# NATIONAL ADVISORY COUNCIL FOR HUMAN GENOME RESEARCH **MEETING SUMMARY**

September 11-12, 2017

The Open Session of the 81st meeting of the National Advisory Council for Human Genome Research (NACHGR) was convened at 10:00 AM on Monday, September 11, 2017, at the Fishers Lane Terrace Level Conference Center in Rockville, Maryland. Dr. Eric Green, Director of the National Human Genome Research Institute (NHGRI), called the meeting to order.

The meeting was open to the public from 10:00 AM until 5:15 PM on September 11, 2017. In accordance with the provisions of Public Law 92-463, the meeting was closed to the public from 8:00 AM to 10:00 AM and 5:15 PM to 6:30 PM on September 11, 2017, and from 8:30 AM until adjournment on September 12, 2017, for the review, discussion, and evaluation of grant applications.

# Council Members Present:

Eric Boerwinkle Carol Bult Wendy Chung Patricia Deverka **Brenton Graveley** Jonathan Haines Gail Henderson Trey Ideker Raphael Irizarry Mark Johnston Sharon Plon Aviv Reaev Dan Roden Val Sheffield

Jay Shendure

# Staff Present from the National Human Genome Research Institute:

Gabriel Batzli, ERP Vence Bonham, IOD and IRP Joy Boyer, ERP Comfort Browne, ERP Christine Chang, ERP Michelle Cohen, ERP Heather Colley, ERP Erin Curry, ERP Jvoti Daval, ERP Valentina di Francesco, ERP Carla Easter, DPCE Adam Felsenfeld, ERP

Robert Fullem, ERP

Linda Hall, ERP Lucia Hindorff, ERP Rebecca Hong, DPCE Ellen Howerton, ERP Carolyn Hutter, ERP Sheethal Jose, ERP Melpi Kasapi, ERP Alexander Katz, DIR Jeff Kim. ERP Jennifer Krupp, NIH-ACMG

Rongling Li, ERP Nicole Lockhart, ERP Allison Mandich, IOD

Tina Gatlin, ERP
Bettie Graham, ERP
Vivian Ota Wang, ERP
Michael Pagan, ERP
Kiara Palmer, DPCE
Mike Pazin, ERP
Robb Rowley, DIR
Laura Skow, ERP
Mike Smith, ERP
Heidi Sofia, ERP

Jean McEwan, ERP Sam Moore, ERP Taylorlyn Stephan, ERP Barbara Thomas, ERP Elizabeth Tuck, DPCE Lu Wang, ERP Cara Weismann, DPCE Chris Wellington, ERP Kris Wetterstrand, IOD Ken Wiley, ERP

# Others Present for All or a Portion of the Meeting:

Rex Chisholm, Northwestern University
Ellen Giarelli, Council Liaison Member, International Society of Nurses in Genetics
Shoshera Kahara, NIH/OD
Rachel Levinson, Arizona State University
Mona Miller, ASHG
Derek Scholes, ASHG
Rhonda Schonberg, NSGC
Tara Schwetz, NIH/OD
Lawrence Tabak, NIH/OD

Materials (e.g., agenda and presentations) for the Open Session of the 81<sup>st</sup> NACHGR meeting are available at: <a href="https://www.genome.gov/27569449/september-2017-council-agenda-and-documents/">https://www.genome.gov/27569449/september-2017-council-agenda-and-documents/</a>). A recorded video is available at: <a href="https://www.youtube.com/playlist?list=PL1ay9ko4A8snp23vGcZ2kngilGG993vSQ">https://www.youtube.com/playlist?list=PL1ay9ko4A8snp23vGcZ2kngilGG993vSQ</a>.

## INTRODUCTION OF NEW NHGRI COUNCIL MEMBERS, STAFF, LIAISONS, AND GUESTS

Dr. Rudy Pozzatti began the Open Session with the introduction of new NHGRI staff, liaisons, and guests, which can be found at:

https://www.youtube.com/watch?v=\_zOy4FfP8gA&index=1&list=PL1ay9ko4A8snp23vGcZ2knqi IGG993vSQ

## APPROVAL OF MINUTES FOR THE MAY 2017 NACHGR MEETING

The Council approved the Minutes by unanimous vote without any edits or changes.

## **FUTURE MEETING DATES**

- Feb. 12-13, 2018
- May 21-22, 2018
- Sept. 24-25, 2018
- Feb. 11-12, 2019
- May 20-21, 2019
- Sept. 16-17, 2019

#### **DIRECTOR'S REPORT**

Dr. Eric Green gave his Director's Report. A video of his presentation can be found at: <a href="https://www.youtube.com/watch?v=2EIR3l6B9ns&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vS">https://www.youtube.com/watch?v=2EIR3l6B9ns&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vS</a> Q&index=2

**SPECIAL PRESENTATION** – Dr. Eric Green presented a U.S. flag to NACHGR member Dr. Aviv Regev, to commemorate her becoming a citizen of the United States of America. A video of this presentation can be found at:

https://www.youtube.com/watch?v=9cTuDemANUM&index=3&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ

## **PRESENTATION** – Next Generation Researchers Initiative

Dr. Lawrence Tabak presented on the Next Generation Researchers Initiative. A video of this presentation can be found at:

https://www.youtube.com/watch?v=O3jxAN3j P4&index=4&list=PL1ay9ko4A8snp23vGcZ2knqil GG993vSQ. Dr. Tabak spoke about the challenges of maintaining a highly diversified workforce of biomedical investigators in an era of hyper-competition to obtain NIH grant support. His talk focused on NIH's current efforts to provide funding for both early-career and mid-career investigators.

