The National Advisory Child Health and Human Development (NACHHD) Council convened its 164th meeting at 8:00 a.m., Thursday, June 8, 2017, in Building 31, Conference Room 6, of the National Institutes of Health (NIH) in Bethesda, Maryland. The meeting was open to the public from 8:00 a.m. to 11:50 a.m. As provided in Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S.C., and Section 10(d) of Public Law 92-463, for the review, discussion, and evaluation of grant applications and related information, the meeting was closed to the public from 1:00 p.m. until 4:30 p.m.

Diana W. Bianchi, M.D., Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), presided.

**Council members present:**
Anne C. Case, Ph.D., M.P.A.  DeWayne M. Pursley, M.D., M.P.H.
Barbara L. Collura  Frederick P. Rivara, M.D., M.P.H.
Patricia Flynn, M.D.  George R. Saade, M.D.
Gregory S. Kopf, Ph.D.  Sheila C. Zimmet, J.D.
Richard D. Krugman, M.D.

**Council members absent:**
Melissa L. Gilliam, M.D., M.P.H.  Lesli Rotenberg
Stephen A. Petrill, Ph.D.  Timothy P. Shriver, Ph.D.

**Department of Defense**
Col. Teresa L. Brininger, Ph.D.

**National Advisory Board on Medical Rehabilitation Research Council Liaison**
Richard K. Shields, Ph.D.

**Ex officio members present:**
Patricia Dorn, Ph.D.  Aaron M. Lopata, M.D., M.P.P.

**Observers (pending members) present:**
Michael Boninger, M.D.  Clifford Tabin, Ph.D.
Atul J. Butte, M.D., Ph.D. (via teleconference)  Alyce Thomas
Catherine Gordon, M.D., M.Sc.

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1 Members absent themselves from the meeting when the Council discusses applications from their own institutions or when a conflict of interest might occur. The procedure applies only to individual applications discussed, not to *en bloc* actions.
Others present:
Diana W. Bianchi, M.D., Director, NICHD
Catherine Y. Spong, M.D., Deputy Director, NICHD
Della M. Hann, Ph.D., Director, Division of Extramural Research and Associate Director for Extramural Research, NICHD
Constantine Stratakis, M.D., D.Sc., Director, Division of Intramural Research, NICHD
Members of NICHD Staff
Members of NIH Staff

Invited Guests:
James Baumberger, M.P.P., American Academy of Pediatrics
Craig Fisher, Psy.D., American Psychological Association
Joseph Laakso, Ph.D., Endocrine Society

I. CALL TO ORDER AND INTRODUCTORY REMARKS

Dr. Diana Bianchi welcomed Council members, guests, and staff to the 164th meeting of the NACHHD and announced that the meeting would be open to the public for the morning portion and would be broadcast on the NIH videocast network.

A. Review of Confidentiality and Conflict of Interest

Dr. Della Hann reminded Council members that all members were required to read, agree to, and sign the confidentiality and nondisclosure rules for special government employees on the Council member website before evaluating any NIH grant applications. Council members also received a conflict of interest certification form at the meeting, which they were required to sign prior to the closed session of the review of applications. Dr. Hann also reminded Council members that if there is a specific discussion involving any organizations or universities for which they are in conflict, in addition to those listed on the Council Action document, that they are required to recuse themselves from the discussion and leave the room. Council members are not allowed to serve on the NIH peer review panel while serving as a Council member. It is NIH policy that individuals may not serve on both the first and the second levels of peer review.

B. Council Minutes

Dr. Hann moved to approve the January 2017 meeting minutes. The minutes were approved unanimously, as written.

