



Genomic Clinical Decision Support

Developing Solutions for Clinical and Research Implementation

October 2-3, 2014

Bethesda North Marriott Hotel & Conference Center

5701 Marinelli Road

North Bethesda, MD 20852-2785

Live Web Link: <http://www.genome.gov/GenomeTVLive/>

Twitter Hash Tag - #GCGS2014

Objectives –

GM 7 will convene key thought leaders in genomic implementation and application of clinical decision support to:

- Compare current state with ideal state of genomic clinical decision support to define gaps and strategies to close the gaps
- Identify and engage US and international health IT initiatives that would support recommended strategies
- Define a prioritized research agenda for GCDS

Key Questions to be addressed:

1. Is clinical decision support an essential element in the successful implementation of genomic medicine?
 - Does genomic clinical decision support differ significantly from decision support used for other purposes? If yes, what are the key differences?
 - What is the ideal state of genomic clinical decision support?
 - How can the impact of genomic clinical decision support be defined and measured?
2. What are data issues that impact genomic CDS?
3. How do we manage knowledge for genomic clinical decision support?
4. What are implementation issues surrounding genomic CDS?
5. What are areas that should be prioritized for the research agenda for GCDS?

Thursday, October 2nd

LOCATION:

Bethesda North Marriott Hotel & Conference Center

Salon E-H Conference Room

7:00 AM Registration and Breakfast

Registration Table

8:00 AM Welcome, Introductions, and Expectations

Marc Williams
Blackford Middleton



Continued...Thursday, October 2nd

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8:15 AM Keynote Speaker Dan Masys

“Tales of Tenerife and Three Mile Island: Lessons from Other Industries for Genomic Clinical Decision Support.”

9:00 AM 1 Hour Discussion – Ideal State of Genomic CDS

10:00 AM Break and Networking

10:30 AM – 12:30 PM

Panel 1 – Key Question#2 – What are the data issues that impact genomic CDS?

Moderators: Robert Freimuth, PhD and James Ostell, PhD

10:30 AM – 10:45 AM

Presentation of the Key Question and Expected Deliverables

10:45 AM – 12:15 PM

Discussion of Key Questions

- I. What data types are essential for genomic CDS
 - a. Patient Level / Clinical Data?
 - b. Provider / Institutional Data?
 - c. Other?
- II. How does the massive nature of genomic data influence development and implementation of genomic CDS?
- III. Are there unique attributes of genomics data that present unique challenges to the development and implementation of genomic clinical decision support?
 - a. Persistent nature of germ-line variation
 - b. Rapidly changing knowledge around genomic variants
 - c. Somatic vs. germline variation

12:15 PM – 12:30 PM

Wrap-Up and Summary

12:30 PM – 1:15 PM

Lunch and Networking

1:15 PM – 3:15 PM

Panel 2 – Key Question #3 – How do we manage knowledge for genomic clinical decision support? **Moderators:** Atul Butte, MD, PhD and Josh Peterson, MD, MPH

1:15 PM – 1:30 PM

Presentation of the Key Question and Deliverables



Continued...Thursday, October 2nd

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1:30 PM – 3:00 PM

Discussion of Key Questions

- I. What are the necessary elements of knowledge management and representation to achieve ideal state? What standards exist or are needed to achieve ideal state?
- II. What type of clinical decision support architecture (Wright and Sittia, 2008) is needed to achieve ideal state?
- III. What governance issues arise in knowledge management?

3:00 PM – 3:15 PM

Wrap-Up and Summary

3:15 PM – 3:45 PM

BREAK and Networking

3:45 PM – 6:00 PM

Panel 3 – Key Question#4 – What are implementation issues surrounding genomic CDS?

Moderators: Kensaku Kawamoto, MD, PhD, MHS and Casey Overby, PhD

3:45 PM – 4:00 PM

Presentation of the Key Question and Deliverables

4:00 PM – 5:30 PM

Discussion and Key Questions

- I. Are there common workflow issues to be considered when implementing GCDS? If so, what are they?
- II. What are the intra- and inter- institutional data and knowledge exchange issues implementing GCDS at scale?
 - a. Storage
 - b. System Requirements
 - c. Standards
 - d. Security
- III. What is the role for patient facing genomic clinical decision support?

5:30 PM – 6:00 PM

Wrap-Up and Summary

6:00 PM

Summary Day 1

Marc Williams
Blackford Middleton

Dinner on your own for all attendees. Genomic Medicine Working Group – See Jaqueline Odgis



Friday, October 3rd

LOCATION:

Bethesda North Marriott Hotel & Conference Center

Salon E-H Conference Room

Live Web Link: <http://www.genome.gov/GenomeTVLive/>

Twitter Hash Tag - #GCGS2014

7:00 AM Breakfast and Networking

8:00 AM – 11:30 AM

Panel 4 - Key Question #5 Discussion – What are areas that should be prioritized for the research agenda for GCDS?

- I. What existing entities (e.g. CPIC informatics, AMIA Genomics working group, CDSC, Health e-Decisions, ONC-HealthIT, Professional Societies, Guideline Developers, etc.) are aligned with the recommended strategies and how can they be engaged?
- II. Avoidance of adverse reactions vs. improvement in health
- III. Quality improvement vs. cost containment

8:00 AM – 9:00 AM

Presentation and discussion of Day 1 Synthesis Mapped to Key Question #5

Co-Moderators: Marc Williams, MD, FAAP, FACMG and Blackford Middleton, MD, MPH, MSc, FACP, FACMI, FHIMSS

9:00 AM – 10:15 AM

Group Discussion on KQ5

10:15 AM – 10:45 AM BREAK and Networking

10:45 AM – 12:00 PM Continuation Group Discussion on KQ5

12:00 PM – 12:30 PM Summary and Next Steps

Marc Williams
Blackford Middleton

12:30 PM Adjourn and Pick-Up Boxed Lunch