



Clinical & Population Health Research

Spring 2011

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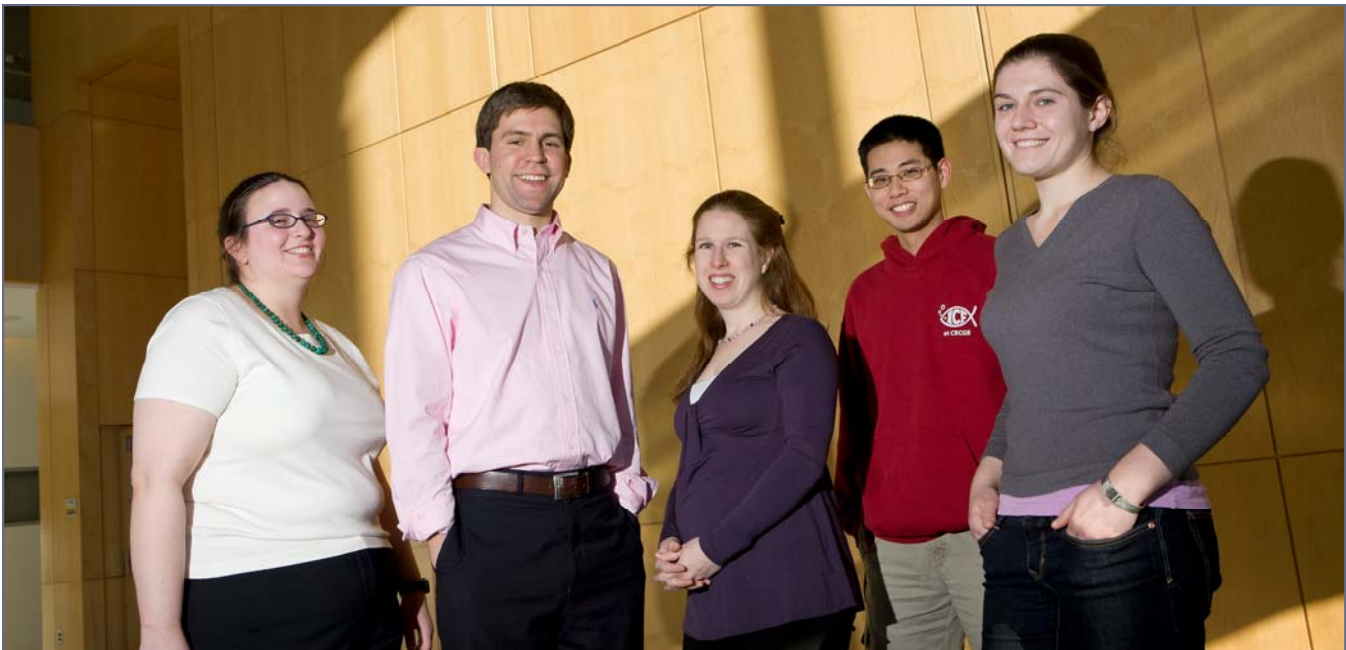
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The Translator:

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

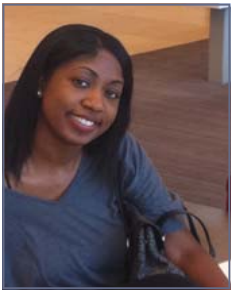
MD/PHD STUDENTS FIND UNIQUE OPPORTUNITY FOR CLINICAL RESEARCH IN CPHR

Nationally most MD/PHD programs require students to complete their research in the basic sciences. Since the founding of the Clinical and Population Health Doctoral Program at UMMS, MD/PhD students now have the opportunity to pursue epidemiology, clinical trials, and health services research as their doctoral work. Interest quickly was identified among MD/PhD applicants who saw clinical research as a more direct way to meld their aspirations as physician-scientists. Currently there are five MD/PhD students in the CPHR track. A common theme among these students is an interest in a closer loop between their practice as a physician and improving health care through their research. First year medical school student, Lisa Nobel, sought out UMMS for the availability of the clinical research track. She had completed an MS in Epidemiology at McGill University in Montreal. Lisa notes: “A physician scientist in clinical research is able to direct research to emphasize clinical relevance and to therefore enlarge the impact on the health of individuals and entire populations...” Dan Frenzl, second year medical student, echoes this view but with a focus on health care system research: “There is a strong need for well-trained physician scientists with an interest in healthcare systems and healthcare delivery...I not only want to be a physician who cares for my patients... I also want to treat broader challenges we encounter in healthcare that impact patient care”. *Continued on page 3*



MD/PhD students (L-R): Lisa Nobel, Dan Frenzl, Shira Fischer, Joshua Chang and Suzanne Czerniak

YENDELELA CUFFEE, MPH, AWARDED HOPE SCHOLARSHIP



Yendelela Cuffee, MPH

The HOPE Scholarship is awarded by the Biomedical Science Careers Program (BSCP) at Harvard.

