

NATIONAL DEAFNESS AND OTHER COMMUNICATION DISORDERS

ADVISORY COUNCIL

January 27 & 28, 2022

National Institutes of Health

Bethesda, Maryland

MINUTES

The National Deafness and Other Communication Disorders Advisory Council (NDCDAC) convened on January 27 & January 28, 2022, via videoconference at the National Institutes of Health (NIH) in Bethesda, MD. Dr. Debara L. Tucci, Director, National Institute on Deafness and Other Communication Disorders (NIDCD), served as Chairperson. In accordance with Public Law 92-463, the meeting was:

Closed: January 27, 2022, 10:00 a.m. to 12:00 p.m. for review of individual grant applications; and

Open: January 27, 2022, 1:00 p.m. to 4:00 p.m. and January 28, 2022, from 10:00 a.m. to 12:02 p.m., for the review and discussion of program development needs and policy.

Council members in attendance¹:

Dr. Emily Buss	Dr. Argye Hillis
Dr. Laurel Carney	Dr. Robert Hillman
Dr. Nirupa Chaudhari	Ms. Barbara Kelley
Ms. Vicki Deal-Williams	Dr. Anil Lalwani
Dr. Ruth Anne Eatock	Dr. Cynthia Morton
Mr. Richard Einhorn	Ms. Lynne Murphy Breen
Dr. Carol Espy-Wilson	Dr. Dan Sanes
Dr. Lisa Goffman	Dr. Ben Strowbridge
Dr. Andy Groves	Dr. Margaret Wallhagen

Council Members Absent:

None

Ex-Officio Council Members in attendance:

Ms. Christa Themann (CDC)
Dr. Jeremy Nelson (DOD)
Dr. Judy Schafer for Dr. Lucille Beck (VA)

The complete Council roster can be found in Appendix 1.

NIDCD staff and other NIH staff in attendance list can be found in Appendix 3.

¹ For 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. This procedure applies only to individual discussion of an application and not to "en bloc" actions.

CLOSED SESSION January 27, 2022

Call to Order and Opening Remarks..... Dr. Debara L. Tucci

The meeting was called to order by Dr. Tucci, Director, NIDCD, who expressed appreciation to the entire Council for their service and advice.

Council Procedures..... Dr. Rebecca Wagenaar-Miller

Procedural Matters

Dr. Wagenaar-Miller discussed important procedural matters, including requirements imposed by the Government in the Sunshine Act and the Federal Advisory Committee Act. The necessity of members to avoid any conflict of interest and even any appearance of a conflict was stressed, as was the need to maintain confidentiality concerning the proceedings and materials related to the closed portion of the meeting. Dr. Wagenaar-Miller announced that the Council meeting would be closed for consideration of grant applications during the morning session and would be open to the public at approximately 1:00 p.m. via Videocast.

Council Consideration of Pending Applications Dr. Judith Cooper and Staff

Research Project Grant Awards

Consideration of Applications: On the Council's agenda was a total of 120 investigator-initiated R01 grant applications; 99 applications had primary assignment to NIDCD, in the amount of \$38.9 million first-year direct costs. It is anticipated that, of the applications competing at this Council, NIDCD will be able to award grants to R01 applications scoring up through the 13th percentile.

Special Program Actions

1. NIH Mentored Clinical Scientist Research Career Development Award (K01): The Council voted to support of two applications.
2. NIH Mentored Patient-Oriented Research Career Development Award (K23): The Council voted to support of two applications.
3. NIH Pathway to Independence Award (K99): The Council voted to support of one application.
4. NIH Ruth L. Kirschstein National Research Service Award (NRSA) Institutional research Training Grant (T32): The Council voted to support of the top five applications.
5. NIDCD's Mentored Research Pathway for Otolaryngology Residents and Medical Students (RFA-DC-20-002) (R25 Clinical Trial Not Allowed): The Council voted to support of the top two applications.
6. NIH Support for Conferences and Scientific Meetings (R13): The Council voted to support of two applications.
7. NIH Research Enhancement Award (R15): The Council voted to support of one application.
8. NIH Exploratory/Development Research Grant Award (R21): The Council voted to support of seven applications.
9. NIDCD Early Career Research (ECR) Award (R21): The Council voted to support of eight applications.
10. NIDCD Clinical Research Center Award (P50): The Council voted to support of one application.
11. NIH Small Business Technology Transfer Grant (STTR): The Council voted to support of two Phase I (R41) applications.
12. NIH Small Business Innovation Research Awards (SBIR): The Council voted to support of two Phase I (R43) applications.
13. NIH Small Business Innovation Research Awards (SBIR): The Council voted to support of one Phase II (R44) application.

14. NIDCD Hearing Healthcare for Adults: Improving Access and Affordability (RFA-DC-19-001) (R21/R33): The Council voted to support of one application.
15. NIMHD Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities (RFA-MD-21-004) (R01): The Council voted to support of one application.

OPEN SESSION – January 27, 2022

Opening Remarks Dr. Tucci

Dr. Tucci welcomed additional staff and visitors to the open session of the meeting which was available to the public from the NIH Videocast website. (<https://videocast.nih.gov/watch=44446>)

Council Introduction

Dr. Tucci invited each council member to introduce themselves to begin the meeting.

Consideration of Minutes of the Meeting of September 9 & 10, 2021

Dr. Tucci called the members' attention to the minutes of the September 9 & 10, 2021 meeting of the NIDCDAC. The minutes were approved as written.

Confirmation of Dates for Future Council Meetings

Dates for the Council meetings through September 2023 have been established. A list of these meetings was distributed to the Council members and posted on the NIDCD website prior to this meeting. The next meeting of the Council is scheduled for Thursday May 19, 2022, and Friday, May 20, 2022.

[Executive Secretary Note: The May 2022 council meeting will be virtual and held on Thursday, May 19, 2022, and Friday May 20, 2022. Check the NIDCD Council website for meeting specifics.]

NIDCD Director's Report Dr. Tucci

Dr. Tucci thanked Dr. Francis Collins and recognized his 12 years of service as director of the NIH. One highlight of Dr. Collins service is that he is the only presidentially appointed NIH Director to serve more than one administration – first appointed by President Barack Obama, and then serving the following administrations of both President Donald Trump and President Joe Biden. Dr. Tucci shared that NIH held a virtual farewell to celebrate his remarkable tenure. He received more than 125 video tributes, from people such as primatologist Jane Goodall, renowned cellist Yo-Yo Ma, and historian Henry Louis Gates Jr. Dr. Tucci encouraged everyone to visit the Commemorative Farewell webpage, watch the event, and explore the video album, which all can be found on the [NIH website](#) and the [NIH YouTube channel](#).

On December 20th, Dr. Larry Tabak assumed the role of acting director of the NIH to lead the agency during this time of transition. Dr. Tabak has served as the NIH principal deputy director and the NIH deputy ethics counselor since August 2010. Previously, he served as the director of the National Institute of Dental and Craniofacial Research (2000–10). As acting director of NIH, Dr. Tabak will strive to sustain Dr. Collins' legacy – finding the best ways that NIH research can improve health, end suffering, and provide hope for all people.

In an update on NIDCD staff Dr. Tucci recognized the promotion of Ms. Joanne Karimbakas to Chief of the NIDCD Office of Health Communication and Public Liaison. Ms. Karimbakas previously worked at the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), where she functioned as a liaison working across NIH institutes and with private sector partners in the creation of the Emmy-nominated HBO documentary films series *The Weight of the Nation*. In 2015, she started with the NIDCD. Since that time, she led the team that developed the [Journey of Sound to the Brain](#) video which has received millions of views on

YouTube. She also served as the acting chief twice – first in September 2020 to April 2021 and again from June 2021 until she formally assumed the role of chief on January 3rd. Dr. Tucci looks forward to working with Ms. Karimbakas as NIDCD continues to advance the science of communication to improve lives.

Dr. Tucci next turned to diversity, equity, inclusion, and access (DEIA) efforts and highlighted some of the key updates and priorities from the NIH [UNITE](#) Initiative that will impact NIDCD directly:

1. Beginning FY2022, senior leadership and IC Directors (including Dr. Tucci) will now have a performance management element to demonstrate DEIA efforts in the NIH workforce in their annual performance assessment plan.
2. Each IC will have a Racial and Ethnic Equity Plan (REEP), a set of programs that can be shared, as well as provide transparency, across ICs. An aggressive timeline has been set for each IC to start development of this plan.
3. Recently, the UNITE committee launched an intranet site and UNITE “toolkit”, as an internal NIH resources to disseminate UNITE activities to both staff and external stakeholders. These resources include talking points, graphics, and literature reviews by topic area within UNITE.
4. UNITE has also launched a prize for institutional innovation and advancement in DEIA to reward progress and disseminate best practices.
5. The Power of an Inclusive Workplace Recognition Project was revealed to let all NIH staff feel a sense of inclusion. The main goal of this project was to develop a design concept with NIH medical arts for physical and electronic campaigns. The result are artwork installations in buildings 1, 10 and 31, which include an expanded color palette, contemporary design, and diverse portrait illustrations of NIH staff. A three-minute video of the project can be seen on the [UNITE](#) website.

Last, Dr. Tucci announced that she has been asked to serve on the newly created UNITE IC Director’s implementation committee.

One of Dr. Tucci’s priorities when coming to the NIDCD was to further develop a robust set of mechanisms that can be used to bolster the training and development of our clinician-scientist and surgeon-scientist workforce. Towards that goal, NIDCD developed 3 new Clinician-Scientists (R25) Training Programs that focus on the development of the NIDCD clinician-scientists workforce through 2 independent activities – research Experiences and mentoring networks. On October 26th (2021), Dr. Alberto Rivera-Rentas, the NIDCD extramural research training officer, hosted a webinar to discuss the details of these 3 training programs. You can find more information about the webinar on the NIDCD events page, as well as links to the recording and Frequently Asked Questions. NIDCD will be holding another live webinar on February 25th, on program initiatives designed to encourage individuals from diverse backgrounds that are specific to enhancing the diversity of the NIDCD scientific workforce by encouraging:

- (1) individuals from underrepresented racial or ethnic groups,
- (2) individuals with disabilities,
- (3) individuals from disadvantaged backgrounds, and
- (4) women at the graduate and faculty level to participate in research in our mission areas: hearing, balance, taste, smell, voice, speech, and language.

