Xuming He is H. C. Carver Professor of Statistics and Chair of the Department of Statistics at the University of Michigan. He has leading contributions to broad areas of robust statistics, including semiparametric models and quantile regression. His research has significantly promoted the better use of statistics in biosciences, climate studies, dysphagia research, and social-economic studies. Many of his students have become faculty at major research universities or senior statisticians in the private sector. Prof. Xuming He is Fellow of the American Association for the Advancement of Science, the American Statistical Association, the Institute of Mathematical Statistics, and the International Statistical Institute. He held a Visiting Chair Professorship of the Changjiang Scholars program, sponsored by the Chinese Ministry of Education and Li Ka Shing Foundation (2008). He was IMS Medallion Lecturer and Keynote Speaker at the 2007 Joint Statistical Meetings, and Plenary Speaker at the 21st International Conference on Computational Statistics (COMPSTAT 2014). In 2015, he received the Distinguished Achievement Award from the International Chinese Statistical Association.

**General Lecture**: March 30, 2018, Friday, 2-3 p.m. Room 212 DuSable Hall

**Title**: Subgroup Analysis: Risks and Rewards

**Abstract**: Subgroup analysis is routinely used in clinical studies to identify subgroups of interest that have different characteristics from the rest of the population. In this talk, we will review methods for subgroup identification and ask whether and when we can trust subgroup analysis. In particular, we will discuss how to use existing data to evaluate the potential risk and reward of an identified subgroup in clinical applications. In particular, we will demonstrate the need to use appropriate statistical reasoning in subgroup analysis.

**Seminar**: March 30, 2018, Friday, 4-5 p.m. Room 212 DuSable Hall

**Title**: Inference on average treatment effect with high dimensional covariates

**Abstract**: Classical inference in statistics is typically model-based, but modern data analysis often uses model selection as part of the protocol. We discuss the challenges in statistical inference on the average treatment effect when a regression model has to be selected in the presence of many possible covariates. We discuss the sources of bias and review some of the recent work in post-selection inference. More specifically, we study the properties of repeated data splitting as a valid inferential tool and show how this simple idea can lead to interesting theory and a practical method for post-selection inference.