoneme would be. These were fed into an AI algorithm, to predict what next words would be. This provided the individual with a way to communicate conversationally through a computer installed with his pre-disease speech characteristics . The study was an important advance for helping people with ALS maintain their quality of life and place in society.

NINDS News – Dr. Koroshetz shared several news items across NINDS. In collaboration with NINDS and other Institutes and programs, the National Eye Institute (NEI) was developing a data sharing index, or [S-Index](#). The S-Index was analogous to the H-Index that quantified publication impact, but would reward exemplary data-sharers. The [Alzheimer’s Disease-Related Dementias Summit](#) will be held on March 2025. Dr. Pam Lein, who chaired the Neural Exposome Top Priorities—or NEXT—Working Group, will present their [Strategic Priority Setting Report](#) to Council. Dr. Robert Gereau and Dr. Kathleen Sluka were co-chairs for a planning committee to update HEAL Initiative Strategic Plan with priorities for pain research. NINDS brought together the American Headache Society and

the International Headache Society along with several patient advocacy groups to develop the [Headache research priorities](#). Twenty-five research priorities across eight categories were identified.

NINDS invests in global health research to study disorders that impact the nervous system, such as stroke and migraine, which are common and more easily studied in low and middle income countries (LMICs). NINDS Council is asked to convene a working group to advise the Institute on how best to leverage modest investments to improve neurologic health in LMIC.

He noted that the NINDS working group's strategic plan to eliminate health disparities in neurological disorders that resulted in a series of [10 articles](#) published in *Neurology*, and the Fundamental Neuroscience Working Group of Council that developed a [report of recommendations](#) and will hold a workshop in March 11-12, 2025. The [2024 NINDS Nonprofit Forum](#) provided an opportunity for nonprofit organizations, which often represent patients, to engage with NINDS staff. The [Genetic Strategies to Treat the Epilepsies Workshop](#) was held in June 2024 and brought together investigators interested in developing treatments.

IV. Discussion of Director's Report

Council members expressed appreciation for maintaining funding for training grants, emphasizing the importance of training as a cost-effective investment in the future of the research workforce. A Council member raised a concern about how to balance the limited budget to include preventive approaches, such as modifiable risk factors for Alzheimer's disease. Dr. Koroshetz responded that behavior change was a critical factor for preventive approaches. The SPRINT trial was a previous behavior change effort that showed promise in lowering the risk of cognitive impairment through aggressive blood pressure management. One approach may be to fund research that shows how preventive approaches make a difference.

Another Council member asked whether administrative budget cuts might contribute to inflated grant proposals, as applicants might anticipate the reductions and inflate their budgets accordingly. Council members discussed whether the current modular budget was realistic given the rising costs of research and inflation.

Council members were concerned about the decreasing success rates for early-stage investigators. A Council member proposed a funding cap for investigators who receive more than \$1.5 million annually to allow more funds to flow to early-stage investigators. Another Council member cautioned that this might negatively impact large labs that play a significant role in mentoring and training these next generation of researchers. A Council member suggested providing indirect support to these large labs through an incentive or enhanced training grants to protect the mentorship capacity of the lab. Dr. Koroshetz noted the NINDS split-payline policy currently requires a better than 4%-tile score to fund projects from investigators with greater than 1.5million total NIH funds.

A Council member highlighted the growing complexity of the research funding landscape, noting that private foundations and other federal agencies had become significant funders for neuroscience research. The Council member asked whether any analysis had been conducted to assess the overall funding ecosystem for neuroscience. Dr. Koroshetz said that while no formal

analysis had been conducted, NIH remained the primary source of research funding for most investigators. Despite recent budget concerns, neuroscience funding at NINDS had doubled since he became Director. Collaboration with other funding agencies was still essential for advancing the science.

V. AD/ADRD Review

Dr. Amber McCartney; Scientific Project Manager; Neurodegeneration, Dementia, and Repeat Expansion Disorders

Dr. Frank Shewmaker; Program Director; Neurodegeneration, Dementia, and Repeat Expansion Disorders

Dr. Shewmaker talked about the [National Plan to Address Alzheimer's Disease](#), which was first developed in 2012 after Congress signed the National Alzheimer's Project Act into law. The National Plan is updated every year with the state of science on AD/ADRD and goals aimed to address gaps and opportunities. NINDS and the National Institute on Aging (NIA) work together to advance research that bridges the gaps outlined in the National Plan. Between Congressional appropriations for AD/ADRD and NINDS base funds, more than \$440 million was awarded in FY 2023 for AD/ADRD research.