Dr. Tucci indicated that this webinar will explain NIDCD-participating initiatives and programs that focus on mentoring and research experiences. This will be the second webinar and there may be more in the future as NIDCD expands outreach to grantees. Registration is required for this webinar and can be found on the NIDCD website.

And finally, Dr. Tucci discussed the continued development of the NIDCD next five-year Strategic Plan. This bottom-up approach involves a diverse group of experts that span all the NIDCD’s mission areas. She announced that NIDCD has completed two of the major events and are on schedule to release the plan later this year. Dr. Laura Cole, along with the council liaisons – Dr. Dan Sanes and Dr. Nirupa Chaudhari – will be giving a more detailed update later today.

NIA UpdatesDr. Richard Hodes

Dr. Tucci welcomed Dr. Richard Hodes, the director of the National Institute on Aging (NIA) where he has been director since 1993. NIA leads the federal governments support of and research on the biological, clinical, behavioral, and social aspects of aging as well as leading the federal effort to find effective ways to treat or prevent Alzheimer's disease. In addition to his leadership at NIA, Dr. Hodes maintains a research laboratory at the National Cancer Institute (NCI) which is focused on the cellular and molecular mechanisms that regulate the immune response.

Dr. Hodes thanked Dr. Tucci for the opportunity to speak with the council to let people know of the great history and future research opportunities of the two institutes working closely together. NIA and NIDCD share opportunities and interactions across many dimensions of biomedical behavioral research, appropriations, and spending. Dr. Hodes detailed how NIA has undergone an unprecedented funding increase stating that in 2015 the appropriation level was \$1 billion and in 2021 the appropriation level is approaching \$4 billion which provides an opportunity to increase what NIA can support and for interactions with NIDCD and other institutes. This provides an opportunity to collaborate, to make the best use of the kind of research supported by NIA dollars and that charge that comes from congressional appropriations and priorities.

Across NIH competing awards in AD/ADRD research were approximately \$100 million in 2011 and by 2020 had reached about \$900 million. NIH's Alzheimer's Disability and Alzheimer Disability Related Disease (AD/ADRD) Research Portfolio has been growing. Recruitment of new and early-stage investigators grew by one-third while principal investigators totally new to the field grew by one-quarter. NIA also launched administrative supplements targeting IC grants that could be expanded to include AD/ADRD research and stay within scope of the parent grant. In 2021, NIA funded 267 supplements across all ICs including 12 at NIDCD. Additionally, since 2016 NIA has looked across NIH for opportunities to increase funding in applications that might be beyond a particular IC funding line and NIDCD has benefited from this additional funding with the NIA picking up AD/ADRD focused applications outside the usual NIDCD pipeline.

Dr. Hodes discussed health equity and indicated that one of the challenges faced is around diversity and inclusion in clinical research and trials. There is a lot of effort to increase recruitment of people from diverse populations into studies including development of resources such as a National Strategy for Recruitment and Participation in AD/ADRD, public private partnerships, and a searchable database for enhancing engagement and outreach ([ADORE](#)) and customizable recruitment with [Outreach Pro](#) for clinical trials in all areas. .

Dr. Hodes highlighted past and current collaborations between NIA and NIDCD, including:

- In 2013, there was a jointly sponsored workshop on central neural mechanisms of age-related hearing loss that led to a Request for Applications (RFA) In 2018. There were four awards funded, two from NIA and two NIDCD.
- In 2019, there was a jointly sponsored workshop on aging, the vestibular system, and balance with the outcomes noted in a publication and an RFA in 2021 jointly funded one NIDCD application.
- The Age Gene/Environment Susceptibility - Reykjavik Study (AGES-Reykjavik Study) has been supported by NIA for years. NIDCD participated by adding measures to the studies combined with multiple dimensions and a real richness of data and augments the study itself as well as informing areas of interest to NIDCD. That study identified some of the most predictive factors for hearing loss as well as some genome wide association studies (GWAS) that pointed to genes of potential interest with hair loss as one of the gene associations shown.

Dr. Hodes then focused on recent advances and gave an example on cell studies supported by NIA with participation by NIDCD. He noted that looking at the risk factors for decrease in physical activity over time with age it could be noted that more progressive and severe hearing loss is associated with decrease in physical activity. Additionally, longitudinally over time there is also a decrease in physical activity associated with individuals with mild and moderate to severe hearing loss. Dr. Hodes noted that vision and hearing impairment have both been associated with an increase in loneliness and social isolation in older adults. When looking at cognitive changes in relationship to dementia, hearing loss is associated with poor performance in learning and memory test. Around the theme of AD/ADRD, research shows individuals with impaired multi-sensory function followed longitudinally over time exhibit a greater decrease in cognitive function than those without impairment. Dr. Hodes then highlighted another study that points to the potential for an intervention making a difference and among individuals with dementia. He explained that greater hearing loss is associated with an increase in

the number of neuro psychiatric symptoms, but the use of hearing aids is associated with a decrease in neuro psychiatric symptoms among those with cognitive impairment and dementia. This is leading to randomized control studies supported by NIA and NIDCD looking at demonstration of causality.

Dr. Hodes closed with a list of links to find out more about NIA.

Continuing the conversation, Dr. Tucci invited Dr. Amy Poremba an NIDCD program officer to speak briefly about an upcoming webinar that is related to the collaboration between NIA and NIDCD.

Dr. Poremba thanked Dr. Hodes for all the collaborative work over the years and thanked the program officers at NIA for their willingness to collaborate. She emphasized that there were over 70 supplements given by NIA that spanned all the NIDCD mission areas. Supplement requests could be up to \$250,000 and in total there has been over \$32 million of support over the last six years. In April NIDCD will hold a webinar with NIA called *Sharing Our Science on Alzheimer's Disease and Related Dementias* and broadcasting it live to the public. She indicated that there will be science presentations, panel discussions and a discussion about how NIDCD can better support this area.

Discussion

Dr. Argye Hillis commented that she received a supplement to extend her work to AD. She asked Dr. Hodes to estimate when there would be a truly effective disease modifying medication for any of the dementias. Dr. Hodes responded that there are huge efforts looking at prevention, modification, slowing or reversal. He discussed the recent challenges faced with getting approval of a new treatment. He also explained that there is a large spectrum of dementias, and it is unlikely that there will be single intervention. He discussed several ongoing clinical trials with significant potential over the next few years and omics studies further down the pipeline. However, it is not clear how long until a treatment or intervention will be available.

Dr. Ruth Anne Eatock commented on the apparent deterioration of each sense as a forecaster of eventual acute dementia. She asked if NIA was bringing together the different parties and stakeholders to combine efforts to look for general versus specific effects. Dr. Hodes responded affirmatively and pointed to the previous example of the longitudinal Reykjavik study with collaboration of NEI and NIDCD to look at impacts of individual or compound sensory deficits. This is a unique role that NIA can play to look across senses. Dr. Eatock followed up to ask if there were teams from across institutes working together. Dr. Hodes discussed a previous solicitation for responses that dealt with multi-sensory effects with aging. It was intended to bring investigators and teams together looking at multi-sensory systems for impacts of aging. He commented that it may be good to revisit this initiative.

Dr. Ben Strowbridge commented that he received one of these supplements and that it sparked a lot of interest and inquired about potential intermediate steps. He expressed concern that to take it to the next step as an R01 applications was too big of a leap for individuals who are not normally active in this research space and asked about potential R21 activity codes as a next step from supplements. Dr. Hodes emphasized that the supplements themselves have been a big success and commented that NIA and NIDCD can do more to encourage investigators new to the field to follow up with full AD/ADRD applications or to partner with NIA funded investigators. He did stress that the data he showed earlier demonstrate that a fair number of NIA funded investigators were new to the field. Dr. Hodes contemplated a more organized consortium of NIA and NIDCD program officers to help direct applicants.

Insight into Usher Syndrome and Non-Syndromic Dr. Tom Friedman Deafness Provides Therapeutic Passageways

Attendees at the January 2022 NIDCD Council also heard a seminar entitled "Insight into Usher syndrome and non-syndromic deafness provides therapeutic passageways" presented by Tom Friedman, chief of the Laboratory of Molecular Genetics (LMG) in the NIDCD intramural program. He discussed a recently published research collaboration with Zubair Ahmed, professor, University of Maryland. The origins of this collaboration began with a paper published in 1861 entitled (translated from German) "Descent from marriages among blood relatives as a reason for retinitis pigmentosa." This 161-year-old paper describes cases of deaf-blindness within the Jewish community living in Berlin. In 2003, Tamar Ben-Yosef, a post-doctoral fellow in the LMG at that time set out to discover the underlying genetic explanation for Usher syndrome in the extant Ashkenazi Jewish population and identified a recessive founder mutation R245X variant in the *PCDH15* gene. Dr. Friedman explained that "R245X" means that the arginine codon 245 of the *PCDH15* gene is mutated to a protein translation stop codon after 245 amino acid residues when normally there are approximately 1,700

amino acids in the full-length protocadherin-15 protein. Staff of the LMG and others previously reported that protocadherin 15 is necessary for both hearing and vision. A variety of mutations of *PCDH15* are now known to either cause Usher syndrome (USH1F) or non-syndromic deafness. Children born with two copies (homozygotes) for R245X are profoundly deaf at birth and then progressively lose their vision due to retinitis pigmentosa. A paper published in the November 2021 issue of *eLife* by Sethna et al., in collaboration with physicians and scientists from the National Eye Institute (NEI) and the NIDCD lead by Dr. Ahmed, described the natural history of vision loss over a twenty to thirty year-long period for 13 patients studied at the NIH. These deaf patients have biallelic mutations of *PCDH15*, largely the R245X variant. Vision was slowly lost over the first two to three decades of life, which provides a window of time for a therapeutic intervention to preserve vision. Dr. Friedman stated that in parallel, through NIDCD extramural funding support to examine a therapeutic possibility in an animal model, Dr. Ahmed's laboratory engineered a mouse with the R250X mutation of murine *Pcdh15* (same arginine codon that has a translation stop codon as for the human R245X variant). He explained that light stimulation of R250X homozygous deaf mice showed reduced electroretinogram amplitudes. Remarkably, these visual deficits in this mouse can be restored temporarily to normal levels twenty-four hours after a single intraperitoneal injection of 9-*cis* Retinal. Dr. Friedman concluded that this pre-clinical observation in mouse raises the possibility that a retinoid compound may perhaps reduce or arrest vision loss in a clinical trial of USH1F human subjects.

