

# The 7th Stat4Onc Annual Symposium

## SHORT COURSES

Miscellaneous topics on Randomized Clinical Trials:  
Surrogate Marker Evaluation and Covariate  
Adjustment Strategies

**8:30 am-5:00 pm, May 8, 2024**

**Instructor:** Dr. Lu Tian is Professor of the Department of Biomedical Data Science at Stanford University. He received his Doctor of Science degree in Biostatistics from Harvard University. Dr. Tian has rich experience in statistical methodological research, and study design for randomized clinical trials.

**Outline:** The course is divided into two areas. The first half focuses on the fundamental concepts of surrogate markers and their role within a robust statistical framework. The latter half of the course focuses on exploring methods for adjusting covariates to estimate the average treatment effect in randomized clinical trials.



Dr. Lu Tian

Bayesian Statistics and Bayesian Models for Practical  
Dose Finding and Dose Optimization Oncology Clinical  
Trials

**8:30 am-5:00 pm, May 11, 2024**

**Instructor:** Dr. Yuan Ji is Professor of Biostatistics at The University of Chicago. His research focuses on innovative Bayesian statistical methods for translational cancer research. Dr. Ying Lu, is Professor in the Department of Biomedical Data Science, and by courtesy in the Department of Radiology and Department of Health Research and Policy, Stanford University.

**Outline:** This short course includes 1: Brief review of Bayesian statistics and modeling. 2: Review of key dose-finding Designs, including but not restricted to 3+3, CRM, mTPI, mTPI-2 (keyboard), BOIN, and i3+3. 3: Introduce strategies and designs for oncology dose optimization. 4: Q&A Throughout the short course, available software and tools will be illustrated for the course attendees.



Dr. Yuan Ji



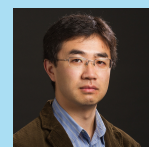
Dr. Ying Lu

Analysis of cancer omics data: the network perspective

**8:30 am-12:00 pm, May 11, 2024**

**Instructor:** Dr. Shuangge (Steven) Ma is a Professor of Biostatistics at the Yale School of Public Health. He obtained his Ph.D. in Statistics from the University of Wisconsin, Madison, and had his postdoc training at the University of Washington, Seattle. He has been conducting research in cancer biostatistics, genetic epidemiology, high-dimensional statistics, and survival analysis.

**Outline:** In this course, the basic concepts of network analysis will be introduced, followed by different ways of (in particular, unconditional and conditional) network constructions. Analysis of key network properties, such as hubs and modules, will be introduced. Then, analysis (for example, regression) that takes network information into account will be described.



Dr. Shuangge  
(Steven) Ma