C. Future Meeting Dates

Dr. Hann reviewed the future meeting dates:

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<tr>
<th>Date</th>
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<tr>
<td>September 14, 2017</td>
<td>(Thursday)</td>
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<td>January 18, 2018</td>
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<td>June 7–8, 2018</td>
<td>(Thursday–Friday)</td>
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<td>September 26-27, 2018</td>
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II. NICHD DIRECTOR’S REPORT AND DISCUSSION

Dr. Bianchi outlined the topics she would cover, beginning with the budget update.
Budget Update

The fiscal year (FY) 2017 budget, passed in May, allocates $1.38 billion to NICHD, an increase of $40.5 million over FY 2016. The President’s proposed FY 2018 budget for NICHD is about $1 billion, which represents a significant cut over FY 2017.

House Appropriations Committee Chairman Rep. Tom Cole (R-OK) and Senate Appropriations Committee Chairman Sen. Roy Blount (R-MO) spoke highly of NIH during a recent appearance at the NIH Clinical Center.

The hiring freeze continues to affect NICHD. Among the positions that remain open are some Branch leadership positions. The hiring freeze also applies to special government employees, which includes Council members. NICHD is preparing the necessary paperwork to hire new staff when the freeze is lifted.

Vision Update

Dr. Bianchi listed some of the key aspects of her vision for NICHD, including to:

- Define the NICHD brand and focus
- Listen to the patient
- Advocate for personalized medicine in pediatrics, obstetrics, and rehabilitative medicine
- Build bridges between other NIH Institutes and external organizations
- Integrate obstetrics and pediatrics research
- Find ways to identify and support the trainees most likely to succeed
- Stress the importance of data science and data sharing
- Increase access to clinical trials for pediatric and obstetric patients
- Catalyze innovation
- Seek the advice of the NACHHD

Dr. Bianchi described some of the work NICHD has accomplished since the previous Council meeting in January. The communications team has been updating the website, which is expected to be online by the end of the year. NICHD staff have met with Friends of NICHD and visited Congress. Dr. Bianchi and staff are building partnerships within and outside NIH, including the following:

- Expanding collaborative work with the National Human Genome Research Institute (NHGRI). Dr. Bianchi’s own laboratory is at NHGRI.
- Working with All of Us Research Program staff to ensure that children and pregnant women are included in this longitudinal study, which aims to enroll 1 million participants.
- Speaking at meetings of the Neonatal Research Network and the Maternal-Fetal Medicine Units Network to encourage them to share their data.
- Visiting area hospitals to identify possible collaborations with subspecialists to conduct pediatric clinical research at the NIH Clinical Center.
- Participating in a meeting with the Bill & Melinda Gates Foundation to work on areas that include maternal, newborn, and child health.
- Working with the Global Coalition to Advance Preterm birth Research.
NICHD’s funding for training and career development has remained at between 5 percent and 7 percent of the total budget for more than 30 years, and that level of support will continue.

Compared to other NIH Institutes and Centers (ICs), NICHD funds more institutional K awards than individual K awards. The institutional K awards help build expertise in targeted areas. However, individuals who have received an individual award are more likely to apply for and receive an R award than those who have received an institutional award. As a result, NICHD will put more of its K funding into individual K awards.

NICHD is committed to sharing resources, including through the Data and Specimen Hub (DASH), which now includes data and specimens from 41 studies. Investigators have already published one study, on predictors of preterm birth, using DASH data.

NICHD is inventorying the biospecimens that NICHD maintains in a repository to assess their condition, whether they could prove useful to research, and whether the necessary consents are in place to share them. The vision is that these biospecimens also will be made available through DASH in the near future.

**Other Items of Interest**

Dr. Bianchi introduced topics that would be covered later in the meeting: the grant support index and the 21st Century Cures Act. There are several elements of the Cures Act that are relevant to NICHD, such as inclusion of children in research and the Task Force on Research Specific to Pregnant Women and Lactating Women. A study of pediatric inclusion in research found that, while investigators in 60 percent of NIH Phase III clinical trials planned to include children, they did not plan to analyze their results by age.

**Council Discussion**

Dr. Richard Krugman asked whether Dr. Bianchi has discussed the plan to rebalance the individual and institutional K awards with organizations such as the Association of Medical School Pediatric Department Chairs (AMSPDC). Dr. Bianchi said that NICHD has presented the data to AMSPDC and other organizations. The organizations have expressed their concerns, but they appreciated the evidence behind the NICHD decision.