Every three years, NINDS holds an [ADRD Summit](#) that defines the research priorities and recommendations to be integrated into the National Plan. The 2022 ADRD Summit Report outlined a number of research priorities, such as health equity in diagnosis and treatment and the identification of biomarkers. Dr. Shewmaker highlighted several NINDS-funded initiatives that support these priorities. For instance, [DetectCID](#) is a research consortium focused on the equitable detection of cognitive impairment. One of the outcomes of DetectCID is the [5-Cog Battery](#)—a rapid assessment tool that uses symbols and pictures to help overcome linguistic, cultural, and health literacy barriers. NINDS also funded a number of biomarker development studies that have advanced the field. For example, phosphorylated tau (p-tau) 17, p-tau 17 to unphosphorylated tau ratios, p-tau 181, and TDP-43 have been useful biomarkers to help stratify patients for both research and treatment.

Dr. McCartney provided more detail about the ADRD Summit. Summit topics may be overarching, such as health equity or nomenclature, or disease-specific. The 2022 ADRD Summit also included a session on the impact of COVID-19 on AD/ADRD. The ADRD Summit is held over approximately seven months and brings together a number of committees that re-evaluate previous milestones and draft new research recommendations. These recommendations are then presented to the public and become part of the next iteration of the National Plan. The recommendations form the basis the national research priorities that drive research activities and budgets. The [next ADRD Summit](#) will be held on March 25-26, 2025 and will be chaired by Dr. Catherine Possin, a leader in the DetectCID initiative. Dr. McCartney briefly reviewed a number of NINDS [funding opportunities](#) related to AD/ADRD and highlighted [NINDS Focus on Alzheimer's Disease and Related Dementias](#) webpage and [listserv](#).

Discussion

Council members lauded NINDS for the advances in biomarker development and the potential for biomarkers to provide early precision diagnoses. Council members noted that some of the advances were conducted by early stage investigators, underscoring the importance of bringing young researchers into the field. A Council member asked about the exclusion of Parkinson's disease, given the comorbidity with ADRD. Dr. Shewmaker noted that the exclusion was in the language of the National Plan but that Parkinson's disease research related to cognitive impairment & dementia (VCID) mechanisms are funded through the AD/ADRD program.

VI. Making Gene Therapy Affordable

Dr. Fyodor Urnov, Professor of Molecular Therapeutics and Director for Technology and Translation, Innovative Genomics Institute

Dr. Urnov reviewed a [roadmap](#) for making gene therapy more affordable and accessible, focusing on the potential of CRISPR gene editing for neurogenetic diseases. Despite significant advances in the field—such as FDA approval of Casgevy for sickle cell disease—many patients with rare genetic mutations are left without viable treatments. This gap is not due to technical limitations but rather to logistical and commercial challenges, such as high costs and long development timelines that make individualized treatment approaches impractical.

Dr. Urnov outlined six interrelated components essential for overcoming these barriers and advancing CRISPR therapies: 1) public sector efforts, 2) public-private partnerships, 3) an expanded toolbox of editing technologies, 4) improved delivery methods, 5) a robust clinical track record, and 6) novel paths to licensure and approval. He highlighted the NINDS-led Somatic Cell Genome Editing Consortium—an initiative to pioneer platform approaches to bring CRISPR therapies to the clinic. For example, his team worked on excising pathogenic repeats in genes responsible for Huntington's disease and c9orf72-related amyotrophic lateral sclerosis (ALS) using CRISPR Cas9. Other efforts included a study using a base editing technology to correct mutations in the SMN1 gene for spinal muscular atrophy (SMA), and a study using epigenome editing to silence the PRNP gene implicated in prion diseases.

