

Director's Report to the National Advisory Dental and Craniofacial Research Council September 2020

HHS/NIH UPDATE

[NIH Offers COVID-19 Information & Resources](#). An NIH microsite offers a curated collection of information and resources about COVID-19, including NIH research on the novel coronavirus; NIH's initiatives to accelerate testing, therapeutic interventions, and vaccines; treatment guidelines; a link to search for COVID-19-related clinical trials; information for NIH applicants and recipients; and links to other federal government resources. The microsite's information is updated regularly. The site also provides a link for users to sign up for COVID-19 email updates from NIH.

[NIH Releases Strategic Plan for COVID-19 Research](#). In July, NIH released its NIH-wide COVID-19 Strategic Plan, which outlines five strategic priorities to improve fundamental knowledge of SARS-CoV-2 and its related disease, COVID-19; advance research to improve detection; support research to advance treatment; accelerate research to improve prevention; and prevent or redress poor COVID-19 outcomes in health disparity and vulnerable populations.

[NIH Delivering New COVID-19 Testing Technologies To Meet US Demand](#). NIH's Rapid Acceleration of Diagnostics (RADx) initiative has awarded contracts to seven biomedical diagnostic companies to support a range of new lab-based and point-of-care tests that could significantly increase the number, type, and availability of tests by millions per week as early as September 2020. The seven technologies use different methods and formats and can be performed in a variety of settings to meet diverse needs.

[NIH Launches Clinical Trials Network to Test COVID-19 Prevention Tools](#). NIH's National Institute of Allergy and Infectious Diseases has established a new clinical trials network that aims to enroll thousands of volunteers in large-scale clinical trials testing a variety of investigational vaccines and monoclonal antibodies intended to protect people from COVID-19. The COVID-19 Prevention Trials Network (COVPN) will use a harmonized vaccine protocol developed by the Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV) public-private partnership. This will enable researchers to analyze vaccine protection across multiple trials. The network is expected to operate more than 100 clinical trial sites across the United States and internationally.

[All of Us Launches COVID-19 Research Initiatives](#). NIH's *All of Us* Research Program announced that it is leveraging its significant and diverse participant base to seek new insights into COVID-19—through antibody testing, a survey on the pandemic's impacts, and collection of electronic health record information. Data gathered through these activities will be broadly accessible to approved researchers over time. Analyses may help reveal the origins of entry, spread, and impact of COVID-19 in the United States.

[Analytics Platform Harnesses COVID-19 Patient Data to Speed Treatments](#). NIH has launched a centralized, secure enclave to store and study vast amounts of medical record data from people diagnosed with coronavirus disease across the country. It is part of an effort, called the National COVID Cohort Collaborative (N3C), funded by NIH's National Center for Advancing Translational Sciences, to help scientists analyze data to understand the disease and develop treatments.

[NIH Announces New Steps to Combat Sexual Harassment](#). If there are concerns that sexual harassment is affecting an NIH-funded project, NIH wants to know about it. Last year NIH established channels to notify NIH of concerns and to provide resources on [finding help](#). In June of this year, NIH issued

additional guidance to grantees that sets clear expectations for reporting. The new guidance, outlined in a [Science editorial](#), aims to address loopholes identified by the Advisory Committee to the NIH Director's Working Group on Changing the Culture to End Sexual Harassment. Details can be found in [NOT-OD-20-124](#).

[Lindsey Criswell Named Director of NIAMS.](#) NIH Director Francis S. Collins, MD, PhD, has selected Lindsey A. Criswell, MD, MPH, DSc, as director of NIH's National Institute of Arthritis and Musculoskeletal and Skin Diseases. A rheumatologist, Criswell is currently the vice chancellor of research at the University of California, San Francisco (UCSF). She is a professor of rheumatology in UCSF's Department of Medicine, as well as a professor of orofacial sciences in its School of Dentistry. She is expected to begin her new role as the NIAMS director in early 2021.

[NIH Selects Michael Chiang as Director of NEI.](#) Dr. Collins selected Michael F. Chiang, MD, as director of NIH's National Eye Institute. A practicing ophthalmologist, Chiang is currently the Knowles Professor of Ophthalmology & Medical Informatics and Clinical Epidemiology at Oregon Health & Science University (OHSU), Portland, and is associate director of the OHSU Casey Eye Institute. He is expected to begin his new role as the NEI director in late 2020.

[NIH Taps Shannon Zenk as Director of NINR.](#) Dr. Collins selected Shannon N. Zenk, PhD, MPH, RN, FAAN, as director of NIH's National Institute of Nursing Research. A registered nurse and leading nurse researcher, Zenk is currently Nursing Collegiate Professor in the Department of Population Health Nursing Science at the University of Illinois at Chicago (UIC) College of Nursing, and a fellow at the UIC Institute for Health Research and Policy. She is expected to begin her new role as the NINR director in early fall.

[NIH Names Rick Woychik Director of NIEHS.](#) Dr. Collins has appointed Richard (Rick) P. Woychik, PhD, as director of NIH's National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina. Woychik served as deputy director of the NIEHS from 2011 to 2019 and as acting director since October 2019. He officially began his new role as the NIEHS director on June 7, 2020.

BUDGET UPDATE

Updated budget information for FY 2020 and FY 2021 will be presented at the Council meeting.

