

The UCI Chao Family Comprehensive Cancer Center#
Biostatistics Shared Resource Seminar Series
Statistical Issues in Clinical and Basic Science Research

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***Three approaches to studying the
genetic factors in alcohol dependence
and alcohol-induced disease***

Presented by

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Thursday, June 8, 2017
10 – 11 AM
Sprague Hall Room 205

Alcohol consumption has been linked to a wide variety of social and health issues. The World Health Organization estimates that over 3 million deaths per year can be attributed to alcohol use. There are complex genetic and environmental factors at play that determine whether a person will develop alcohol dependence, and whether a person will subsequently develop an alcohol-induced negative health outcome. In this talk, I will focus on three studies that take different approaches to uncovering the genetic factors that may be influencing alcohol dependence and alcohol-induced disease. In the first study, alcohol dependence metrics from interviews were used as the phenotype in an exome-wide association analysis. In the second study, a startle response paradigm was used as an endophenotype for alcohol dependence. In the third study, RNA sequencing was used to explore the gene expression profile for one type of alcohol-induced liver disease. These studies illustrate the many different facets to the diagnosis, prevention, and treatment of alcohol dependence and alcohol-induced disease.