Defining a Clinical Data Ecosystem for Genomic Health

Wednesday, April 10th, 2024

Venue: The Line Hotel DC, 1770 Euclid St NW, Washington, DC 20009

Meeting Room: Carina

8:00 - 8:30 AM Breakfast | Carina East

8:30 - 9:15 AM <u>Introduction</u> | 45 minutes (15 minute presentations)

- Overview of the current issue and objective | Nephi Walton (NHGRI)
- Open the Genome to All | Laura Duque Lasio (Washington Univ.)
- Chief medical information officer (CMIO) perspective | Kevin O'Bryan (Washington University)

9:15 - 10:45 AM Real World Genomic Data in Clinical Care | 1 hour, 30 min (15 min presentations; 45 min discussion)

- Germline Mendelian Disease Data | Ian Campbell (CHOP)
- Systematic Review of Genomic Clinical Decision Support | **Darren Johnson** (Geisinger)
- Pharmacogenomics Data/External Systems | Mark Dunnenberger (North Shore)
- Informatics Challenges Open Discussion | Moderator: **Travis Osterman** (VUMC)

10:45 - 11:05 AM Break | 20 min.

11:05 - 12:50 PM Real Time and Rapid Genetic Diagnosis | 1 hour, 45 min (15 min presentations; 1 hour discussion)

- Real-Time Genetic Diagnosis at the Point of Care | Marc Williams (Geisinger)
- Expanding Rapid NICU Sequencing | Luca Brunelli (Univ. of Utah)
- Rapid NICU Sequencing Infrastructure | Valerie Willis (Indiana Univ.)
- Implementation Challenges Open Discussion | Moderator: Ken Wiley (NCATS)

12:50- 1:20 PM Working Lunch | *30 min. Carina*

1:20 - 3:00 PM Al and Polygenic Risk Scores | 1 hour, 40 min (15 min presentations; 55 min discussion)

- Data Availability | **Iftikhar Kullo** (Mayo Clinic)
- FHIR Genomics Operations | **Bob Dolin** (*Elimu/HL GenomeX*)
- Maximizing Genomic Clinical Utility: Context and Learning | Pradeep Natarajan (Broad)
- Implementation Challenges Open Discussion | Moderator: Josh Peterson (VUMC)

3:00 - 3:20 PM Break | 20 min.

3:20 - 4:50 PM <u>Delivering Genomics Information to Patients and Providers</u> | 1 hour, 30 min (15 min presentations; 45 min discussion)

- Primary Care Perspective | Sharice Wood (University of Cincinnati)
- Chatbots for Patient Outreach, Education, and Access to Genetic Testing | Guilherme Del Fiol (Univ. of Utah)
- Implementation of Genomic Information Resources | Casey Overby Taylor (Johns Hopkins)
- Implementation Challenges Open Discussion | Moderators: Alanna Rahm (NHGRI),
 Juliann Savatt (Geisinger)

4:50 - 5:00 PM Closing Remarks

5:00 PM Adjourn

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8:00 - 8:30 AM Breakfast | Carina East

8:30 - 9:45 AM <u>Models for Genomic Data Sharing</u> | 1 hour, 15 min (5-15 min presentations; 30 min discussion)

• Brief Day One Recap | **John David Nolen** (*Children's Mercy Hospital Kansas City*)

- ACMG Points to Consider: Designated Record Set | Marc Williams (Geisinger)
- Models for Data Sharing | Bret Heale (Humanized Health Consulting)
- Is PACS a Model for FHIR Genomics? | **Srikar Chamala** (University of Southern California)
- Group Discussion | Moderator: John David Nolen (Children's Mercy Hospital Kansas City)

9:45 - 10:05 AM Break | 20 minutes

10:05 - 11:50 AM Model Design Workshop | 1 hour, 45 minutes

• Moderator: **Bret Heale** (Humanized Health Consulting)

11:50 AM - 12:20 PM Working Lunch | *30 minutes (Carina)*

12:20 - 1:05 PM Evaluating the Model: Data and Technical Standards | 45 minutes

- Robert Freimuth (Mayo Clinic)
- Robert Carroll (VUMC)

1:05 - 1:50 PM Evaluating the Model: Governance, Legal, and Ethical Challenges | 45 minutes

- Jorge Contreras (Univ. of Utah)
- Kevin O'Bryan (Washington Univ.)
- Casey Overby Taylor (Johns Hopkins)

1:50 - 2:45 PM **Evaluating the Model: Sustainability** | *55 minutes*

- Bryce Christensen (Univ. of Utah)
- Michael Murray (Mt. Sinai)
- Kevin O'Bryan (Washington Univ.)

2:45 - 3:20 PM Path Forward and Action Plans | Nephi Walton (NHGRI) 35 minutes

- Synthesis of Key Points from Discussions
- Setting Priorities: Identifying the Most Critical Barriers
- Closing Remarks and Future Collaboration

3:20 PM Adjourn