Discussion

Dr. Chaudhari asked Dr. Friedman to elaborate on how an extracellular adhesion molecule such as protocadherin 15 affects the retina. Dr. Friedman responded that the role of protocadherin 15 in the retina is not fully understood but that multiple labs are currently working on this. He explained that almost every exon is alternatively spliced that results in a huge number of protein isoforms which may have differing functions. Additionally, as a transmembrane protein with both different cytoplasmic and extracellular domains, the various domains can have different functions and that a secreted isoform also could have an independent function.

Dr. Anil Lalwani asked about intervention for Usher syndrome patients with hearing impairment. Dr. Friedman indicated that cochlear implants work for many individuals with Usher syndrome. An Usher research group at NIH is currently being reformed and Dr. Friedman indicated the first issue to tackle was how to initiate a clinical trial at NIH.

NIDCD Strategic Plan Update Dr. Laura Cole

Dr. Cole gave an update on the development of the 2022-2027 NIDCD Strategic Plan. As a part of the process to generate ideas from the research community, Dr. Cole shared details of the 2-day virtual Idea Generation Meeting, which was hosted by NIDCD in December 2021. On the morning of Day 1, 50 invited subject matter experts were each allotted 2 minutes to explain their best ideas for advancing NIDCD-relevant research. That afternoon, NIDCD Staff categorized 32 of the ideas into 30 separate breakout sessions. Subject matter experts spent Day 2 visiting the breakout rooms that most interested them, to identify opportunities and barriers related to the ideas that were presented on Day 1, as well as ways that NIDCD might measure progress towards accomplishing the idea.

Next, NIDCD Advisory Council Liaisons Dr. Chaudhari and Dr. Sanes provided their feedback on the breakout sessions they attended during the Idea Generation Meeting and shared their overall impressions of the process with the Council. Dr. Cole concluded her presentation by describing NIDCD's next steps to develop the strategic plan – developing top ideas into goals and grouping the goals into themes, as well as identifying gap areas. NIDCD will then develop a draft strategic plan, which Dr. Cole encouraged everyone to review when it's posted for public comment in May.

NIH UNITE: 2022 Developments and PlansDr. Marie Bernard

Dr. Tucci welcomed Dr. Marie Bernard who serves as NIH's chief scientific officer for workforce diversity, in this role who leads the NIH's efforts to promote diversity, inclusiveness and equity throughout the biomedical research enterprise. Dr. Bernard was previously the deputy director of the National Institute on Aging from 2008 to 2021 and she's been involved in a wide variety of NIH activities to further diversity. Dr. Bernard has been recognized with multiple awards for her leadership including the 2020 NIH Director's Award for Equity,

Diversity and Inclusion and she agreed to provide an update on the NIH's UNITE initiative particularly on what will be done in the next year.

Dr. Bernard began by stating that the UNITE Initiative is approaching the one-year anniversary. She recapped the recent events that were associated with increased morbidity and mortality for ethnic and racial minorities in the US including the COVID pandemic and escalating violence which brought into light the racial and ethnic injustice in our country and the responsibility we all have to address the issue. There was a broad consensus at the NIH that a tipping point had been reached and it was time to address this under-supported area. NIH developed a shared commitment to address structural racism in the biomedical research enterprise and in February 2020 announced the NIH UNITE Initiative. The initiatives represent five interacting work streams. One to understand stakeholder experiences through listening and learning. Dr. Bernard recalled a Request for Information ([RFI](#)) that was issued and stated that she hoped many had a chance to respond to that. NIH is taking a new look at health disparities, minority health and health equity and to improve the internal NIH culture and structure for equity and inclusion and excellence to be a role model for change. She indicated that NIH will also be looking at the extramural research ecosystem and what structural changes are needed to promote workforce diversity. Dr. Bernard highlighted a recently published [Nature Medicine](#) commentary from NIH focused on the internal NIH workforce and the external workforce and health disparities, minority health, and health equity research.

Dr. Bernard highlighted a recent health disparities research supported by the NIH Common Fund that resulted in 11 awards announced in October 2021. Six of the awards look at research to address health disparities and improve health in general and look at minority serving institutions and an additional competition for minority serving institutions where 5 awards were made. She indicated that there will be an additional competition in FY 2022. Dr. Bernard then showed data showing that life expectancy has gone down with the covid pandemic. She explained that there have always been discrepancies and while every group had their life expectancy go down with the pandemic, it was seen more dramatically with Latinos. NIH is very concerned about this, and Dr. Bernard highlighted some of the things being done to address it 1) being more accountable and transparent and accurate in cataloging what is seen in health disparity research and, 2) work on a Common Fund initiative for fiscal year 2023 to try to address some issues.

Dr. Bernard then pivoted to work being done with regards to internal workforce. She indicated that for this fiscal year 2022 NIH now includes a performance metric and performance expectation for directors regarding consideration of diversity, equity, and inclusion, and accessibility. There are requirements from the Department of Health and Human Services (DHHS) and the NIH requirements are more extensive. There are at least four components including, a racial and ethnic and equity plans (REEP) for the 27 institutes and centers. This is modeled after what was done in the anti-harassment efforts in 2018 where there was a customized anti-harassment plan required by each IC tailored for the ICs culture. The REEPs for each institute and center will be designed to be accountable with long term and short-term measures. There will be a lot of analysis and sharing of knowledge among the ICs. It requires a lot of investment, intellectual capital and time and funds. Using the scientific method, people will assess, design, implement, report, and then go back further for continued improvements.

Dr. Bernard discussed the work done by an internal committee the [Power of an Inclusive Workforce Recognition Project](#). This was launched by members of the UNITE committee with the intent is to capture the wide range of people who contribute to the success of the NIH research enterprise. The committee has great plans to have more of this type of art presented throughout the campus including murals, banners and other forms that can communicate to all of us the power of an inclusive workplace.

Dr. Bernard then highlighted the [Distinguished Scholars Program](#) which was unveiled in December 2020. The program was designed to develop self-reinforcing communities of principle investigators built on the programs with cohort recruitment. This was modeled upon the [Stadtman](#) and [Lasker](#) investigator programs which do 'cohort' recruitment. She described how the percentage of URM tenure track investigators was going progressively down prior to the start of cohort recruitment. This trend was reversed with the Stadtman and Lasker programs that were started in 2010. She indicated that the Distinguished Scholars Program has

accelerated the rate of diversification. The scholars are not necessarily someone from an underrepresented group but led to changes in numbers and NIH is evaluating changes in impact and cultures at the institutes and centers. The data were sufficiently impressive that NIH issued an extramural funding opportunity called the Faculty Institutional Recruitment for Sustainable Transformation ([FIRST](#)) based to create cultures of inclusive excellence and give funds to academic institutions to do faculty cohort hiring and do mentoring and development. Overall, NIH has committed up to \$241 million from the NIH Common Fund for the FIRST program and includes six cohorts involving seven institutions. Dr. Bernard went on to say that applications are already in for this fiscal year and NIH expects that there will be at least another four cohorts added and the potential for additional announcements for more cohorts. Morehouse School of Medicine is the coordinating center and will look at the outcomes and determine generalizable principles we can consider for other funding opportunity announcements going forward.

Dr. Bernard indicated that potential future opportunities could include increasing career opportunities such as expanding the Science Education Partnership Awards ([SEPA](#)) Program to be NIH-wide. Currently this is being led by the National Institution of General Medical Sciences (NIGMS) that supports K-12 S.T.E.M. education. She explained that science identity forms as early as middle school and NIH wants to expand into this area. Dr. Bernard also touched on plans to strengthen diversity and mentoring language in parent training grant and fellowship FOAs as well as plans to increase the use of diversity supplements for small business awards

Dr. Bernard highlighted the efforts within the NIH-wide BRAIN Initiative to enhance diversity with the requirement of a Plan to Enhancing Diverse Perspectives ([PEDP](#)). This is a requirement of BRAIN Funding Opportunity Announcements (FOAs) calling for consideration of plans to enhance diverse perspectives as part of the scoring. It is broadly defined and keeping with NIH interest in diversity, race, ethnicity, gender, disability status and the goal is to have the language put into other FOAs. Dr. Bernard covered NIH plans to promote extramural institutional cultural change in support inclusivity and equity by launching a program to fund Excellence in DEI Investigators, also a program to provide support to institutions to conduct objective climate assessments and critical self-studies and then develop an action plan based on the results, plans to launch a prize for institutional innovation and advancement in DEI. She highlighted plans to build and sustain research capacity at minority-serving institutions with FOAs including the S10 instrumentation grant program, targeted institutional training grants and expand the Sponsored Programs Administration Development ([SPAD](#)) grants program. This is part of the 'build initiative' that is intent upon expanding what has been done and includes plans for an entrepreneurial training program and for organizing yearly meetings between NIH leadership and MSI leaders to take the pulse of the progress on all these DEI activities.

Dr. Bernard then turned to looking inward at NIH process and policies that contribute to inequities in funding. She indicated that the NIH would look at developing and launching a training program for scientific review officers (SROs) and program officers (POs) to reduce implicit bias and increase equity and inclusivity and interactions with the intramural community. Dr. Bernard gave the Center for Scientific Review (CSR) credit for efforts already undertaken in training their SROs and reviewers about implicit bias. She stated that NIH plans to continue this training across other institutes and centers (ICs). Guidance will be developed to help ICs enhance the diversity of PIs funded in their research portfolios and to develop improved review criteria descriptions to decrease possible sources of biases (e.g., institutional, and reputational bias). The intent would be for the UNITE group to partner with the CSR and FOA writers to accelerate the process.