Advances in delivery methods have enhanced the potential of these therapies. For example, non-viral delivery methods such as lipid nanoparticles have shown promise in the delivery of gene-editing components. Intellia Therapeutics has had success in using lipid nanoparticles to treat transthyretin amyloidosis—achieving 93% knockout of the target gene and providing the ability to re-dose patients. Research has also advanced the ability of lipid nanoparticles to deliver therapies directly to the brain through adeno-associated virus (AAV) vectors that can cross the blood-brain barrier.

Dr. Urnov offered actionable steps to make gene therapies more affordable and accessible. First, he advocated for the development of a “CRISPR cures cookbook” for neurogenetic diseases, which would be a regulatory framework that streamlined approval processes. He also emphasized the need for formal collaboration between NINDS and the FDA's Center for Biologics Evaluation and Research to facilitate rapid feedback and harmonize regulatory approaches across programs. He

highlighted the importance of public-private partnerships, such as the collaboration with the Danaher Corporation to develop scalable, cost-effective manufacturing processes. Through the integration of scientific innovation and regulatory and economic strategies, gene therapies could become affordable and accessible to all patients.

Discussion

Council members discussed the challenges and opportunities involved in advancing CRISPR gene therapies. A Council member compared off-target effects in small molecule development to those in CRISPR therapies, questioning the impact on “bucketing” treatments and off-target effects. Dr. Urnov explained that while off-target effects were a consideration, advances in CRISPR allowed for automated design and optimization that could mitigate those concerns. Another Council member talked about the complexity of establishing public benefit corporations across different states. Dr. Urnov acknowledged that there were state-by-state variations that impact the accessibility of gene therapies. He emphasized the need to reduce manufacturing costs and develop regulatory frameworks that allow for affordable individualized treatments. For instance, aiming for a \$100,000 to \$200,000 price point would be economically viable and sustainable.

Council members expressed concerns about delivery challenges, immune responses, and the importance of lessons learned from previous setbacks in gene therapy. A Council member emphasized the need to standardize immune assays and understand the biological impacts of gene function modulation, particularly because reducing or altering gene expression in the brain could result in long-term unintended effects. Dr. Urnov agreed that delivery was a significant obstacle and suggested that incremental advances and innovation from different areas of the field could address this. He highlighted the importance of cautious, step-by-step progress and using lessons learned from other CRISPR therapies.

Council members also talked about intellectual property challenges. A Council member expressed concern that proprietary technology developed by the private sector might slow progress but that knowledge sharing across the private sector and academic institutions may help. Dr. Koroshetz highlighted the need for universities to adjust their intellectual property policies to relinquish some control to reduce costs and increase access. Dr. Urnov concurred and noted that this was an important opportunity for institutions to balance their interests with public benefit. Federal leadership could facilitate this and help harmonize the different organizational goals.

VII. NANDS Council Working Group Report on Neural Exposome Priorities

Dr. David Jett, Director, Office of Neural Exposome & Toxicology

Dr. Pamela Lein, Chair, Neural Exposome Working Group and Professor of Neurotoxicology, UC Davis School of Veterinary Medicine

Dr. Jett provided an overview of the [Office of Neural Exposome & Toxicology](#) (ONETOX) and its efforts to advance research on a range of non-inheritable environmental factors affecting neurological health. The office aims to foster science that reduces the burden of neurological illness by studying exogenous factors such as environmental toxicants, light, and noise; endogenous factors such as genes, epigenetics, and the microbiome; and behavioral factors such as sleep and stress. A request for information on (RFI) [Interdisciplinary Research Opportunities that Bridge](#)

[Neuroscience and Environmental Health Science](#) was published in 2022 and an RFI [Soliciting Input on Draft Strategic Priorities for Neural Exposome Research](#) was published July 2024. Dr. Jett provided an overview of the new strategic plan developed by a working group that is presenting its report to Council. The strategic plan will also have an implementation plan that will be completed in 2025.

Dr. Lein presented on behalf of the working group developing the strategic plan. She noted that the working group adopted definitions from a recent consensus conference as a foundation for their discussion. The *exposome* is the integrated compilation of all physical, chemical, biological, and psychosocial influences that impact biology. *Exposomics* is the field studying these comprehensive and cumulative effects by integrating data from interdisciplinary methods to enable discovery-based analyses of environmental influences on health.

