

National Institute of Dental and Craniofacial Research

National Advisory Dental and  
Craniofacial Research Council

Minutes of Meeting  
January 25, 2022

Via Videoconference

U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH



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NATIONAL INSTITUTES OF HEALTH  
NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH

MINUTES OF THE  
NATIONAL ADVISORY DENTAL AND CRANIOFACIAL RESEARCH COUNCIL

January 25, 2022

The 229<sup>th</sup> meeting of the National Advisory Dental and Craniofacial Research Council (NADCRC) was convened on January 25, 2022, at 10:00 a.m., via videoconference. The meeting was open to the public from 10:00 a.m. until 2:18 p.m.; it was followed by the closed session for Council business and consideration of grant applications from 2:30 p.m. until adjournment at 3:10 p.m. Dr. Rena D'Souza presided as Chair.

**OPEN SESSION**

**Members Present**

Dr. Kathryn Marie Albers  
Dr. Joel Collier  
Dr. David J. Couper  
Dr. Frank Ebetino  
Dr. Raul I. Garcia  
Dr. Lee A. Niswander  
Dr. Jacques Nor  
Dr. Wenyuan Shi  
Dr. Amy Smith Slep  
Dr. Clark M. Stanford  
Dr. Joel Strom  
Dr. Axel Visel

***National Institute of Dental and Craniofacial Research***

Dr. Rena D'Souza, Director  
Dr. Jennifer Webster-Cyriaque, Deputy Director  
Dr. Lynn King, Executive Secretary, and Director, Division of Extramural Activities (DEA)  
Dr. Matthew P. Hoffman, Scientific Director, Division of Intramural Research (DIR)  
Dr. Janice S. Lee, Clinical Director, DIR  
Dr. Renee Joskow, Director, Office of Science Policy and Analysis (OSPA)  
Mr. John Prue, OD, Director, Office of Information Technology (OIT)  
Dr. Lillian Shum, Director, Division of Extramural Research (DER)  
Ms. Kathleen Stephan, OD, Associate Director for Management/Executive Officer  
Mr. Jeff Ventura, OD, Director, Office of Communications & Health Education (OCHE)

Ms. Tamera Addison, OD, Office of Administrative Management (OAM)  
Ms. Alexandria Alfarano, DER

Mr. Hosam Alraqiq, OD, OSPA  
Dr. Lorena Baccaglini, DER, Center for Clinical Research (CCR)  
Dr. Nisan Bhattacharya, DEA, Scientific Review Branch (SRB)  
Mr. Spencer Case, OD, OSPA  
Dr. Preethi Chander, DER, Integrative Biology and Infectious Diseases Branch (IBIDB)  
Ms. Tiffany Chen, OD, OCHE  
Dr. Zhong Chen, DER, IBIDB  
Mr. Starsky Cheng, OD, OIT  
Dr. Aiwu Cheng, DEA, SRB  
Ms. Jennifer Chi, OD, Office of Clinical Trials Operations and Management (OCTOM)  
Ms. Alicia Chou, DER, Translational Genomics Research Branch (TGRB)  
Mr. Kevin Chu, OD, OIT  
Dr. Lois Cohen, OD  
Ms. Michelle Cortes, DER, IBIDB  
Ms. Mary Daum, OD, OCHE  
Mr. Bret Dean, OD, OAM  
Ms. Sharie Diggs, OD, OAM  
Mr. Jimmy Do, OD, Financial Management Branch (FMB)  
Dr. Olga Epifano, DEA, OD  
Dr. Catherine Evans, OD, OCHE  
Dr. Dena Fischer, DER, Director, CCR  
Dr. Leslie Frieden, DEA, Research Training and Career Development Branch (RTCDB)  
Dr. Melissa Ghim, DER, IBIDB  
Ms. Angelica Gomez, OD, OAM  
Mr. Harry Grant, DIR  
Dr. Margaret Grisius, DER, CCR  
Mr. Joel Guzman, DER  
Dr. Sue Hamann, OD, OSPA  
Ms. April Harrison, DEA, GMB  
Dr. Marika Heinicke, OD, OCTOM  
Ms. Jeannine Helm, DER  
Mr. Gabriel Hidalgo, DEA, GMB  
Dr. Jonathan Horsford, OD  
Dr. Hiroko Iida, DER, Director, HIV/AIDS & Oral Health Research Program  
Ms. Jennifer Jackson, DEA, SRB  
Ms. Petronilla Joseph, DIR  
Dr. Leila Khaki, DER, Behavioral and Social Sciences Research Branch (BSSRB)  
Mr. Jesse Langton, OD, OCHE  
Ms. Amber Lowery, OD, OMB  
Dr. Nadya Lumelsky, DER, IBIDB  
Ms. Jayne Lura-Brown, DER  
Ms. Susan Macharia, DEA  
Mr. Mike Martin, OD, OAM  
Dr. Kevin McBryde, DER  
Dr. Tamara McNealy, DER, IBIDB  
Ms. Susan Medve, DEA, GMB

