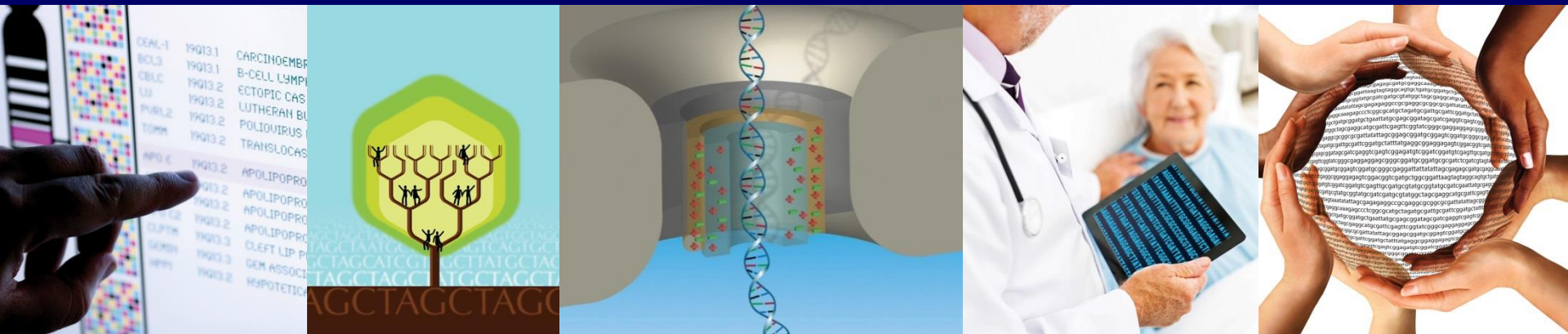


DIRECTOR'S REPORT

National Advisory Council for Human Genome Research

September 2017

Eric Green, M.D., Ph.D.
Director, NHGRI



Director's Report-Related Documents: September 2017

Director's Report



Director's Report



No.	Relevant Documents
1	NIH-ACMG Fellowship in Genomic Medicine Program Management
2	Genomics and Health Disparities Lecture Series
3	Genomics and Health Disparities Scientific Interest Group
4	Francis Collins 'Retained' as NIH Director
5	New NIH Deputy Director for Management
6	Naming of New Director, National Cancer Institute
7	First Director, NIH Tribal Health Research Office

genome.gov/DirectorsReport



Document #

Open Session Presentations

- **Next Generation Researchers Initiative**
Larry Tabak
- **Report: Update on the eMERGE Network**
Rex Chisholm
- **Report: The Cancer Genome Atlas (TCGA):
A Decade of Discovery**
Carolyn Hutter

Open Session Presentations

- **Report: NAM Report on Evidence Framework for Genetic Testing**

Wendy Chung

- **Report: Genomic Medicine Working Group Activities in 2017**

Teri Manolio

- **Report: Update on the NSIGHT Program**

Anastasia Wise

Director's Report Outline

- I. General NHGRI Updates
- II. General NIH Updates
- III. General Genomics Updates
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- V. NIH Common Fund/Trans-NIH
- VI. NHGRI Division of Policy,
Communications, and Education
- VII. NHGRI Intramural Research Program

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**VI. NHGRI Division of Policy,
Communications, and Education**

VII. NHGRI Intramural Research Program

Retirement of NHGRI Program Director



Jean McEwen, J.D., Ph.D.

NIH-ACMG Fellowship in Genomic Medicine Program Management



National Institutes of Health



ACMG

American College of Medical
Genetics and Genomics

Translating Genes Into Health®

- Increase pool of physicians who can manage research and implementation programs in genomic medicine
- First fellow (Jennifer Krupp) started this month
- Applications for 2018 fellowship due December 1; two-year fellowship begins July 2018

Genomics and Health Disparities Lecture Series



Herman Taylor, Jr., M.D., M.P.H.

September 19, 2017

**Director, Cardiovascular Research Institute
*Morehouse School of Medicine***



Richard Cooper, M.D.

November 7, 2017

**Professor and Chair, Public Health Sciences
*Loyola University Medical School***



Jose Florez, M.D., Ph.D.

February 22, 2018

**Chief, Diabetes Unit and Investigator, Center for Genomic Medicine
*Massachusetts General Hospital
Harvard Medical School***

Genomics and Health Disparities Scientific Interest Group



Vence Bonham, J.D.
NHGRI



Hannah Valentine, M.D.
NIH OD and NHLBI



Sara Hull, Ph.D.
*NIH Clinical Center
and NHGRI*



Gary Gibbons, M.D.
NHLBI



Rasika Mathias, Ph.D.
*Johns Hopkins
University*



Timothy Thornton, Ph.D.
University of Washington

October 11, 2017 at 3:00 pm EST



Wylie Burke, M.D., Ph.D.
University of Washington



Charles Rotimi, Ph.D.
NHGRI

Genomic Data Science Working Group



National Human Genome
Research Institute

Eric Boerwinkle

Lon Cardon

George Hripcsak

Trey Ideker

Gail Jarvik

Mark Johnston

Nancy Cox

Michael Boehnke

Anthony Philippakis

Current Council Member

Former Council Member

Current Council Member

Current Council Member

Former Council Member

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Francis Collins 'Retained' as NIH Director



Francis Collins, M.D., Ph.D.

New NIH Deputy Director for Management



Alfred Johnson, Ph.D.

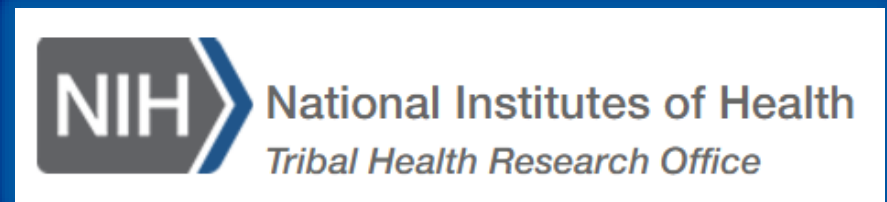


Naming of New Director, National Cancer Institute



Norman Sharpless, M.D.

First Director, NIH Tribal Health Research Office



David Wilson, Ph.D.

Josie Briggs Departs as Director, National Center for Complementary and Integrative Health



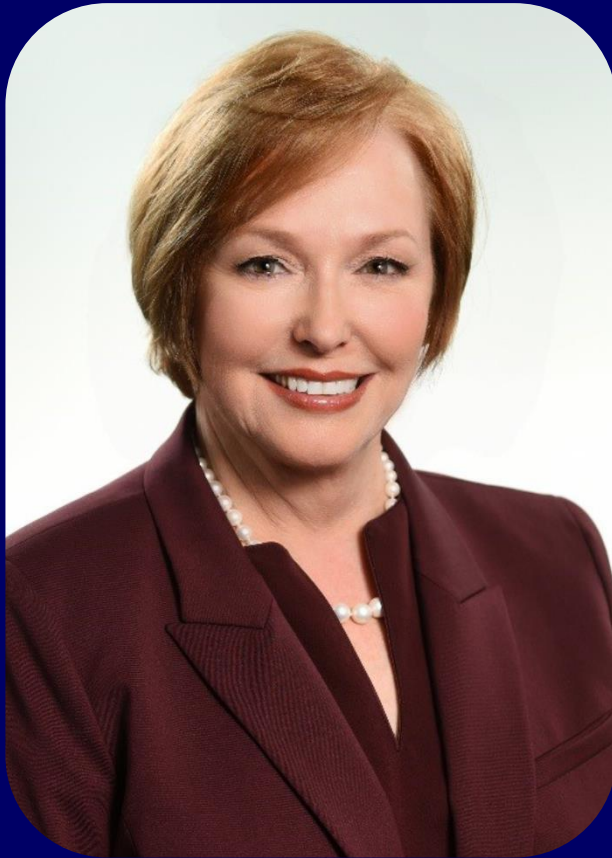
Josephine Briggs, M.D.

New Commissioner, U.S. Food and Drug Administration



Scott Gottlieb, M.D.

New Director, U.S. Centers for Disease Control and Prevention



Brenda Fitzgerald, M.D.

New U.S. Surgeon General



Jerome Adams, M.D.



