

Dr. Siqin (Kye) Ye (Mentors: Drs. Karina Davidson and Daichi Shimbo)

Application for 2011 ACCF/MERCK Fellowship in Cardiovascular Disease and Metabolic Syndrome

Applicant Name: Siqin Ye, M.D.

Institution: Columbia University Medical Center (CUMC)

Title of Project: In-Hospital Predictors of Primary and Secondary Non-adherence in Post-ACS Patients: Development and Validation of a Prediction Model

Overview:

In past decades, an ever expanding armamentarium of pharmacological agents has dramatically improved the care of patients with ACS. However, the effects of increasingly complex medical regimen on patient adherence have not been fully assessed. The existing literature on improving adherence has mainly focused on the management of hypertension, while strategies for improving adherence in patients with ACS has remained elusive, despite recent studies that have highlighted the prevalence of non-adherence in patients with ACS and its adverse impact on outcomes including mortality. One major barrier is the difficulty in identifying patients with ACS who are at risk for non-adherence. To address this, I am applying for the support of an ACCF/MERCK Fellowship to examine predictors of non-adherence in patient with ACS enrolled in the Prescription Use, Lifestyle, & Stress Evaluation (PULSE) Study, under the mentorship of the PI Dr. Karina Davidson. Specifically, using two separate cohorts of 500 post-ACS patients each, we aim to use the robust patient level data collected in the PULSE protocol to identify predictors of non-adherence, and to construct then validate a simple-to-use prediction model. The outcome variables will be primary and secondary non-adherence for aspirin and clopidogrel as measured using electronic pill-bottle caps in the early period after index hospitalization. Predictors to be tested will be drawn from a comprehensive systematic review of predictors of non-adherence, and will include demographic, socioeconomic, clinical, cognitive, and psychosocial variables. It is our hope that the PULSE prediction model will become a useful tool for clinicians and researchers to easily identify patients at risk for non-adherence.