The 105th meeting of the National Advisory Council for Nursing Research (NACNR) was convened on Tuesday, September 14, 2021, at 11:00 a.m. The open session was held by National Institutes of Health (NIH) videocast, and all observers, including members of the public, attended virtually. The open session adjourned at 2:45 p.m. The closed session of the meeting, which included consideration of grant applications, was convened on Tuesday, September 14, 2021, at 3:00 p.m. and continued until adjournment at 3:30 p.m. Dr. Shannon Zenk, Chair, NACNR, presided over both meeting sessions.

OPEN SESSION

I. CALL TO ORDER, OPENING REMARKS, AND COUNCIL PROCEDURES—Dr. Shannon Zenk, Director, National Institute of Nursing Research (NINR)

Dr. Zenk called the 105th meeting of the NACNR to order and welcomed all Council members, visitors, and staff. She noted two absences: Dr. Grayson Holmbeck (expected to arrive later) and Dr. Nilda Peragallo Montano.

Dr. Zenk noted that the open session of the meeting was being videocast live and will be archived on the NIH videocast website.

Minutes of the Previous NACNR Meeting

Council members received the minutes of the May 18, 2021, NACNR meeting by email. A motion to accept these minutes was made, seconded, and approved unanimously. The approved minutes of each NACNR meeting become part of the Institute’s official record and are posted on the NINR website (www.ninr.nih.gov).
Dates of Future Council Meetings

Dates for future Council meetings were included in the electronic Council book. The next Council meeting (January 25, 2022) will be virtual. Other 2022 NACNR meetings are scheduled for May 24 and September 13.

Conflict of Interest and Confidentiality Statement

Dr. Zenk noted that the conflict of interest and confidentiality statements were included in the Council materials. Dr. Old, NACNR Acting Executive Secretary, will provide specific instructions at the beginning of the closed session in the afternoon.

II. REPORT OF THE DIRECTOR, NINR—Dr. Shannon Zenk, Director, NINR

The Director’s report focused on activities and news from NIH and NINR since the May 2021 Council meeting. Highlights of Dr. Zenk’s report included:

NIH News—President Biden has proposed the establishment of the Advanced Research Projects Agency for Health (ARPA-H) to champion innovative ideas in health and medicine. Based on the Defense Advanced Research Projects Agency (DARPA) model, ARPA-H aims to establish a culture of championing innovative ideas in health and medicine. The President’s Fiscal Year (FY) 2022 budget includes $6.5 billion in the NIH budget to support ARPA-H across three years. A commentary authored by Drs. Francis Collins and Eric Lander outlines the vision for ARPA-H.

The most recent iteration of the NIH Strategic Plan for FYs 2021–2025 outlines NIH’s vision for biomedical research direction, capacity, and stewardship; articulates NIH priorities for the next 5 years; and highlights accomplishments from the previous strategic plan and new initiatives for the future. The NIH-Wide Strategic Plan complements and harmonizes Institute and Center (IC) strategic plans that address their individual missions.

NINR News—Since May, feedback for the NINR Strategic Plan has been gathered via the NINR website and numerous meetings with constituent organizations. Next steps include release of the draft framework through a Request for Information (RFI) in the fall and public webinars during the comment period. The revised framework will be discussed at the January 2022 Advisory Council meeting, for release during the first half of 2022.

Dr. My-Kyung Song’s NINR Director’s lecture on end-of-life decision making is available on the NIH videocast archive.
Budget—The President’s FY 2022 budget requests includes about $52 billion for NIH including $330 million for health disparities research, of which $20 million is for NINR in recognition of the impact that nursing science can have on health disparities. A Continuing Resolution (CR) is anticipated for FY 2022.

NINR Sponsored Events in September—Over several weeks in September, the 2021 Methodologies Boot Camp is being offered with a focus on the impact that Artificial Intelligence can have in improving care in an equitable way in the evolving health care environment. On September 21, NINR is co-sponsoring a state-of-the-science workshop on Food Insecurity, Neighborhood Food Environment, and Nutrition Health Disparities to identify research gaps and opportunities and explore innovative research strategies to inform policy and practice. At the end of the month, NINR is collaborating with the National Center for Complementary and Integrated Health (NCCIH) to host a workshop on methodological approaches for whole person research.

Trans-NIH Climate Change and Human Health Initiative—NINR is engaged in developing this new initiative designed to build understanding of how climate change affects human health and how to optimize climate change mitigation and adaptation to address pressing health needs. A recent RFI identified potential priority areas for studies, including several of relevance to NINR: research and community partnerships to address environmental injustice and foster resilience, translation and dissemination of research findings and health protective strategies, and diverse workforce to address human health and climate changes.

NIH Common Fund Program on Health Disparities—NINR is co-chairing a program to address health disparities and advance health equity; funding decisions from the first Requests for Applications (RFAs) will be announced soon. Listening sessions and an RFI release planned for the fall will gather feedback to inform a possible new program for launch in FY 2023.