Dr. Yun Mei, DEA, SRB  
Dr. Amanda Melillo, DER, IBIDB  
Ms. Amy Mhatre-Owens, OD, OCTOM  
Mr. Ricky Moore, DEA, SRB  
Ms. Mable Nee, OD, FMB  
Mr. Paul Newgen, DEA, GMB  
Ms. Anna Nicholson, OD, OCTOM  
Mr. Thomas O'Farrell, DEA, SRB  
Ms. Linda Orgain, OD, OCHE  
Ms. Lisa Peng, OD, OIT  
Ms. Debbie Pettitt, DEA, GMB  
Ms. Kendra Pope, DIR  
Dr. Elise Rice, DER, BSSRB  
Dr. Melissa Riddle, DER, BSSRB  
Ms. Diana Rutberg, DEA, GMB  
Dr. Yasaman Shirazi, DEA, SRB  
Ms. Angela Simpson, OD, OAM  
Dr. Ashley Smith, OD, OIT  
Mr. Michael Somes, OD, OCHE  
Dr. Katie Stein, DER, TGRB  
Dr. Shoba Thirumangalathu, DEA, RTCDB  
Dr. Hongen Yin, DER, CCR

***National Institutes of Health***

Dr. Thomas Boddie, Science Policy Coordination, Collaboration & Reporting Division  
(SPCCR), Office of the Director  
Ms. Michelle Culp, Senior Policy Advisor, Division of Clinical and Healthcare Research Policy,  
Office of Science Policy, National Institutes of Health  
Dr. Eliseo Perez-Stable, Director, National Institute on Minority Health and Health Disparities  
(NIMHD)  
Dr. Hannah Stacey, National Institute of Allergy and Infectious Diseases (NIAID)

***Guests***

Mr. Matthew Miller, Neal R. Gross & Co.

**I. WELCOME AND INTRODUCTIONS**

Dr. Rena D'Souza, Director, NIDCR, called the open session of the 229<sup>th</sup> Advisory Council meeting to order at 10:00 a.m. Dr. D'Souza opened the meeting by marking several notable transitions among NIH and NIDCR leadership. Dr. Francis Collins recently stepped down as NIH Director after over a decade of highly influential service. Dr. Lawrence Tabak, a former NIDCR Director, has been named Acting Director of the NIH. At NIDCR, Dr. Alicia Dombroski recently retired from her role as Director of the Division of Extramural Activities. Dr. Dombroski held that position for over 15 years while also serving as the Executive Secretary of the National Advisory

Dental and Craniofacial Research Council and NIDCR's Board of Scientific Counselors (BSC). Dr. Lynn King, a long-time NIDCR employee, has been appointed as the new DEA Director and Advisory Council/BSC Executive Secretary. Dr. D'Souza also welcomed Dr. Jennifer Webster-Cyriaque as the new NIDCR Deputy Director and Dr. Renée Joskow as NIDCR Senior Advisor and Acting Director of the Office of Science Policy and Analysis (OSPA). Dr. Webster-Cyriaque is professor emeritus at the University of North Carolina Schools of Medicine and Dentistry. She is a virologist by training with oral medicine and hospital dentistry expertise and will operate her lab in partnership with colleagues at the National Institute of Allergy and Infectious Diseases (NIAID). Dr. Joskow is a Captain in the U.S. Public Health Service and former Chief Dental Officer at the Health Resources and Services Administration (HRSA).

## **II. APPROVAL OF MINUTES FROM PREVIOUS MEETING ANNUAL REVIEW OF COUNCIL OPERATING PROCEDURES**

Dr. King asked Advisory Council members if there were corrections or comments on the minutes of the September 9, 2021 Advisory Council meeting. There were no comments and the Advisory Council voted unanimously to approve the minutes.

The Advisory Council is required to review its operating procedures on an annual basis. Dr. King noted that NIDCR is not proposing any changes at this time. Dr. King asked the Council members if they had any comments or proposed revisions to the Advisory Council operating procedures. There were no comments and the Council voted unanimously to approve the procedures.

## **III. REPORT OF THE DIRECTOR, NIDCR**

Dr. D'Souza's written January 2022 Director's Report to the Council was provided to the Council members and is available on the NIDCR website (<http://www.nidcr.nih.gov>). Dr. D'Souza opened her remarks by providing a brief overview of the meeting's agenda.

### COVID-19 Initiatives and Beyond the Pandemic

*NIH Workplace Policy.* Dr. D'Souza began by updating the Council on where NIH currently stands on pandemic workplace policy. The planned efforts to return to the physical workplace were disrupted by the arrival of the Omicron variant of SARS-CoV-2. NIH's policy remains maximum work-from-home. The current hybrid mode has advantages and disadvantages although it will likely remain in place for the near future.

