January 10, 2017

In a few days, on January 14 to be precise, NHGRI will celebrate its 20\textsuperscript{th} Anniversary as an NIH institute. Back in 1997, the National Center for Human Genome Research (NCHGR) graduated from ‘center status’ to become the National Human Genome Research \textit{Institute} (NHGRI). While looking for details about the significance of this promotion, I came across this statement from \textit{About NHGRI: A Brief History and Timeline}: “As an institute, NHGRI can more appropriately interact with other federal agencies and share equal standing with other institutes at NIH.” I may not fully appreciate all of the nuances of having ‘institute’ status, but I certainly believe that genomics as a discipline warrants any amount of resources or gravitas that institute status might bring, making me happy that we have it! So, here we are – just exiting our teenage years as an NIH institute and looking ahead to all of the excitement (and complexities) that young adulthood can bring.

Happy New Year to all of you, Happy Birthday to NHGRI, and here’s to another great year of genomic accomplishments!

This month’s \textit{The Genomics Landscape} features stories about:

- Jeff Schloss, NHGRI’s Catalyst for DNA Sequencing Technology Development, Retires
- New dbGaP Data Browser
- “Your DNA, Your Say” Survey from GA4GH
- Diana Bianchi’s Laboratory Joins NHGRI
- Applications for ASHG/NHGRI Policy and Education Fellowships Now Being Accepted

All the best,

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Jeff Schloss, NHGRI’s Catalyst for DNA Sequencing Technology Development, Retires

On December 31, NHGRI said goodbye to its founding Director of the Division of Genome Sciences in the Extramural Research Program, Dr. Jeffery Schloss. After a truly remarkable career that included leading NHGRI’s DNA sequencing technology development program, Jeff is embarking on a well-deserved journey into retirement.

Originally trained and working in the field of regulation of mRNA abundance control and mammalian non-muscle cell motility, Jeff was recruited from the University of Kentucky to the National Center for Human Genome Research in 1992. He joined the team managing the large NHGRI-funded genome centers, groups that were then involved in constructing genetic and physical maps of human and model organism genomes. At the time of his recruitment, he considered himself a cell biologist, and thought that the move to genomics and to extramural administration/management would be a stretch. Little did he realize how well he would flourish in his new role!

In 1996, Jeff was asked to take on the leadership of the DNA sequencing technology development efforts in the NHGRI Extramural Research Program. Since then, he has skillfully managed a diverse portfolio of grants involved in developing a range of nucleic acids-related technologies – in particular, DNA sequencing technology and the well-known $1,000 Genome Program.

The $1,000 Genome Program has made seminal contributions to the nearly million-fold reduction in DNA sequencing costs that has occurred over the past ~15 years, helping to catalyze

New dbGaP Data Browser

The National Center for Biotechnology Information’s (NCBI) database of Genotypes and Phenotypes (dbGaP) is an important resource for researchers studying the genomic contributions to human health and disease. Researchers can access dbGaP data through a system designed to protect research participant privacy and honor the consent conditions participants agreed to when joining a research study. Recently, a new tool, the dbGaP Data Browser, was developed that allows scientists to more readily access some dbGaP data, while still protecting participant privacy. The Browser provides view-only access to data authorized for general research use through a simplified approval process, allowing researchers to view and better understand dbGaP data and to make better-informed decisions about requesting full access to particular datasets. For detailed information about the new dbGaP Data Browser, see nar.oxfordjournals.org/content/early/2016/11/29/nar.gkw1139.full.

“Your DNA, Your Say” Survey from GA4GH

The Global Alliance for Genomics and Health (GA4GH) has been conducting a study to explore global attitudes and beliefs about the sharing of genomic and clinical information. GA4GH developed a video series and survey that aims to assess public attitudes about the handling of genomic data. The video series includes nine short films that educate viewers about genomic data, including how such data can be used, accessed, and shared by researchers. After each video, viewers are asked to answer a series of survey questions about their views of genomic data sharing. GA4GH hopes that the survey will be widely taken by people from around the world, from all walks of life, and from different age and social groups. The goal is to survey not only patients, research participants, scientists, and health professionals, but also the general public. For more information
the growth of an entire industry built around genome sequencing (including for clinical diagnostics). This groundbreaking program is certainly one of the most successful technology development programs in the history of NIH, much to the credit of Jeff’s outstanding leadership. In addition to his technology development portfolio, Jeff also worked on the Human Microbiome Program and coordinated the Centers of Excellence in Genomic Science program.

Jeff’s contributions to science have been appropriately recognized across the NIH, including by Dr. Elias Zerhouni, the former NIH Director. At the start of the NIH Roadmap (now Common Fund) program, Dr. Zerhouni asked Jeff to serve as one of two co-chairs for the Nanomedicine Working Group; Jeff was the only working group co-chair who was not an Institute/Center Director. Using this and other trans-NIH and trans-Federal opportunities, Jeff promoted interdisciplinary research. He was a founding member and chair of the NIH Bioengineering Consortium (BECON); co-chaired the trans-NIH Nanotechnology Task Force; and served as an NIH representative to the federal working group for the National Nanotechnology Initiative.