Dr. Lein noted that many neurological diseases result from complex interactions between genetic susceptibility and environmental exposure. Despite advances in genetic research, few neurological diseases have shown heritability, suggesting that the identification of environmental factors—which had more potential for modification than genetic factors—could potentially reduce the burden of neurological disease. To guide the development of their recommendations, the working group identified three key focus areas: 1) the identification of exposomic factors, including those that increase disease risk or enhance resiliency, 2) the mechanisms of influence, including how exposomic factors interact with each other and the genome, and 3) life stage sensitivity and cumulative risk to identify specific risk factors across life stages.

The working group outlined six priority areas for NINDS to consider:

(1) Identify exposomic factors that influence neurological health; (2) Conduct fundamental mechanistic research to determine how these factors influence neurological health; (3) Evaluate exposomic factors in human/population research studies; (4) Create a multi-disciplinary pool of investigators to assess the neural exposome; (5) Develop resources and tools to assess the neural exposome; and (6) Foster collaborations and partnerships to accelerate and amplify exposomic research.

Dr. Lein summarized that there was exciting potential for exposomics to improve neurological health. She stressed the importance of leveraging successes and lessons learned from other efforts such as the Human Genome Project, updating NINDS's mission to reflect a commitment to research on the environmental influences on brain health, and promoting strategic collaboration to educate stakeholders and foster a broader understanding of the field.

Discussion

Council members expressed strong support for the neuroexposomics initiative. A Council member emphasized the importance of studying combined environmental exposures rather than individual factors, highlighting the importance of leveraging tools such as community engagement and artificial intelligence to assess the impact of multiple stressors.

Another Council member discussed the value of leveraging existing multidisciplinary studies and integrating neurological measures into ongoing research of other organisms.

Dr. Lein added that emerging technologies, such as high-resolution geospatial mapping and analyses of biological samples such as tooth enamel, could offer new ways to reconstruct individual-level environmental exposures over time. She also noted advances in epigenetic research across the lifespan as an opportunity for future research in exposures. Council members underscored the importance of prevention as a key outcome of exposome research, noting that a better understanding and mitigation of environmental risk could significantly reduce the costs and burden of neurological diseases.

The Council voted to approve and accept the Working Group Report on Neural Exposome Priorities.

VIII. Global Health Plan Working Group Update

Dr. Richard Benson, Director, Office of Global Health and Health Disparities

Dr. Benson provided a brief update on the Office of Global Health and Health Disparities (OGHHD) activities and strategic planning efforts. Neurological conditions are the leading cause of disease burden worldwide, affecting approximately 3.4 billion people or 43% of the global population. Most cases of neurological conditions occur in low- and middle-income countries (LMICs). The primary goal of the OGHHD is to build sustainable research capacity across LMICs through investments in the research and training needed to address public health challenges associated with neurological disorders.

Dr. Sudha Srinivasan and Ms. Stacey Chambers lead the OGHHD and are spearheading the development of a new global health strategic plan. The OGHHD issued a Request for Information (RFI) in May 2024, receiving more than 130 responses from both domestic and international individuals and organizations. The Office conducted a portfolio analysis of research funding in this area and is in the process of forming a working group to guide the strategic planning process. This strategic priority setting effort will leverage external input including a Request for Information for public input and a 2025 workshop.

Discussion

A Council member noted the absence of traumatic brain injury and neurotrauma in the list of neurological conditions impacting LMICs, despite the World Health Organization identifying them as critical issues in those countries. Dr. Benson acknowledged that while they were not specifically listed, NINDS funded several projects in this area. He also emphasized that lessons learned from LMICs could inform domestic strategies to improve access.

A Council member talked about human migration and the refugee crisis, highlighting that vulnerable populations might be particularly affected by neurological diseases. Dr. Benson noted that the average age of some LMIC populations was often in the 20s, which implied that neurological disease could be related to exposures and needed to be addressed earlier. Migration to the United States could create a large burden of neurological disease. It was therefore critical to address these diseases early to prevent long-term impacts on healthcare systems.

IX. Initiatives for Concept Clearance

Dr. David Owens, Acting Director, Division of Extramural Activities, NINDS

Two new concepts were presented.