Funding Opportunities—NINR is a major supporter of the trans-NIH Social, Behavioral, and Economic Impact of COVID-19 (SBE) R01 grant program and has funded grants on the impact of COVID on homeless youth, health disparities, rural Americans, and minority survivors and their care partners. In a new FOA (PAR-21-213) focused on leveraging existing data, NINR highlighted an interest in the impact of the pandemic on the health of nurses and other healthcare workers. NINR also will participate in several new trans-NIH FOAs, including the NIH Health Care Systems Research Collaboratory (NOT-AT-21-015 and NOT-AT-21-016), Native American Research Centers for Health (NARCH) (NOT-NR-21-003), and Multilevel Physical Activity Interventions (NOT-OD-21-087).

Training Pathways Report—Dr. Zenk presented an update on implementation of recommendations from the Pathways report designed to strengthen the nurse scientist career pipeline. NINR raised the caps
for K01 and K99 requested salaries to $100,000 per year to help students who may be balancing family and work. To encourage early entry into doctoral programs and support streamlined degree programs, NINR joined the NIH F30 program that supports dual-degree DNP/PhD students.

**Diversity and Inclusion**—Dr. Zenk shared statistics on diversity among NINR-supported investigators. Black investigators make up only 2.4 percent of the NIH-supported workforce, and NINR’s number is only slightly higher at 4.3 percent. Only 2.5 percent of NINR grantees self-report as Hispanic compared with 4.8 percent of NIH grantees. In addition, success rates for white applicants to NINR are higher than for all other groups. Noting that these numbers are unacceptable, Dr. Zenk opened a discussion on steps NINR can take to address these concerns.

**Discussion:**

Council members described the need for a special focus on American Indian/Alaska Native populations, targeting unique groups earlier in the nurse scientist career pipeline and increasing resources (e.g., release time) for diverse mentors. Interest was expressed in seeing data on applicant gender, statistics showing volume in addition to percentages, and diversity of study section membership.

Dr. Zenk proposed formation of two Council workgroups focused on addressing these areas: one focused on inclusion of diverse research study participants and one focused on diversity in NINR-supported nursing science workforce. There was general agreement with this proposal.

**NINR Staff News**—Dr. Zenk outlined her recent activities, including presentations to nursing, research, and other professional societies and universities as well as Congressional meetings. She introduced Dr. Olga Acosta, NINR’s new executive officer and other new staff who have joined NINR since the May Council meeting. Dr. Zenk recognized Dr. Jessica Gill, NINR Deputy Scientific Director and Chief of the NINR Brian Injury Unit; Dr. Gill has transitioned her lab to Johns Hopkins University where she will complete the second phase of the Lasker Scholars program. Dr. Zenk noted that searches are moving forward for a number of key leadership positions at NINR; details about these open positions can be found on the NINR website at [https://www.ninr.nih.gov/aboutninr/organizationinformation/ninjobopportunities](https://www.ninr.nih.gov/aboutninr/organizationinformation/ninjobopportunities).

**III. Introducing the New NIH Office of Nutrition Research**—Dr. Christopher J. Lynch, Acting Director, NIH Office of Nutrition Research (ONR)

Dr. Lynch presented an overview of NIH nutrition research and the ONR. The ONR mission is to advance nutrition science to promote health and reduce the burden of diet-related diseases. Key responsibilities
include advising NIH leadership, coordinating implementation of the NIH Strategic Plan for Nutrition Research, and representing NIH on interagency committees on nutrition research and related policies.

Precision nutrition is the unifying vision of the NIH nutrition research strategic plan and its goals: to spur discovery innovation through foundational research; investigate the role of dietary patterns and behaviors for optimal health; define the role of nutrition across the lifespan for healthy development and aging; and reduce the burden of disease in clinical settings. Implementation working groups (IWGs) have performed portfolio analyses, developed goals, and outlined concepts for workshops, trans-NIH initiatives, and grand challenges.

Dr. Lynch described the Nutrition for Precision Health (NPH) program and its primary goal of developing algorithms to predict individual responses to foods and dietary patterns. Nested in the All of Us Research Program, the study will examine baseline diet and physiological responses to meal challenges and measure response to short-term controlled feeding interventions in free-living and domiciled environments. Participant enrollment is expected to begin in early 2023.

Discussion:

Council members commented on the role of nutrition in symptom management, self-management, and in clinical settings.