Alberto Gutierrez Retiring as Director, FDA Office of In Vitro Diagnostics and Radiological Health



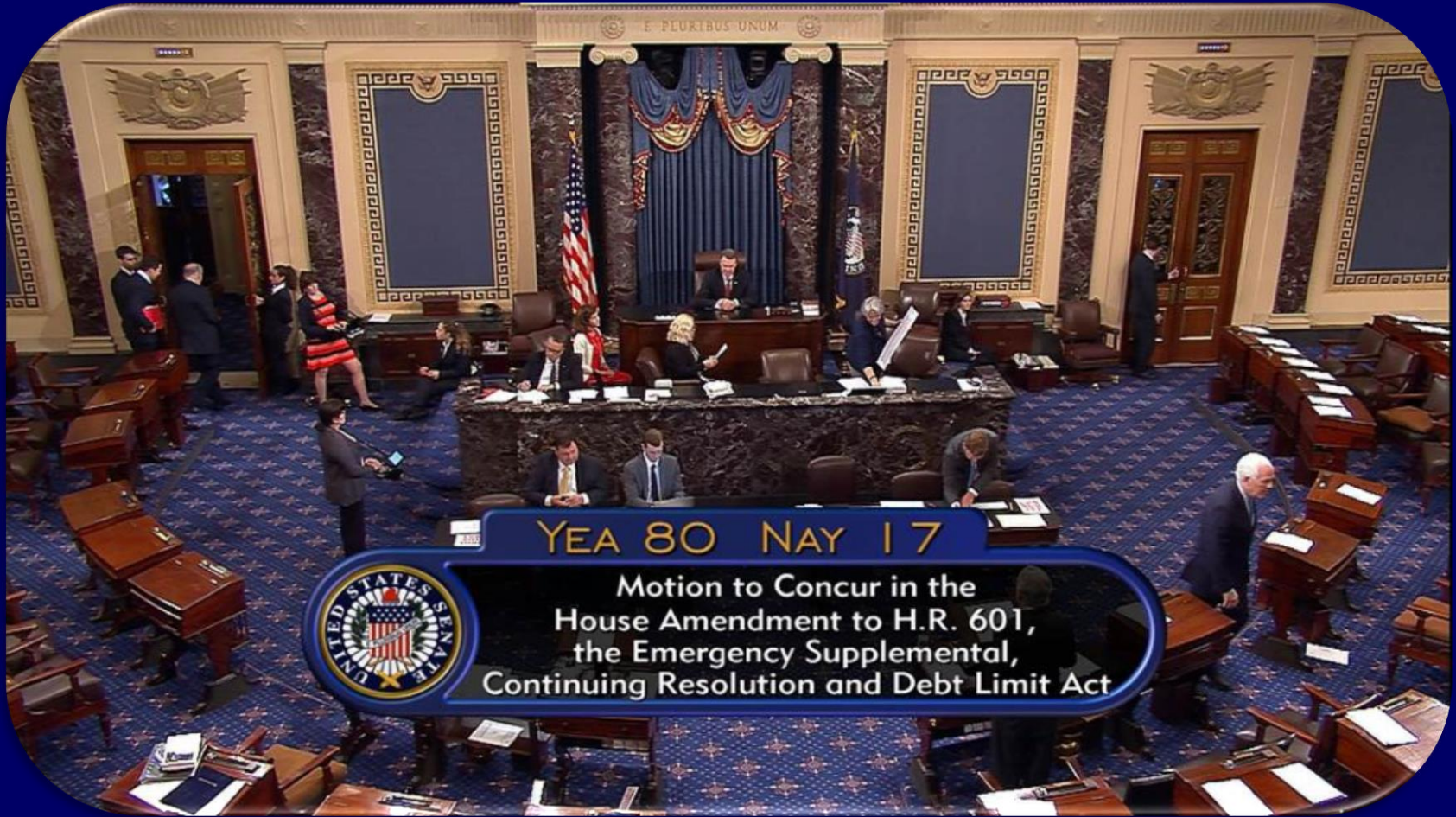
Alberto Gutierrez, Ph.D.

Upcoming Changes to NIH Clinical Trials Policies

The screenshot shows a webpage from the NIH Office of Extramural Activities. The main heading is "Does your human subjects research study meet the NIH Definition of a clinical trial?". Below the heading, it states: "The NIH definition of a clinical trial is very broad. Some investigators conducting human subjects research may not be aware that NIH considers their study to be a clinical trial. Use this tool to help determine if your research meets the NIH definition of a clinical trial." It then says: "For application due dates on/after January 25, 2018, identifying whether your study is a clinical trial will be important for:" followed by a bulleted list: "picking the right NIH **funding opportunity**", "ensuring your application includes all the **information required for peer review**", and "complying with the appropriate **policies and regulations**". Below this, it says "Answer a few simple questions to set you on the path for success." A large blue box contains the question "1. Does the study involve human participants?" and the text "Unsure how to respond? Our [case studies](#) and [FAQs](#) may help you decide." At the bottom of this box are two orange buttons: one with a white checkmark and one with a white 'X'. The left sidebar contains navigation links like "HOME", "Policy & Compliance", "Clinical Trial Requirements", and "Clinical Trial Definition". The right sidebar has a search bar and links for "ABOUT OER" and "Related Resources".

- Upcoming policy changes aim to improve stewardship of NIH-funded clinical trials
- New requirements go into effect for applications due on or after January 25, 2018

Budget Update



YEA 80 NAY 17

Motion to Concur in the
House Amendment to H.R. 601,
the Emergency Supplemental,
Continuing Resolution and Debt Limit Act



NIH Appropriations

	Fiscal Year 2017 Budget	Fiscal Year 2018 Senate Appropriations Labor-HHS Spending Bill
NIH	\$34.1 B	\$36.1 B
NHGRI	\$528 M	\$547 M

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Global Genomic Medicine Collaborative (G2MC)

Athens, April 2017



- Leading effort to convene major large-scale cohort studies and promote interoperability and sharing
- Meeting planned for early 2018

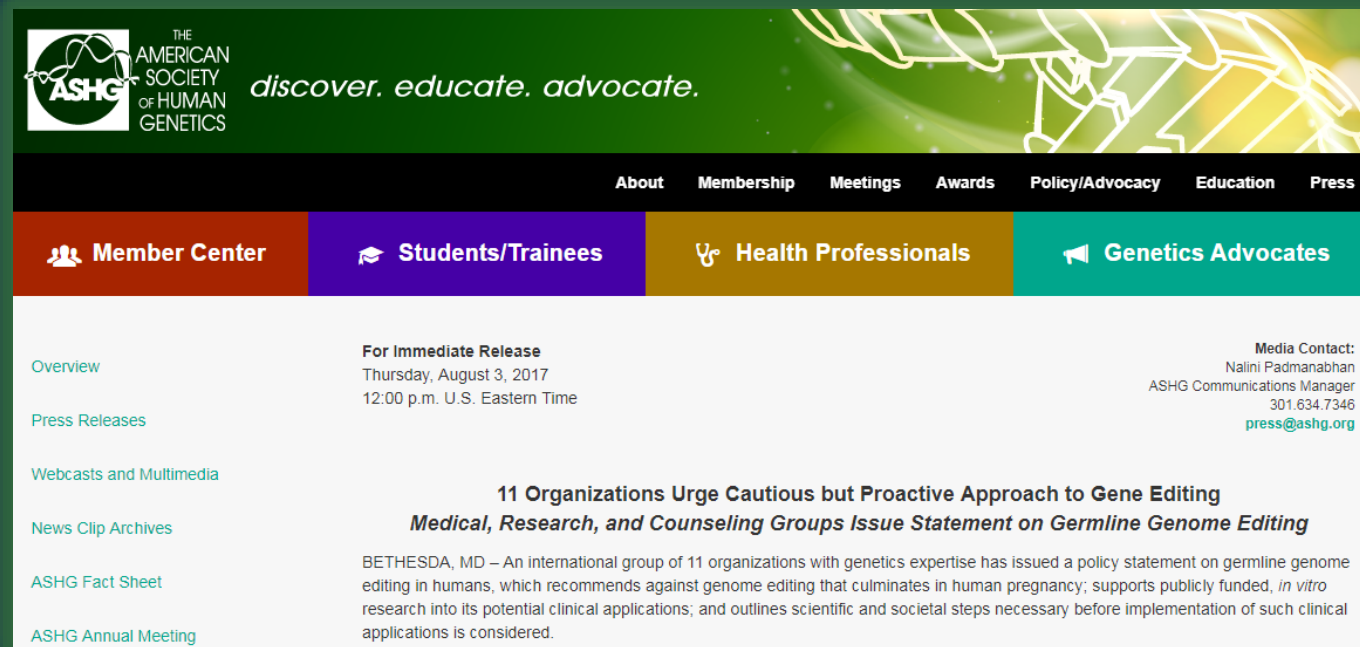
New Executive Director, American Society of Human Genetics



Mona Miller, M.P.P.



