



## Dr. Richard Simon

Chief, Biometric Research Branch  
Head, Section on Computational and  
Systems Biology  
Division of Cancer Treatment & Diagnosis  
**National Cancer Institute**

## Development of Predictive Classifiers Based on High Dimensional Data Validation for an Intended Use

**Friday**  
**November 7, 2014**  
**12:00 – 1:00 pm**

The Hospital for Sick Children  
Daniels Hollywood Theatre  
Room 1246, 1st Floor, Black Wing  
555 University Avenue, Toronto, ON

### Abstract:

Biotechnology has provided whole genome assays that can serve as powerful tools for elucidation of biological mechanisms and development of predictive models. When the number of candidate variables are greater than the number of cases available, special methods are needed for developing and validating useful models and for validating them. This talk will describe some of these methods. The talk will also describe some applications of predictive models in cancer therapeutics and emphasize the importance of identification of intended use early in the development process.

### Profile:

Richard Simon is Chief of the Biometric Research Branch and head of the Section on Computational and Systems Biology in the Division of Cancer Treatment & Diagnosis of the National Cancer Institute. Dr. Simon holds a doctoral degree in applied mathematics and computer science from Washington University in St. Louis, Mo. He is a fellow of the American Statistical Association and a former member of the Oncologic Drug Advisory Committee of the FDA. He is the architect of BRB Array Tools software and author of Using Genomics in Clinical Trials and Predictive Medicine (Cambridge U. Press 2013). He is the recipient of the 2013 Karl Peace award of the American Statistical Association “for contributions that have played a pivotal role in bridging the gap among statistics, clinical research, and translational medicine to improve human health.”

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