Dr. Frederick Rivara asked whether NICHD could partner with some children’s hospitals to help fund the K12s. Dr. Bianchi said that is something that had not been proposed before and could be discussed further.

Dr. Clifford Tabin said that the link between having the individual K award and success in receiving subsequent awards is not necessarily causal. It could be correlated. Dr. Bianchi said that applying for an individual award and having the award is a learning experience that likely helps the individual in later applications.

Dr. George Saade said that data repositories are valuable, but he is concerned about the potential for errors when researchers analyze data that they were not involved in collecting. These analyses should be reviewed, particularly those that could change clinical practice.

Rohan Hazra, M.D., said that NICHD staff surveyed other repositories to see how they handled that question. NICHD decided to allow the peer review process to determine any issues related to analyzing the data. If there are questions, the data are still available for anybody to reanalyze.
Dr. Atul J. Butte asked whether NICHD could require that grantees deposit their data in DASH or another repository. Dr. Hann said that will soon be a requirement. The Cures Act requires data sharing, although grantees cannot be directed to share their data in a particular repository. NIH is working on the wording.

III. DIVISION OF EXTRAMURAL RESEARCH REPORT

Dr. Hann began by providing staff updates including new hires and retirements. She also gave a tribute to an employee who recently passed away. She then provided data on NICHD awards and a progress report on clinical trial reforms.

Understanding NICHD Awards

NICHD has been taking steps to improve the payline, including establishing stricter guidelines for large grant acceptance, limiting parent announcements and secondary assignments, and communicating priorities. Those steps helped reduce the number of applications, which in turn accounted for some of the increased success from 11.5 percent in FY 2015 to 13 percent in FY 2016. NICHD issued 462 new awards in FY 2016, the highest number of awards since 1967.

In FY 2017, NICHD will have a more flexible payline for investigator-initiated awards and will be more strategic about its investments. NICHD has analyzed the mix of funding for centers, networks, infrastructure, training, and research grants for each branch. Each branch chief will review this information for their branch to determine whether it is the correct mix or should be rebalanced.

Progress in Clinical Trial Reforms

Concerns about NIH clinical trials have included the variable quality of trial designs, incomplete registration and reporting of trial results, and inconsistent oversight and monitoring. NIH has instituted a number of reforms including the co-development, with the Food and Drug Administration (FDA), of the NIH-FDA Clinical Trial Protocol Template tool. The template is for those trials that will be reviewed by FDA, but it can also be useful in other areas of science.

NIH is also developing a policy to have a single institutional review board for multisite research and a policy that clinical trial applications cannot come in under parent funding opportunity announcements. Those policies are expected to go into effect in January 2018.

IV. OFFICE OF HEALTH EQUITY REVIEW REPORT AND DISCUSSION

Dr. Catherine Spong said that the recommendations of the NACHHD Office of Health Equity Working Group were discussed at the January Council meeting. At the suggestion of the Council members, the report has been revised to include those populations that are at the core of the NICHD mission but have been underrepresented in research—children, women, and persons with intellectual, developmental, and physical disabilities.

Council Discussion and Vote

The Council members voted unanimously to accept the changes.
V. STATEMENT OF UNDERSTANDING

Mr. Bryan Clark presented the statement of understanding. The statement spells out the Council’s role in activities such as secondary reviews of grant applications, concept reviews, and expedited reviews of meritorious applications. The Council was asked to vote on whether they agree to the statement of understanding.

Council Discussion and Vote

Council members voted unanimously to accept the statement of understanding.

VI. CONNECTING THE DOTS FROM DIAGNOSIS TO CURE

As part of Dr. Bianchi’s commitment to learn more from the perspective of the patient, Dr. Constantine Stratakis, introduced the parent of a child who was treated at the NIH Clinical Center, Ms. Kristine Ribas.