Jeff’s myriad accomplishments at NHGRI and NIH have also been recognized by many deserving awards. He received an NHGRI Individual Merit award ten times, the NIH Director’s Award six times, and Finalist status for a 2012 Service to America Award (SAMMIE) given by the Partnership for Public service. In 2015, he fittingly received a Health and Human Services (HHS) Career Achievement Award.

Jeff's intellect, leadership, dedication, and contributions have created a lasting legacy that have profoundly benefited NHGRI and the entire field of genomics. His presence will be missed around NIH and in the extramural genomics community. We wish him all the best with his new adventures in retirement!

and to access the videos and survey, see genomicsandhealth.org/your-dna-your-say.

Diana Bianchi’s Laboratory Joins NHGRI

Recently, NIH welcomed a new Director of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), Dr. Diana Bianchi. In addition to serving as NICHD Director, Dr. Bianchi will continue leading a research laboratory studying important problems in reproductive genetics and genomics. In moving to NIH, her laboratory (formerly of the Mother Infant Research Institute at Tufts Medical Center) has now joined NHGRI’s Intramural Research Program as part of the Medical Genetics Branch. The group will continue a major focus on prenatal genomics, with the goal of advancing noninvasive prenatal DNA screening and diagnosis and developing new therapies for genetic disorders that can be administered prenatally.

Applications for ASHG/NHGRI Policy and Education Fellowships Now Being Accepted

NHGRI and the American Society of Human Genetics (ASHG) are now accepting applications for the 2017 Genetics & Public Policy Fellowship and the 2017 Genetics & Education Fellowship. The Genetics & Public Policy Fellowship is designed for genetics professionals to gain valuable policy experience at NHGRI, at ASHG, and in the U.S. Congress. The Genetics & Education Fellowship is designed for genetics professionals interested in developing their expertise in genomic literacy efforts, science education policy, and program development. Applications for the both the 2017 policy and education fellowships will open in late January, with more information available on ASHG’s website. Also, to read about our current fellows, see genome.gov/27567439.
NIH intends to publish a funding opportunity to solicit applications from community and healthcare provider organizations to develop and conduct education, awareness, and enrollment activities for the All of Us Research Program (formerly known as the Precision Medicine Initiative Cohort Program).

### Genomics Research
- **Precision Oncology: Epigenetic Patterns Predict Glioblastoma Outcomes**
- **Physician Attitudes Will Impact Adoption of Prenatal Whole Genome Sequencing**
- **Cellular Immunotherapy Targets a Common Human Cancer Mutation**
- **Scientists Can Now Better Diagnose Diseases with Multiple Genetic Causes**
- **Reanalyzing the Worlds’ Largest Pan-Cancer Initiative Dataset**
- **New Study Identifies Which Physical Features Are Best Indicators of Down Syndrome in Diverse Populations**
- **Sex Hormone-Sensitive Gene Complex Linked to Premenstrual Mood Disorder**
- **Familial Test Helps Detect Genes that Cause Complex Diseases**

### Funding & Resource Opportunities
- **Opportunity to Sequence Pediatric Cohorts through the Kids First Program**
- **Novel Analytical Approaches for Metabolomics Data**
- **Administrative Supplement for Research on Sex/Gender Influences**
- **NLM Administrative Supplements for Informationist Services in NIH-Funded Research Projects**
- **Shared Instrumentation Grant (SIG) Program**
- **High-End Instrumentation (HEI) Grant Program**

### Upcoming Webcasts & Webinars
- **Opportunity to Sequence Pediatric Cohorts: Kids First Program Pre-Application Webinar** – January 23, 2017, 3 PM EST
- **Seventy-Ninth Meeting: National Advisory Council for Human Genome Research** – February 6, 2016

### NIH & NHGRI News
- **The 2017 National DNA Day Essay Contest Is Open!**
- **Statement from the President on Senate Passage of the 21st Century Cures Act**
- **In a NEJM Perspective, Drs. Hudson and Collins Outline the Importance of the Cures Act to NIH**
- **Major General James Gilman, M.D., Tapped to Lead NIH Clinical Center**
- **Francis Collins Receives Federation of American Societies for Experimental Biology Award**
- **Statement Regarding the Departure of Dr. Kathy L. Hudson**
- **Statement on the Departure of Dr. Philip E. Bourne**

### Requests for Feedback
- **Extension for "Strategies for NIH Data Management, Sharing, and Citation"**
- **Extension for "Strategic Plan for the National Library of Medicine, National Institutes of Health"**