ASHG Position Statement: Human Germline Genome Editing



The screenshot shows the ASHG website header with the logo and tagline "discover. educate. advocate." Below the header is a navigation menu with links for About, Membership, Meetings, Awards, Policy/Advocacy, Education, and Press. A secondary navigation bar features four colored buttons: Member Center (orange), Students/Trainees (purple), Health Professionals (yellow), and Genetics Advocates (teal). The main content area displays a press release titled "11 Organizations Urge Cautious but Proactive Approach to Gene Editing" dated Thursday, August 3, 2017, at 12:00 p.m. U.S. Eastern Time. The release text states that 11 organizations with genetics expertise have issued a policy statement recommending against germline genome editing that culminates in human pregnancy, while supporting publicly funded, in vitro research. A media contact for Nalini Padmanabhan is also listed.

For Immediate Release
Thursday, August 3, 2017
12:00 p.m. U.S. Eastern Time

11 Organizations Urge Cautious but Proactive Approach to Gene Editing
Medical, Research, and Counseling Groups Issue Statement on Germline Genome Editing

BETHESDA, MD – An international group of 11 organizations with genetics expertise has issued a policy statement on germline genome editing in humans, which recommends against genome editing that culminates in human pregnancy; supports publicly funded, *in vitro* research into its potential clinical applications; and outlines scientific and societal steps necessary before implementation of such clinical applications is considered.

Media Contact:
Nalini Padmanabhan
ASHG Communications Manager
301.634.7346
press@ashg.org

- Recommends against the use of germline gene editing that would result in pregnancy
- Asserts that in vitro studies of germline gene editing should continue without restriction of public funds

Albany Medical Center Prize in Medicine and Biomedical Research



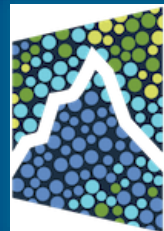
Allen Distinguished Investigator Awards



Fei Chen, Ph.D.




Jason Buenrostro, Ph.D.




THE
PAUL G. ALLEN
FRONTIERS GROUP

MIT Technology Review: 50 Smartest Companies


MIT
Technology
Review

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50 Smartest Companies The List + Past Lists +



Genomics In The News...



The JAMA Network



Genomics and Precision Health

[Genomics](#)

[Series](#)

[Glossary](#)

[Editors' Selections](#)



JAMA Insights: Genomics and Precision Health

Precision medicine is a rapidly evolving approach to disease treatment and prevention that matches treatments to patients based on individual genetic variability. To help clinicians understand the latest developments in precision medicine so they can make the most informed decisions for their patients JAMA in 2017 is publishing a series of essays to explain the state of the field, its concepts, and technologies.

Genomes In The News...



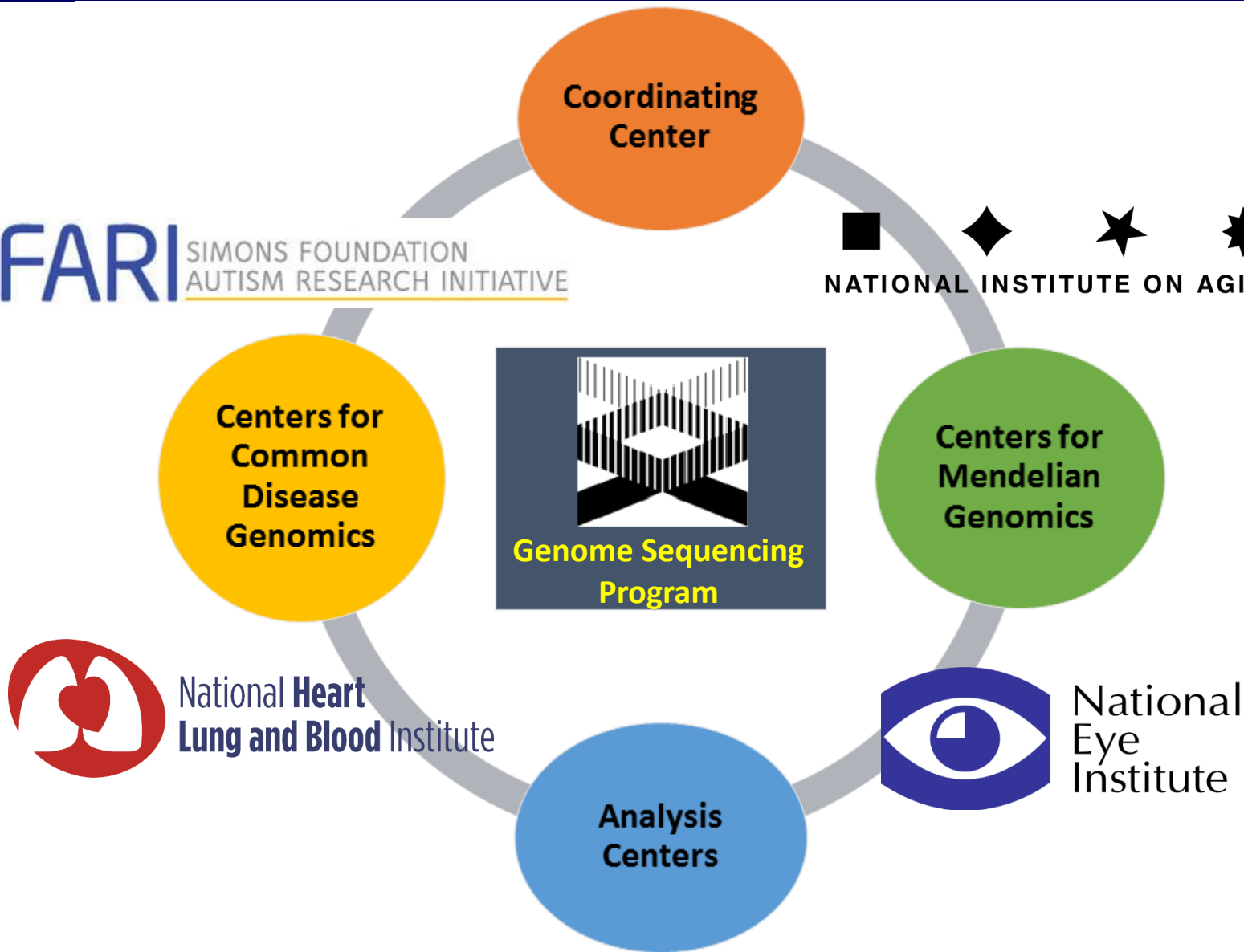
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Genome Sequencing Program

