# Nilesh Shah

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#### Education

Ph.D. Biostatistics, University of Pittsburgh, 2012.

Dissertation: The Latent Group-Based Trajectory Model: Development of Discrimination Measures and Joint Modeling with Subdistributions. Advisor: Chung-Chou (Joyce) H. Chang

B.S. Computer Engineering, Case Western Reserve University, 2001.

### Experience

Post-doctoral Scholar, Division of Gastroenterology, Hepatology and Nutrition, Department of Medicine, University of Pittsburgh, 2012-present. Mentor: Randall Brand, MD. Research: pancreatic cancer risk factors, predictive modeling, risk-stratification.

Biostatistics Student Researcher, Department of Critical Care Medicine, University of Pittsburgh Medical Center, September 2010-2012.

Protocolized Care for Early Septic Shock (ProCESS): Performed first interim analysis for multicenter sepsis clinical trial. Duties involved performing clinical trial analysis, writing interim analysis documents under daily deadlines, managing first year graduate student, presenting interim report to DSMB.

Biological Markers of Recovery for the Kidney (BioMaRK): Analyzed biomarker data to find which biomarkers are associated with recovery and mortality of renal function. Statistical methods used include linear regression, logistic regression, multinomial regression, proportional hazards survival, competing-risks survival, longitudinal latent class trajectory modeling.

T32 predoctoral trainee, Department of Biostatistics, September 2008-August 2010.

Biostatistics Student Researcher, Statistical Genetics, University of Pittsburgh, September 2007-June 2008. Analyzed data for genome wide associate study.

Engineer, Visteon Corporation, June 2001-July 2006. Roles included software engineer, database engineer, supplier quality engineer, purchasing.

#### Research

#### **Publications**

David T. Chao, Nilesh H. Shah, Herbert Zeh, Nathan Bahary, David C. Whitcomb, Randall Brand. Overweight or obese individuals at eighteen years of age develop pancreatic adenocarcinoma at a significantly earlier age, paper in preparation.

Arpan Mohanty, MD; Nilesh Shah, PhD; Michelle Anderson, MD: Aaron Sasson, MD; Kristen Vogel, MS; Simon Sherman, PhD; David Whitcomb, MD PhD; Randall Brand, MD. Earlier age of presentation of pancreatic cancer in individuals with chronic pancreatitis, paper in preparation.

Nilesh H. Shah, John A. Kellum, Chung-Chou H. Chang. Joint modeling of latent group-based trajectory models with subdistributions, paper in preparation.

David T. Chao, MD; Nilesh H. Shah, PhD; Herbert J. Zeh III, MD; Nathan Bahary, MD, PhD; Randall E. Brand, MD. Increased serum insulin exposure does not affect age or stage of pancreatic adenocarcinoma diagnosis in patients with diabetes mellitus, paper in review.

Nilesh H. Shah, Alison E. Hipwell, Stephanie D. Stepp, Chung-Chou H. Chang. Measures of discrimination for latent group-based trajectory models, *In press, Journal of Applied Statistics, to be published online June 23, 2014.* 

Raghavan Murugan, Xiaoyan Wen, Lan Kong, Nilesh Shah, Minjae Lee, Francis Pike, Lisa Weissfeld, Melinda Carter, Michele Elder, Mark Unruh, Paul M. Palevsky, John A. Kellum. Differential effects of intensive renal replacement therapy on plasma biomarkers in acute kidney injury, Accepted for publication in Kidney International.

Nilesh Shah, PhD; Sheila Solomon, MS, CGC; Randall Brand, MD. The importance of risk stratification in pancreatic cancer screening, *Accepted for publication in Pancreatology*.

Raghavan Murugan, Xiaoyan Wen, Nilesh Shah, Minjae Lee, Lan Kong, Francis Pike, Christopher Keener, Mark Unruh, Kevin Finkel, Anitha Vijayan, Paul M. Palevsky, Emil Paganini, Melinda Carter, Michele Elder, and John A. Kellum. Inflammatory and apoptosis markers predict dialysis dependence and death among critically ill patients receiving renal replacement therapy, Nephrol. Dial. Transplant. Advance Access published March 11, 2014, doi:10.1093/ndt/gfu051.

David T. Chao, Nilesh H. Shah, Herbert Zeh, Nathan Bahary, David C. Whitcomb, Randall Brand. (2014). Overweight or obese individuals at eighteen years of age develop pancreatic adenocarcinoma at a significantly earlier age [Abstract], *Gastroenterology* Vol 146, Issue 5, Page S-24.

David T. Chao, MD; Nilesh H. Shah, PhD; Herbert J. Zeh III, MD; Nathan Bahary, MD, PhD; Randall E. Brand, MD (2013). Effect of anti-diabetic medications on the presentation of pancreatic adenocarcinoma in diabetic patients [Abstract], *Gastroenterology* Vol. 144 Issue 5, Supplement 1, p S-663.

Arpan Mohanty, MD; Nilesh Shah, PhD; Michelle Anderson, MD, Aaron Sasson, MD; Kristen Vogel, MS; Simon Sherman, PhD; David Whitcomb, MD PhD; Randall Brand, MD (2013). Earlier age of presentation of pancreatic cancer in individuals with chronic pancreatitis [Abstract], Gastroenterology Vol 144, Issue 5, Supplement 1, Page S-869.