Finally, Dr. Bernard returned to the [RFI](#) and reports a robust response to it. There was an extension beyond the originally planned timeframe for response because there was so much interest in responding. Responses included all aspects of the biomedical workforce and policies and partnerships. She indicated that the analysis of the over 1,100 comments was not complete yet but includes There were four categories for response:

- All Aspects of the Biomedical Workforce
- Policies and Partnerships
- Research Areas

- Further Ideas.

She stated that respondents spanned all sectors with the majority being from academia. About 46% of the responses were from academic institutions and about 2% of those were from HBCUs. The rest of the responses were from NIH staff (13%), health professionals (11%), non-profit/professional societies (8%) student or postdoctoral researcher (6%) and other (10%) which included members of the public and advocacy institutions. She detailed that three cross-cutting findings emerged: 1) Actions beyond words; 2) looking to us to enhance programs and activities; and 3) there is no 'easy' button. Dr. Bernard stressed that there is no one way of getting all the things done that we want to do, and that culture change takes a long time. The plan is that there will be continued analysis and synthesis and hopefully full reports in the not too far future and plans to triangulate the finding from this with listening sessions. She hopes to have this report available soon on the UNITE website.

Discussion

Ms. Vicki Deal-Williams congratulated Dr. Bernard on the sea change of work and asked about what guidance is being provided to individuals as they are developing their racial and ethnic equity plans or REEP. Dr. Bernard responded that a small cadre of folks have worked hard to develop guidance to help all the institutes and centers think through how they should do this. A 24-page document with the theory behind it is being provided and it includes examples of how you might go about it and templates to use. She also indicated that consultation is also available to help move this forward. She stressed that it will ultimately come down to each institute and center because each has its own unique culture and needs.

Dr. Lisa Goffman asked about the constellation of cohorts by career stage. Dr. Bernard indicated that NIH is hosting a workshop February 23 and 24 for the implementation for cohorts because it can be effective throughout the pathway of becoming a scientist and program for cohorts at the post-doc level and early career level particularly something called the [MOSAIC](#) Award sponsored by the National Institute of General Medical Sciences (NIGMS). She stressed that one of the key components of that is allowing those people to get together and be supportive of each other, making sure they are getting extra support and mentoring from people who are excellent mentors and being sensitive to what the environment truly is where they are and what sorts of changes may need to be made, adjustments may need to be made to the environment.

Dr. Lalwani raised concerns about the financial burden and unequal access in taking a year off between undergraduate and graduate school to gain research experience. He asked if NIH could play a role or if there were non-NIH funded research program support for programs out to support that first academic experience occurring with a mentor who may not be funded or have high resources. Dr. Bernard responded by thinking about what support could be provided for mentors who in turn can support those students who come from underrepresented backgrounds. She stated that if those mentors don't have NIH funding, it is difficult for NIH to impact this. She highlighted the diversity supplement program that NIH has as a great means of helping people early in their careers to advance although this is limited to a mentor who already has NIH funding. Dr. Bernard highlighted a recent report in JAMA showing that while the numbers have gone up, only 4.3% of R01 have diversity supplements to their award. So, there is opportunity there. Dr. Tucci emphasized that NIDCD has a robust diversity supplement program and that more information would be given on that program later in the open session.

Dr. Eatock mentioned that at a local level she sees the influence of the cohort award. She stated that NIH bringing out that cohort award caused a real change in attitude towards the idea of bringing in groups of faculty rather than having that real focus on the individual at her institution. She asked if NIH is teaming up with other parts of universities, such as the provost office, to expand the influence in hiring and recruitment. Dr. Bernard indicated that NIH is approaching it from the standpoint of wanting to talk with academic leaders. She raised questions about criteria used for advancement, mentoring of underrepresented group of scientists as factors for promotion, and what else could be considered other than publications in high impact journals. She emphasized NIH is interested in having conversations about that and as they get launched, they will not necessarily just be in the School of Medicine. It will be at a broader level. Dr. Tucci said that one of the things we struggle with is that there is only so much that is in the NIH purview and a lot is in the purview of the

academic institutions. Trying to figure out how we can partner, and influence is something she thinks about a lot such as how to reward faculty for engaging in efforts that promote diversity and inclusion within a tenure system; how to influence salaries of underrepresented minorities and women who are often having lower salaries than white males; how to use the NIH megaphone to partner and collaborate with other institutions and agencies to drive the sea change.

Dr. Sanes stated that it is important to recognize that journals are businesses and not academic institutions. The rise of bibliometrics has totally captivated schools and use this as a metric for importance and use it for hiring tenure and all kinds of decisions. He encourages professional societies and NIH to push to de- or disincentivize the use of bibliometrics which he suspects the metrics work against DEI. He proposed that NIH use its power to disincentivize the use of bibliometrics in all forms of academic hiring and advancement. Dr. Bernard responded that the issue raised about impact factors and other metrics potentially disadvantaging certain groups are supported by data. She explained that the NIH Deputy Director for Extramural Research, Mike Lauer, and the Office of Extramural Research colleagues did a careful analysis of areas of focus and applicants for R01 grants for race and ethnicity and for instance for African American black scientists about 50% of their subject areas focused in 13 different topics that skewed towards places like the National Institute of Minority Health and Health Disparity Research, National Institute of Nursing Research, health disparities research. These research areas do not get as high impact factor as a study focused on basic science. Dr. Bernard also stated that some UNITE members made an outreach to Nature editors and together they talked about the issue and who is on their review panels.

Dr. Hillis agreed that there are other metrics like number of downloads and number of tweets about an article and so on that may be much fairer and may encourage a much more diverse perspective or more equity across topics. She stated that she thinks one thing that has really helped is NIH's insistence that publications are made publicly available through PubMed Central because that allows people to be cited and interesting articles get out there and are available to the public. She expressed concern that many journals now are requesting an exorbitant cost to put articles in PubMed Central and she encouraged NIH to think about supporting those costs more to improve access to science from all authors.

Open Session – January 28, 2022

Director's Greeting Dr. Debara Tucci

Dr. Tucci welcomed additional staff and visitors to the open session of the meeting which was available to the public from the NIH Videocast website. (<https://videocast.nih.gov/watch=44448>)

NIDCD Budget Report Mr. Eric Williams

NIDCD's Budget Officer, Mr. Eric Williams, presented information on the current and previous fiscal year budgets. He shared the NIDCD's 2022 Budget Operating Plan as compared against the FY 2021 final allocation. From last year's actual allocation, he pointed out that NIDCD spent \$6.5 million in administrative supplements, normally NIDCD spends \$2-3 million, and that some of this was a result of COVID supplements that were issued but that it was also a strategic plan to free up money going into the following year. He explained that an administrative supplement is usually one year funding used to support grants and because it does not have a multi-year commitment it allows NIDCD to grow in other areas in future years. Mr. Williams explained that NIDCD competing awards roll over to non-competing and is still waiting on the final appropriations. As a result of the roll over, the non-competing base has grown quite a bit. He pointed out that NIDCD only lapsed \$4K in FY 2021 which was really a great effort to spend NIDCD money and get as much of it out to research as possible by NIDCD Grants Management staff, the Division of Scientific Program staff and everyone at NIDCD.

Mr. Williams displayed a pie chart of how NIDCD's research dollars are spent across the 7 mission areas. He went on to describe the continuing resolution (CR) process as it impacts the Budget Office planning and spending for FY 2022. Since there is not consensus among Congress and the President on exactly how much

money the government will spend in FY 2022, the Congress passes a CR using dollar levels at the same level as FY 2021. The hope is that Congress will enact a budget in mid-March that helps NIDCD at least keep up with inflation. For FY 2022, NIDCD is planning to spend \$16 million per council and hopes to continue to fund High Program Priority grant applications at \$4 million per council. This is pending the approval of the FY 2022 budget. Mr. Williams indicated that he should have a better idea how things are shaping up by May council and that he hopes to be able to give a better estimate of the programs that NIDCD will be able to support.

[A copy of the slides Mr. Williams used for this budget presentation is included in Appendix 2]

Report of the Director Division of Scientific ProgramsDr. Judith Cooper

Dr. Judith Cooper presented “The Division of Scientific Programs (DSP) Report” and covered 3 topics:

1. Introduction of a new DSP staff member,
2. Highlight NIH funding for some of NIDCD investigators,
3. Dr. Nancy Freeman presented on a recent workshop that she co-organized with the Department of Defense which focused on “Ex Vivo Models to Accelerate Therapies to Treat Hearing Loss.”

First, Dr. Cooper welcomed Merav Sabri, Ph.D., to the NIDCD DSP. Dr. Sabri joined NIDCD in October of last year from the National Center for Complementary and Integrative Health (NCCIH). At NIDCD she will be dividing her time between [BRAIN Initiative®](#) activities and serving as a program director for the chemosensory portfolio, focusing on higher central olfactory and taste processing. Dr. Sabri’s areas of expertise are in the fields of cognitive neuroscience and brain imaging technologies, such as event-related potentials (ERPs), magnetoencephalography (MEG), and functional magnetic resonance imaging (fMRI). Dr. Sabri earned a Master of Arts in experimental psychology from Bar-Ilan University, in Israel, and a Doctorate of Philosophy in experimental psychology from the University of Ottawa, in, Canada. She completed postdoctoral training in human neuroimaging at Indiana University School of Medicine, Indianapolis, and at the Medical College of Wisconsin, Milwaukee. Prior to joining NIH, she was an assistant professor of neurology and otolaryngology at the Medical College of Wisconsin, where her research centered on the neural and cognitive bases of attention and perception.

Next, Dr. Cooper highlighted NIDCD science and several NIDCD investigators who were fortunate to receive funding from other parts of NIH.

