DONNA J. BROGAN LECTURE IN BIOSTATISTICS

PRESENTED BY:

Marie Davidian, Ph.D.

Department of Statistics
North Carolina State University

The Right Treatment for the Right Patient (at the Right Time): Precision Medicine Through Treatment Regimes and SMARTs

Abstract:
Clinicians have long recognized that patients are different, and thus treatment decisions must be based on individual patient characteristics.   Precision medicine seeks to make clinical decision-making evidence-based, providing health care professionals with principled decision support. In the treatment of chronic diseases and disorders such as cancer or depression, a series of treatment decisions must be made at milestones and events in the disease/disorder process and in response to the evolving condition of the patient. The goal is to make the "best" sequence of decisions so as to achieve the most beneficial expected outcome for the patient.

An extensive body of statistical research exists on the development of data-based optimal, evidence-based tailored decision strategies (treatment regimes) and clinical trial designs suited to this purpose. I will provide an overview of how these methods work and provide a fundamental framework for precision medicine.

Monday, April 10, 2017
4:00 PM

Lawrence P. & Ann Estes Klamon Room, 8030
Rollins School of Public Health
Claudia Nance Rollins Building, 8th Floor
1518 Clifton Road, N.E.

(Reception immediately following the lecture)