IV. NIH Tribal Health Research Office (THRO)—Dr. David Wilson, Director, NIH THRO

Dr. Wilson introduced the roles and responsibilities of the NIH Tribal Health Research Office (THRO) and highlighted the legal, political, and government-to-government relationship between the 574 federally recognized Tribal Nations and the United States. As the central hub coordinating Tribal health research and American Indian/Alaska Native (AI/AN) capacity building across NIH, THRO supports NIH Institute, Center, and Office (ICO) efforts to meet goals of the NIH Strategic Plan for Tribal Health Research; ensures NIH adherence to implementation of the U.S. Department of Health and Human Services Tribal Consultation Policy; gathers meaningful input from Tribal communities on NIH research policies, programs, and priorities; and convenes the NIH Tribal Advisory Committee.

THRO engages Tribal Nations in describing their research priorities and linking these priorities to NIH ICOs. For example, many Nations are interested in building research capacity within their own communities. Dr. Wilson noted that COVID-19 highlighted an inability to effectively monitor outbreaks within the communities. THRO is pursuing an initiative with the Office of Data Science Strategy (ODSS) to develop and pilot a data science curriculum for Tribal universities that would be expanded to all 32 Tribal colleges and universities.
Dr. Wilson noted components of the draft NINR strategic plan that are areas of opportunity for collaboration with the THRO.

Discussion:

Council members remarked on the Tribal community respect for nurses—Native and non-Native—who are leading or participating in research. They commended the regional training hub concept as a strategy for building capacity of Native Americans to do research.

V. Concept Presentations and Discussion—Drs. Rebekah Rasooly, Shalanda Bynum, and Amanda Price

**Concept 1. Health Impacts of Implicit Bias in Machine Learning Workshop**

Dr. Rasooly presented a workshop proposal to address the widely recognized problem of algorithmic bias; that is, systematic and repeatable errors in a computer system that create unfair outcomes. The workshop would focus on identifying gaps in research and funding aimed at understanding or mitigating bias in machine learning that may be relevant to nursing research.

Council members recommended being explicit about the serious harms that might occur as a result of algorithmic bias, identifying the critical issues from a return-on-investment point of view, and how understanding algorithmic bias can improve the rigor of nursing science.

**Concept 2. Advancing Integrated Models (AIM) of Care to Improve Maternal Health Outcomes Among Racial/Ethnic Minority Women**

Dr. Bynum presented a concept focused on filling gaps in scientific knowledge related to optimization of pregnancy outcomes for racial/ethnic minority women with a focus on implementing and evaluating models of care that incorporate labor, delivery, and postnatal support, social risk factors, and direct medical care, as well as formative research in American Indian/Alaskan Native communities.

Council members suggested building on lessons learned from the Nurse-Family Partnership and incorporating community engagement; factors that underlie disparities between women of other races and ethnicities including differences in timing of pregnancy care initiation; and articulating a community-based participatory research approach.

**Concept 3. Addressing Long-Term Social Impacts of the COVID-19 Pandemic on Health and Health Disparities**

Dr. Price presented a concept focused on identifying and addressing ongoing, long-term impacts of COVID-19, with specific emphasis on evaluating policy and programmatic interventions aimed at
reducing food and nutrition insecurity and housing instability. This is relevant to the holistic health approach to nursing science.

Council members encouraged broadening the concept to include health care and educational access.

Adjournment

Dr. Zenk thanked meeting attendees and adjourned the open session of the meeting at 2:45 p.m.

VI. CLOSED SESSION

This portion of the meeting was closed to the public in accordance with the determination that this session concerned 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, USC Appendix 2). Members absented themselves from the meeting during discussion of and voting on applications from their own institutions or other applications in which there was a potential conflict of interest, real or apparent. Members were asked to sign a statement to this effect.

Review of Applications

NACNR members considered 80 research and training grant applications on which NINR was the primary Institute; these applications requested a total of $22,391,915 (direct costs year 01). The Council also considered 139 applications on which another Institute/Center was primary and NINR was secondary. These applications requested a total of $62,808,080 (direct costs year 01). The Council concurred with the Institutional Review Group recommendations on these 219 applications.

ADJOURNMENT

The 105th meeting of the NACNR was adjourned at 3:30 p.m. on Tuesday, September 14, 2021.

CERTIFICATION

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

Shannon N. Zenk, PhD, MPH, RN, FAAN
Chair
National Advisory Council for Nursing Research

Rebekah S. Rasooly, PhD
Executive Secretary
National Advisory Council for Nursing Research
COUNCIL MEMBERS PRESENT

Dr. Shannon N. Zenk, Council Chair
Dr. Susan E. Old, Acting Executive Secretary
Dr. Grayson N. Holmbeck
Dr. Mallory O. Johnson
Dr. Christopher Lee
Dr. Peter A. Lewin
Dr. John Lowe
Dr. Ida M. Moore
Dr. Cindy L. Munro
Dr. Elias Provencio-Vasquez
Dr. Sheila Cox Sullivan, Ex Officio
Dr. Joanne Wolfe

The entire meeting was held by NIH videocast, and all observers, including members of the public, attended virtually.