SFARI SIMONS FOUNDATION
AUTISM RESEARCH INITIATIVE

■ ◆ ★ ✪
NATIONAL INSTITUTE ON AGING



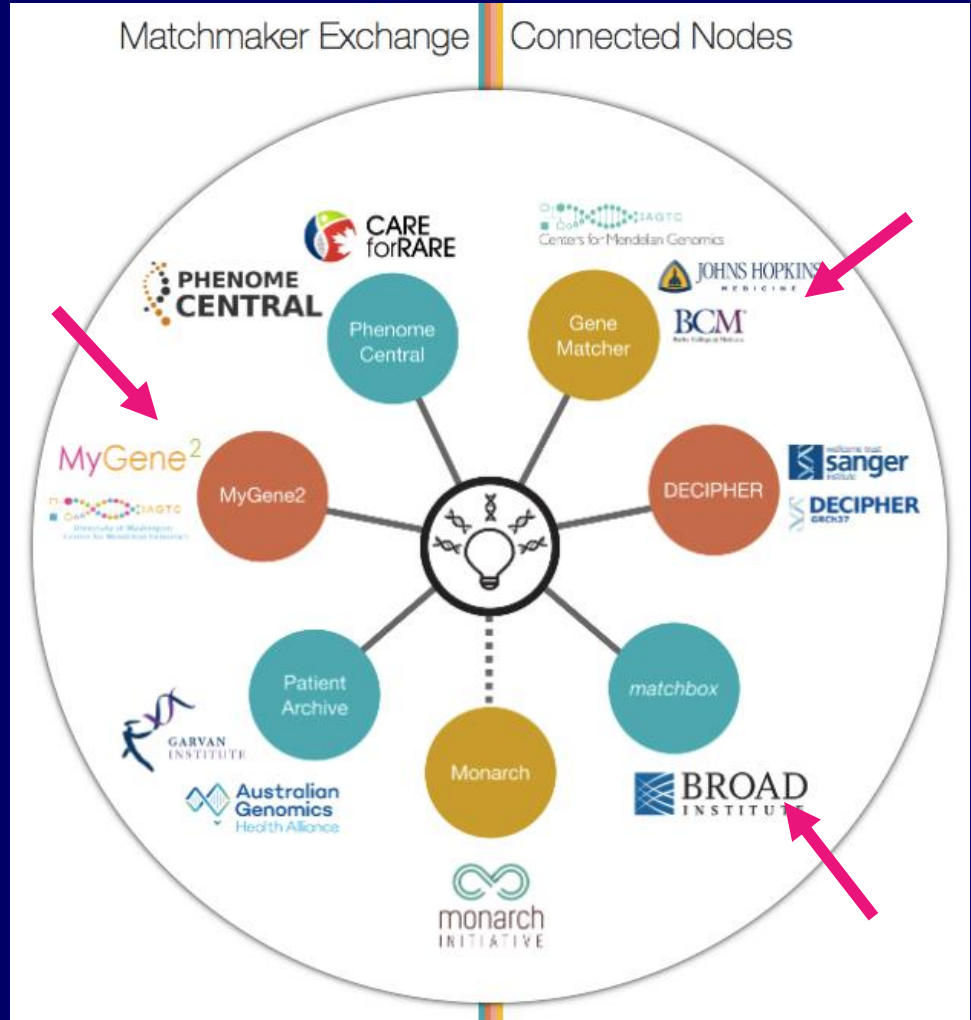
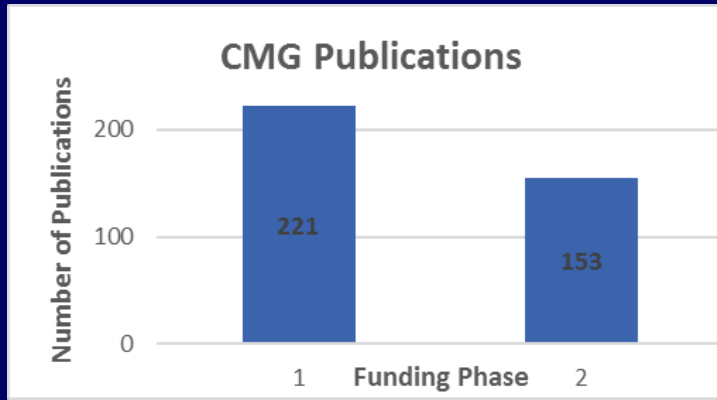
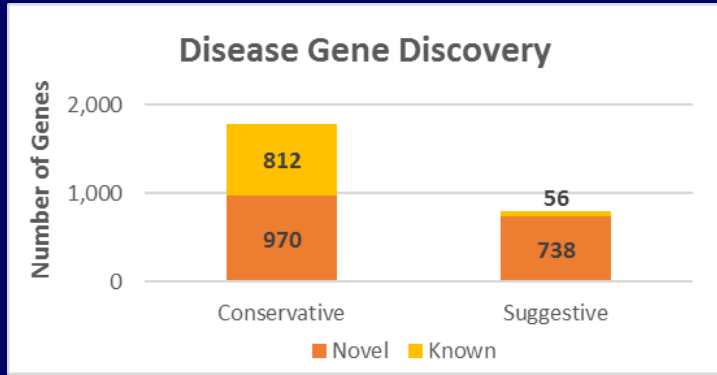
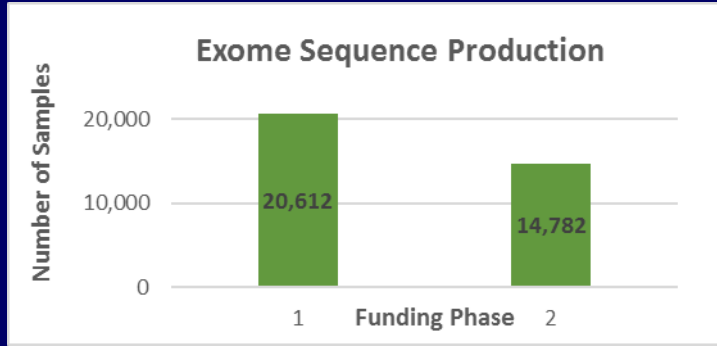
Genome Sequencing Program

Centers for Common Disease Genomics

Disease Category	Sequence Type	Sequenced Samples	Approved Samples
Cardiovascular	Genomes	22,729	46,300
	Exomes	10,861	21,000
Immune-Mediated	Genomes	5,383	25,000
	Exomes	0	2,000
Neuropsychiatric	Genomes	9,366	15,300
	Exomes	11,450	32,000
TOTAL		59,789	141,600

Genome Sequencing Program

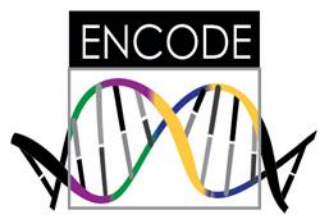
Centers for Mendelian Genomics



Technology Development Program



- **Advanced Genomic Technology Development Meeting - May 2017**
- **Novel Genomic Technology Development**
PAR-16-14 (R01, also linked R21 and R43/44)
Next due date: October 31, 2017

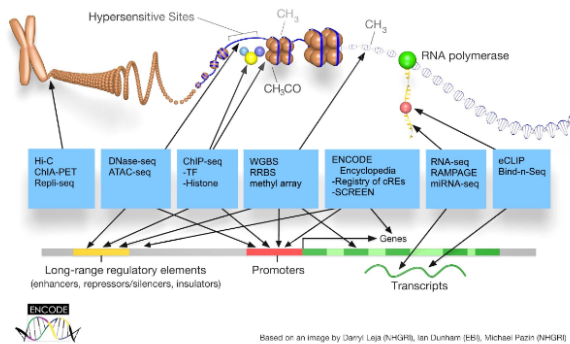


ENCyclopedia Of DNA Elements (ENCODE)



