



The Translator:

The Bi-annual Newsletter of the Doctoral Program in Clinical & Population Health Research
Graduate School of Biomedical Sciences, University of Massachusetts Medical School

CPHR GRADUATES FIRST THREE PHDS



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Virginia Briggs, MS, PhD, and Hongliu Ding, MD, MPH, PhD, (pictured above at June Commencement) as well as Mayra Tisminezky, MD, MPH, PhD, are the first group of graduates from the CPHR Program.

- Dr. Briggs conducted an observational study, "Injection Treatment for Lumbar Spinal Stenosis in Older Adults," under the direction of Patricia Franklin, MD, MBA in the Department of Orthopedics. She found significant improvements in pain one and three months post injection and improvements were associated with certain patient characteristics. Patients who were obese had greater pain relief, and both better functioning and pain relief were found among those with better baseline emotional functioning. The study is among the first to examine outcomes of this treatment for older adults.
- Dr. Ding's thesis entitled, "Bone Health and Coronary Heart Disease in Postmenopausal Women with Breast Cancer Treated with Tamoxifen," was completed at the Meyers Primary Care Institute under the direction of Terry Field, PhD. He used secondary data to examine the association of treatment with tamoxifen with subsequent fractures and coronary heart disease (CHD). He concluded there was a strong association between tamoxifen use and reduced risk for CHD, with more modest associations for reduced risk of fracture. His findings are important because current breast cancer treatment drugs of choice are shifting away from tamoxifen to aromatase inhibitors.
- Dr. Tisminezky's work, "Modeling Co-Occurring Depression and Anxiety in Patients with an Acute Coronary Syndrome," used a data set from a randomized controlled study with a cognitive behavioral therapy (CBT) intervention 6 months post-hospitalization for a coronary event. The intervention was conducted in the first 2 months. She found that depression and anxiety were prevalent and highly correlated and that CBT had a similar effect on improving both symptoms. Patients enrolled in CBT had earlier symptom remission and women benefitted more than men, however older patients tended to have increased and continuing depression and anxiety after depression and anxiety in ACS patients.

ELENA SALMOIRAGO-BLOTCHER RECEIVES RUTH L. KIRSCHSTEIN NATIONAL RESEARCH SERVICE AWARD



Elena Salmoirago-Blotcher, MD (pictured left), is a cardiologist who joined CPHR as a full time student in 2007 to launch a research career after being a practicing clinician for many years. She recently was awarded a National Research Service Award for three years of support to conduct her dissertation research. Ira Ockene, MD, Professor in the Department of Medicine, Division of Cardiology is her mentor. Dr. Salmoirago-Blotcher is interested in the effects of anxiety and stress on recovery of patients who require an implantable cardioverter-defibrillator (ICD). She will be conducting a small randomized controlled trial at UMass Memorial Health Care, recruiting and randomizing 52 cardiac patients around the time they have their ICD implanted. ICDs are implanted to stabilize the heart rhythms of patients and to prevent sudden cardiac death. At the same time, the experience of having an implanted ICD may cause anxiety and stress for patients, and the outcomes for ICD patients at one year are not as positive as might be predicted. Dr. Salmoirago-Blotcher theorized that a mindfulness-based intervention (including different breathing and attention-focusing techniques) might help ICD patients to reduce their levels of anxiety and thus promote better overall health and cardiac outcomes after implantation. Patients in the intervention group will receive one in-hospital mindfulness session, followed by seven weeks of individual telephone coaching. The usual care group will receive routine education and support and supportive/reminder follow up calls. All patients will complete anxiety and functional assessments at baseline and at 9 weeks of follow-up. Additional clinical outcome data will be collected from medical records.

"I am very excited about launching my study and would like to thank Dr. Ira Ockene, the CPHR faculty, and my classmates for their help and support in the design of this project ."