*NIH-Wide Activities.* Dr. D'Souza briefly updated the Council on the Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) initiative, the NIH Community Engagement Alliance (CEAL) Against COVID-19 Disparities, and the Researching COVID to Enhance Recovery (RECOVER) initiative. Dr. Eliseo Perez-Stable, Director of the National Institute on Minority Health and Health Disparities (NIMHD) will discuss the CEAL program in greater detail during his presentation later on during the meeting.

*NIDCR Activities.* Dr. D’Souza reviewed NIDCR’s response to COVID-19 via grant funding opportunities supporting technology and basic and clinical research studies. Dr. D’Souza highlighted how NIDCR’s National Dental Practice-Based Research Network (NDPBRN) supported the development of the COVID-19 Research Registry (CORE), which gathers data on approaches to limit the transmission of COVID-19 in the clinic, and on how these efforts impact care and workplace health and safety.

### NIDCR Budget

NIH and NIDCR’s budgets are currently operating under a continuing resolution as Congress works to pass a budget for the coming year. Dr. D’Souza presented charts depicting how NIDCR’s funds are disbursed and how the Institute’s appropriations have trended in recent years. The majority of NIDCR’s funds continue to support Research Project Grants. Dr. D’Souza noted that the Institute plans to increase the percentage of funds supporting research training and career development in the coming years. Dr. D’Souza also highlighted NIDCR’s support of dental schools, which accounts for 45% of NIDCR’s extramural budget and 69% of the total NIH funding to dental schools.

### Key Milestones of 2021

*Oral Health in America Report.* The report, “Oral Health in America: Advances and Challenges,” was released in December 2021. Originally, the report was to be managed by the Office of the Surgeon General and was intended to be a follow-up to the 2000 Surgeon General’s Report on Oral Health. However, after the arrival of the COVID-19 pandemic, the report was delegated to NIH and NIDCR. Dr. D’Souza briefly reviewed the drafting process, which involved extensive collaboration and solicitation of input from stakeholders across the community. The report addresses the entire lifespan, highlights challenges and opportunities, and articulates a vision of the future that NIDCR hopes will serve as a call to action. NIDCR views the report as a living document that will guide and complement NIDCR’s new strategic plan. Dr. D’Souza summarized some of the main themes of the report, such as changing demographics in America, digitization of care, changes in care delivery, disease trends, new discoveries, and the determinants of health. NIDCR’s role in response to the report’s findings will be to support a research enterprise to drive reforms and policy changes, leverage implementation and population health science to help reduce the impact of upstream determinants, and help reimagine dental education, with the goal of ultimately reducing or eliminating systemic inequities.

*NIDCR Strategic Plan.* NIDCR’s 2021-2026 Strategic Plan emphasizes the importance of translation, metrics, and centering diversity, equity, and inclusion as core values. Dr. D’Souza briefly reviewed the overarching goals of the plan:

- Establish the cellular, molecular, behavioral, and environmental determinants that are unique to, and shared with, other systems.
- Develop more precise and individualized ways of managing and preventing dental, oral, and craniofacial (DOC) diseases.
- Accelerate the translation of research and the uptake of new discoveries.
- Nurture diverse future generations of oral health scientists.

- Expand already existing partnerships and create new ones.

### Trans-NIH Collaborations and Initiatives

Dr. D'Souza next described several paradigm-shifting NIH initiatives that NIDCR plans to leverage, from data science to pain and addiction research. One such program is the Helping to End Addiction Long-term (HEAL) Initiative, which aims to improve prevention and treatment interventions for opioid misuse and addiction and to enhance pain management strategies. Dr. D'Souza highlighted a Request for Information (RFI) NIDCR issued with several sister Institutes, titled Joint Pain and Innervation Research, which looks to explore how damage-associated molecules from different joint tissues activate pain neurons. NIDCR is also participating in another multi-Institute HEAL Initiative program called the Restoring Joint Health and Function to Reduce Pain (RE-JOIN) Consortium, which recently issued an RFI. NIH anticipates that its next budget will include a significant increase in funding devoted to pain research. Dr. D'Souza also noted that the next iteration of the Accelerating Medicines Partnership (AMP) will focus on autoimmune and immune-mediated disorders, which will include Sjögren's syndrome.