SCREEN: Search Candidate Regulatory Elements by ENCODE

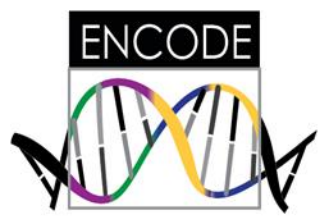
Overview About Tutorial Files



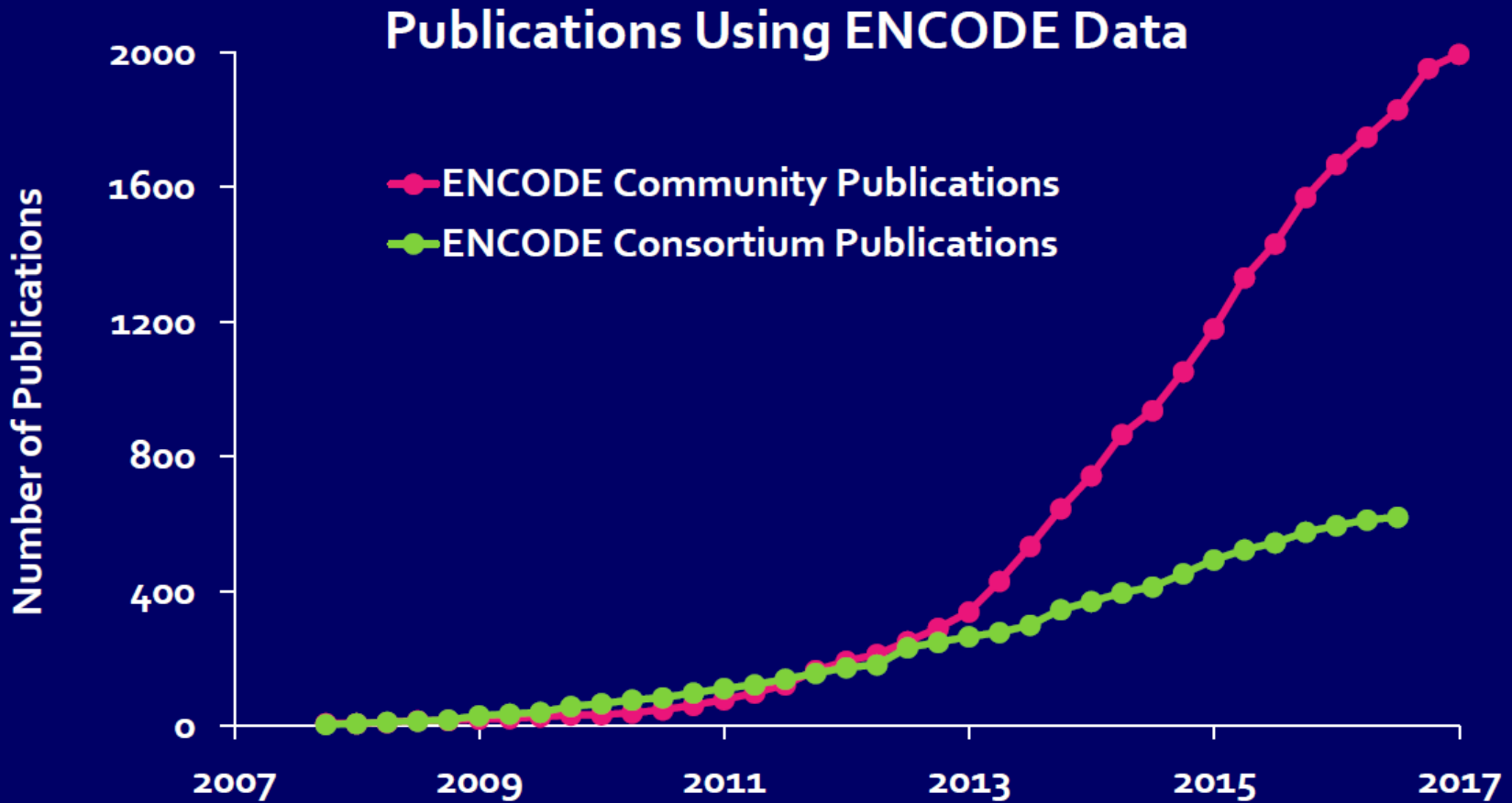
SCREEN is a web interface for searching and visualizing the Registry of candidate Regulatory Elements (cREs) derived from ENCODE data. The Registry contains 1.31M human cREs in hg19 and 0.52M mouse cREs in mm10, with orthologous cREs cross-referenced. SCREEN presents the data that support biochemical activities of the cREs and the expression of nearby genes in specific cell and tissue types.

You may launch SCREEN using the search box below or browse a curated list of SNPs from the NHGRI-EBI Genome Wide Association Study (GWAS) catalog to annotate genetic variants using cREs.

[Browse GWAS](#)



ENCyclopedia Of DNA Elements (ENCODE)



Centers of Excellence in Genomic Science (CEGS) Program

- Center for Genome Editing and Recording

- PI - Jennifer Doudna

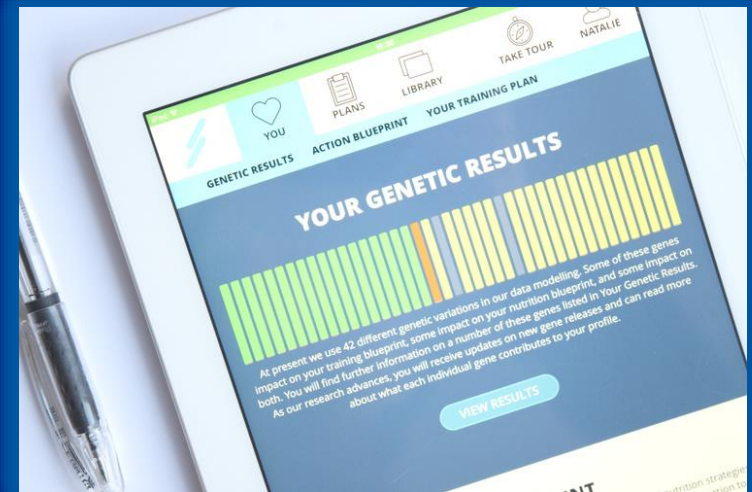


- Create methods to detect, alter, and record the sequence and output of the genome in individual cells and tissues

eMERGE and Beyond: The Future of EHR and Genomics Workshop

October 30, 2017

- Evidence generation for genomic medicine
- Identification of novel & disruptive opportunities
- Electronic phenotyping
- EMR integration of genomic results





Clinical Genome Resource (ClinGen)

Clinical Laboratories Meeting Minimum Data Sharing Requirements

Ambry	✓
ARUP	✓
Athena	✓
U. Medical Centre Ljubljana	✓
Children's Mercy Hospital	✓
Counsyl	✓
EGL Genetics	✓
GeneDx	✓
Illumina	✓
Invitae	✓
Partners Healthcare LMM	✓
Quest Diagnostics	✓
University of Chicago	✓

List as of Sept. 5, 2017

Save the Date!
May 23-25, 2018

Wellcome Genome Campus
Hinxton, England



Clinical Sequencing Exploratory Research Program

- Enrolled 5,477 adults and 1,434 children
- 345 total publications, 21 working group publications

Annals of Internal Medicine

ORIGINAL RESEARCH

The Impact of Whole-Genome Sequencing on the Primary Care and
Outcomes of Healthy Adult Patients
A Pilot Randomized Trial

Vassy, et al. PMID 28654958

- Demonstrated feasibility of returning genomic results by primary care providers
- Discovered monogenic disease risk in 22% of patients
- Recommended new clinical actions for 34% of patients



Clinical Sequencing Evidence-Generating Research Program

Phase II of CSER: Clinical Sequencing Evidence-generating Research Program

Clinical Sites:

- **Baylor College of Medicine**
- **HudsonAlpha Institute of Biotechnology**
- **Kaiser Foundation Research Institute**
- **Icahn School of Medicine at Mount Sinai**
- **University of California, San Francisco**
- **University of North Carolina, Chapel Hill**

Coordinating Center:

- **University of Washington**



Implementing Genomics In Practice (IGNITE) Network

Sperber et al. *BMC Medical Genomics* (2017) 10:35
DOI 10.1186/s12920-017-0273-2

BMC Medical Genomics

RESEARCH ARTICLE

Challenges in genomic sequencing experiences

GeNomics In Practice

Nina R. Sperber^{1,7,16*}, Janet Joshua C. Denny⁶, Geoffrey Ebony B. Madden¹⁰, Michaela Kristen W. Weitzel⁵, Russell

Race, Genomics and Chronic Disease: What Patients with African Ancestry Have to Say

Carol R. Horowitz, Kadija Ferrymar, ...

Abstract

Abstract:

Background: Variants of the APOE with African ancestry. To translate incorporating genetic risk in clinic African ancestry for APOL1 variant testing- before, immediately, and transcripts to identify themes. Read and patients to take hypertension as non-adherent or low-literate, read for genetic testing and future research

Citation: *Clin Transl Sci* (2017) 00, 1-4; doi:10.1111/cts.12456
© 2017 ASCPT. All rights reserved

REVIEW

The IGNITE RFA: An Opportunity for Pharmacogenetics

LH Cavallari^{1,*}, AL Beitelshie, JK Hicks⁸, AM Holmes⁹, LJB S Tuteja¹⁷, D Voora¹⁸, M Wag

Impact of the CYP2C19 genotype on voriconazole exposure in adults with invasive fungal infections

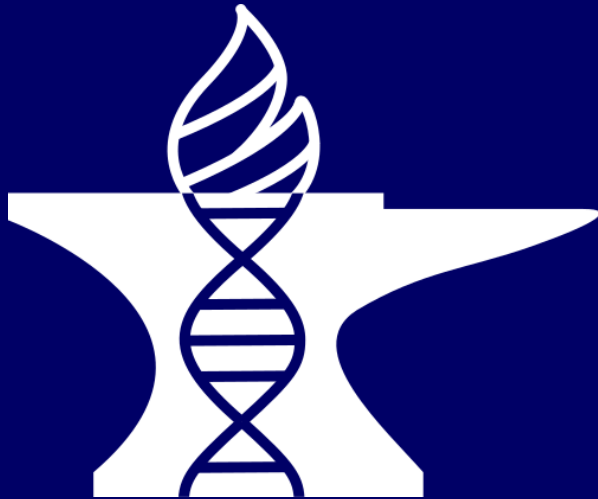
Hamadeh, Issam S.; Klinker, Kenneth P.; Borgert, Samuel J.; Richards, Ashley I.; Li, Wenhui; Mangal, Naveen; Hiemenz, John W.; Schmidt, Stephan; Langae, Taimour Y.; Peloquin, Charles A.; Johnson, Julie A.; Cavallari, Larisa H.