- Elena Salmoirago-Blotcher, MD

QUALIFYING PAPERS AND THESIS TOPICS DEFENDED

Student: Hamza Awad
Mentor: Fred Anderson, PhD
Thesis Research Advisory Committee Chair: Robert Goldberg, PhD
Qualifying Paper: Trends in Incidence and Case-Fatality of Acute Myocardial Infarction in the United States: A Systematic Review
Dissertation Proposal: Multinational Registries of Acute Coronary Syndrome

Student: Shira Fischer
Mentor: Terry Field, DSc
Thesis Research Advisory Committee Chair: Patricia Franklin, MD, MBA, MPH
Qualifying Paper: The Impact of Health Information Technology Interventions to Improve Medication Laboratory Monitoring for Ambulatory Patients: A Systematic Review

Student: Lauren Gellar
Mentor: Lori Pbert, PhD
Thesis Research Advisory Committee Chair: Milagros Rosal, PhD
Qualifying Paper: Impact of a Diet Based on Glycemic Index or Glycemic Load on Cardiovascular Risk Factors in Youth: A Systematic Review
Dissertation Proposal: The Effect of Glycemic Index and Glycemic Load on Glucose Control, Lipid Profiles and Anthropometrics in Low-Income Hispanics with type 2 Diabetes

Student: Hoa Nguyen
Mentor: Robert Goldberg, PhD
Thesis Research Advisory Committee Chair: Joel Gore, MD
Qualifying Paper: Age and Sex Differences in Duration of Pre-hospital Delay in Patients with Acute Myocardial Infarc-

tion: A Systematic Review
Dissertation Proposal: Age and Sex Differences in Duration of Pre-hospital Delay, Hospital Treatment Practices, and Short-Term Outcomes in Patients with an Acute Coronary Syndrome/Acute Myocardial Infarction

Student: Elena Salmoirago-Blotcher
Mentor: Ira Ockene, MD
Thesis Research Advisory Committee Chair: Lori Pbert, PhD
Qualifying Paper: Psychosocial Interventions in Patients Receiving an Implantable Cardioverter-Defibrillator (ICD): A Systematic Review
Dissertation Proposal: A mindfulness-based Intervention for the Treatment of Anxiety in Patients Receiving an Implantable Cardioverter-Defibrillator (ICD)

STUDENT PUBLICATIONS

Bentley MJ, Reed GW. Development and Validation of a Modified Disease Activity Score (mDAS28) in Rheumatoid Arthritis for Use in Standard Care. *Annals of Rheumatic Disease* 2009;68(Suppl3):530.

Clark, R., **Leung, Y.**, Lin, W.C., Little, F., O'Connell, E., O'Connor, D., Zhang, J. "Improving Community Based Mental Health Services for Elders in Massachusetts--Twelve-Month Diagnosed Prevalence of Mental Illness, Substance Use Disorders, and Medical Comorbidity in Massachusetts Medicare and Medicaid Members Aged 55 and Over, 2005." Published by The Center for Health Policy and Research, Commonwealth Medicine, UMass Medical School for The Massachusetts Executive Office of Elder Affairs, 2009.

Tisminetzky M, Bray B, Miozzo R, Locke S, McLaughlin T. Examining the Effects of Treatment and Patient Characteristics on Patient Profiles of Depression, Anxiety and Functionality after an Acute Coronary Syndrome. *American Journal of Epidemiology* 2009;169(Suppl):S1–S6.

Goldberg RJ, Spencer FA, **Tisminetzky M**, Yarzebski J, Lessard D, Gore JM, Gaasch W. Symptom presentation in patients hospitalized with acute heart failure. *Clinical Cardiology*. (In press)

FALL 2009 NEW STUDENTS

CPHR welcomed five new students to its incoming class in the Fall of 2009.

- Hassan Fouayzi has an MS in Resource Economics from UMass Amherst and has worked for five years as a data analyst and technical liaison for multi-site collaborations of the HMO Cancer Research Network, part of the Meyers Primary Care Institute at UMass. He has co-authored multiple papers and is interested in cancer research, social disparities in health outcomes, and access and utilization of health care.
- Wei "Tiffany" Huang is a graduate of Shanghai University College of Engineering with a degree in Computer Science, and holds an MS in Computer Science from Worcester Polytechnic Institute. For the last 12 years she has worked as an analyst and data base developer for the UMMS Center for Outcomes Research (COR) in the Department of Surgery. She has numerous publications and presentations. She is interested in studying the gap between clinical trial results and real world clinical practice and health outcomes in a wide variety of diseases.
- Ashley Keller received her BA in Psychology from University of St. Thomas in Minnesota, and an MS in Research Methods in Psychology from Oxford University, UK. Ashley was the European Project Manager for a cardiovascular registry project at Oxford and has conducted human cognitive-behavioral experiments. She is interested in studying behavioral interventions for health promotion.
- Charmaine Lo has a BS in Microbiology and Molecular Genetics from Michigan State University and an MPH from the University of Alabama Birmingham. At UAB She worked as a Research Assistant on several studies, including the Rapid Cycle Education Improvement Study, the Impact of Patient Education in HIV Screening Study, the VA Nicotine Dependence Program and a project reviewing the policy of complementary and alternative medicine into Comprehensive Cancer Control Plans. She is interested in health care disparities.
- Laura Mottola has a BS in Biology from Loyola University Chicago and an MPH from Boston University. She has been a teaching assistant for the BU MPH program and a Research Assistant in cardiology for Northwestern Memorial Hospital, and for a study of elder fall risk for the UMMS Dept. of Preventive and Behavioral Medicine. She also worked as an intern for the Massachusetts Tobacco Control Program. She is interested in contributing to clinical trial design.