- The NIH [UNITE](#) initiative last year issued two RFAs supported by the [Common Fund](#). One was Transformative Research to Address Health Disparities and Advance Health Equity at Minority Serving Institutions. Dr. Cooper commented that while only a few awards were made, an application from Gallaudet University, with a focus on deaf/deaf blind and hard of hearing, was one of them and was awarded to Dr. Poorna Kushalnagar.
- The other Transformative Research to Address Health Disparities and Advance Health Equity [RFA](#) was open to any institution and again, a small number of awards were made including one to an NIDCD-supported researcher, Dr. Susan Emmett and her colleague Matthew Bush, focused on reducing hearing loss in rural areas. Drs. Emmett and Bush are ENT clinician scientists, both interested in health disparities and inequities, one with expertise in mobile health and telehealth, and the other with expertise in rural communities.

Dr. Cooper explained that both of these large prestigious awards are fully funded by the NIH Common Fund.

Dr. Cooper then provided three examples of NIDCD research projects that received funding from other components of NIH:

- 1) An application from the NIDCD September 2021 Council that the National Institute on Aging (NIA) expressed strong interest in it because of its focus on primary progressive aphasia (PPA) and

Alzheimer's Disease (AD) that NIA fully funded but left the grant as a NIDCD grant (R21DC019567-01A1).

- 2) An application that was co-funded by the Office of Behavioral and Social Sciences Research (OBSSR) on Identification of Comorbid Language and Reading Disorders in Spanish-English Bilingual Children (1 R21DC019996-01)
- 3) An Administrative Supplement funded by the Office of Research on Women's Health (ORWH) to an active NIDCD award. ORWH had a solicitation "Sex and Gender (SAGE) Administrative Supplement Program for Research on Sex/Gender Influences (NOT-OD-20-049)" that supported a supplement to active NIDCD grant "Development of medial efferent mechanisms in children" (3 R01DC018046-01). The supplement focused on research on sex/gender influences.

Dr. Cooper expressed gratitude to the funders and enthusiasm that our research community has found success in a variety of ways to obtain research funding for our mission areas.

Dr. Cooper turned the meeting over to Dr. Nancy Freeman, a program officer in DSP, to share a recent workshop that she coordinated with colleagues in the Department of Defense (DOD). Dr. Freeman gave a brief update on the "Improving ex-vivo Models to Accelerate Therapies to Treat Hearing Loss" workshop from November 18, 2021. This workshop was jointly held with the DOD Congressionally Directed Medical Research Program (CDMRP) and co-moderated with Dr. Tian Wang. She indicated the conference was focused on 2 main target categories – organoid systems and leading-edge technologies. Dr. Freeman highlighted the workshop concussions including the need for: good cell sources, high throughput systems, human specific platforms, and automation.

Discussion

Dr. Andy Groves applauded Dr. Freeman and the NIDCD on the meeting and the coordination between the NIDCD and the CDMRP.

Report of the Director Division of Extramural ActivitiesDr. Becky Wagenaar-Miller

Council Operating Procedures

Dr. Wagenaar-Miller began her presentation with a focus on the council operating procedures and the triennial inclusion report. She explained that NIH Manual Chapter 54513 specifies that Operating procedures must conform with the PHS Act, the NIH Reform Act, peer review regulations and NIH policy and that the operating procedures are to be reviewed annually at a meeting of Council. The NIDCD council reviews these each January. She indicated that the council operating procedure document was significantly updated structurally and a few actual procedures that have been changed. Dr. Wagenaar-Miller detailed that the modified Operating Procedures had been cleared by the office of the Deputy Director for Extramural Research (DDER), in the NIH Office of Extramural Research (OER) to ensure it is consistent with federal legislation and NIH policies and procedures. She explained that the document is now organized into the 3 main roles of council - 2nd level peer review; the nidcd intramural board of scientific counselor report to council; and advice to the NIDCD Director. She highlighted any changes within each role and then called for a vote to approve.

Dr. Wagenaar-Miller called for a vote to approve the Council Operating Procedures and Council unanimously approved.

NIDCD Triennial Inclusion Report

Dr. Wagenaar-Miller then presented the NIDCD Triennial Inclusion Report. She explained that the [NIH Inclusion Policy](#) is designed to guarantee that clinical trials sufficiently examine the differential effects of gender and racial and ethnic groups, and that the [NIH Revitalization Act](#) and the 21st Century Cures Act requires advisory councils from each institute or center to prepare triennial reports for review and approval by each Institute's Council. She indicated that the final NIDCD and NIH-wide inclusion data for FY 2019 – FY 2021 will be posted when finalized (<https://report.nih.gov/research/inclusion-women-and-minorities-clinical-research>).

Discussion

Dr. Sanes asked about any trends looking further back. Dr. Wagenaar-Miller indicated that she did not observe any differences looking at previous years but that the data is currently available online for anyone to look at.

Dr. Laurel Carney asked if there was any discussion at NIH about adding gender categories as it is currently limited to unknown or did not report and does not allow for reporting for subjects who are non-binary or other gender identification. Dr. Wagenaar-Miller responded that the categories utilized are set by OMB.

Ms. Deal-Williams stated that the data are telling related to black and brown individuals' participation in this research but how are we encouraging active inclusion on the part of the researchers. Dr. Wagenaar-Miller emphasized that this is a snapshot of the last 3 years and that human subjects are reviewed, and study design are reviewed as part of the initial NIH peer review process. She went on to add that NIDCD program staff work with awardees on enrollment projections and ensuring compliance. Dr. Cooper reiterated that this is required with the yearly progress report and program officers review the science and progress of recruitment. Dr. Cooper also noted that the past 2 years have seen widespread recruiting challenges due to closure of clinics and labs as a result of the pandemic which may impact the numbers. She indicated that NIH is looking at ways to strengthen this. Dr. Tucci added that there is much discussion across NIH to be more inclusive in clinical trial engagement. She described a major effort called [CEAL](#) that was led by Dr. Eliseo Perez Stable and Dr. Gary Gibbons focused on COVID. There is also a lot of work on how to better engage communities in research with efforts focused on preparing for the research, in asking specific research questions that are important to the communities, and in engaging them in participating in clinical trials.

Dr. Hillis expressed that she is encouraged that the data appears to show an increase in the percentage of black participants. She added that outreach to investigators about the new initiatives could be helpful. She conveyed her success in recruitment of black subjects for clinical trials in Baltimore but recognized that many universities are not in as diverse a neighborhood for local recruitment. Dr. Hillis expressed enthusiasm for NIH efforts to fund smaller universities in the south and in more rural areas that may have diverse patient populations.

Dr. Wagenaar-Miller called for a vote to accept the Triennial Inclusion Report and Council unanimously approved.

Interim Actions and NIH Policy Updates

Dr. Wagenaar-Miller presented on the Interim Actions which are actions that NIDCD staff may take without Council review in accordance with NIH grants policy and as specified in the Council Operating Procedures. She briefly covered change of institution requests, change of PI, and administrative supplements that have been funded.

Dr. Wagenaar-Miller then covered recent NIH policy notices ([NOT-OD-22-044](#) and [NOT-OD-22-046](#)). She also highlighted new NIH resources, including a new set of [frequently asked questions](#), for implementing the upcoming [Data Management and Sharing policy](#) that will be effective beginning Jan 25, 2023 but to ensure compliance with the new policy. She alerted attendees to a recent NIH request for public comment ([NOT-OD-22-064](#)) on the draft Responsible Management and Sharing of American Indian/Alaska Native participant data.

**NIDCD Diversity and Inclusiveness Efforts.....Dr. Judith Cooper
Dr. Elyssa Monzack**

Dr. Cooper and Dr. Elyssa Monzack, deputy scientific director, shared the progress and plans related to the NIDCD Council Diversity Workgroup Report. There are three areas of focus presented:

1. Background
2. Extramural research diversity efforts

3. Diversity efforts focusing on the NIDCD workforce, including the intramural program.

Dr. Cooper began by prompting council to recall the Diversity Report which had roots in a discussion led by Dr. Goffman and Dr. Fan-Gang Zeng on this topic at the September 2020 council. That discussion was followed by a request from Dr. Tucci, announced at the January 2021 council meeting, to establish a working group of the Council and additional advisors to address what NIDCD could do. The workgroup was charged with advising NIDCD on how to improve the diversity of our workforce and science. After much intensive effort, Drs. Goffman and Zeng presented the draft report at the May 2021 Advisory Council meeting and Council approved. The final report was presented to NIDCD in the summer of 2021. There were five areas of recommendations and these included grant funding, workforce and research content, pipeline, mentoring, and information.

A NIDCD Implementation Committee on Diversity was formed. The committee identified activities that were in existence prior to the report and that should be continued. She presented a few examples including:

- Research Supplements to Promote Diversity in Health-Related Research ([PA-20-222](#)). NIDCD has been a long-standing participant and supporter of this program, which provides funding to our PIs to bring on individuals from diverse backgrounds to their active grants.
- The Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research F31 Diversity Fellowship ([PA-20-251](#)) for diverse candidates working toward their doctorates. There are also the MOSAIC ([PAR-19-343](#)) and the BRAIN Diversity K99/R00s ([RFA-NS-19-043](#), [RFA-NS-19-044](#)) which provide awards to postdocs from diverse backgrounds.
- NIH and NIDCD have long tried to include diverse perspectives in both levels of peer review (IRGs/SEPs and Council) and those efforts have been enhanced recently by new training for SROs to promote equitable and inclusive practices.
- A final previous and ongoing effort was our support of trainees from diverse backgrounds at conferences.

Dr. Cooper reported that new actions fall into five categories, that in part mirror the five areas of the report:

1. Assisting potential grantees
2. Mentoring and enhancing the pipeline
3. Reaching out and sharing information
4. Expanding NIDCD: obtaining diverse perspectives
5. Research directions/opportunities: a more diverse landscape.

Dr. Cooper provided three examples that directly respond to the workgroup report. First, to the Council section of the public website NIDCD has added information allowing and encouraging writing of Letters of Information to the institute staff and the Council, to assist in Council deliberations. Previously, knowledge about that option was limited, and based on experience, colleagues, interactions with Program Officers, and maybe not so familiar to those Principal Investigators and institutions with limited NIH experience. Now, the option is clear, fair, and open to all.