Pharmacogenetics and Genomics: May 2017 - Volume 27 - Issue 5 - p 190-196
doi: 10.1097/FPC.0000000000000277

IGNITE RFAs released: RFA HG-17-008, -009, -010

Receipt date: **November 3, 2017**

Computational Genomics and Data Science Program



NHGRI Genomic Data Science Analysis, Visualization, and Informatics Lab-space (AnVIL)

- RFA-HG-17-011 release: July 17, 2017
- Application due date: November 9, 2017

Ethical, Legal, and Social Implications (ELSI) Research Program

- **Genomics and Society Working Group annual meeting**

- **ELSI Program Announcements:**

**Genomic Research, Genomic Healthcare, and
Broader Legal, Policy, and Societal Issues**

**Participating Institutes and Centers: FIC, NCI, NIA,
NIAID, NICHD, NIDCD, NIEHS, NIMHD, NINDS**

- **Centers of Excellence in ELSI Research (CEER) RFA:**

Letter of Intent Due: September 30, 2017

Application Due Date: October 31, 2017

4th ELSI Congress

Expanding the ELSI Universe #ELSICon

- June 2017
- Jackson Laboratory, CT
- 300+ attendees
- Videos of plenary presentations available on ELSICon website



Training and Career Development

2017 Meeting in St. Louis

NHGRI Research Training and Career Development Annual Meeting



The Chase Park Plaza
St. Louis, Missouri
April 12-14, 2017

NHGRI Research Training and Career Development Annual Meeting



Poster Award Winners
St. Louis, Missouri
April 12-14, 2017

2018 Meeting: March 18-20 in Los Angeles

Training and Career Development

Three new T32 programs:

Duke University (PI: Geoffrey Ginsburg)
Genomic Medicine

U. of Pennsylvania (PI: Katherine Nathanson)
Genomic Medicine

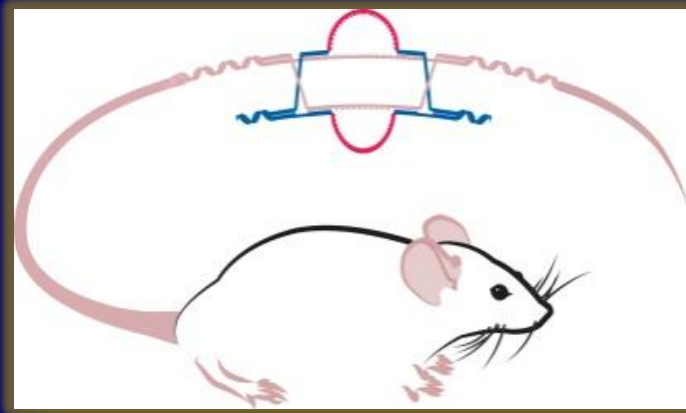
U. of Pennsylvania (PI: Steven Joffe)
ELSI Research



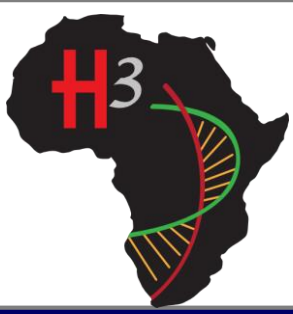
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Knockout Mouse Phenotyping Project (KOMP2)



- Annual IMPC Meeting – Athens, November 2017
- Sexual dimorphism paper published in *Nature Communications*
- Human disease models paper published in *Nature Genetics*
- Deafness paper in press in *Nature*



Human Heredity and Health in Africa (H3Africa)

- Last Consortium meeting for Stage I in May 2017
Guest speaker: Eric Green, NHGRI Director

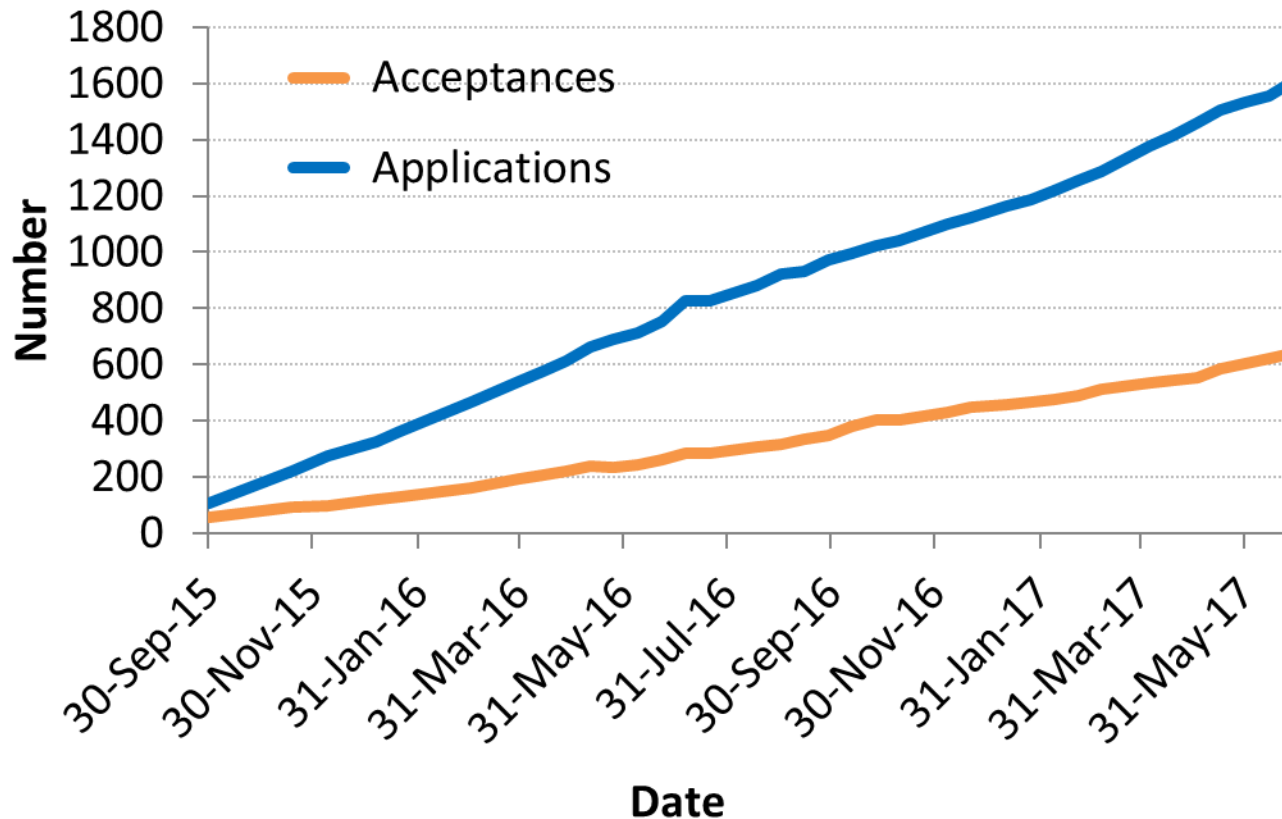


- Awards for Stage II anticipated soon
- First Consortium meeting for Stage II in March 2018

Undiagnosed Diseases Network (UDN)



UDN Applications and Acceptances



1,606 applications,
~71 per month

639 acceptances,
~28 per month

~50% Accepted
~25% Diagnosed

APPLY

93 Diagnoses

Undiagnosed Diseases Network (UDN)



Phase II FOAs

- **Clinical Sites: 8-10, RFA-RM-17-019**
- **Coordinating Center: 1, RFA-RM-17-018**
- **Model Organisms Screening Center(s):
1-2, RFA-RM-17-017**
- **Sequencing Core(s): 1-2, RFA-RM-17-016**
- **Metabolomics Core(s): 1-2, RFA-RM-17-015**