### Diversity, Equity, Inclusion, Accessibility

Dr. D'Souza briefly reviewed NIH's efforts to confront inequities in the biomedical research workforce since the killing of George Floyd and the subsequent social justice protest movement. NIH created the UNITE Initiative to identify and address structural racism within the NIH and the greater scientific community. The dental research community, like other areas, has low representation of people of color in its workforce, and there is high DOC disease burden in communities of color and low socioeconomic status. NIDCR is developing an intentional strategy to improve participation from underrepresented groups. These efforts include a number of grants on health disparities research and collaboration with other Institutes and NIH-wide initiatives on health equity-related FOAs and NOSIs. The MIND the Future program from the American Association for Dental, Oral, and Craniofacial Research (AADOCR) is an example of an initiative that received funding from NIDCR as a result of these efforts. Dr. D'Souza also updated the Council on the NIDCR Dental Public Health Residency & Fellowship and the NIDCR Clinical Research Fellowship.

### Council Engagement

Dr. D'Souza said that she was inspired by how Director Collins utilized the NIH Advisory Committee to the Director to grapple with important and sometimes controversial topics that faced the organization. Dr. D'Souza hopes to leverage the NIDCR Advisory Council in a similar manner. To further this effort, she has proposed that the Council establish working groups on three topics central to the NIDCR mission: data science, training of oral health professionals, and diversity, equity, and inclusion in DOC research.

## **IV. NIMH RESEARCH AGENDA ON EQUITY AND COVID-19**



Dr. D'Souza introduced Dr. Eliseo Perez-Stable, NIMHD Director, to discuss his Institute's research efforts on health equity and COVID-19 and areas for collaboration with NIDCR.

Dr. Perez-Stable began his presentation by providing an overview of NIMHD and its research purview. Per the Institute's initiating legislation, populations with health disparities include Census-defined racial and ethnic minorities, those of less privileged socioeconomic status, and underserved rural residents. In 2016, sexual and gender minorities were added to this list of research areas. NIMHD defines a health disparity as a health outcome that is worse in any of the above population groups when compared to a reference group. Race/ethnicity and socioeconomic status are fundamental health determinants which, for reason that have yet to be fully explained, predict life expectancy and mortality. Dr. Perez-Stable noted that social determinants of health include a number of factors that are unrelated to ethnic or family background, such as geographic region, health literacy, access to healthy foods, and public safety.

Dr. Perez-Stable briefly described NIMHD's research framework that classifies domains of influence (biological, behavioral, physical environment, sociocultural environment, and healthcare system) and levels of influence (individual, interpersonal, community, societal). One of the major lessons of the pandemic has been the disproportionate effect it has had on certain minority populations. Dr. Perez-Stable presented data from a study he co-authored that found that African Americans, American Indians/Alaska Natives, and Hispanics experienced two to four times more excess deaths from COVID-10 than their White counterparts. Studies have shown these numbers hold at similar levels for case rates and hospitalization rates. While vaccination rates were low among African Americans early on, the rates rebounded to equal the rate among Whites by September 2021. Overall, rural Americans and individuals with lower levels of education are the least likely to be vaccinated.

To combat the COVID-19 pandemic, NIH was appropriated \$1.4B from Congress in early 2020 to fund the Rapid Acceleration of Diagnostics (RADx) initiative. Some of that money went to RADx programs focused on developing and scaling up rapid testing and related platforms. Director Collins set aside \$500M to fund RADx-Underserved Populations (RADx-UP), which was tasked with improving COVID-19 testing in vulnerable and underserved populations, developing datasets on disparities in infection rates and disease outcomes, and identifying strategies to reduce disparities in COVID-19 testing. Another important aspect of RADx-UP was the creation of a consortium of community-engaged research projects intended to rapidly implement testing interventions. RADx-UP has been managed by NIMHD in partnership with the National Institute on Aging, with the RADx-UP Coordination and Data Collection Center (CDCC), which is housed at Duke University. To date, RADx-UP has funded 88 projects that reach 56 states and territories, with over 1.3 enrolled participants. Ten of the projects focus on American Indian/Alaskan Native populations. Dr. Perez-Stable noted that one of the challenges of RADx-UP has been managing such a large and wide-ranging project. Principal investigators are required to use common data elements and submit data to the central repository on a regular basis. Community engagement has been a major component of RADx-Up. One of the major lessons has been the importance of deploying community engagement efforts during a pandemic, which requires robust and trusted research community partnerships.

Dr. Perez-Stables next talked about the Community Engagement Alliance Against COVID-19 Disparities (CEAL) Initiative, which was created in 2020 to help drive more inclusive participation in the vaccine clinical trials. CEAL advised Moderna during its trial design phase, and this effort ultimately resulted in 37% minority participation in Moderna's clinical trial. CEAL's community engagement network's efforts are now taking place in over 20 states and Puerto Rico. Dr. Perez-Stable sees CEAL as a model for future engagement efforts even outside the pandemic circumstance.

