NCPI Spring 2022 Virtual Workshop Agenda

June 22-23, 2022
11:00am - 4:00pm EDT

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Workshop Description

First organized in 2019, the NCPI's goal is to establish and implement guidelines and technical standards to empower end-user analyses across the five participating platforms and facilitate the realization of a trans-NIH, federated data ecosystem. NCPI is a collaborative project between five NIH Institutes and Centers (NCI, NHGRI, NHLBI, NIH Common Fund, and NCBI) as well as external partners comprising six Working Groups: **Coordination, Community Governance, FHIR, Outreach and Training, NIH Systems Interoperation and Search.**

This workshop will be open to the public and held on 22-23 June, 2022 from 11:00 AM - 4:00 PM EDT. We hope this meeting will be engaging to presenters and participants alike, providing guidance and vision to drive interoperability of NIH Cloud Platforms.

Please reach out with questions or comments by emailing Stephen Mosher at smosher3@jhu.edu.

Zoom Registration

Registration is closed.

Agenda

Day 1: Wednesday, June 22, 2022

11:00 AM - 11:10 AM – Welcome and goals of meeting

Anthony Phillipakis (Broad Institute) and Michael Schatz (Johns Hopkins University)

FAIR Data, Computing, Cataloging Resources Across the NIH and Global Communities

The vision shared in this session will provide foundation and direction to chart the collaborative future of NCPI.

11:10 AM - 11:30 – The NIH Strategic Vision for Data Science, Successes and Opportunities for the Next 5 Years

Laura Biven (ODSS)

11:30 AM - 11:50 AM – ODSS All-Hands Meeting Report Out: Data and Compute Infrastructure

Tanja Davidsen (NCI)

11:50 - 12:05 PM – Interoperability in Data Mesh

Samia Rahman (Seagen)

12:05 PM - 12:20 PM – Integrating Data and Knowledge Across Multiple Species: The Importance of Biological Concept Harmonization

Carol Bult (The Jackson Laboratory)

12:20 PM - 12:35 PM – Playing telephone with data access: success with GA4GH DRS

Titus Brown (UC Davis)

12:35 PM - 1:05 PM – Break

1:05 PM - 1:50 PM Panel Discussion with Commercial Cloud Vendors

Patrick Combes - Amazon Web Services
Jer-Ming Chia - Microsoft Azure
Adrish Sannyasi - Google Cloud Platform
Moderators: Michael Schatz & Anthony Phillipakis

1:50 PM - 2:00 PM – Break

2:00 PM - 4:00 PM – Parallel Breakout Sessions

20 min - ***Data Mesh***
20 min - ***Reproducibility***
20 min - ***Resource and service readiness for AI/ML***
20 min - ***Engaging partnerships (i.e., GA4GH, Elixir, CFDE, Alliance of Genomic Resources)***
5 min - Moderators prepare report back
25 min - Report back

Day 1 Breakout Moderators

Parallel Session 1	Allison Heath	Brian O'Connor
Parallel Session 2	Valentina Di Francesco	Mike Feolo
Parallel Session 3	Chris Wellington	Stan Ahalt
Parallel Session 4	Kathy Reinold	Adam Resnick
Parallel Session 5	Michael Schatz	Rachel Liao

4:00 PM – Conclusion of Workshop Day 1

Day 2: Thursday, June 23, 2022

11:00 AM - 11:05 AM – Welcome and start of Day 2

Stephen Mosher (Johns Hopkins University)

Interoperability Driven Science

Cloud platform interoperability enables scientific discovery. Here we will learn of the latest advances in NCPI demonstration projects and related cloud platforms.

11:05 AM - 11:20 AM – The ELIXIR Cloud for European Life Sciences

Jonathan Tedds (ELIXIR)

11:20 AM - 11:35 AM – Sex chromosome complement aware alignments

Melissa Wilson (ASU)

11:35 AM - 11:50 AM – Genome-wide Sequencing Analysis to Identify the Genes Responsible for Enchondromatoses and Related Malignant Tumors.

Nara Sobreira (JHU)

11:50 AM - 1:05 PM – Working Group Updates

15 min - Community/Governance WG

Bob Grossman (University of Chicago)

Stanley Ahalt (University of North Carolina at Chapel Hill)

15 min - Systems Interoperation WG

Jack DiGiovanna (SevenBridges)

15 min - FHIR WG

Robert Carroll (Vanderbilt University Medical Center)

15 min - NCPI Outreach WG

Stephen Mosher (Johns Hopkins University)

15 min - Search WG

Dave Rogers (Clever Canary)

Kathy Reinold (Broad Institute)

1:05 PM - 1:35 PM – Break

Technical Aspects of Interoperability

Technologies that enable interoperability are important to develop with stakeholders involved to promote the usability of the technical standards and products. In this session, we will hear about technologies enabling interoperability and their successful implementations in research.

1:35 PM - 1:50 PM – The Texas Advanced Computing Center (TACC) as an Interoperable Cloud Resource for Biomedical Research

Dan Stanzione (TACC)

1:50 PM - 2:05 PM – FHIR for Genomics: The Path Forward

Mullai Murugan (Baylor College of Medicine)

2:05 PM - 2:20 PM – Supporting Genomic Data Sharing through the Global Alliance for Genomics and Health
> *Heidi Rehm (Broad Institute)*

2:20 PM - 2:35 PM – Interoperability Opportunities & Challenges with the Cloud and STRIDES
> *Nick Weber (NIH STRIDES)*

2:35 PM - 3:10 PM – Concurrent Breakouts

> *Topic 1: Bringing researchers to cloud computing*
> *Topic 2: Reproducibility and Interoperability of batch and ad hoc analyses*
> *Topic 3: What technologies and data types are missing across platforms?*
> *Topic 4: Diversifying genomic data science*
> *Topic 5: Flagship use cases for interoperability*

Day 2 Breakout Moderators

Topic 1: Bringing researchers to cloud computing	Tiffany Miller
Topic 2: Reproducibility and Interoperability of batch and ad hoc analyses	Jack DiGiovanna
Topic 3: What technologies and data types are missing across platforms?	Ken Wiley
Topic 4: Diversifying genomic data science	Asiyah Lin/Kim Albero
Topic 5: Flagship use cases for interoperability	Michael Schatz/Stephen Mosher

3:10 PM - 3:50 PM – Report Back
> 5 minutes for report prep; 5 minute report per group; 10 minutes open discussion

3:50 PM - 4:00 PM – Summary, Future Directions, & Meeting close
> *Michael Schatz (Johns Hopkins University)*

4:00 PM – Meeting close