Director's Report to the National Advisory Dental and Craniofacial Research Council September 2022

HHS/NIH UPDATE

HHS Leaders Visit NIH. On July 22, HHS secretary Xavier Becerra, JD, toured the National Cancer Institute's Center for Cancer Research, learning about research efforts related to the Cancer Moonshot initiative, which aims to reduce cancer deaths by 50% over the next 25 years. In June, HHS Assistant Secretary for Health Adm. Rachel Levine, MD, visited campus to deliver opening remarks for an NIH Pride event and met with leadership to discuss ongoing COVID-19 research.

In People with HIV, Treating Precancerous Anal Lesions Cuts Cancer Risk. A large clinical trial of people living with HIV showed that treating precancerous anal growths reduces the risk of anal cancer by more than half. Nearly all cases of anal cancer are caused by cancer-causing human papillomaviruses (HPV), which also give rise to cervical and oral cancer. The findings could potentially lead to recommendations for lesion screening in people with HIV and others, including those with HPV-related pre-cancers or cancers.

NIH Solicits Ideas for New Common Fund Programs. NIH's Common Fund, which supports bold scientific programs, is seeking new ideas that can catalyze discovery across all biomedical and behavioral research. NIH encourages the public to share what they think is the greatest opportunity in biomedical research and why it should be pursued. The deadline for responses is Friday, September 30, 2022, at 11:59 pm ET.

Adam H. Russell Named Acting Deputy Director of ARPA-H. HHS Secretary Xavier Becerra, JD, announced the formal establishment of the Advanced Research Projects Agency for Health (ARPA-H), a new agency to drive transformational, high-risk research. He appointed Adam H. Russell, DPhil, as acting deputy director while President Biden searches for an inaugural director. Russell began his new role in June. Previously, Russell served as the chief scientist at the University of Maryland's Applied Research Laboratory for Intelligence and Security.

NIH Acting Director Testifies Before Congress. NIH Acting Director Lawrence A. Tabak, DDS, PhD, and several NIH institute directors appeared before the House Appropriations Subcommittee on Labor, HHS, Education, and Related Agencies on May 11 to discuss fiscal year 2023 NIH budget request. NIH leaders testified in front of and the Senate Appropriations Subcommittee on Labor, HHS, Education, and Related Agencies again on May 17 about the same matter. The proposed budget will support science that helps tackle national health challenges—including health disparities, the rise of addiction, and nutrition science—and the start-up of ARPA-H.

NIAAA Launches the Healthcare Professional's Resource on Alcohol. The National Institute on Alcohol Abuse and Alcoholism launched the Healthcare Professional's Core Resource on Alcohol, which serves as a one-stop center for information and resources to help health care professionals provide evidence-based care for patients affected by alcohol problems. The resource provides the opportunity to earn free continuing medical education and continuing education credits.

Anthony Fauci to Step Down from Government Service. Anthony S. Fauci, MD, announced his plan to step down from his Federal positions in December 2022 to pursue the next chapter of his career. He is

currently director of the National Institute of Allergy and Infectious Diseases (NIAID), chief of the NIAID Laboratory of Immunoregulation, and chief medical advisor to President Joe Biden. The president, HHS secretary, and NIH acting director issued statements recognizing Fauci's long and influential career. Fauci served the public for more than 50 years by researching immune-mediated and infectious disease, advising seven presidents, and steering the nation through public health crises, including the HIV/AIDS epidemic and the COVID-19 pandemic.

White House to Appoint Monica Bertagnolli as NCI Director. On August 10, President Joe Biden announced his intent to name Monica Bertagnolli, MD, as the sixteenth—and first female—director of the National Cancer Institute (NCI). A surgeon-oncologist, Bertagnolli is currently the Richard E. Wilson professor at Harvard Medical School, a surgeon at Brigham and Women's Hospital, and a member of the Gastrointestinal and Sarcoma Treatment Centers at Dana-Farber Cancer Institute.

Nina Schor Appointed NIH Acting Deputy Director for IRP. NIH Acting Director Dr. Tabak named Nina F. Schor, MD, PhD, as the NIH acting deputy director for intramural research. Schor joined NIH as the deputy director of the National Institute of Neurological Disorders and Stroke in 2018 and assumed the role of director in 2021. She received her doctorate from Rockefeller University and her MD from Cornell University.

Kevin Williams Named NIH Office of EDI Director. Dr. Tabak appointed Kevin D. Williams, JD, as the director of the NIH Office of Equity, Diversity, and Inclusion. He joins NIH from the U.S. Federal Trade Commission, where he served as deputy executive director, overseeing the management and administration of the agency. Williams earned his bachelor's degree from Morehouse College and his JD from Howard University School of Law.

NIDCR UPDATE

Institute News

Jennifer Webster-Cyriaque Wins IADR Award. NIDCR Deputy Director Jennifer Webster-Cyriaque, DDS, PhD, received the 2022 Distinguished Scientist Award in Oral Medicine & Pathology Research from the International Association for Dental Research (IADR). IADR CEO Christopher Fox, DMD, DMS, presented the award to Dr. Webster-Cyriaque at NIH's Bethesda, Maryland campus; NIH Acting Director Lawrence A. Tabak, DDS, PhD, and NIDCR Director Rena D'Souza, DDS, PhD, were also in attendance. The award honors Dr. Webster-Cyriaque's track record of outstanding research in oral immunology and mechanisms that govern health and disease in the oral cavity and related tissues.

<u>Using Science to Solve Oral Health Inequities</u>. NIDCR Director Rena D'Souza, DDS, PhD, penned a guest post for the NIH Director's Blog to highlight oral health inequities in America. Drawing from the <u>Oral Health in America</u>: <u>Advances and Challenges</u> report, Dr. D'Souza emphasized the importance of achieving oral and overall health for all through efforts that include research that improves access to oral care and delineates the connections among oral health, mental illness, and addiction.