#### **REPORT** – Update on the eMERGE Network

Dr. Rex Chisholm made a presentation about the Electronic Medical Records and Genomics (eMERGE) Network. A video of this presentation can be found at: <a href="https://www.youtube.com/watch?v=5MsEX5b3Tgo&index=5&list=PL1ay9ko4A8snp23vGcZ2kngilGG993vSQ">https://www.youtube.com/watch?v=5MsEX5b3Tgo&index=5&list=PL1ay9ko4A8snp23vGcZ2kngilGG993vSQ</a>. Dr. Chisholm presented an overview of the research activities and accomplishments of the eMERGE Network over its three funding cycles that date back to 2007. In phase 1, eMERGE investigators explored the challenges of using electronic health records to conduct genomics research. In phase 2, investigators examined how genomic findings could be applied to clinical care. In phase 3, investigators are using genome sequencing to improve genomic discovery and advance genomic medicine implementation.

# REPORT - The Cancer Genome Atlas (TCGA): A Decade of Discovery

Dr. Carolyn Hutter reported on TCGA. A video of this presentation can be found at: <a href="https://www.youtube.com/watch?v=zbd\_p8MaQlc&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=6">https://www.youtube.com/watch?v=zbd\_p8MaQlc&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=6</a>. Dr. Hutter presented a summary of the achievements of The Cancer Genome Atlas program – a ten-year collaboration involving NHGRI and the National Cancer Institute.

## REPORT – National Academy of Medicine Report on Evidence Framework for Genetic Testing

Dr. Wendy Chung discussed the NAM Report on Evidence Framework for Genetic Testing. A video of this presentation can be found at:

https://www.youtube.com/watch?v=fCqDX6hluR4&index=7&list=PL1ay9ko4A8snp23vGcZ2knqil GG993vSQ. Dr. Chung summarized a report prepared by a working group of the National Academy of Medicine. The group was charged with reviewing the scientific literature on the evidence base for different types of genetic testing; to make recommendations to advance the evidence base to improve patient care; and to recommend a framework to be used for decision-making regarding the use of genetic tests.

# **REPORT** – Genomic Medicine Working Group Activities in 2017

Dr. Teri Manolio reported on the Genomic Medicine Working Group activities in 2017. A video of this presentation can be found at:

https://www.youtube.com/watch?v=o\_ZT776jgPs&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=8. Dr. Manolio gave an update on the activities of the Genomic Medicine WorkingGroup over the past year.

## **REPORT –** *Update on the NSIGHT Program*

Dr. Anastasia Wise gave an update about the Newborn Sequencing in Genomic Medicine and Public Health (INSIGHT) program. A video of this presentation can be found at: <a href="https://www.youtube.com/watch?v=qZ8FrrHqTIU&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=9">https://www.youtube.com/watch?v=qZ8FrrHqTIU&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=9</a>. Dr. Wise summarized the progress that has been made by the investigators who are participating in the NSIGHT program.

#### **COUNCIL-INITIATED DISCUSSION**

A video of the Council-initiated discussion can be found at: <a href="https://www.youtube.com/watch?v=aBSmb\_xHjgc&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=10">https://www.youtube.com/watch?v=aBSmb\_xHjgc&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=10</a>

## ANNOUNCEMENTS AND ITEMS OF INTEREST

A report was sent to NHGRI from the National Society of Genetic Counselors describing their recent activities. This report and a full listing of the Open Session agenda can be found at: <a href="https://www.youtube.com/watch?v=VgPdgvzNBAI&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=11">https://www.youtube.com/watch?v=VgPdgvzNBAI&list=PL1ay9ko4A8snp23vGcZ2knqilGG993vSQ&index=11</a>

## CONFIDENTIALITY AND CONFLICT OF INTEREST

Dr. Pozzatti read the Confidentiality and Conflict of Interest Policy to Council and asked the members to sign the forms provided to them.

## **REVIEW OF APPLICATIONS<sup>1</sup>**

In the Closed Session, the NACHGR reviewed 131 applications, requesting \$62,334,463 (total cost). The applications included: 76 research project applications (R01, R03, R15 or R21); 2 cooperative agreement applications (U01); 11 ELSI applications (R01, R21, or K01); 3 research center applications (U41); 3 conference application (R13); 5 career transition award applications (K99/R00); 1 institution training application (T32); 10 SBIR Phase I applications (R43); 12 SBIR Phase II applications (R44); 4 STTR Phase 1 applications (R41); 1 STTR Phase II application (R42), 2 Research Education applications (R25), and 1 clinical investigator application (K08). A total of 77 applications totaling \$29,576,811 were recommended by the NACHGR.

This Council Meeting Summary document was prepared by Laura Skow, Program Analyst at NHGRI.

<u>2/23/2018</u> <u>Rudy Pozzattí</u>

Date Rudy Pozzatti, Ph.D. Executive Secretary

National Advisory Council for Human Genome Research

<u>2/21/2018</u> <u>Eríc Green</u>

Date Eric Green, M.D, Ph.D.

Chairman

National Advisory Council for Human Genome Research

<sup>&</sup>lt;sup>1</sup> For the record, it is noted that to avoid a conflict of interest, Council members absent themselves from the meeting when the Council discusses applications from their respective institutions or in which a conflict of interest may occur. Members are asked to sign a statement to this effect. This does not apply to "en bloc" votes.