NIDCR UPDATE

Institute News

[NIH Names Rena D'Souza as Director of NIDCR.](#) NIH Director Francis S. Collins, MD, PhD, has selected Rena N. D'Souza, DDS, MS, PhD, as director of NIDCR. A licensed dentist, Dr. D'Souza is currently the assistant vice president for academic affairs and education for health sciences at the University of Utah, Salt Lake City. "Dr. D'Souza is renowned for her research in craniofacial development, genetics, tooth development, and regenerative dental medicine. She has worked as a proponent for NIH for decades, serving on critical advisory committees and as an expert consultant on multiple projects," said Dr. Collins. Dr. D'Souza is expected to begin her new role as the NIDCR director later this year.

[NIDCR's COVID-19 Webpage: Research Funding, Dental Guidelines, & More.](#) NIDCR launched a COVID-19-related webpage that offers information and resources including NIDCR's COVID-19 funding opportunities and notices, funding opportunities related to NIH's COVID-19 testing initiative, Rapid

Acceleration of Diagnostics (RADx), and COVID-19 studies at the National Dental Practice-Based Research Network. In a recently released video, NIDCR Director for Clinical Research Dena Fischer, DDS, MSD, MS, explains the various COVID-19-related funding opportunities. Users can also link to the CDC's guidance for dental settings, which is continually updated, most recently on August 4, 2020.

Sjögren's Syndrome Featured in *NIH Medline Plus Magazine*. A cover story on Sjögren's syndrome in the Summer 2020 issue of *NIH Medline Plus Magazine* features an [interview with NIDCR's Blake Warner, DDS, PhD, MPH](#), who describes his research on the roles inflammation and genes play in the condition. The magazine also includes [NIDCR's answers to five common questions about dry mouth](#) and personal stories from two Sjögren's patients, [79-year old Joan Manny](#) and [television personality Carrie Ann Inaba](#).

[AADR Partners with NIDCR on Diversity Mentoring Program](#). The American Association for Dental Research (AADR) announced 10 mentees of the inaugural class of the AADR Mentoring an Inclusive Network for a Diverse Workforce of the Future (AADR MIND the Future). The program is supported by a 5-year, over \$1.3 million grant funded by NIDCR, designed to build a vibrant and inclusive community of investigators whose participation is vital to advancing dental, oral and craniofacial research and improving the oral health of our nation.

NIDCR-Supported Science Advances

[Shining a Light on Coronavirus Antibodies](#). As researchers worldwide rushed to tackle the COVID-19 pandemic, NIDCR's Peter Burbelo, PhD, adapted an antibody-detecting method he'd invented 15 years ago and applied it to the study of the novel coronavirus, SARS-CoV-2. The light-based technique, called luciferase immunoprecipitation system (LIPS), showed high sensitivity and specificity to antibodies against the spike and nucleocapsid proteins of SARS-CoV-2. The highly quantitative antibody data generated by LIPS is helping Burbelo's collaborators answer a variety of questions about COVID-19.

[Turning Back the Clock on Gum Disease](#). A recent NIDCR-supported study at the University of Washington in Seattle showed that an FDA-approved drug targeting an aging-related pathway partially reversed periodontal disease in elderly mice. The findings point to a potential new avenue for enhancing the oral health of older adults.

[Scientists Chew on a New Theory of Swallowing](#). In an NIDCR-funded study led by a University of Chicago team, scientists used advanced visualization techniques to image monkeys while they swallowed food. The researchers showed that swallowing is driven by the piston-like movement of a bone at the base of the tongue, contrary to previous theories positing that muscles in or around the tongue initiated swallowing. The findings could lead to better treatments for swallowing disorders, which can result from conditions that include craniofacial defects, temporomandibular joint disorders, and head and neck cancer therapies.

[Complexity of Human Tooth Enamel Revealed at Atomic Level](#). Scientists used a combination of advanced microscopy and chemical detection techniques to uncover the structural makeup of human tooth enamel at unprecedented atomic resolution, revealing lattice patterns and unexpected irregularities. The results of this NIDCR-supported study could lead to a better understanding of how tooth decay develops and might be prevented.

[Scientists Take a Crack at Bone Regeneration](#). Scientists have developed a biodegradable scaffold that, when placed in a bone defect in mice, releases nanoparticles that deliver a drug to nearby stem cells, triggering targeted bone regeneration at the site of injury. The NIDCR-supported work is part of an effort

to find more effective ways to repair bone defects and to find alternatives to bone grafting, which is the current standard of care but carries risks.

Personnel Update

Hiroko Iida, DDS, MPH, joins NIDCR as director of the HIV/AIDS and Oral Health Research Program, part of the Center for Clinical Research in the Division of Extramural Research. Dr. Iida earned her dental degree from Kagoshima University, Japan, then received a certificate in pediatric dentistry from New York University, followed by an MPH in health policy and administration and a fellowship in pediatric dentistry from the University of Illinois at Chicago. She also completed a fellowship in reproductive, perinatal, and pediatric epidemiology at the University of Washington as a T32 trainee. Prior to joining NIDCR, Dr. Iida served as an oral health program administrator for the District of Columbia Department of Health and for the New York State Oral Health Center of Excellence. And she has held faculty positions at the University of Rochester and the University of North Carolina at Chapel Hill. Dr. Iida is board-certified in dental public health.