All Applications Due [November 2, 2017](#)



Gabriella Miller Kids First Pediatric Research Program

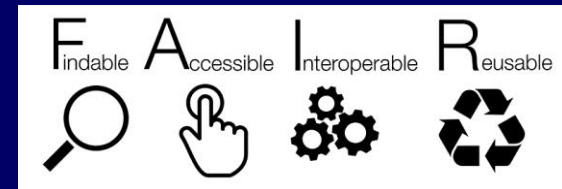
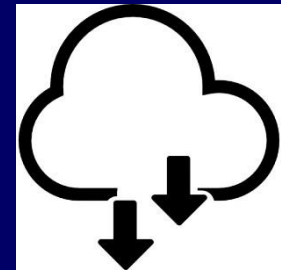
- **23 cohorts (>18,000 samples) available**
- **Genome sequencing:**
 - BCM & WashU (\$12.6M, 2015)
 - Broad Institute & HudsonAlpha/St. Jude (\$31M, 2016-2019)
 - ~9,000 samples sequenced to date
- **Data resource center:**
 - CHOP (\$15M, 2017-2022)
- **Data analysis**

NIH Data Commons Pilot Phase

Other Transactions (OT)
Research Opportunity
Announcement
(RM-17-026)



TOPMed



- Data Commons Pilot Phase Consortium
- Datasets: GTEx, TOPMed, AGR
- Stage 1: Develop prototypes & implementation plan
Kickoff meeting: Fall 2017 (Bethesda)
- Stage 2: Full implementation

All of Us | The Future of Health Begins With You
 RESEARCH PROGRAM

All of Us Research Program



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 Love life at 50+

National Alliance for Hispanic Health

DELTA
 RESEARCH AND EDUCATIONAL FOUNDATION®
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SAN FRANCISCO GENERAL HOSPITAL FOUNDATION
 Supporting the Heart of Our City

All of Us | The Future of Health Begins With You
 RESEARCH PROGRAM

Protocol Title **All of Us Research Program¹**

Sponsor National Institutes of Health (NIH)

Protocol Version Core Protocol V1



¹ Precision Medicine Initiative, PMI, All of Us, the All of Us logo, and "The Future of Health Begins with You" are service marks of the U.S. Department of Health and Human Services.

All of Us Research Program

All of Us Research Program Advisory Panel Launches Genomics Working Group

August 15, 2017

The *All of Us* Research Program Advisory Panel recently established a new working group to help inform the program's comprehensive genomics strategy. The group will consider various issues, including the evolving nature of genome sequencing technologies, the analysis of genomic data on a large scale, and the program's commitment to return information to participants. The group's work is expected to last approximately four months, during which time the group will prepare a final report for the advisory panel.

For more information, see the group's [charge and roster](#).



DNA double helix
Credit: National Human Genome
Research Institute, NIH.
www.genome.gov

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ASHG-NHGRI Genetics and Public Policy Fellow

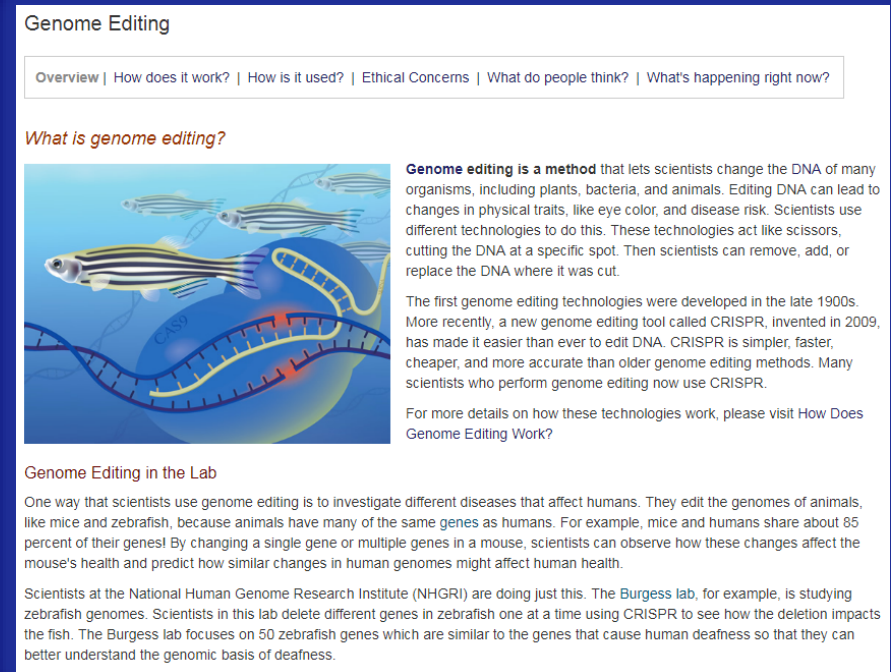


Nikki Meadows, Ph.D.

New Web Resources for Investigators and General Public



The screenshot shows the NIH National Human Genome Research Institute website. The header includes the NIH logo, a search bar for "Genome.gov", and social media icons. The main navigation menu lists "Research Funding", "Research at NHGRI", "Health", "Education", "Issues", "Newsroom", "Careers", and "About". The page content is titled "Regulation of Genetic Tests" and features a sub-header "Points to Consider Regarding the Food and Drug Administration's Investigational Device Exemption Regulations in the Context of Genomics Research". It is dated "Updated: July 27, 2017" and includes a table of contents with links to "Overview", "Does the IDE regulation apply to my study?", "Does my study pose nonsignificant risk (NSR) or significant risk (SR) to participants?", "What do I do if my study is a nonsignificant risk (NSR)?", "What do I do if my study is a significant risk (SR)?", and "Glossary". A disclaimer at the bottom states that the content is not intended to provide official guidance from the NIH or FDA.





The screenshot shows the "Genome Editing" website. The header includes the title "Genome Editing" and a navigation menu with links to "Overview", "How does it work?", "How is it used?", "Ethical Concerns", "What do people think?", and "What's happening right now?". The main content is titled "What is genome editing?" and includes an illustration of zebrafish and a DNA double helix with a CRISPR-Cas9 protein complex. The text explains that genome editing is a method to change DNA in various organisms, leading to changes in physical traits and disease risk. It mentions that CRISPR, invented in 2009, is simpler, faster, cheaper, and more accurate than older methods. A section titled "Genome Editing in the Lab" describes how scientists use genome editing to investigate diseases, using zebrafish as an example. The Burgess lab at NHGRI is mentioned as studying zebrafish genomes to understand the genomic basis of deafness.

- For Investigators: Points to Consider Regarding the FDA's Investigational Device Exemption Regulations
- For General Public: Genome Editing


Genomics Imagery on Flickr

flickr Explore Create

 National Human Genome Research Institute (NHGRI) [+ Follow](#) 

PRO NHGRI Image Gallery

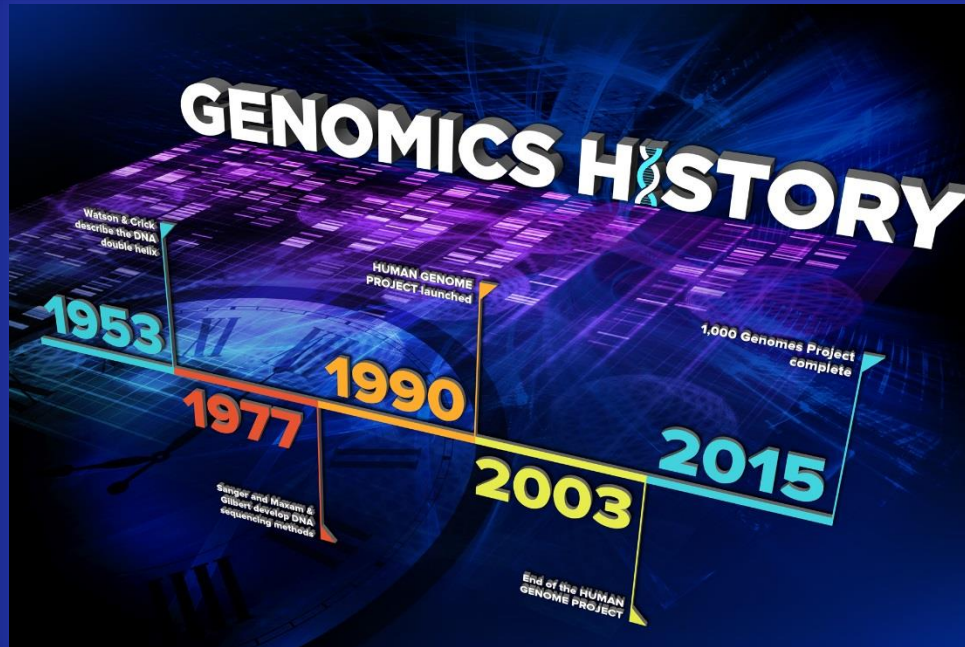
About Photostream Albums Faves Galleries Groups