Second, to aid those researchers with limited institutional support and guidance, NIDCD has added a new website link highlighting successful application examples. NIDCD is currently directing individuals to other institutes' websites as NIDCD works to create its own repository of successful applications and summary statements from NIDCD PIs. Dr. Cooper indicated that this is in process as the myriad permissions, redacting, compliance issues, legal approval, etc. are finalized.

Dr. Cooper summarized a new concept clearance that was brought to Council for approval several meetings ago which will allow NIDCD to pursue additional activities focused on diversity, equity, and inclusion. She highlighted two new FOAs which request applications focused on providing networking opportunities for mentoring or research experiences for diverse groups. She also discussed two NIDCD webinars focused on those diversity R25 initiatives, one available and archived, and one scheduled for next month and to be archived, to get the word out, clarify and explain, plus allow questions. NIDCD recently held a webinar related to another R25 program, and Dr. Cooper indicated that it was a huge success. She pointed out that posting the webinars is a way to provide information to those who are unable to attend, were not aware of the webinar, or as a source of information later. Dr. Cooper also discussed how NIDCD has long provided travel support to conferences and encouraged diversity efforts. She described how NIDCD has strengthened the wording and guidance on the website to include encouragement of supplemental requests post-award for additional trainee travel awards to expand the diversity of the conference, as well as highlighting new NIH expectations regarding attention to specific diversity issues that must appear in all conference grant applications. NIDCD sent out an email to all of its funded investigators, sharing information about the program, encouraged applications, and noted its commitment. The success rate tends to be quite high for this and NIDCD plans to continue to periodically contact its funded PIs and encourage applications, to increase awareness of the program.

Dr. Cooper showed how NIDCD is highlighting diversity supplement recipients, with the addition on the NIDCD website of a [Diversity Research Scholars](#) page that shows the individual career level and research summaries of the scholars. This is not only for recognition of those individuals, but the plan is also to hold a webinar for them to offer up next steps that NIDCD has to offer them, as well as getting them involved in a trans-NIH mentoring opportunity. NIDCD is also addressing early pipeline opportunities via the creation of a pilot summer program for high school and undergraduate students to pair up this coming summer with funded NIDCD researchers.

Dr. Cooper highlighted some new activities related to expanding outreach efforts:

- NIDCD had previously sent a newsletter, three times a year to all NIDCD grantees, and is now also sending it to Historically Black Colleges & Universities (HBCUs) and Minority Serving Institutions (MSIs), and individuals who have submitted grants but were unsuccessful within the last 2 years. Such information expands the audience that can benefit from this information such as funding opportunities, institute priorities, etc.
- Attendance at scientific conferences is typical for NIDCD staff and now attendance is being strongly encouraged at more diverse conferences as well. Staff are now attending conferences such as the National Black Association for Speech-Language and Hearing (NBASLH), Annual Biomedical Research Conference for Minority Students (ABRCMS), and Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS).
- The NIDCD [webpage](#) focused on diversity programs is an additional means of outreach. This webpage, which went live in mid-January, came from a suggestion in the Council diversity workgroup report and contains a multitude of information related to NIDCD diversity support.

Dr. Cooper re-iterated that NIDCD has been striving to advertise and hire a chief diversity coordinator. She indicated that the posting of an advertisement should be occurring soon, and she encouraged Council to share this opportunity with individuals who might be interested. It is envisioned that this person will implement additional recommendations from the Council diversity workgroup report, as well as initiate new activities, across NIDCD, and expand outreach to HBCU and MSIs.

Finally, Dr. Cooper highlighted a few of the new activities NIDCD is doing to encourage and support a more diverse landscape in our research. The highlights include:

- Dr. Kelly King led the effort on the Notice of Special Interest (NOSI) NIDCD Health Disparities and Inequities Research [NOT-DC-21-003](#).
- Dr. Alberto Rivera-Rentas led the effort on enhancing NIDCD's extramural workforce diversity through research experiences and mentoring networks [PAR-21-185](#) and [PAR-21-186](#).
- In addition, Dr. Cooper recognized opportunities being led by other parts of NIH that NIDCD joined, including:
 - Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities [RFA-MD-21-004](#);
 - Transformative Research to Address Health Disparities and Advance Health Equity at Minority Serving Institutions [RFA-RM-21-022](#)
 - Administrative Supplements to Promote Diversity in Research and Development Small Businesses ([PA-21-345](#))

Next, Dr. Elyssa Monzack, NIDCD's deputy scientific director, provided an overview of NIDCD activities, related to diversity, equity, and inclusion targeting the NIDCD workforce and intramural program. The NIDCD Division of Intramural Research (DIR) Committee for Diversity, Equity and Inclusion was formed in July 2020 and is composed of over 20 members of DIR including trainees, and scientific and administrative staff. The committee is focused on diversity issues that impact the intramural workforce. One of the first accomplishments was creating the NIDCD Recruiting Guide, which includes strategies and tools to mitigate bias throughout the recruiting process for any open NIDCD position. A recommendation from the committee included a minimum relocation allowance for trainees at all levels so that the cost of moving is not a barrier to training at the NIDCD. One of the committee's initiatives, led by Dr. Melanie Barzik, a staff scientist in the Laboratory of Hearing Biology, brought together a group of seasoned mentors to review applications to the central NIH Post-baccalaureate Program and identify a diverse pool of qualified applicants using standardized criteria. The list of applicants will then be presented to the NIDCD intramural PIs for their consideration. The group also recommended increasing participation in the diversity-focused summer subprograms offered by the NIH Office of Intramural Training and Education (OITE), with all summer interns at NIDCD funded by the Scientific Director.

Dr. Monzack addressed a Council diversity workgroup recommendation that was geared towards providing community networking support for NIDCD trainees. She highlighted that NIDCD has the NIDCD Fellows Committee which is comprised of a group of enthusiastic trainees who get together to build community among themselves and advocate for positive institutional change. They formed a partnership with NCCIH IDEA which is a diversity focused training group within the National Center for Complimentary and Integrative Health that allows trainees from two small institutes to pool efforts, learn from each other and allows the trainees the opportunity to learn and attend diversity-focused journal clubs and seminars. Dr. Monzack also emphasized that trainees receive support from the NIH OITE. When they arrive at NIH, trainees receive an orientation from NIH OITE where they receive a lot of information about OITE sponsored training and other local affinity groups that are open to all NIH trainees and offer regular opportunities for networking and support.

Dr. Monzack then moved to discuss the NIDCD-wide Diversity Working Group which she co-leads with Mark Lucano, with Cathy Rowe serving as Executive Secretary. This group was formed in January 2021. The major objective of this group is proposing action items that increase diversity at all levels across NIDCD. This group is larger and more structured than the Intramural group. The working group is organized into the five following subcommittees:

- Recruiting
- Continued Training and Education
- Equity and Inclusion

- Education, Outreach, and Communication
- Accountability

The Recruiting subcommittee recommended that the NIDCD Recruiting Guide be used across NIDCD, and after coordination with the NIDCD Office of Health Communication and Public Liaison (OHCPL) to standardize the guide for the entire institute. Dr. Monzack stated that there was also a recommendation to form a search committee for all positions that are Title 42(g), GS-14 & GS-15 (Title 42(g) is a common appointment mechanism for staff scientists and GS-14/ GS-15 positions are the top two grades of the federal wage grade system). That recommendation was embraced by NIDCD leadership and the Implementation Committee.

The Continued Training and Education subcommittee developed a list of NIH trainings that were related to DEIA which they used to identify both opportunities for NIDCD staff and gap areas. One of the gap areas identified by the subcommittee was structural racism, and as a result, the subcommittee arranged for the Racial Equity Institute to present their Groundwater Training in February 2022.

The Equity and Inclusion subcommittee conducted an NIDCD pulse survey focused on DEIA in October 2021. They drafted a report that the larger group is editing and plans to share those results when available to lay the groundwork and inform next steps for the NIDCD diversity strategy.

The Education Outreach and Communication subcommittee curated a list of existing communication channels to internal and external stakeholders. NIDCD had a number of communication channels for conducting outreach, but did not have a single, cohesive resource for disseminating DEI efforts. This resource can now be utilized by the incoming NIDCD Chief Diversity Officer.

Finally, the Accountability subcommittee was formed to strategize on accountability measures for the working group's recommendations. With a new DEIA-focused critical element from the Department of Health and Human Services to be employed across NIH performance plans, the Accountability subcommittee will help supervisors and employees achieve success. Dr. Monzack concluded by indicating that NIDCD leadership has been tremendously supportive of everything the working group has done.

Discussion

Dr. Cynthia Morton reflected about diversity of the trainees in our labs. She stated that most are not diverse trainees and wondered if mentors should ensure trainees get information about how to go forward as scientist and making their work as inclusive as possible. She pondered if the something should be added the T32 instructions asking applicants to address what they are doing to train the trainees about the importance of this. Dr. Alberto Rivera-Rentas stated that the T32 announcement is clear that the applications must include a plan for the recruitment of people from under-represented diverse groups. He went on to say that the PI can include any topics for the trainees in any kind of science research related but also in diversity. He explained that the plan is reviewed as part of the peer review system but does not impact the scoring of the application and that program officers also review the plan. NIH has been discussing with the NIH Training Advisory Committee if this should be changed. Dr. Wagenaar-Miller indicated that there are efforts across NIH related to mentoring and how to appropriately reward or encourage PIs to increase mentoring related to diversity and inclusion issues.

Dr. Eatock expressed her enthusiasm for the opportunity to use the NIDCD website to get more ideas. She referenced the Accountability subcommittee and how to measure success especially in a

long-term project such as this and balancing it with constituents who want to see fast success. She raised questions about how to set benchmarks and keep track of whether the ideas are having impact, what are the intended impacts, and how to clearly articulate this. Dr. Monzack responded that there has been a lot of discussion in these groups about how to measure success. One of the proposed measures is the demographic distribution of programs and to compare that with the demographic distribution of the country or the globe. That is one area, but it is not the only measure. She explained that is part of the reason that NIDCD also launched an internal pulse survey to get a sense of what is the climate, how inclusive is the environment, to be able to look at those as measures also and see if they shift in one direction or another. Some of these are not particularly measurable but they are efforts that can add to the overall inclusiveness of the culture. She acknowledged that it will be challenging to measure the direct impact of every recommendation and that some are more directly measurable than others, but that NIDCD continues to have discussions on that.

