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

Virtual Workshop
Oct 29, 2021 12pm-5pm ET
Future Directions of the NHGRI AnVIL Workshop

- NHGRI will be recording the whole workshop, including the breakout room discussions, and share the recordings and meeting’s materials publicly.

- Please use the “raise your hand” feature in Zoom for questions and comments.

- Please mute yourself, unless you are presenting, or speaking to share a comment or question.

- Participants will be automatically redirected to the breakout room for which they are discussants, or based on the choice provided in the registration form.

- Workshop folder - [bit.ly/AnVILWorkshop](bit.ly/AnVILWorkshop)

- Contact Jerryl Somani at jsomani@mail.nih.gov or on Zoom for any Zoom related issue.
Future Directions of the NHGRI Analysis, Visualization, and Informatics Lab-space (AnVIL)

Welcome and Overview of the Workshop

Valentina Di Francesco
On behalf of the NHGRI AnVIL Team
What is the AnVIL?

NHGRI established AnVIL to provide a cloud-based platform for the storage, sharing and analysis of large genomic and related datasets.

AnVIL aims to support the collaboration and data sharing needs of NHGRI programs and initiatives.

AnVIL aims to provide an environment that facilitates training and development of the genomic research workforce and genomic data scientists.

Extensive background information in the workshop’s booklet.

AnVIL is a 3 year old program.
Workshop's Goals

Identify gaps, challenges and future opportunities related to NHGRI’s investments in the AnVIL’s cloud-based infrastructure, tools and services.
Welcome and Overview of the Workshop
Valentina Di Francesco, M.S. (NHGRI) and Dr. Ken L. Wiley Jr., Ph.D. (NHGRI)

Data Science at the Forefront of Enhancing Diversity in Genomics
Vence L. Bonham Jr., J.D. (NHGRI)

Introduction to AnVIL
Anthony A. Philippakis, M.D., Ph.D. (Broad) and Dr. Michael C. Schatz, Ph.D. (Johns Hopkins)

Breakout Room: Data Submission and Consortia Engagement
Moderators: Adam Resnick, Ph.D. (Children’s Hospital of Philadelphia) and Valentina Di Francesco, M.S. (NHGRI)

Breakout Room: Analysis Tools
Moderators: Marylyn Ritchie, Ph.D. (University of Pennsylvania) and Ken L. Wiley Jr., Ph.D. (NHGRI)

Breakout Room: Data Submission and Consortia Engagement

Moderator Introductions

AnVIL Presentation: Brian O’Connor, Ph.D. (Broad) and Frederick Tan, Ph.D. (Carnegie)

Discussion

Prepare Breakout Report

Breakout Room: Analysis Tools

Moderator Introductions

AnVIL Presentation: Vincent Carey, Ph.D. (HMS) and Anne O’Donnell-Luria, M.D., Ph.D. (Broad)

Discussion

Prepare Breakout Report
# Agenda

1:50 - 2:15 pm  
**Reports Back from Session 1**  
*Rapporteurs: Adam Resnick, Ph.D. and Marylyn Ritchie, Ph.D.*

2:15 - 2:30 pm  
**Break**

2:30 - 3:45 pm  
**Session 2**

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<tr>
<th>Breakout Room: Infrastructure</th>
<th>Breakout Room: Outreach and Training</th>
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<tr>
<td><strong>Moderators:</strong> Karen M. Davis, Ph.D. (RTI International) and Carolyn M. Hutter, Ph.D. (NHGRI)</td>
<td><strong>Moderators:</strong> Siddharth Pratap, Ph.D. (Meharry Medical College) and Christopher Wellington, B.S. (NHGRI)</td>
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| 2:30 - 2:35 pm | 2:30 - 2:35 pm  
*Moderator Introductions* |
| 2:35 – 2:50 pm | 2:35 – 2:50 pm  
*AnVIL Presentation: Jeremy Goecks, Ph.D. (OHSU) and Benedict Paten (UCSC)* |
| 2:50 - 3:35 pm | 2:50 - 3:35 pm  
*Discussion* |
| 3:35 - 3:45 pm | 3:35 - 3:45 pm  
*Prepare Breakout Report* |

3:45 - 4:10 pm  
**Reports Back from Session 2**  
*Rapporteurs: Karen L. Davis, Ph.D. and Siddharth Pratap, Ph.D.*

4:10 - 5:00 pm  
**Summary and Closing**  
*Valentina Di Francesco, M.S. and Ken L. Wiley Jr., Ph.D.*
**Session 1 Breakout Room: Data Submission and Consortia Engagement**
*Moderators: Dr. Adam Resnick (Children's Hospital of Philadelphia) and Ms. Valentina Di Francesco (NHGRI)*

**Breakout rooms’ crosscutting themes:**
*cloud use, tools and services for clinical genomics, interoperability with other genomic resources*

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<th>Strengths - Where does AnVIL excel?</th>
<th>Weaknesses: Where is AnVIL at a disadvantage?</th>
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<th>Opportunities - Where can AnVIL grow and improve?</th>
<th>Threats - Which factors jeopardize AnVIL?</th>
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Who is Here?

- Invited Participants
  - Assigned discussants to the Breakout Rooms on page 5 of the workshop booklet
- AnVIL Key Personnel
- NHGRI AnVIL Staff
- Other NHGRI Staff as listeners
NHGRI AnVIL Staff

Valentina Di Francesco, M.S.
AnVIL Co-Lead

Elena M. Ghanaim, M.A.
Policy Analyst

Carolyn M. Hutter, Ph.D.
Director of the Division of Genome Sciences

Teri Manololio, M.D., Ph.D.
Director of the Division of Genomic Medicine

Tiffany Rolle, Ph.D.
Science Education and Engagement Fellow

Shurjo K. Sen, Ph.D.
Program Director

Ana Pilar Stevens
Scientific Program Analyst

Helen Thompson
Scientific Program Analyst

Christopher Wellington, B.S.
Program Director

Ken L. Wiley, Jr. Ph.D.
AnVIL Co-Lead
Future Directions of the NHGRI AnVIL
Basic Logistics

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Questions?
Vence L. Bonham Jr., J.D.
Acting Deputy Director
National Human Genome Research Institute
Associate Investigator
Social and Behavioral Research Branch

Data Science at the Forefront of Enhancing Diversity in Genomics
Introduction to AnVIL