Dr. Perez-Stable moved on to discuss NIMHD's research construct for studying the effects of racism. There are a number of approaches to the topic, including interpersonal effects, internalized effects, second-hand effects of racism, and structural racism. One way to view the effects of racism is as cumulative, low-grade, chronic exposure to stress. To this point, most of NIH's research has focused on the interpersonal phase, such as how racism affects rates of cardiovascular disease and substance abuse. In the last couple of years, structural racism has come to the forefront as a lens through which to interpret socioeconomic and health disparities among minority populations. Dr. Perez-Stable said NIMHD is in the process of finalizing grants that are designed to fund research on structural racism.

Dr. Perez-Stable briefly noted some of NIMHD's past community-driven health equity interventions. Expanding access is fundamental to reducing disparities in healthcare. This is particularly true when it comes to dental care, which still is not covered under most standard health insurance plans. Care coordination, community engagement as an equal partnership, patient-centered care, population health, and performance measurement are some other principles that need to be improved and leveraged on this front.

Health disparities are particularly glaring when it comes to oral health. Minority children have far higher rates of cavities than the White population, more than 40% of low income African American adults have experienced untreated tooth decay, and African Americans who develop oral cavity cancers have worse survival rates than their White peers. Some of these numbers are even worse in the American Indian/Alaska Native population. This state of affairs is exacerbated by the fact that upwards of 30% of Americans lack dental insurance to cover the costly dental care that they may require. Dr. Perez-Stable reviewed the NIMHD grants in oral health disparities, including training programs in Alaska, grants focused on rural dental care, and reducing oral health disparities in children. The NIMHD Health Disparities Institute is an annual week-long intensive training experience of early-stage investigators and postdoctoral fellows. The program includes lectures by leading minority health and health disparities researchers, mock grant review sessions, meetings with NIH program staff, and consultation on the development of research interests into grant applications. The program has had over 300 participants in its six years of existence. Dr. Perez-Stable concluded his presentation by listing active NIMHD Funding Opportunity Announcements that might be of interest to the NIDCR community.

## Discussion

Dr. D'Souza asked Dr. Perez-Stable to comment on the future of the CEAL Initiative and whether oral health could one day be included in the project. Dr. Perez-Stable said that CEAL

leadership hopes to develop a clinical component to the program, which initially would be focused on the COVID-19 pandemic but could be leveraged into other realms, including oral health, in the future. Dr. Garcia noted that NIMHD helped fund some of NIDCR's most successful health disparities-related initiatives and he hopes these collaborations continue. Dr. Visel asked whether NIMHD attempts to disentangle genetic factors from socioeconomic/environmental factors or whether it sees them as inseparable and attempts to study them holistically. Dr. Perez-Stable said that NIMHD's research framework implicitly acknowledges that there is very rarely a single cause to any disorder. This is particularly the case in the field of health disparities. NIMHD is open to researching the entire spectrum of biological, behavioral, structural, and environmental factors. Dr. Perez-Stable believes that robust health community paradigm approaches can produce real results in reducing health disparities at the local level. Dr. D'Souza noted that the oral cavity is the portal to the body and vital to whole body health at all ages. For this reason, integrating oral health interventions and reducing oral health disparities is vital to reducing disparities at the societal level.

## **V. CLINICAL TRIAL STEWARDSHIP**

Dr. D'Souza introduced Ms. Michelle Culp, Senior Policy Advisor in the NIH Office of Science Policy, to deliver her presentation on the future of clinical trial stewardship at NIH.

Ms. Culp began by discussing the evolution of NIH's clinical trial policies over the past decade. The goal has been to improve and maintain the quality of the NIH clinical trial enterprise, from the design phase through publication. After the release of the 2010 Institute of Medicine report "A National Cancer Clinical Trials System for the 21st Century," NIH Director Collins decided to take the report's findings and recommendations and apply them to NIH as a whole, rather than just NCI. This ultimately led to the formation of an NIH Clinical Trials Work Group in 2013, which was tasked with providing recommendations on how to address the IOM report and how to apply similar ideas across the NIH. Some of these recommendations included developing and promulgating a clear and operationally useful definition of clinical trial, improving the efficiency of the IRB review process, increasing access to trial results, and providing more rigorous peer review of clinical trials.

In 2016, NIH began revising its clinical trials policies with the goals of improving the quality and efficiency of clinical trials, supporting trials that explore mission-relevant questions of high priority, and enhancing the management and oversight of policies and procedures to strengthen quality, relevance, feasibility, and transparency of NIH-funded clinical trials. Ms. Culp briefly detailed the resulting policies, which included new review criteria policy, NIH's single IRB reform, and a policy governing the dissemination of clinical trial information.

Increased investment in clinical trials in recent years, coupled with the lessons from the COVID-19 pandemic, highlight the continued need for enhanced clinical trial stewardship going forward. In the summer of 2021, the Clinical Trial Stewardship Taskforce was stood up with the charge to (1) assess progress of prior NIH clinical trial stewardship reform efforts and (2) identify areas in which additional focus may be needed to further NIH's clinical trial stewardship reform efforts. Ms. Culp noted that Dr. D'Souza and Dr. Janice Lee serve as members of the taskforce.