Dr. Eatock inquired if NIDCD was thinking about data collection from the intramural or extramural hearing research community or relying on other sources of data and who is tracking it for NIDCD. Dr. Monzack responded that there are couple of elements to the data collection. The demographic data that is centrally collected at NIH but only available for federal employees. There are some other methods internally looking at the trainee population and internal demographic data. In general contractor demographic data is not available but that is part of a larger effort that is something UNITE focused very heavily on and there is a lot of effort centrally at NIH for better demographic data. The other data being looked at is more survey data assessing climate. There are multiple surveys including the Pulse Survey that just launched in intramural specifically to survey trainees every year and the Federal Employee-wide Viewpoint Survey which only surveys federal employees. She emphasized that there are areas in which NIDCD, and NIH have decent data and then there are gaps that we can try to improve on.

Dr. Carol Espy-Wilson remarked that the report is clearly the result of a lot of work and effort. She inquired about the pilot program, for this summer, for high school and undergraduate students and how NIDCD will communicate this to make sure that people are aware, especially those who do not even know about the NIDCD website. She asked about outreach to advertise this with high school counselors, to colleges and beyond so that students are likely to see it. Dr. Cooper responded that NIDCD is trying to get the word out by outreach to the NIDCD funded grantees. She acknowledged that this is very limited but stressed that it is a pilot and that when NIDCD is able to hire a diversity coordinator that they may have some ideas about how to reach out. She explained that NIDCD does not have the resources at this point to reach out to high school counselors and did not want it to be limited to the local Maryland, DC, and Virginia area.

Dr. Espy-Williams agreed that telling the grantees about it will help with undergraduate recruitment but is skeptical of impact on recruitment of high school students.

Dr. Chaudhari commented that NIH has done a wonderful job with the UNITE program. She acknowledged that NIH structure and roles impart limitations, but suggested NIH utilize a survey of all NIH grantees to collect what is happening out in the field. She added that there could be a secondary effect on reminding investigators of all the things that they can do so that everybody can see themselves being able to contribute a piece that might really help.

Ms. Deal-Williams underscored the comments made about all that has been done and the breadth of attention to diversity. She focused her questions on two earlier points relative to outreach. Ms. Deal-Williams commented that the outreach at HBCUs and MSIs in general is a great idea but that there is a need to find a way to get that to happen at a grassroots level at the same time. She encouraged NIDCD to think about a program to identify ambassadors, people committed to DEI who want to do

something and are not sure what to do. The program could identify ways that the ambassadors can start to model behaviors in their own labs and recruitment and then also to demonstrate that for others. Ms. Deal-Williams also focused her comments on equity. The NIDCD chief diversity officer is going to have their hands full once they are on board. She commented that the equity and inclusion survey can serve as a roadmap for them as well as how to curate content in a strategic way to allow for dissemination to the target groups. Ms. Deal-Williams stressed the need for some definition of expectation of NIDCD researchers and trainees as they do research, recruit, etc. so that the individuals can participate as fully as they should. As an example, she discussed the need for reviewer training to get all those people in the same page and give them templates and the resources to evaluate as objectively as possible. She acknowledged that there is going to be bias but stressed that by increasing that awareness of their bias it could allow them to implement effectively. Ms. Deal-Williams concluded by commenting that accountability hinges on implementation which does not occur passively. Dr. Monzack clarified that the Accountability subcommittee is planning to provide all the supervisors with a list of accomplishments that they can look at when they are evaluating the performance element focused on diversity, equity, inclusion. This list will have sample behaviors or actions that somebody could exhibit for a positive evaluation on the diversity focused element. The Accountability subcommittee helps with is trying to get people to see what it looks like for somebody who is doing well, in this space. Outlining those expectation will be key for the implementation phase.

Dr. Goffman commented on the wonderful progress made in a short time. She noted a couple of themes in the report that she felt might be more related to bigger policy and harder to change. Review criteria were mentioned regarding several training activity codes (F31, F32s, Ks, T32s) and asked if diversity training could be embedded as a component of ethics training. The Council workgroup report mentioned review criteria regarding diverse research topics and diverse teams, which is a bigger issue but also a really important issue. She acknowledged the potential impact of posting the sample grants and stated that many on the workgroup and across council are anxious to serve as mentors as more institutions, and more individuals come into the process. Dr. Cooper recognized Dr. Goffman's leadership in this process.

Dr. Espy-Wilson remarks were focused on a need for more diversity in the peer reviewers. She commented on the value that different perspectives bring. She stressed that as new individuals of color receive grants that increased efforts should be made to add them to review panels. Dr. Espy-Wilson also highlighted that the Council workgroup recommended that all applications from people of color and people with disabilities receive a score like early-stage investigators to help promote fairness. Dr. Wagenaar-Miller responded that NIDCD is actively trying to recruit individuals with diverse perspectives to review panels. She reminded Council that NIH holds the private data of individuals regarding racial, ethnic, and gender information very closely and only select people have access to that information, but that NIDCD strives to ensure diverse perspectives in terms of science, institutions, and individuals represented. It is a balancing job and increasing the diversity of perspectives is a constant goal. She indicated that NIDCD welcomes names or suggestions and indicated individuals can send their CV to the NIDCD review branch chief if they are interested in volunteering to review.

Ms. Lynne Murphy Breen focused her comments on expanding outreach to high school students through social media. She commented that the potential benefits of reaching individuals via the NIDCD sites (Facebook, Twitter, etc.) and encouraged NIDCD to post on TikTok or do a vlog on YouTube. Ms. Joanne Karimbakas indicated that NIDCD is very active on Twitter and Facebook the NIDCD Office of Health Communication and Public Liaison work closely with both the extramural and intramural staff to create posts, develop videos, and design web pages to engage with the younger group. She indicated that TikTok is not an option as HHS does not permit the use of TikTok.

Dr. Wagenaar-Miller responded to a question from Ms. Deal-Williams about if there is a need for reviewers to have been previously funded. Dr. Wagenaar-Miller indicated that it is not a requirement, but that familiarity with the NIH review process is essential. She indicated that NIH funding is one criterion that is looked at but that lack of funding does not disqualify an individual from serving on review panels.

Dr. Tucci concluded the meeting by thanking everyone for the discussion.

Appendices

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Roster
National Deafness and Other Communication Disorders Advisory Council
(Terms end on 5/31 of the designated year)

Chairperson
Debara L. Tucci M.D., Director
National Institute on Deafness and Other Communication Disorders
Bethesda, MD 20892

BUSS, Emily, Ph.D. Vice Chair of Research Professor of Otolaryngology/Head and Neck Surgery Chief, Division of Auditory Research University of North Carolina Chapel Hill, NC 27599	2025	ESPY-WILSON, Carol, Ph.D. Professor, Electrical and Computer Engineering The Institute for Systems Research University of Maryland College Park College Park, MD 20742	2024
CARNEY, Laurel, Ph.D. Marylou Ingram Professor, Biomedical Engineering and Professor, Departments Biomedical Engineering, Neuroscience, Electrical & Computer Engineering University of Rochester Rochester, NY 14642	2022	GOFFMAN, Lisa, Ph.D. Professor and Nelle Johnston Chair Callier Center for Communication Disorders School of Behavioral and Brain Sciences University of Texas at Dallas Dallas, TX 75235	2024
CHAUDHARI Nirupa, Ph.D. Professor, Physiology & Biophysics University of Miami School of Medicine Biological Sciences Division Miami, FL 33136	2024	GROVES, Andy, Ph.D. Professor Departments of Neuroscience and Molecular and Human Genetics Baylor College of Medicine Houston, TX 77030	2025
DEAL-WILLIAMS, Vicki, M.A., CAE Chief Staff Officer of Multicultural Affairs American Speech-Language-Hearing Association Rockville, MD 20850	2025	HILLIS, Argye Elizabeth, M.D. M.A. Professor of Neurology Johns Hopkins School of Medicine Baltimore, MD 21205	2024
EATOCK, Ruth Anne, Ph.D. Professor of Neurobiology Dean of Faculty Affairs, Biological Sciences Division University of Chicago Chicago, IL 60637	2024	HILLMAN, Robert E., Ph.D. Co-Director and Research Director Center for Laryngeal Surgery and Voice Rehabilitation at Massachusetts General Hospital and Professor of Surgery: Harvard Medical School Boston, MA 02114	2022
EINHORN, Richard Consultant Einhorn Consulting, LLC New York, NY 10025	2022	KELLEY, Barbara Executive Director Hearing Loss Association of America Rockville, MD 20852	2023

LALWANI, Anil, M.D. 2025
Professor and Vice Chair for Research
Director, Division of Otolaryngology,
& Skull Base Surgery
Co-Director, Columbia Cochlear Implant Center
Columbia University Vagelos College of
Physicians and Surgeons
New York, NY 10032

MORTON, Cynthia C., Ph. D. 2022
William Lambert Richardson Professor
of Obstetrics, Gynecology and Reproductive
Biology and Professor of Pathology, Harvard
Medical School
Kenneth J. Ryan, M.D. Distinguished Chair in
Obstetrics and Gynecology and Director
of Cytogenetics, Brigham and Women's Hospital
Chair in Auditory Genetics, University of
Manchester
Boston, MA 02115

MURPHY BREEN, Lynne, J.D. 2024
Founder of ClearTitle
Senior Underwriting and Agency Counsel
Chicago Title Commonwealth Land
Title (Fidelity National Financial)
Boston, MA 02110

Ex Officio

BECK, Lucille B., Ph.D.
Director
Audiology and Speech Pathology Service
Department of Veterans Affairs
Washington, DC 20422

NELSON, Jeremy T., Ph.D.,
Chief Scientist & Research Section Lead
DoD Hearing Center for Excellence
Defense Health Agency
Joint Base San Antonio-Lackland, TX 78236