The grid contains 12 images:

- 1. Silhouettes of four people filled with colorful dots representing genetic data.
- 2. A complex network graph with many nodes and edges.
- 3. A network graph with a dense cluster of yellow nodes.
- 4. A 3D illustration of a blood vessel with red blood cells.
- 5. A woman's face with a DNA double helix overlaid on her hair.
- 6. A DNA double helix connected to server racks and data points.
- 7. An illustration of a female reproductive system (uterus and ovaries).
- 8. A microscopic view of cells, possibly showing a cross-section of tissue.
- 9. A bar chart with a DNA sequence below it.
- 10. A human skeleton with glowing red spots on joints and internal organs, with cells nearby.
- 11. A 3D model of a protein or molecular structure.
- 12. A man in a white lab coat standing in a laboratory setting.

NHGRI History of Genomics Program



- Database users meeting
- NHGRI History of Molecular Biology and Genomics Lecture Series

Genome: Unlocking Life's Code Exhibition

Travel Schedule

2017

June 12-September 11
Health Museum
Houston, TX

September 30-January 1
Science North
Sudbury, Ontario, Canada

2018

January 28-April 24
Rochester Museum and Science Center
Rochester, NY



NHGRI-Youth Career Connect High School Summer Program



The Immortal Henrietta Lacks Educator Workshop and Curriculum



NHGRI Short Course in Genomics

Middle/High School, Community College, and Tribal College Educators



NHGRI Short Course in Genomics

Nurse, Physician Assistant, and Faculty



Inter-Society Coordinating Committee for Practitioner Education (ISCC)



Method for Introducing a New Competency: Genomics (MINC)

The screenshot shows the MINC website interface. At the top left is the MINC logo, which consists of a DNA double helix and the letters 'MINC'. To the right of the logo is a navigation menu with buttons for 'HOME', 'BROWSE RESOURCES', 'CHAMPION STORIES', 'BACKGROUND', 'FOR ADMINISTRATORS', and 'FOR EDUCATORS'. Below the navigation is a 'TOOLKIT' section with a list of topics: 'Why Genomics?', 'Where to begin?', 'What needs to be done?', 'What strategies could be used?', 'How do we assess if we are making a difference?', 'How do I make it last?', 'How to overcome bottlenecks?', and 'Where do I find help?'. To the right of the toolkit is the main content area, titled 'A Method for Introducing A New Competency Genomics' with a sub-section 'Getting Started'. This section contains a paragraph about the purpose of the toolkit, a list of three ways to get started, and two video testimonials from healthcare professionals. The first video is from Cole Edmonson, DNP, RN, FACHE, NEA-BC, Chief Nursing Officer, Administration at Texas Health Presbyterian Hospital in Dallas, Texas. The second video is from Pamela Edwards EdD, MSN, RN-BC, CNE, Associate Chief Nursing Officer, Education at Duke University Hospital in Durham, North Carolina.

MINC

HOME BROWSE RESOURCES CHAMPION STORIES BACKGROUND FOR ADMINISTRATORS FOR EDUCATORS

TOOLKIT

- Why Genomics? >
- Where to begin? >
- What needs to be done? >
- What strategies could be used? >
- How do we assess if we are making a difference? >
- How do I make it last? >
- How to overcome bottlenecks? >
- Where do I find help? >

A Method for Introducing A New Competency Genomics


Getting Started

The purpose of this Toolkit is to assist those interested in integrating genomics into practice. The creation of the toolkit was recommended by leaders, just like you, who wanted to apply new scientific discoveries in patient care. Read more about options that could work in your clinical setting too!


Three ways to get started:

- ★ Are you an administrator or educator?
 - ✦ Choose appropriate button at upper right on page to explore options of how to use the toolkit
- ★ Seeking answers to questions about what's involved in applying new competencies in practice?
 - ✦ Click on each of the items to the left to learn more
- ★ Want to go right to the resources?
 - ✦ Click on Browse Resources

Stories from the Trenches



*Cole Edmonson DNP, RN, FACHE, NEA-BC
Chief Nursing Officer, Administration
Texas Health Presbyterian Hospital
Dallas, Texas*



*Pamela Edwards EdD, MSN, RN-BC, CNE
Associate Chief Nursing Officer, Education
Duke University Hospital
Durham, North Carolina*

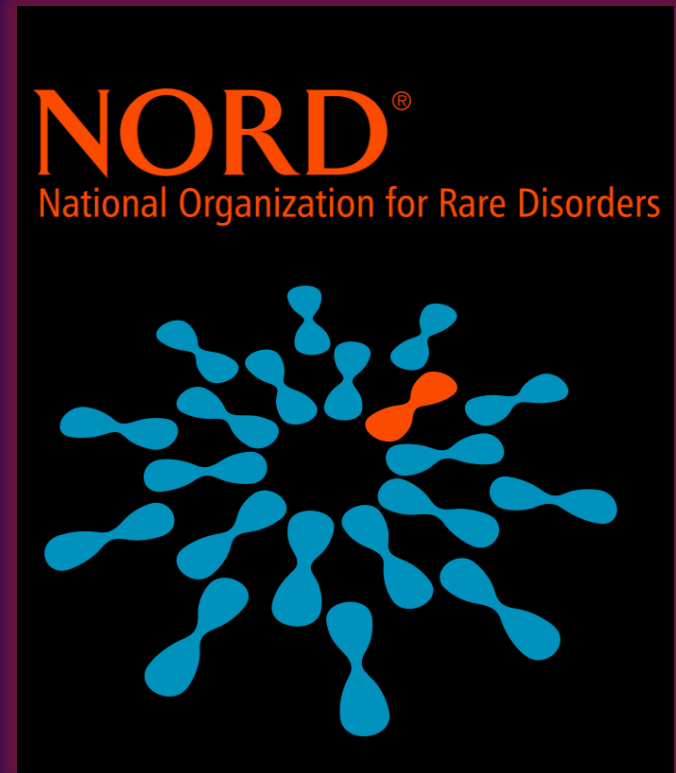
Director's Report Outline

- I. General NHGRI Updates
- II. General NIH Updates
- III. General Genomics Updates
- IV. NHGRI Extramural Research Program
- V. NIH Common Fund/Trans-NIH
- VI. NHGRI Division of Policy,
Communications, and Education
- VII. NHGRI Intramural Research Program

2017 Rare Impact Award, National Organization for Rare Disorders



Cynthia Tifft, M.D., Ph.D.



New President-Elect, American Society of Human Genetics



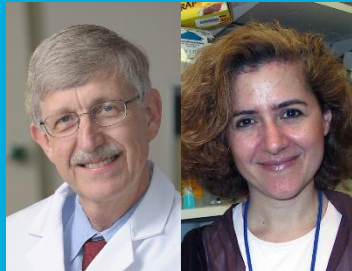
Les Biesecker, M.D.



NHGRI Intramural Research Highlights

Network Science

Social influence on 5-year survival in a longitudinal chemotherapy ward co-presence network



nature
COMMUNICATIONS

A defect in myoblast fusion underlies Carey-Fineman-Ziter syndrome

Science Translational Medicine

***Staphylococcus aureus* and *Staphylococcus epidermidis* strain diversity underlying pediatric atopic dermatitis**





The Genomics Landscape

A monthly newsletter from the NHGRI Director

To receive *The Genomics Landscape*,
go to list.nih.gov

Search for **NHGRILANDSCAPE**

Past issues can be accessed at:
genome.gov/27541196



National Human Genome Research Institute
Advancing human health through genomics research

Thanks!



Special Thanks!



NATIONAL HUMAN GENOME RESEARCH INSTITUTE



***Advancing human health
through genomics research***