BSCP's principal objectives are to identify, inform, support and provide mentoring for academically outstanding students, particularly African-American, Hispanic American and American Indian/Alaskan Native students. These students range from high school to post-doctoral level.

The overall aim of all BSCP activities is to increase the representation of minorities in the biomedical and biotechnology fields while helping health care institutions, biotechnology firms, educational institutions, professional organizations and private industry members meet their need for a diverse workforce.

Yendelela L. Cuffee, born and raised in Alexandria, Virginia, is a third-year Ph.D. student in the Clinical and Population Health Research Program. She earned a bachelor's degree in biology from Hampton University and a master's degree in epidemiology from New York Medical College. Her dissertation research focuses on elucidating the root causes of cardiovascular health disparities, and focusing on the psychosocial and behavioral predictors of medication nonadherence. She presented a poster at the 2010 New England Science Symposium, an oral presentation at the 2011 New England Science Symposium, and was a member of the BSCP New England Science Symposium planning committee. After completing her studies at UMass, Yendelela hopes to continue research aimed at identifying and reducing health disparities among African Americans and designing interventions that promote medication adherence among underserved populations.

“The CPHR coursework provided me with an understanding of the social and behavioral factors that influence health and health-related decision making and inspired my research which examines social factors among vulnerable and underserved populations. Through the CPHR program I have gained real-world experience assisting with interventions designed to reduce disparities among these populations.”

- CPHR Student, Yendelela Cuffee, MPH

STUDENT PUBLICATIONS

Briggs VG, Li W, Kaplan MS, Eskander MS, Franklin PD. Injection Treatment and Back Pain Associated with Degenerative Lumbar Spinal Stenosis in Older Adults. *Pain Physician*. 2010 Dec;13(6):E347-55.

Carmody J, Crawford SL, **Salmoirago Blotcher E**, Leung K, Churchill LC, Olendzki N. Mindfulness Training for Coping with Hot Flashes: Results of a Randomized Trial. *Menopause*. 2011 Feb 26.

Chen Y, Briesacher BA. Use of Instrumental Variable in Prescription Drug Research with Observational Data: A Systematic Review. *Journal of Clinical Epidemiology*. 2010 Dec 14.

Houston TK, Allison JJ, Sussman M, Horn WH, Holt CL, Trobaugh J, Salas M, Pisu M, **Cuffee YL**, Larkin D, Person SD, Barton BA, Kiefe CI, Hullett S. Culturally Appropriate Storytelling to Improve Blood Pressure: A Randomized Trial. *Ann Intern Med*. 2011 Jan 18;154(2):77-84.

Huang SS, Yokoe DS, Stelling J, **Placzek H**, Kuldorff M, et al. (2010) Automated Detection of Infectious Disease Outbreaks in Hospitals: A Retrospective Cohort Study. *PLoS Med* 7(2): e1000238.

Leung GY, Zhang J, Lin W-C, Clark RE. Behavioral Health Disorders and Adherence to Measures of Diabetes Care Quality. *Am J Manag Care*. 2011;17

Lin W, Zhang J, Clark RE and **Leung G**. Twelve-month Diagnosed Prevalence of Behavioral Health Disorders among Elderly Medicare and Medicaid Members. *The American Journal of Geriatric Psychiatry*. Published Ahead-of-Print November 25, 2010.

Nguyen HL, Gore JM, Saczynski JS, Yarzebski JL, Reed GW, Spencer FA, Goldberg RJ. Age and Sex Differences and 20-Year Trends (1986 to 2005) in Prehospital Delay in Patients Hospitalized With Acute Myocardial Infarction. *Circ Cardiovasc Qual Outcomes*. 2010 Oct 19.

Placzek H, Madoff LC. The Use of Immunization Registry-based Data in Vaccine Effectiveness Studies. *Vaccine*, Volume 29, Issue 3, 10 January 2011, Pages 399-411.

Salmoirago-Blotcher E, Fitchett G, Ockene JK, Schnall E, Crawford S, Granek I, Manson J, Ockene I, O'Sullivan MJ, Powell L, Rapp S. Religion and Healthy Lifestyle Behaviors among Postmenopausal Women: The Women's Health Initiative. *Journal of Behavioral Medicine* 2011 Feb 8.