Eydie L. Moses-Kolko, Julie Price, Nilesh Shah, Sarah Berga, Susan Sereika, Patrick Fisher, Rhaven Coleman, Carl Becker, N. Scott Mason, Scott Ziolko, Tammy Loucks, Carolyn C. Meltzer (2011). Age, sex, and reproductive hormone effects on brain serotonin-1A and serotonin-2A receptor binding in a healthy population, *Neuropsychopharmacology*; Vol 36, December 2011, p 2727-2740.

Xiao Yan Wen, Raghavan Murugan, Lan Kong, Nilesh Shah, MinJae Lee, Melinda J. Carter, Michele M. Elder, Paul M. Palevsky, Mark L. Unruh, John A. Kellum (2011). Higher concentrations of inflammatory and apoptotic biomarkers are associated with mortality and nonrecovery of kidney function [Abstract], J Am Soc Nephrol 22, 2011:83A.

Xiao Yan Wen, Raghavan Murugan, Lan Kong, Nilesh Shah, MinJae Lee, Melinda J. Carter, Michele M. Elder, Paul M. Palevsky, Mark L. Unruh, John A. Kellum (2011). Differential effects of renal replacement therapy on plasma inflammatory and apoptotic biomarkers in acute kidney injury [Abstract], *J Am Soc Nephrol* 22, 2011:206A.

Vinay Sundaram, Deborah T. Jones, Nilesh H. Shah, Michael E. de Vera, Paulo Fontes, J. Wallis Marsh, Abhinav Humar and Jawad Ahmad (2011). Posttransplant biliary complications in the pre- and post-model for end-stage liver disease era, *Liver Transplantation* 2011; Vol 17, Issue 4, p 428-435.

Sundaram V, Jones D, **Shah N**, de Vere ME, Ahmad J (2009). Risk factors of development of biliary leak after deceased donor liver transplantation [Poster]. *Hepatology* 2009;156:600A.

#### Research Support

5T32DK063922-10 Whitcomb(PI) 10/2012-

Postdoctoral trainee

5R01DK070910-05 Kellum(PI) 9/2010-4/2012

Biological Markers of Recovery for the Kidney (BioMaRK)

The goal of this study was to find relationships between biomarkers and recovery from acute kidney injury.

Role: Graduate student researcher (statistician)

5P50GM076659-05 Angus(PI) 9/2010-4/2012

Protocolized Care for Early Septic Shock (ProCESS)

The study was a clinical trial whose goal of this study was to evaluate three different treatment processes for septic shock.

Role: Graduate student researcher (statistician)

5T32GM074927 Rockette(PI) 9/2008-8/2010

Predoctoral trainee

### Teaching

#### University of Pittsburgh

Teaching Fellow: Introduction to Biostatistics, Institute for Clinical Research Education, Summer 2007, Summer 2008, Summer 2012.

Taught recitation sections twice a week, developed Stata lab tutorials, developed homework assignments, proctored exams. The class was comprised of medical fellows, medical residents, and junior faculty members.

Teaching Fellow: Computer Methods in Clinical Research, Institute for Clinical Research Education, Summer 2007, Summer 2008, Summer 2012.

Developed Stata lab tutorials and oversaw week long Stata intensive.

Teaching Fellow: Principles of Statistical Reasoning, Department of Biostatistics, Fall 2008.

Taught recitation sections twice a week, proctored exams, and graded midterm and final exams. The class was comprised of graduate students mainly from programs such as Behavioral and Community Health Sciences and Health Policy Management.

Mentor: Summer Institute for Training in Biostatistics (SIBS), Summer 2010.

Worked with students to analyze data for group projects and develop presentations. The SIBS program consists of undergraduate students from all over the U.S. who are interested in biostatistics.

#### Statistical Software

SAS, Stata, R, C/C++, SPSS, Minitab, limited knowledge of PLINK.

## Conference and Seminar Presentations

A Discriminant Index for Latent Group-Based Trajectory Models, Department of Biostatistics Seminar, University of Pittsburgh, March 17, 2011.

A Discriminant Index for Latent Group-Based Trajectory Models, ENAR March 20, 2011, Miami, FL.

A Discriminant Index for Latent Group-Based Trajectory Models, American Statistical Association, Pittsburgh Chapter Banquet. March 31, 2011.

Measures of discrimination for latent group-based trajectory models, Department of Biostatistics Seminar, University of Pittsburgh, March 23, 2012.

Measures of discrimination for latent group-based trajectory models, ENAR April 3, 2012, Washington, D.C.

Joint modeling of latent group-based trajectory models with subdistributions, Joint Statistical Meetings, August 5, 2013, Montreal, Quebec.

Statistical approaches to risk stratification for pancreatic cancer, University of Pittsburgh GI Research Rounds, April 25, 2014.

# Professional Activities

Member, American Statistical Association, 2009–Present. Member, ENAR, 2010—Present.

Reviewer, Journal of Applied Statistics.

## Honors, Awards, & Fellowships

T32 NIH Pre-doctoral Training Grant 2008-2010
T32 Post-doctoral Training Grant 2012-present
SIBS Mentor Certificate
Delta Omega Honor Society