Ms. Ribas said that her daughter was healthy until she turned 5, when she began gaining weight and complaining of headaches and abdominal pain. She gained 20 pounds in 9 months and stopped growing. The family spent many months visiting doctors trying to alleviate the symptoms and to control the weight gain through diet. A family friend who is a physician suggested the possibility of Cushing’s disease, which is caused by a tumor in the pituitary or adrenal glands that overstimulates the production of cortisol. Tests found high levels of cortisol in Ms. Ribas’ daughter’s blood and urine.

Ms. Ribas and her husband brought their child to the Clinical Center. Ms. Ribas described the steps that the NIH team took to treat their daughter and to support the parents. The NIH team found and removed a 0.5-millimeter tumor from their daughter’s pituitary gland. Following removal of the tumor, her daughter began losing weight, has begun to grow, and no longer has headaches and other ailments. Ms. Ribas has since joined the board of the Children’s Inn, where the family had stayed during inpatient treatment.

Council Discussion

Dr. Stratakis noted that Cushing’s disease is the only pediatric condition in which a child’s weight increases while growth stops. The disease has an incidence of about one in 5 million children.

Dr. Krugman and Ms. Sheila Zimmet suggested that the physicians at NIH could follow up with the practice that missed the diagnosis.

VII. 21st CENTURY CURES ACT AND NICHD

Lisa Kaeser, J.D., provided background on the 21st Century Cures Act and its implications for NICHD. The Cures Act was signed into law on December 13, 2016. This is the first major reauthorization legislation affecting NIH since 2006.

Congress provided $4.8 billion to NIH through the Cures Act. The funding is directed to a few specific NIH programs. These include the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, the All of Us Research Program (formerly called the
Precision Medicine Initiative), the Cancer Moonshot, and regenerative medicine. The measure also provided money to the states to address the opioid crisis.

The Cures Act also encourages NIH to support young investigators, which NIH is implementing through the Next Generation Researchers Initiative, aimed at helping early- and mid-career researchers reach independence by extending paylines under certain circumstances. The Act raises the yearly cap on the NIH Loan Repayment Programs from $35,000 to $50,000 for those who agree to work for the government for a period of time. The Act also exempts NIH from conference and travel limitations, enhances reporting on clinical trial status, and requires NIH funding recipients to share their data.

Section 2038 of the Act requires that NIH consider amending its policies so that appropriate age groups, such as children and the elderly, be included in clinical research. NIH held a workshop, “Inclusion Across the Lifespan,” June 1-2, 2017, to discuss approaches for including a wider range of age groups in research. For example, one suggestion was to change the baseline assumption so that all ages should be included in a study unless there is a specific reason for exclusion.

The workshop’s findings will be sent to NIH Director Francis S. Collins, M.D.

To make sure that any interested parties had an opportunity to weigh in on this issue, NIH also published a Request for Information (RFI) on inclusion of children and the elderly in clinical studies. Ms. Kaeser asked Council members to respond to the RFI, particularly with regard to inclusion of younger age groups. The RFI closes on June 30. Section 2041 of the Act requires the establishment of a new federal Task Force on Research Specific to Pregnant Women and Lactating Women. Dr. Spong is leading the task force, which is charged with identifying and addressing gaps in knowledge and research on safe and effective therapies for pregnant and lactating women. The task force will report to the Secretary of Health and Human Services and Congress by September 2018. A webpage has already been created on the NICHD website, and meeting dates have been set. The first meeting is scheduled for August 21–22, 2017. All meetings are open to the public and will allow for public input.

In addition, two new reporting categories, “Pregnancy” and “Breastfeeding, Lactation, and Breastmilk,” have been established in NIH’s reporting system to capture NIH-funded research in these areas. This will allow the public to see what grant money has been allocated for these categories.

Section 2040 of the Cures Act calls for improving medical rehabilitation research at NIH. This section requires that there be a scientific workshop held every 5 years and that the rehabilitation research plan be updated every 5 years. NIH issued its latest 5-year plan in 2016 and held two scientific workshops last year.