In furtherance of this overall effort, Ms. Culp's team has compiled a collection of themes and lessons learned from various sources in the medical research community to guide NIH's efforts to improve clinical trials in the future. These lessons reach across clinical trial design, community and patient engagement, improving diversity in clinical trials, decentralized clinical trials, digital research technologies, and data collection and transparency. For example, NIH could strive to co-design clinical trials with patient advocates and underrepresented community members to align research outcomes. NIH could promote the development and operation of efficient, large-scale clinical trials networks with the ability to quickly pivot to pandemic response. Another recommendation was to determine best practices for increasing participation from under-represented communities and to create action plans for improvement in this regard. Decentralized trials could increase diverse enrollment by making participation easier for the patients. Digital research technologies could be leveraged to simplify clinical trials and improve the patient experience.

## Discussion

Dr. D'Souza thanked Dr. Culp for her presentation and noted that the oral health field has a lot of work to do to improve data sharing and EHR integration of oral health records. Ms. Culp said NIDCR has a unique opportunity to engage its community through the National Dental PBRN so that oral health research is seen as part of healthcare, not as a separate entity.

## **VI. NIDCR INTRAMURAL CLINICAL RESEARCH: SUCCESSFUL IMPLEMENTATION OF CLINICAL TRIALS AND STUDIES**

Dr. D'Souza introduced Dr. Janice Lee, NIDCR Clinical Director, and Ms. Anna Nicholson, Director of the NIDCR Office of Clinical Trials Operations and Management (OCTOM), to deliver the presentation on NIDCR's intramural clinical trial enterprise.

Dr. Lee began by noting that while the NIDCR Intramural Program is responsive to all of NIDCR's Strategic Priorities, her talk will center on how it addresses Strategic Priority #3, which is to "accelerate the translation of research and the implementation of new discoveries into oral and general healthcare practices that reduce health inequities and disparities and improve oral health outcomes for individuals and communities worldwide." Dr. Lee and Ms. Nicholson have been focusing on removing barriers to this effort to accelerate translational research. The vision of NIDCR's Clinical and Translational Research Program is to lead in the discovery of pathophysiological mechanisms, treatments, and cures for diseases of the dental, oral, and craniofacial (DOC) complex. To do so, it aims to "provide a collaborative, multidisciplinary environment that promotes the translation of basic research discoveries into clinical practices," across four main areas: patient-centered research, acceleration of discovery and therapies to impact patient care, preparing the future clinician-scientist, and excellence in care and the conduct of clinical research.

Dr. Lee provided an overview of clinical and translational research topic areas and their respective faculty members. She briefly discussed the Intramural Program's activity over the past five years. Currently, NIDCR has 17 active protocols, 42% of which are clinical trials which is an

important evolution of the intramural program. While NIDCR does not maintain a large number of protocols, it is very active in initiating and closing trials, which is a testament to the nimbleness of the program to facilitate therapeutic trials; however, requires significant staff support. Since 2018, NIDCR has been averaging 1.8 years to initiate its studies, which Dr. Lee acknowledged is an area that needs improvement. This reflects the length of CRADA negotiations and IRB approval, however, the infrastructure to support protocol navigation and contract negotiations has gone through substantial improvement over the last 10 years.

Ms. Nicholson provided an overview of OCTOM's role and areas of responsibility. OCTOM's mission is "to ensure the protection of the rights and welfare of NIDCR's research volunteers is upheld to the highest standards and to promote scientific rigor and research ethics, while fostering a collaborative environment with all those who develop, conduct, and oversee NIDCR-supported clinical research." To achieve this mission, OCTOM provides operational, managerial, and oversight support for all NIDCR-funded research, both intramural and extramural, while also developing research tools, templates, and other resources for study teams. OCTOM also oversees the Clinical Research Operations and Management Support (CROMS) contract and the new NIDCR Clinical Research Management System (CRMS). Ms. Nicholson presented a timeline depicting the lifecycle of an NIDCR clinical trial beginning with concept submission through protocol termination. OCTOM has been working hard to make the process more efficient and less time-consuming, including in several of the ways Ms. Culp described in her talk. The most recent iteration of the CROMS contract has been in place since 2019 and provides support in key areas, such as document preparation and review, data and safety monitoring support, safety event tracking, biostatistical support, and regulatory support, among other resources. The CROMS contract also supported the development of the CRMS, launched in February 2021, which is a grant and study tracking system, document repository, and oversight workflow tool. Going forward, OCTOM hopes to leverage this tool to support studies throughout the lifecycle and to increase diversity and inclusion. OCTOM also sees opportunities in education and training in clinical trial management and DOC-specific aspects. It also hopes to draw lessons learned from the pandemic experience.