CPHR FAST FACTS

Our students are from:

Argentina
China
Egypt
Italy
United States
Vietnam

Our students have varied advanced degrees:

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

Our students have worked at:

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

QUALIFYING PAPERS AND THESIS TOPICS DEFENDED

Student: Charmaine Lo

Mentor: Linda Bandini, PhD, RD

Qualifying Paper: A Systematic Review of Methods to Assess Health Behaviors Associated with Risk for Chronic Disease in Adolescents with Intellectual and Developmental Disabilities

Student: Elena Salmoirago-Blotcher

Mentor: Ira Ockene, MD

Dissertation Exam Committee Chair: Lori Pbert, PhD

Dissertation: A Mindfulness-Based Intervention for Treatment of Anxiety in Patients with Implantable Cardioverter Defibrillators: Feasibility and Baseline Findings

Student: Lauren Gellar

Mentor: Lori Pbert, PhD

Dissertation Exam Committee Chair: Milagros Rosal, PhD

Dissertation: The Effect of Glycemic Index and Glycemic Load on Glucose Control, Lipid Profiles, Anthropometrics among Low-Income Latinos with Type 2 Diabetes

Student: Huifang Zhao

Mentor: Craig Lilly, MD

Dissertation Exam Committee Chair: Robert Goldberg, PhD

Dissertation: Improved Methods of Sepsis Case Identification and the Effects of Treatment with Low Dose Steroids

Student: Shira Fischer

Mentor: Terry Field, DSc

Dissertation Exam Committee Chair: Patricia Franklin, MD, MBA, MPH

Dissertation: Laboratory Monitoring Tests for High-Risk Medications in the Ambulatory Setting: Factors Associated with Ordering and Completion

“I am drawn to epidemiological research because of its potentially immense impact on the health of both large numbers and broad spectrums of people.”

- MD/PhD Student, Lisa Nobel

MD/PHD STUDENTS FIND UNIQUE OPPORTUNITY

Continued from page 1

Mr. Frendl has completed a summer rotation with Dr. John Ware, PhD, an internationally known health outcomes expert in the UMMS Department of Quantitative Health Sciences and is planning thesis research on patient outcomes and health-related quality of life.

Shira Fischer will be the first CPHR MD/PhD graduate, having completed her doctoral work this spring. Ms. Fischer worked at the Institute of Medicine before beginning medical school and developed a strong interest in “implementation and systems issues that prevent the medical knowledge we do have from being applied effectively.” Her thesis research focuses on using electronic records to track laboratory monitoring of ambulatory patients on high-risk medications (such as digoxin). This work builds on her published qualifying paper (*J Am Med Inform Assoc. 2010 Nov 1;17(6):631-6*) that found inconsistent evidence that electronic systems improve laboratory test monitoring in the ambulatory setting. This is a critical health care improvement issue because poor monitoring can result in delayed or missed patient diagnoses and adverse drug events.

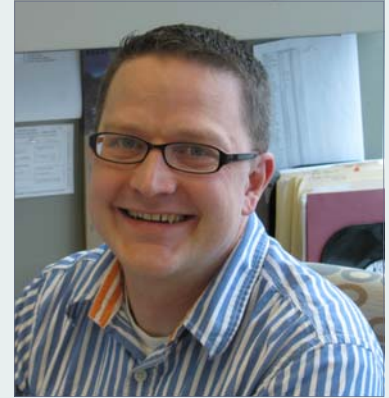
As increasing numbers of the MD/PhD class see the opportunities in the Clinical and Population Health Research Doctoral track, UMMS expects to be in the forefront of developing the next generation of physician-scientist leaders in clinical research and health care systems improvement.

STUDENT PROFILE: RICHARD MCMANUS—PROFESSIONAL TRACK STUDENT

Rick McManus, Project Director in the Department of Quantitative Health Sciences, is the first student admitted to the CPHR Doctoral Program Professional Track (CPPT). Rick started in 2008 and is joined by four other CPPT students admitted since then.

The CPPT program is a part-time program designed for Master's prepared clinical research staff at UMMS who aspire to doctoral training and independent investigator status. Rick, like all the CPPT students, has a wealth of applied experience in health services research, and has Master's degrees in both Social Work and Public Policy from the University of Michigan. Rick is currently leading a multi-site, longitudinal observational study of individuals hospitalized with acute coronary syndromes (TRACE-CORE). He has finished most of his required coursework and will be starting thesis research in the next few months.

All CPPT students are required to complete research rotations, qualifying, and thesis work outside of their job responsibilities.



My qualifying paper is examining contemporary trends and risk factors for mortality in individuals hospitalized for heart failure. I'm exploring various options for my dissertation related to understanding communication trends between providers and patients near the end of life or when diagnosed with a potentially life-threatening condition. The PhD program has helped me to develop strong quantitative skills that have assisted me in my current position as well as with progressing through the program.

— CPHR Professional Track Student, Richard McManus, MSW, MPP



Clinical & Population Health Research
Graduate School of Biomedical Sciences
University of Massachusetts
Medical School
55 Lake Avenue North
Worcester, MA 01655-0002

Phone: 508-334-2112
E-mail: CPHR@umassmed.edu
www.umassmed.edu/cphr

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, 6 MD/PhD students 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