Concept 1: New—Exploratory/Developmental Studies of Guillain-Barré Syndrome and Chronic Inflammatory Demyelinating Polyneuropathy. *Lead: Dr. Glen Nuckolls, Program Director, Division of Neuroscience, Neurogenetics Cluster*

The purpose of the concept was to accelerate progress towards understanding and treating Guillain-Barré Syndrome (GBS) and Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) by encouraging investigators with experience from other relevant fields to focus on these two diseases. Topics under this concept could include studies of the mechanisms underlying demyelination and axon damage, better model systems, biomarkers, and new therapeutics or new strategies to improve current therapeutics. The concept is aimed at exploratory and developmental studies, but not large cohort or clinical trials. It was noted that this concept was funded by a donor with the condition that the focus be on GBS.

Discussion

A Council member asked whether there could be a small scale clinical trial. Dr. Nuckolls answered that NINDS does fund exploratory clinical trials, and that the aim of the concept was to jumpstart areas of research for other funding opportunities in the future.

Concept 2: Reissue for Limited Competition—NIH Neuroscience Doctoral Readiness Program. *Lead: Dr. Marguerite Matthews, Chief, Career Preparation Section, Office of Programs to Enhance the Neuroscience Workforce*

This reissue concept is intended to successfully transition trainees into vetted research-focused neuroscience doctoral programs through a T32 mechanism. Specifically, the initiative focused on trainees from institutions that did not offer substantial research experiences or doctoral-level opportunities. The initiative would provide a two-year experience to help trainees become competitive and act as a bridge between undergraduate and graduate programs. Dr. Matthews provided an overview of the first issue's initial successes.

Discussion

A Council member asked about the rationale behind the limited competition. Dr. Matthews said that it was a pilot program with some risk because it was investing in trainees without previous research experience. It was therefore important to ensure the program offered everything the trainees needed to successfully transition into a graduate program before expanding it. The Council member asked whether a transition to medical school would be considered a success or failure. Dr. Matthews indicated it is important to screen students for their interests but that they would help students transition out of the program if they changed their goals. Council members offered suggestions such as ensuring the program provided a graduate school-like experience to help the trainees understand what they were working toward, expanding the program to more students, vetting the selected institutions to ensure they did lack the necessary resources for graduate school transition, and including a summer research program to provide the students with experience before their junior or senior year. Dr. Matthews relayed ways in which the program could or had already started incorporating these ideas.

Additional Concepts:

3. New Limited Competition: Renewal of Existing NINDS-Supported Clinical Trial Cooperative Agreement Awards (U01, Clinical Trials Allowed). *Lead: Scott*
4. Reissue Career Transition Award for NINDS Intramural Clinician-Scientists (K22; Clinical Required and Clinical Trial Not Allowed). *Lead: Rezaizadeh*
5. Reissue Amyotrophic Lateral Sclerosis (ALS) Intermediate Patient Population Expanded Access (U01 Clinical Trial Required) *Lead: Tsou*
6. Reissue NeuroNEXT Small Business Innovation in Clinical Trials (U44 Clinical Trial Optional). *Lead: Cho*
7. Reissue Competing Revisions to Applications Awarded Under RFA-RM-22-015 to Allow Clinical Trials for the Somatic Cell Genome Editing (SCGE) Program. *Lead: Rezaizadeh*
8. Reissue Clinical Trial Readiness for Rare Neurological and Neuromuscular Diseases (U01 Clinical Trial Not Allowed). *Lead: Nuckolls*
9. Reissue BRAIN Initiative Connectivity Across Scales (BRAIN CONNECTS): Specialized Projects for Scalable Technologies (U01 Clinical Trial Not Allowed) *Lead: Talley*

The Council voted to approve proposed concepts 3–9.

IX. Adjournment

The open session of meeting was adjourned at 4:00 p.m. on Wednesday, September 4, 2024.

CLOSED PORTION OF THE MEETING

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

This portion of the meeting was closed to the public in accordance with the determination that it was concerned with matters exempt from mandatory disclosure under sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., and section 1009(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. §§ 1001-1014).

Members absented themselves from the meeting during discussion of and voting on applications from their own institutions, or other applications in which there was a potential conflict of interest, real or apparent.