**Council Discussion**

Barbara L. Collura asked whether the Cures Act funding was included in the budget figures that Dr. Bianchi presented. Ms. Kaefer said that the Cures Act funding is separate. Dr. Bianchi said that NICHD did not receive additional funding for Cures-related activities. NICHD Budget Officer Alexis Clark said that the Cures funding appears in the overall NIH budget.

Ms. Collura asked whether NICHD must report back on the impact of the Cures Act funding. Ms. Kaeser said that the reporting requirements are established provision by provision. The
authorizing committees in Congress also can ask for updates at any time. Ms. Collura recommended reporting on successes that come out of the Cures funding so that its effectiveness is apparent.

Dr. Saade asked whether the All of Us Research Program plans to include pregnant women, whose data could help in the understanding of chronic diseases and long-term outcomes. Ms. Kaeser said that the Research Program would include pregnant women.

Ms. Alyce Thomas asked whether the Task Force on Pregnant and Lactating Women would look at over-the-counter (OTC) medications, such as herbal and diet supplements. Dr. Spong said that the Cures Act uses the word “therapeutics,” which could be broadly defined to include OTC medications. However, the Task Force will need to focus their work in order to complete it by the deadline. If there is time, OTC medications could be included at a later date.

VIII. NICHD BUDGET 101

Ms. Alexis Clark described the congressional appropriations process and timeline. The House of Representatives has held its hearing on the NIH budget. The Senate hearing was expected later in June. If the budget has not been finalized before October 1, the government will operate on a continuing resolution, which can affect paylines because of the uncertainty it creates.

During FY 2016, 52 percent of NICHD funding went to Research Project Grants and 14 percent went to intramural research. Other funding was distributed across centers, cooperative clinical networks, R&D contracts, Research Management and Support, training grants, and for the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs. NICHD is mandated to spend specific amounts on some program areas, including SBIR/STTR. Ms. Clark said that about 5 years ago those programs received 3.1 percent of the grants budget. It is now 3.65 percent.

Ms. Clark went into the details of developing a budget, including generating a list of research and development contract obligations and projecting increases in personnel costs.

Ms. Clark also said that the budget office attempts to balance the amount of funding that is distributed at each of the three Council meetings. NICHD also has funding pools, which allow the Institute to fund some scientific projects that are deemed to be important but would not be funded if decisions were made solely based on score. She also discussed other ways that the budget office reassesses throughout the fiscal year to see whether there are any funds available and whether the Institute can increase the payline.

Council Discussion

Dr. Rivara asked whether the odds of receiving grant money vary depending on what time of year an application comes before the Council. Ms. Clark said that there is an equal chance of being funded at any of the three Council meetings. However, applicants at the October Council are more likely to experience a delay in the decision because continuing resolutions are more common at that time of year. When it appears that there will be more funds than expected, the budget office adjusts the payline and goes back through all of the grants that came before the Council during the year.
Dr. Gregory Kopf asked how much spending would have to deviate from the operating plan to trigger the need for a justification. Ms. Clark said that a justification is required when the deviation is $500,000 or 10 percent of the budget.

IX. NEXT GENERATION RESEARCHERS INITIATIVE (GRANT SUPPORT INDEX)

Lawrence A. Tabak, D.D.S., Ph.D., provided information about the Next Generation Researchers Initiative (formerly called the grant support index) by making the following points:

- The competition for funding in biomedical research is discouraging outstanding students from entering the profession.
- The number of grant applications has risen steadily since 2003, but the number of awards has remained flat.
- The 21st Century Cures Act requires the NIH Director to promulgate the Next Generation Researchers Initiative, which calls for policies to promote earlier independence and increased funding for new investigators.

The success rate for early-career (younger than 45 years old) investigators is similar to that of experienced investigators due to the Early Stage Investigators policy enacted in 2008, but late-stage (at least 60 years old) investigators often have multiple grants and other institutional funds to create a cushion when their grant application is not funded. Early-career investigators often have little to fall back on and may leave the workforce.

