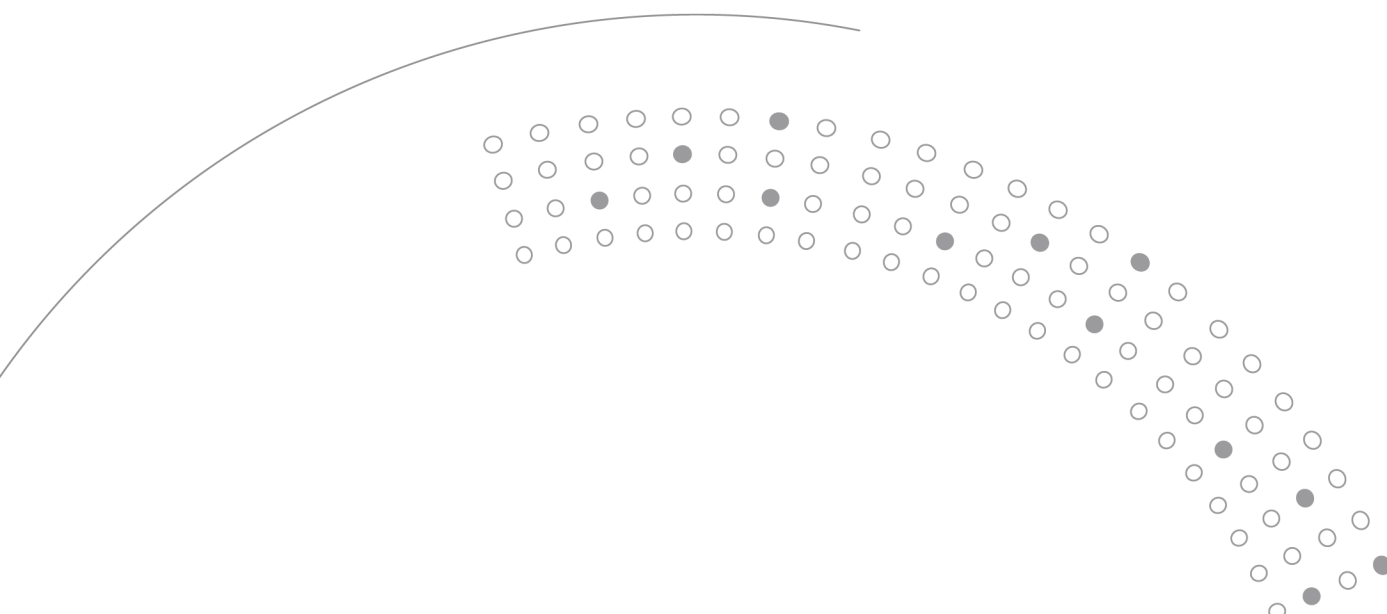




Future Directions of the NHGRI Analysis, Visualization, and Informatics Lab-space (AnVIL)

October 29, 2021



National Human Genome
Research Institute

—
The **Forefront**
of **Genomics**[®]
—

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Purpose of the workshop

The NHGRI Genomic Data Science Analysis, Visualization, and Informatics Lab-space (AnVIL) is a secure, cloud-based environment where researchers can store, share, and analyze unrestricted- and controlled-access genomic datasets and associated phenotypic data or metadata, particularly those generated with NHGRI support. Since 2018 NHGRI has been funding and managing AnVIL through two cooperative agreements awarded to the Broad Institute and Johns Hopkins University.

The goal of this workshop is to identify gaps, challenges, and future opportunities related to NHGRI's investments in the AnVIL's cloud-based infrastructure, tools, and services.

At this workshop we will discuss the current status of AnVIL's ability to serve both the basic and clinical genomics research communities, and identify the activities that are needed to expand, diversify, and support the AnVIL user community.

The workshop agenda includes two sessions, each with two concurrent virtual breakout rooms, focused on the following topics:

1. Data submission and consortia engagement
2. Analysis tools
3. Infrastructure
4. Outreach and training

In each session NHGRI is particularly interested in discussing the following cross-cutting topics, although discussions won't be limited to these:

- (a) how cloud-based platforms can better serve the needs of genomic researchers;
- (b) what tools and services would better support clinical genomic researchers;
- (c) how to improve interoperability with other NIH cloud-based genomic resources in a federated data ecosystem.

All meeting materials and recordings will be made publicly available on the workshop website soon after the end of the workshop.