Conflict of Interest – Regulations concerning conflict of interest were reviewed. Councilmembers were reminded that materials furnished for review purposes and discussion during the closed portions of the meeting are considered privileged information. All Councilmembers 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 Councilmember, the Councilmember must respond that he/she is not permitted to discuss the application. Any inquiry should be referred to Dr. David Owens, Acting 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 362 research career development and institutional training grant applications with primary assignment to NINDS, and 224 of them (62 percent) were scored in the amount of \$16.7 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 \$5.7 million (61 grants).

Research Project and Center Awards – The Council reviewed a total of 1,697 research project and center applications with primary assignment to NINDS, and 984 of them (58 percent) were scored/percentiled in the amount of \$448.1 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 \$65.5 million (175 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: Michael A. Moskowitz, M.D. (Massachusetts General Hospital), Mathias Nahrendorf, M.D., Ph.D. (Massachusetts General Hospital) and Christopher A. Walsh, M.D., Ph.D. (Boston Children's Hospital).

Small Business Innovation Research and Small Business Technology Transfer Award Programs – The Council reviewed a total of 221 Small Business Innovation Research (SBIR) and Small Technology Transfer Award (STTR) grant applications with primary assignment to NINDS, and 125 of them (57 percent) were scored in the amount of \$67.0 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 \$6.1 million (10 grants).

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

Board of Scientific Counselors Report

Dr. Jeffrey Diamond, Scientific Director, NINDS Intramural Research Program

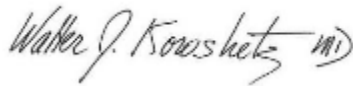
XI. Adjournment

The meeting was adjourned at 11:30 a.m. on Thursday, September 5, 2024.

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



David Owens, Ph.D.
Acting Executive Secretary
National Advisory Neurological Disorders and Stroke Council
Director, Division of Extramural Activities
National Institute of Neurological Disorders and Stroke



Walter Koroshetz, M.D.
Chairperson
National Advisory Neurological Disorders 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.

**National Advisory Neurological Disorders and Stroke Council
Roster for Fall 2024 Council Meeting
September 4-5, 2024**

Walter J. Koroshetz, M.D. (Chairperson)
Director, National Institute of Neurological
Disorders and Stroke
National Institutes of Health
Bethesda, MD 20892
(Ex Officio member)

Louise D. McCullough, M.D., Ph.D. (2025)
Professor and Chair, Department of Neurology
McGovern Medical School
University of Texas Health Science Center at
Houston
Houston, TX 77030

Amy E. Brin, MSN, MA, PCNS-BC (2025)
Executive Director/CEO
Child Neurology Foundation
Lexington, KY 40508

Henry L. Paulson, M.D., Ph.D. (2026)
Lucile Groff Professor of Neurology
Department of Neurology
University of Michigan
Ann Arbor, MI 48109

Robert H. Brown, Jr., M.D., D.Phil. (2025)
Director Program in Neurotherapeutics
University of Massachusetts Chan Medical School
Worcester, MA 01655

Gina R. Poe, Ph.D.* (2024)
Professor
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University of California, Los Angeles
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Yishi Jin, Ph.D. (2026)
Distinguished Professor
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Managing Director
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Professor, Department of Biomedical Engineering
Professor, Division of Biology and Biomedical Sciences
Washington University School of Medicine
St. Louis, MO 63110

Terms end July 31 of the designated year.
*Serving on an administrative extension to participate
in the Fall 2024 Council Meeting

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(Health Affairs)
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Falls Church, VA 22042

Executive Secretary

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**National Advisory Neurological Disorders and Stroke (NANDS) Council
September 4-5, 2024, Meeting
Attachment 2**

NINDS employees present for portions of the meeting included:

