NYU Stern School of Business
Department of Information, Operations & Management Sciences
IOMS Distinguished Seminar Series

TOPIC: Why most published studies are wrong but can be fixed.
SPEAKER: David Madigan (Columbia University)
DATE: Wednesday, March 5, 2014
TIME: 12:30 PM – 2:00PM
PLACE: KMC 4-60

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. The Observational Medical Outcomes Partnership (OMOP, http://omop.org) has 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. In this talk, I describe the past work of the Partnership, explore opportunities to expand the use of observational data to further our understanding of medical products, and highlight areas for future research and development.

BIO:

David Madigan is Executive Vice President for Arts and Science and Professor of Statistics at Columbia University in New York City. He received a bachelor's degree in Mathematical Sciences and a Ph.D. in Statistics, both from Trinity College Dublin. He has previously worked for AT&T Inc., Soliloquy Inc., the University of Washington, Rutgers University, and SkillSoft, Inc. He has over 140 publications in such areas as Bayesian statistics, text mining, Monte Carlo methods, pharmacovigilance and probabilistic graphical models. He is an elected Fellow of the American Statistical Association, the Institute of Mathematical Statistics, and the American Association for the Advancement of Science. He recently completed a term as Editor-in-Chief of Statistical Science and is the current editor of Statistical Analysis and Data Mining.