Dr. Lee highlighted the importance of partnerships and collaboration in the Intramural Program, including with academia and industry. The program anticipates starting up to four new clinical trials in the next two years. Dr. Lee briefly noted some of the key partnerships, including a recent collaboration with the Howard University College of Dentistry. She also highlighted the importance of the NIH Clinical Center in supporting NIH clinical trials research. The Clinical Center also houses the NIDCR Dental Clinic, which provides clinical care and consults for NIDCR and NIH protocol subjects and support for clinical research protocols. The Dental Clinic has three staff dentists: Drs. Marie Kao-Hsieh, Golnar Jahanmir, and Zohreh Khavandgar. Dr. Lee noted that Dr. Jahanmir is a pediatric dentist and was hired in anticipation of NIDCR expanding its pediatric research. Dr. Lee also described the NIDCR Clinical Research Fellowship which provides mentored research training to improve oral health by ensuring an adequate number of well-prepared investigators and faculty. The program is highly selective, with at most 3 new fellows per year, and provides 2-3 years of research experience and funding. Since its founding in 2010, the fellowship has supported 24 fellows with very successful gender and racial diversity, as well as post-fellowship placement, including two fellows who were ultimately hired as NIDCR investigators.

## **VII. TRIENNIAL REPORT ON NIH INCLUSION GUIDELINES**

Dr. D'Souza introduced Dr. Dena Fischer, Director, Center for Clinical Research, NIDCR, to present the report on NIDCR's compliance with NIH inclusion guidelines for the Advisory Council's review and approval.

Dr. Fischer began by giving an overview of the legislative history of inclusion policies at NIH. The NIH Revitalization Act of 1993 originally established guidelines for inclusion of women and minorities in NIH-funded clinical research. The 21<sup>st</sup> Century Cures Act of 2016 mandated that Phase III trials perform valid analyses by sex/gender and race/ethnicity and report results of these analyses on [clinicaltrials.gov](http://clinicaltrials.gov), that all ages should be considered in research, and that enrollment data by age be included in study progress reports. The 21<sup>st</sup> Century Cures Act also adjusted the Advisory Council reporting timeline from biennial to triennial. Dr. Fischer's accompanying written report thus includes data from the FY 2019-2021 time period.

Despite having 18 more studies in 2021 than in 2019, overall enrollment in NIDCR-funded research dropped by almost 6,000, likely at least partially due to the COVID-19 pandemic. The data also indicate that the pandemic has likely impacted the participation rates of some populations more than others. Gender numbers have stayed steady, with female enrollment hovering at approximately 54% over the reporting time period. The number of White participants has also stayed roughly the same at around 50%. Hispanic/Latino and Black enrollment has declined several percentage points, although slight gains have occurred in Asian and American Indians/Alaskan Natives. For Phase III trials particularly, female enrollment increased from 64% in 2019 to 69% in 2021, Hispanic/Latino participation increased from 10.4% to 16.3%, and enrollment of Black participants increased from 35.7% to 47.5%. Notably, enrollment of Black participants in Phase III trials exceeded that of white individuals in FY2020 and FY2021. Dr. Fischer associated these increases with the fact that a number of the Phase III trials are focused on oral health disparities.

The Board voted unanimously to accept the triennial report on NIH inclusion guidelines.

## **VIII. CONCEPT CLEARANCE**

Dr. King, Director, DEA, noted that NIDCR is required to present the purpose, scope, and objectives of proposed concepts for research initiatives to the Council in a public forum for the Council's review, discussion, and approval, and for public comment. Concepts approved by the Council are published on the NIDCR website ([future research initiatives](#)). NIDCR staff presented three concepts, and designated Council members led the discussion, as summarized below.

[NIDCR Small Research Grants for Oral Health Data Analysis and Statistical Methodology Development](#)

Dr. Lorena Baccaglini, Director, Clinical Research and Epidemiology Program, Center for Clinical Research, presented the concept reissuance. This funding opportunity supports two types of grant applications: secondary analyses of existing dental, oral or craniofacial data or the development of statistical methodologies for analyzing dental, oral and craniofacial data. The program uses the R03 small grant mechanism, and it is limited in time (up to 2 years) and funding amount (up to \$100,000 direct costs per year). The original version in the series was published in 2004, and has been consistently utilized by junior and senior investigators to address diverse issues related to dental, oral, and craniofacial health. This specific program's first issuance was in 2020, with 7 awards granted from 59 competing applications. Forty-three percent of the awardees were dentist-scientists and/or early-stage investigators. The program received interest in both of its prongs and the program's focus area of data science remains highly relevant.

The Council's lead discussants for the concept were Dr. David Couper and Dr. Axel Visel, who both expressed strong support for the concept. Dr. Couper emphasized the importance of both prongs of the concept and the utility of extracting full value from preexisting data sets. Dr. Visel said the concept complements recent advances in data science and can serve to support and optimize researchers looking to leverage data science techniques. He also noted that the concept successfully uses the R03 mechanism to attract early-stage investigators.