Agenda

October 29, 2021 – 12pm-5pm ET

- 12:00-12:10 Welcome and purpose of the workshop
Ms. Valentina Di Francesco (NHGRI) and Dr. Ken L. Wiley Jr. (NHGRI)
- 12:10-12:20 Data Science at the Forefront of Enhancing Diversity in Genomics
Mr. Vence L. Bonham Jr. J.D. (NHGRI)
- 12:20-12:35 Introduction to AnVIL
Dr. Anthony A. Philippakis (Broad) and Dr. Michael C. Schatz (Johns Hopkins)

12:35-1:50 Session 1: Breakout rooms

Data submission and consortia engagement		Analysis tools	
<i>Moderators: Dr. Adam Resnick (Children's Hospital of Philadelphia) and Ms. Valentina Di Francesco (NHGRI)</i>		<i>Moderators: Dr. Marylyn Ritchie (University of Pennsylvania) and Dr. Ken L. Wiley, Jr. (NHGRI)</i>	
12:35-12:40	Moderator introductions	12:35-12:40	Moderator introductions
12:40-12:55	AnVIL presentation: <i>Dr. Brian O'Connor (Broad) and Dr. Frederick Tan (Carnegie)</i>	12:40-12:55	AnVIL presentation: <i>Dr. Vincent Carey (HMS) and Dr. Ira Hall (Yale)</i>
12:55-1:40	Discussion	12:55-1:40	Discussion
1:40-1:50	Prepare breakout report	1:40-1:50	Prepare breakout report

1:50-2:15 Report back from Session 1
Rapporteurs: Dr. Adam Resnick and Dr. Marylyn Ritchie

2:15-2:30 15 min break

2:30-3:45 Session 2: Breakout rooms

Infrastructure		Outreach and training	
<i>Moderators: Ms. Karen L. Davis (RTI International) and Dr. Carolyn M. Hutter (NHGRI)</i>		<i>Moderators: Dr. Siddharth Pratap (Meharry Medical College) and Mr. Christopher Wellington (NHGRI)</i>	
2:30-2:35	Moderator introduction	2:30-2:35	Moderator introduction
2:35-2:50	AnVIL presentation: <i>Dr. Jeremy Goecks (OHSU) and Dr. Benedict Paten (UCSC)</i>	2:35-2:50	AnVIL presentation: <i>Dr. Jeffrey Leek (JHU) and Ms. Tiffany Miller (Broad)</i>
2:50-3:35	Discussion	2:50-3:35	Discussion
3:35-3:45	Prepare breakout report	3:35-3:45	Prepare breakout report

3:45-4:10 Report back from Session 2
Rapporteurs: Ms. Karen L. Davis and Dr. Siddharth Pratap

4:10-5:00 Summary and closing
Ms. Valentina Di Francesco and Dr. Ken L. Wiley Jr.

Discussant assignments to breakout rooms

Session 1

Breakout room: Data submission and consortia engagement

Moderators: Ms. Valentina Di Francesco and Dr. Adam Resnick

Dr. Elizabeth (Liz) Blue
Dr. David Crosslin
Dr. Iftikhar Kullo
Dr. Tara Matise

Dr. Aleksandar Milosavljevic
Dr. Minoli Perera
Dr. Stephen (Steve) Rich
Dr. Kenneth (Ken) Rice

Breakout room: Analysis tools

Moderators: Dr. Marylyn Ritchie and Dr. Ken Wiley, Jr.

Dr. Nadav Ahituv
Dr. Joshua (Josh) Akey
Dr. Mark Craven
Dr. Sean Davis
Dr. Barbara Engelhardt
Dr. James Knight

Dr. Anshul Kundaje
Dr. Karen Miga
Dr. Adam Phillippy
Dr. Timothy (Tim) Reddy
Dr. Chunhua Weng

Session 2

Breakout room: Infrastructure

Moderators: Ms. Karen Davis and Dr. Carolyn Hutter

Mr. Samuel (Sandy) Aronson
Dr. Vivien Bonazzi
Dr. Brandi Davis-Dusenbery
Dr. Richard Gibbs
Dr. George Hripcsak

Dr. Eimear Kenny
Dr. Lucila Ohno-Machado
Dr. Shannon McWeeney
Mr. Luke Rasmussen

Breakout room: Outreach and training

Moderators: Dr. Siddharth Pratap and Mr. Christopher Wellington

Dr. Cinnamon Bloss
Dr. C. Titus Brown
Dr. Carol Bult
Dr. John Kwagyan
Dr. Andrew Lee

Dr. Robert Meller
Dr. Peter Robinson
Dr. Sourav Roy
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All NHGRI extramural staff is invited to participate in this workshop as listeners only.