CPHR FAST FACTS

Our students originate from:

Argentina
China
Egypt
Italy
United States
Vietnam

Our students have varied advanced degrees including:

MA Environmental Science
MA Public Policy
MD
MPH
MS Biology & Biotechnology
MS Epidemiology
MS Nutrition & Public Health
MSW

Our students have worked in many institutions including:

Bayer Diagnostics
Harvard Medical School
Massachusetts General Hospital
National Institutes of Health
National Institute of Hygiene and Epidemiology, Hanoi, Vietnam
National Organization for Vaccination and Biological Products, Cairo
New York State Psychiatric Institute
NH Department of Public Health and Human Services
Shanghai CDC
University of Massachusetts Medical School

PROFILE: SHIRA FISCHER, MD/PHD STUDENT

Shira is the first MD/PhD to enroll in the CPHR Program. Prior to the launching of the CPHR program, MD/PhD students at UMMS (as at most other medical schools) could only choose basic biomedical science work for their PhD studies. With increasing interest in training clinical researchers, Shira is among the early cohort of medical students provided the encouragement and opportunities to combine clinical work with patient-oriented research training. Shira graduated from Harvard College with a concentration in Biomedical Sciences. She subsequently spent three years at the Institute of Medicine, where she contributed to studies about new contraception methods, a national program for cord blood banking, and reducing birth defects in developing countries. After three years of medical school at UMMS, she entered the PhD phase of her studies. While completing CPHR core curriculum in biostatistics and epidemiology last year, she also completed her qualifying paper: "The Impact of Health Information Technology Interventions to Improve Medication Laboratory Monitoring for Ambulatory Patients: A Systematic Review." Under the direction of her mentor, Terry Field, DSc, at the Meyers Primary Care Institute, she will be conducting thesis research building on this literature review starting this fall. She will return to her fourth year of medical school and on to residency training when she completes her thesis research. Several other MD/PhD students, currently completing their requisite medical school classes, will be joining the CPHR Program in the next two years.



"The one-on-one attention available through CPHR is amazing. Faculty are always willing to sit down with students to discuss classes, projects, or careers."

- Shira Fischer, MD/PhD Student



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ABOUT CPHR

The Clinical & Population Health Research (CPHR) doctoral program is one of the few in the country that was specifically designed to address the new challenges in biomedical research. These include speeding the translation of knowledge from the explosion in basic sciences to patient care interventions, and assuring that new evidence-based medicine reaches the populations that can benefit from it. The CPHR program promotes an interdisciplinary approach to conducting research and provides a strong focus on addressing the needs of vulnerable populations. Currently the program has more than 70 affiliated faculty representing 31 departments and centers at UMMS.

The CPHR core courses provide cutting-edge research training in all areas of NIH-defined clinical research: from initial translation from lab to clinic, and from clinical trials to population health. Our students will graduate with the advanced skills and knowledge in biostatistics, epidemiology, and the genetic, behavioral, social, and health service predictors of individual health status needed to be successful clinical researchers.

The program currently has an enrollment of 19 PhD students one MD/PhD student and admits a group of 4-6 new students each year. Most students have master's degrees in Public Health or related disciplines from such institutions as: Boston University, Columbia University, Georgia Tech, Harvard University, Johns Hopkins University, New York Medical College, Oxford University (UK), University of Alabama, University of Oklahoma, University of Massachusetts, University of Michigan, and University of New Hampshire.

Learn more: www.umassmed.edu/cphr