Webinar Highlights NIDCR's Research and Training Priorities. NIDCR Deputy Director Dr. Webster-Cyriaque shared NIDCR's strategic priorities through the lens of the <u>Oral Health in America</u> report with nearly 400 participants in a webinar on May 10. Division of Extramural Research Director Lillian Shum, PhD; and Division of Extramural Activities Director Lynn King, PhD provided an overview of the institute's

research portfolio and training opportunities at the event. A recording of this free online webinar is available on NIDCR's YouTube channel.

<u>NIDCR Plans for 75th Anniversary in 2023</u>. An NIDCR steering committee has begun discussing plans to commemorate the institute's 75th anniversary. Under consideration are various scientific symposia and seminars, including a training and career development symposium featuring current and past trainees. In 1948, President Harry S. Truman signed the bill establishing the National Institute of Dental Research. That name was amended in 1998 to include "Craniofacial" to better reflect the breadth of the institute's research.

NIDCR-Supported Science Advances

Researchers Discover How Sound Reduces Pain in Mice. By playing sounds—classical music, unpleasant music, and white noise—at a low intensity, an international team of scientists reduced pain sensitivity in mice and identified the neural mechanisms underlying this effect. The study, co-led by NIDCR Stadtman Tenure Track Investigator Yuanyuan (Kevin) Liu, PhD, and researchers in China, may inform development of non-opioid pain therapies.

<u>Inflammation May Curb, Not Cause, Chronic Pain</u>. Challenging previous notions about inflammation and pain, scientists found that a robust initial inflammatory response during acute pain appears to protect against chronic pain rather than contribute to it. The NIDCR-supported study suggests that suppressing inflammation to lull acute pain may be counterproductive for relieving low back and jaw pain in the long run.

Norovirus and Other 'Stomach Viruses' Can Spread Through Saliva. NIDCR scientists Matthew Hoffman, PhD, and John Chiorini, PhD, lent their salivary biology expertise to a National Heart, Lung, and Blood Institute study, which discovered that norovirus and other "stomach viruses" can grow in salivary glands and spread through saliva in mice. The findings point to a possible new transmission route for these viruses, which commonly cause intestinal illness in humans.

Taste Nerve Reveals Coronavirus Entryways. A research team led by NIDCR researcher Eva Mezey, MD, PhD, found that the outer surfaces of axons—the long fibers of nerve cells that transmit electrical signals—are studded with protein "entry factors" used by the SARS-CoV-2 virus to invade cells. The findings point to the possibility that the virus could infect taste-sensing nerves and may explain the taste loss that affects about 39% of those who have COVID-19.

Personnel Update

Alisa Machalek, MS, joins NIDCR as the acting director of the Office of Communications and Health Education. She has a master's in biochemistry from the University of Wisconsin-Madison and a graduate certificate in science writing from the University of California, Santa Cruz. She comes to NIDCR on an 80% detail from the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), where she is a team lead for science writing and project officer. Prior to joining NIAMS, Machalek was a senior science writer at the National Institute of General Medical Sciences (NIGMS), where her outreach projects included an exhibit of microscopy images at Dulles Airport.

Wendy Knosp, PhD, returns to the Office of Science Policy and Analysis (OSPA) as chief of the Science Policy and Planning Branch. She previously served as a health science policy analyst in NIH's Office of Strategic Coordination, which manages the Common Fund, leading efforts to address emerging scientific

opportunities and challenges that are a high priority for NIH. She came to NIH as a senior postdoctoral fellow at NIDCR and originally joined NIDCR's OSPA as a health science policy analyst in 2015. Knosp earned her doctorate from Oregon Health & Science University.

Noffisat Oki, PhD, joins NIDCR as the director of the Data Science, Computational Biology, and Bioinformatics Program in the Division of Extramural Research. She received her doctorate from North Carolina State University and completed her postdoctoral research at the Environmental Protection Agency. Oki comes to NIDCR from the NIH Center for Scientific Review, where she served as a scientific review officer. She initially joined NIH as a AAAS Science and Technology Policy Fellow at the National Institute of Allergy and Infectious Diseases.

Jay Chiorini, PhD, has been named the associate scientific director for equipment and resources in the DIR. He earned his doctorate from George Washington University and completed his postdoctoral research at both NIGMS and the National Heart, Lung, and Blood Institute. Chiorini originally joined NIDCR as a tenure-track investigator in 1999 and is currently a senior investigator and chief of the Adeno-Associated Virus Biology Section, a position he has held since 2006.

Niki Moutsopoulos, DDS, PhD, has been selected as the associate scientific director for tenure track mentoring in the DIR. She received her DDS from Aristotle University in Thessaloniki, Greece, and completed her specialization in periodontology at the University of Maryland, where she also received her doctorate as part of a combined program with NIDCR. Moutsopoulos originally joined NIDCR as an intramural research training award fellow and is currently a senior investigator and chief of the Oral Immunity and Infection Section, a position she has held since 2019.

Kelly G. Ten Hagen, PhD, has been appointed associate scientific director for Diversity, Equity, Inclusion, and Accessibility in the Division of Intramural Research (DIR). She received her doctorate from Stanford University. Ten Hagen initially joined NIDCR as a tenure-track investigator and is currently a senior investigator and chief of the Developmental Glycobiology Section, a position she has held since 2012. She currently serves on the NIH UNITE initiative, the NIH Anti-Harassment Steering Committee, the NIH Anti-Racism Steering Committee, the NIH Women Scientists Advisors Committee, and is a member of the Board Scientific Directors.