



Institute for Data Sciences and Engineering  
COLUMBIA UNIVERSITY

## *Colloquium Series Event*



### *Honest evidence-based healthcare - what's a data scientist to do?*

**David Madigan, EVP & Dean of the Faculty of Arts & Sciences, Columbia University**

**Date: Wednesday, September 10, 2014**

**Time: 6:00 p.m.**

**Location: Davis Auditorium, CEPSR**

*A light reception will take place after the event in the lobby*

**Abstract:**

Observational healthcare data, such as administrative claims and electronic health records, play an increasingly prominent role in healthcare. Pharmacoepidemiologic studies in particular routinely estimate temporal associations between medical product exposure and subsequent health outcomes of interest and such studies influence prescribing patterns and healthcare policy more generally. Some authors have questioned the reliability and accuracy of such studies, but few previous efforts have attempted to measure their performance. We have conducted a series of experiments to empirically measure the performance of various observational study designs with regard to predictive accuracy for discriminating between true drug effects and negative controls. I describe this work, explore opportunities to expand the use of observational data to further our understanding of medical products, and highlight areas for future research and development.

<http://www.omop.org>

<http://www.ohdsi.org>

**Biography:**

David Madigan received a bachelor's degree in Mathematical Sciences and a Ph.D. in Statistics, both from Trinity College Dublin. He recently completed a term as Editor-in-Chief of Statistical Science and is the current editor of Statistical Analysis and Data Mining.

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