The plan is to extend the payline to those who have been a principal investigator (PI) for less than 10 years, have an application near the payline, and are about to lose all NIH funding. The payline would also be extended to PIs who are seeking a second award. To do this, NIH will aim to spend approximately $210 million per year for 5 years (ramping to roughly $1.1B per year) to support additional meritorious early-stage and mid-career (45–60 years old) investigators. The money will come from reprioritization of funds.

NIH also intends to assess the influence of early-career investigators’ publications using, among other things, the newly created relative citation ratio. This tool was validated against the rating of panels of scientists. Another tool that could be used is iCite. Additional approaches will also be considered.

Council Discussion

Dr. Tabin agreed that it is important that meritorious early- and mid-career scientists who just missed getting their second grant should receive help. He urged Dr. Tabak to continue to involve a wide range of scientists in the further development of this policy.

Dr. Saade said that the changes that Dr. Tabak described would be difficult to apply to the clinician scientist. Clinical trials require a large sample size, and the grants are likely to go to senior investigators. Dr. Tabak said that if a junior investigator submits a robust clinical proposal, he or she could qualify. Dr. Tabak also acknowledged that there is a larger issue: the requirement to have a sufficiently powered study means that it is that much more difficult for a new investigator to “get in the game.” NIH is concerned about physician scientists and is taking steps to provide them more stability in the workforce.

Dr. Krugman said that he appreciates the effort to adequately fund early-career investigators, in part because they are more likely to open new areas of scientific inquiry. He said that one area...
that is understudied is in the social determinants of health. The problem is that the infrastructure
that investigators need to explore that area is not developed. Dr. Tabak said that this is a good
point and that the Council is a good place to discuss it. Infrastructure awards allow institutions to
better do this complex interdisciplinary work.

Additional Information on the Initiative can be found at: https://grants.nih.gov/ngri.htm.

X. CONCEPT CLEARANCE REVIEW AND DISCUSSION

Nahida Chakhtoura, M.D., presented the concept “Advancing the Science of Multipurpose
Technology for the Prevention of HIV and Unintended Pregnancy.” She said that despite recent
advances in the field of multipurpose prevention technology, gaps in understanding remain. This
initiative will serve to stimulate the field to address key gaps and move the field forward.

Council Discussion

Dr. Krugman asked what would be the set-aside? Dr. Chakhtoura said that the NIH Office of
AIDS Research has committed $650,000 and that additional funding may be available.

Dr. Kopf asked whether the work would be integrated with the HIV-related work at the National
Institute of Allergy and Infectious Diseases (NIAID). Dr. Chakhtoura said that she has discussed
the project with NIAID staff. NIAID has a complementary project that they will bring to the
NIAID Council for possible funding in 2019.

The Council unanimously approved the concept.

Dr. Bianchi thanked members of the public for attending the meeting, either in person or through
the videocast. She adjourned the open session of the meeting at 11:50 a.m.

XI. CLOSED SESSION

This portion of the meeting was closed to the public in accordance with the determination that it
cconcerned matters exempt from mandatory disclosures 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).

XII. REVIEW OF APPLICATIONS

The session included a discussion of procedures and policies regarding voting and confidentiality
of application materials, committee discussions, and recommendations. 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. The Council considered and
approved 792 HD-primary applications requesting $302,107,079 in direct costs and
$404,174,659 in total costs.
XIII. ADJOURNMENT

There being no further business, the meeting adjourned at 4:30 p.m. on Thursday, June 8, 2017. The next meeting is scheduled for September 14, 2017.

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.²

/Diana W. Bianchi, M.D./
Diana W. Bianchi, M.D.
Chair, National Advisory Child Health and Human Development Council
Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development

8/29/17
Date

Kimberly A. Witherspoon
Committee Management Officer

Attachment: Council Roster

² These minutes will be formally considered by the Council at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.