Sid Abeywickrama	Devon Crawford	Mariah Hoyer
Amy Adams	Cheryl Cudzilo	Grace Hwang
Deanna Adkins	Charles Cywin	Lyn Jakeman
Mariam Afzal	William Daley	Lawrence Janis
Mir Ahamed	Sara Dauber	Li Jia
Laureni Ajayi-Obe	Michele Dean	Kevin Jones
Tamara Allard	Alexander Denker	Michelle Jones-London
Ram Arudchandran	Vedangi Desai	Senthil Karuppa Gounder
Herson Astacio	Neel Dhruv	Shanmugam
Eric Atkinson	Jeff Diamond	Cory Kelly
Taryn Aubrecht	Alicia Diggs	Jenny Kim
Hibah Awwad	Damon Disabato	Jim Koenig
Debra Babcock	Dana Disenza	Carol Kong
Julia Bachman	Sara Dodson	Svetlana Kotliarova
Farah Bader	Anthony Domenichiello	Lauren Laboissonniere
Linda Bambrick	Jianxun Dong	Christine Lam
Elena Barnaeva	Adele Doperalski	Nick Langhals
Sai Basireddy	Jaclyn Durkin	Chelsea Lanson
Andrea Beckel-Mitchener	Debbie Eng	Crystal Lantz
Patrick Bellgowan	Alexandra Fang	Katrina Le
Janna Belser-Ehrlich	Carlos Faraco	Janelle Letzen
Richard Benson	Nicole Farhat	Nina Lichtenberg
Naomi Booker	Robin Felder	Cara Long
Francesca Bosetti	Jessica Forbes	Rosa Lopez
Chris Boshoff	Jane Fountain	Dan Lowenstein
Giulia Bova	Megan Frankowski	Quynh Ly
Steve Britt	Lauren Friedman	Timothy Lyden
Jeremy Brown	Lina Garcia	Dina Lyon
Erin Bryant	Annette Gilchrist	Ernie Lyons
Roger Campbell	Marie Gill	Laura Mamounas
Jose Cedeno	Fana Goitom	Heidi Matos
Chi Chang	Tom Greenwell	Sade Matthews-Fitch
Thomas Cheever	Amelie Gubitzi	Jessica Mazerik
Andrew Chen	Mohamed Hachicha	Amber McCartney
Bo-Shiun Chen	Adam Hartman	Linda McGavern
Liyun Chen	Brandon Hartsell	Barbara McMakin
Maria Chiuchiolo	Ali Hassani	Carolina Mendoza-Puccini
Sophie Cho	Nora Hathan	Andrea Meredith
Severn Churn	Brian Haugen	Mirela Milesescu
Carolyn Conlin	Janet He	Pantea Moghimi
Christopher Conrad	Sandra Hewett	DP Mohapatra
Rebekah Corlew	Lanier Heyburn	Joseph Monaco
Yolanda Cotten	Rebecca Hommer	Diana Morales

Jill Morris
Michael Obodozie
Joan Ohayon
Ana Olariu
Leslie Osborne
Michael Oshinsky
Jennifer Panlilio
Marcy Pape
Tatiana Patsrenak
Leah Pogorzala
Jim Pomonis
Linda Porter
Pragya Prakash
Michele Pucak
Sangeetha Pulicherla
CJ Puttaswamy
Shamsi Raeissi
Shanta Rajaram
Srikanth Ranganathan
Yogendra Raol
Sridhar Ravva
Kavon Rezaizadeh
Matthew Rice
Robert Riddle
Sarah Robinson
Xing Rong
Becky Roof
Main Room

Rashid Salehov
Sara Sameni
Joshua Sanchez
Lumy Sawaki-Adams
Joel Saydoff
Iqbal Sayeed
Alisa Schaefer
Gretchen Scott
Paul Scott
Nilkantha Sen
Surojeet Sengupta
Mengge Shan
Shalini Sharma
Kelly Sheppard
Frank Shewmaker
Arvind Shukla
Beth-Anne Sieber
Shai Silberberg
Adissa Silue
Maryann Sofranko
Shardell Spriggs
Sudha Srinivasan
Rukmareddy Sripathi
Harish Sriperambudur
Natalia Strunnikova
Abhi Subedi
Tao Sun
Christine Swanson-Fischer

Elizabeth Sypek
Thomas Taetzsch
Amir Tamiz
James Taylor
Carol Taylor-Burds
Michael Tennekoon
Pradeep Thapaliya
Shruthi Thomas
Amy Tsou
Eric Tucker
William Tyler
Lauren Ullrich
George Umanah
Nsini Umoh
Oleksandr Vedmid
Claudio Villalobos
Rachel Weinberg
Elyse White
Matthew White
Vicky Whittemore
Shellie Wilburn
Nasim Winchester
Sarah Woller
Ling Wong
Clinton Wright
Patrick Wright
Guangying Wu
Xiling Yin