Executive Secretary

WAGENAAR-MILLER, Becky, Ph.D.
Director, Division of Extramural Activities
National Institute on Deafness and Other
Communication Disorders
Bethesda, MD 20892

SANES, Dan H., Ph. D. 2023
Professor
Center for Neural Science
New York University
New York, NY 10003

STROWBRIDGE, Ben W., Ph.D. 2023
Professor of Neuroscience
Departments of Neuroscience and
Physiology/Biophysics
Case Western Reserve University
School of Medicine
Cleveland, OH 44106

WALLHAGEN, Margaret I., Ph.D. 2025
Professor
Department of Physiological Nursing
University of California, San Francisco
San Francisco, CA 94143

THEMANN, Christa, M.S. CCC-A
Research Audiologist
Hearing Loss Prevention Team
Division of Applied Research and Technology
National Institute for Occupational Safety
And Health (NIOSH)
Cincinnati, OH 45226

BECERRA, Xavier
Secretary
Department of Health and Human Services
Washington, DC 20201

TABAK, Lawrence A., D.D.S., Ph.D.
Acting Director
National Institutes of Health
Bethesda, MD 20892

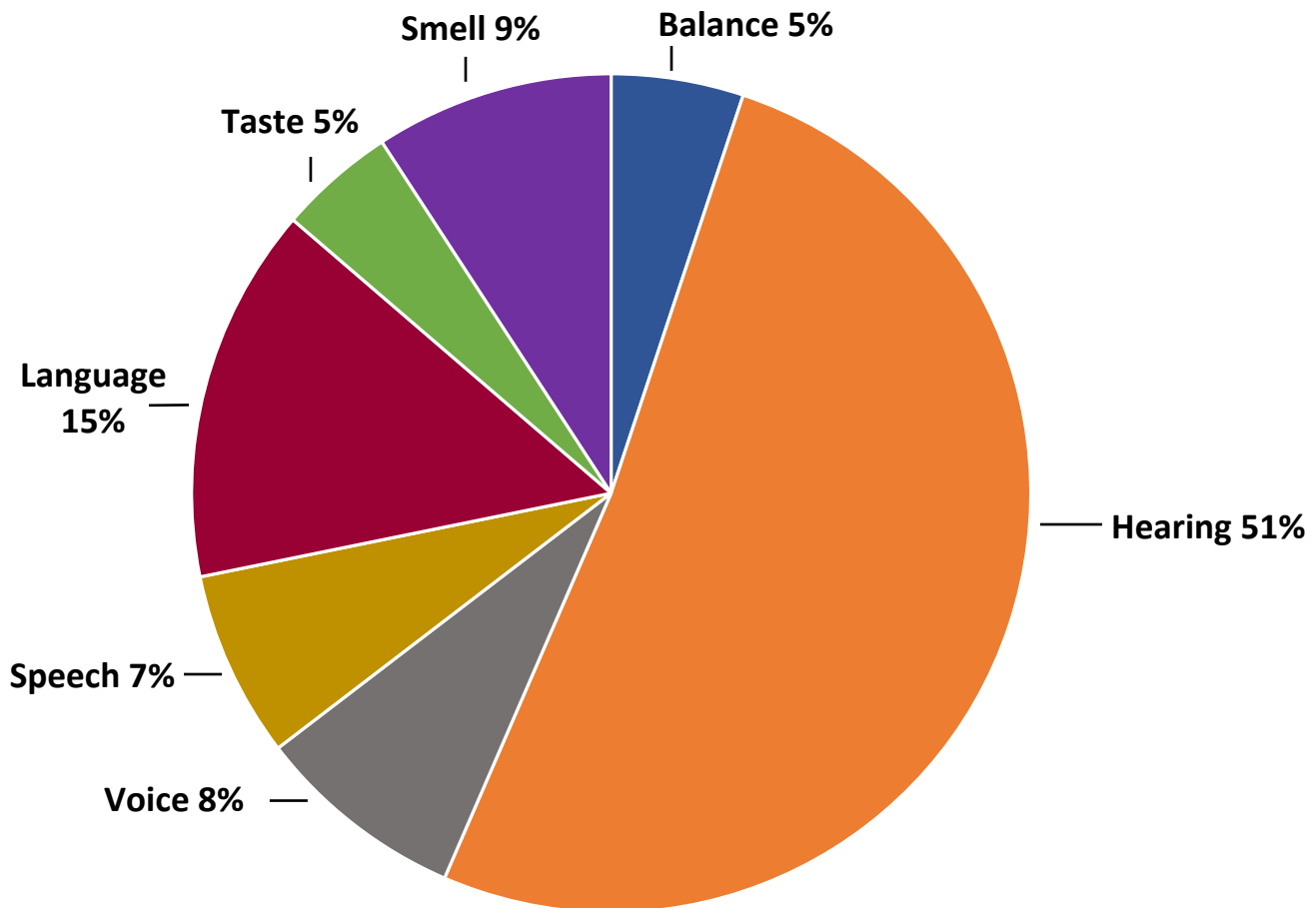
NIDCD Council Budget Report

Eric Williams, Budget Officer
NIDCD Advisory Council Meeting
January 28, 2022

**National Institute on Deafness and
Other Communication Disorders (NIDCD)
FY 2021 Operating Plan (Actual Allocations)
(Dollars in thousands)**

<i>Budget Mechanism</i>	FY 2021 Operating Plan	
	<i>Number</i>	<i>Amount</i>
Research Projects		
Noncompeting	582	\$256,482
Admin. Supplements	60	6,524
Competing	180	80,605
Subtotal	762	343,611
SBIR/STTR	21	15,492
Subtotal, RPG's	783	359,103
Research Centers	7	18,220
Other Research	85	12,048
Total Research Grants	875	389,371
Individual Training	156	7,360
Institutional Training	157	8,892
R & D Contracts	43	21,907
Intramural Research		44,748
Research Mgmt. & Support		24,296
TOTAL		\$496,574
Lapse		\$4

**National Institute on Deafness and
Other Communication Disorders (NIDCD)
FY21 Spending by Mission Area**



Includes Intramural and Extramural

**National Institute on Deafness and
Other Communication Disorders (NIDCD)**

FY2022 Budget Outlook
(Dollars in Thousands)

- FY 2019 Enacted: \$474,404
- FY 2020 Enacted: \$490,692
- FY 2021 Enacted: \$498,076
- FY2022 Currently under a “CR”
 - Continuing Resolution which sets the FY2022 budget equal to the FY2021 enacted budget

FY 2022 Competing R01/U01 Budget

Payline: \$16,000 per Council

HPP: \$4,000 per Council*

*Pends approval of an FY2022 Budget

**NIH Staff Present
Closed Session**

Christopher Adams
Kathy Bainbridge
Tian Biao (CSR)
John Bishop (CSR)
Laura Cole
Judith Cooper
Janet Cyr
Hoai Doan
Emma Eggerman
Nancy Freeman
Maria Garcia
Howard Hoffman
Roger Janz (CSR)
Nichelle Johnson
Andrea Kelly
Lisa Kennedy
Kelly King
Alexei Kondratyev
(CSR)

Eliane Lazar-Wesley
Mimi Lee
Chuan-Ming Li
Trinh Ly
Castilla McNamara
Roger Miller
Christopher Myers
Edward Myrbeck
Eric Nunn
Hua Danielle Ou
Amy Poremba
Lisa Portnoy
Kausik (Bobby) Ray
Alberto Rivera-Rentas
Cathy Rowe
Merav Sabri
Elka Scordalakes-
Ferrante
Lana Shekim

Katherine Shim
Brian Scott (CSR)
Susan Sullivan
Nanette Stephenson
Melissa Stick
Debara Tucci
Kelli Van Zee
Becky Wagenaar-Miller
Bracie Watson
Ginger Webb
Tim Wheeles
Eric Williams
Baldwin Wong
Shiguang Yang

Others:
Fran (captioner)
Alex Papadopoulos
(ORS)
Felice Harper (CIT)

**NIDCD Staff Present
Open Session**

Christopher Adams
Kathy Bainbridge
Marie Bernard (OD)
Laura Cole
Judith Cooper
Lisa Cunningham
Janet Cyr
Hoai Doan
Emma Eggerman
Nancy Freeman
Thomas Friedman
Maria Garcia
Richard Hodes (NIA)
Howard Hoffman
Nichelle Johnson
Joanne Karimbakas
Andrea Kelly
Lisa Kennedy
Kelly King

Eliane Lazar-Wesley
Mimi Lee
Chuan-Ming Li
Trinh Ly
Castilla McNamara
Roger Miller
Christopher Myers
Edward Myrbeck
Eric Nunn
Hua Danielle Ou
Amy Poremba
Lisa Portnoy
Kausik (Bobby) Ray
Alberto Rivera-Rentas
Cathy Rowe
Merav Sabri
Elka Scordalakes-Ferrante
Lana Shekim
Katherine Shim

Susan Sullivan
Nanette Stephenson
Melissa Stick
Debara Tucci
Kelli Van Zee
Becky Wagenaar-Miller
Bracie Watson
Ginger Webb
Tim Wheeles
Eric Williams
Baldwin Wong
Shiguang Yang

Others:

Edie Eaton (captioner)
Alex Papadopolous (ORS)
Joy Jackson-Ferrar (ORS)
Jonathan Bennett (ORS)
Felice Harper (CIT)

Certification of Minutes

We certify that, to the best of our knowledge, the foregoing minutes and attachments are accurate and correct.²

6/23/2022

/Rebecca Wagenaar-Miller/

Rebecca Wagenaar-Miller, Ph.D.
Executive Secretary
National Deafness and Other Communication
Disorders Advisory Council

6/23/2022

/Debara L. Tucci/

Debara L. Tucci, M.D., M.S., M.B.A.
Chair
National Deafness and Other Communication
Disorders Advisory Council

Director
National Institute on Deafness and
Other Communication Disorders

Ginger Webb
Council Assistant
NDOD Advisory Council

² These minutes were approved formally by the Council at the meeting on May 18, 2022, during the Director's remarks, and no corrections were added.