

# S4: Distributed Computing, TranSMART, & Big Data

## Session Summary

The use of i2b2 in developing distributed computing and specialized i2b2 Hives. This is the direction that the i2b2 team is working towards with tranSMART in order to increase its support for special i2b2 instances that support Genomics, Imaging science, and Big Data Analytics that can be linked together in a distributed network.

Presenters (6)



Paul Avillach,  
MD, PhD

Assistant Professor of  
Pediatrics

Children's Hospital  
Boston

Assistant Professor of  
Biomedical  
Informatics

Harvard Medical  
School

Assistant Professor in  
the Department of  
Epidemiology

Harvard School of  
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Herrick, MBA

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Mike Mendis

Corporate Team  
Lead II

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Shawn Murphy,  
MD, PhD

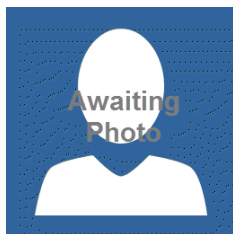
Corporate Director,  
Research IS and  
Computing

Partners HealthCare

Associate Professor  
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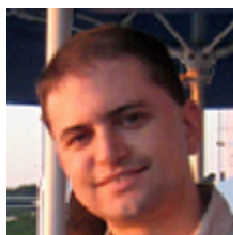


Lori Phillips, MS

Sr. Project Specialist

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Griffin Weber,  
MD, PhD

Research Associate  
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Harvard Medical  
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Associate Professor  
of Medicine

Beth Israel  
Deaconess Medical  
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## Presentations (4)

Presentation 1: i2b2 / tranSMART BD2K PIC-SURE RESTful API

*Presenter: Paul Avillach*



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Presentation 2: Healthcare System Dynamics

*Presenter: Griffin Weber, MD, PhD*

- HSD Cycles in Clinical Data
- Using HSD to Predict Outcomes
- Using HSD to Derive Normal Ranges
- Adding HSD to i2b2



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Presentation 3: Using Big Data to Create an Information Commons with the i2b2 Infrastructure

*Presenter(s): Christopher Herrick and Lori Phillips*

- Information Commons
- i2b2 Cell: The Canonical Software Module
- Distributed Queries: Central and Remote Hives



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#### Presentation 4: Developing Specialized Hives to Contribute to the i2b2 Ecosystem

*Presenters: Shawn Murphy and Mike Mendis*

- Distributed Query System links together Specialized i2b2 Hives
- Using BRISKIT to assemble a new Hive very quickly
- Patient Information Commons