The Council unanimously approved the concept.

#### TMD Collaborative for Improving Patient-Centered Translational Research (TMD IMPACT)

Dr. Melissa Ghim, Director, Neuroscience of Orofacial Pain and Temporomandibular Disorders Program, DER, presented the concept. The goal of this initiative is "to advance temporomandibular disorders (TMDs) basic and clinical research, research training, and translation to evidence-based treatments and improved clinical care via establishment of a national, interdisciplinary, trans-NIH patient-centered research collaborative." TMD research and patient care lags behind advances in other musculoskeletal, joint, and pain disorders, for example in the area of monoclonal antibody and small molecule therapeutics. The concept aims to address gaps and advance us towards patient-centered solutions by building a coordinated, interdisciplinary platform to support large-scale studies, integrate across studies and projects, and develop a cohesive research strategy and agenda. Dr. Ghim reviewed some of the scientific areas of interest that such a collaborative could investigate, such as understanding the mechanistic underpinnings of clinically meaningful stratified TMD subgroups and phenotypes; identifying and validating etiological targets for diagnosis, prevention, treatments, or their clinical endpoints; and developing tools and technologies to advance the current standard of TMD disease detection and quantitative measurement, among many others. Dr. Ghim then discussed potential consortium models that the IMPACT Collaborative could use as a framework.

The Council's lead discussants for the concept were Dr. Kathryn Albers and Dr. Clark Stanford. Dr. Stanford noted that this concept was a result of the National Academies of Science report on TMD and the subsequent Multi-Council Working Group. One of the working group's conclusions was the trans-disciplinary nature of TMD and the importance of bringing in other NIH Institutes in efforts to address what has historically been considered a solely dental disorder.

He emphasized the importance of including patient advocacy groups and training aspects in the proposed consortium. Dr. Albers expressed her strong support for the concept given the ongoing need to spur advances in TMD research and improve TMD care. Dr. Joel Strom recommended NIDCR include the interaction between TMD and sleep as one of the potential topics for the consortium.

The Council unanimously approved the concept.

#### Advancing Head and Neck Cancer Early Detection Research (AHEAD)

Dr. Zhong Chen, Director, Oral and Salivary Cancer Biology Program, DER, presented the concept. The goal of the concept is to establish a program to accelerate the translation of research to improve early detection of the head and neck cancers. Head and neck cancers are the sixth leading type of cancers by incidence globally and there are currently limited early detection biomarkers for these cancers. Evidence shows that early detection would improve outcomes dramatically for individuals who develop head and neck cancers. This program would support the “development, evaluation, and validation of biomarkers for risk assessment, early detection, and molecular diagnosis and prognosis of head and neck cancer initiation, progression, recurrence, and metastasis.” The program would partner with the National Cancer Institute’s (NCI) Early Detection Research Network. The AHEAD program would provide an opportunity to further understand the molecular characteristics of dysplastic lesions and improve oral lesion classification and predict cancer progression. Other areas of interest could include developing novel minimally invasive tools and methods for detecting biomarkers in bodily fluids, integration of data science and computational biology techniques, and identification of risk factors.

The Council’s lead discussants for the concept were Dr. Raul Garcia and Dr. Wenyuan Shi. Dr. Garcia expressed his support for the goals, relevance, and potential impact of this project. However, he noted some concerns about potential difficulties in operationalizing such an ambitious project that includes all head and neck cancers. He suggested that NIDCR consider focusing the concept on oral cavity and oropharyngeal cancers. He also expressed concern that the field may lack the basic discovery science foundation for translation. He advised NIDCR to review past initiatives, such as the salivary diagnostics program, to see what lessons can be learned from previous programs. Dr. Shi expressed overall approval and praised the effort to collaborate with NCI and recommended NIDCR consider seeking additional partners. Dr. Shi advised NIDCR to ensure that this initiative does not duplicate existing or previous research efforts. Dr. Jacques Nor suggested that staff consider response to treatment and discovery of biomarkers for tumor relapse to guide treatment intensity.

The Council unanimously approved the concept.

#### **CLOSED SESSION**

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. Code and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2).

**IX. REVIEW OF APPLICATIONS**

**X. ADJOURNMENT**

**CERTIFICATION**

I hereby certify that the foregoing minutes are accurate and complete.

*/Rena D'Souza/*

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Dr. Rena D'Souza  
Chairperson  
National Advisory Dental and  
Craniofacial Research Council

*/Lynn King/*

\_\_\_\_\_  
Dr. Lynn King  
Executive Secretary  
National Advisory Dental and  
Craniofacial Research Council

**ATTACHMENTS**

- I. Roster of Council Members