M2M Connection

New M2M Doctoral Pathway Launches in Fall 2010
Funded by Burroughs Wellcome Fund

In February 2009, the Burroughs Wellcome Fund announced that Emory University was one of three universities to receive the inaugural Institutional Program Unifying Population and Laboratory Based Sciences (PUP) award. The PUP award is a five-year institutional training grant that provides $500,000 a year to support the training of researchers between existing concentrations of research strength in population approaches in human health and in basic biological sciences.

What is M2M?
Under the leadership of Dr. Ken Brigham and Dr. Julie Gazmararian, Molecules to Mankind (M2M) is a special PhD path designed to educate graduate students in both laboratory and population sciences. M2M builds on Emory’s breadth and depth in both laboratory and populations sciences as well as the vibrant culture of interdisciplinarity and strong history of transinstitutional educational programs. M2M is the integrator responsible for creating a bridge between laboratory and population based sciences and enabling the traffic across that bridge to create a new kind of biomedical scientist.

All M2M students are first admitted to an Emory home program before being admitted to M2M. They must complete Laney Graduate School and program requirements. Upon successful completion of the M2M curriculum, students will receive a PhD, which will in substance, be equivalent to separate degrees in both a laboratory and population sciences. M2M students receive tuition support and an annual stipend.

M2M enrolled its first cohort of five students in Fall 2010. Their home departments are Anthropology, the Graduate Division of Biological and Biomedical Sciences, and the Rollins School of Public Health.

M2M is a project of Laney Graduate School.

M2M Students Study in Four Tracks

The M2M students are participating in one of four tracks and work with faculty mentors in Emory College, the School of Medicine, and the Rollins School of Public Health.

Specialty Tracks

- Predictive Health and Society
- Population Processes and Dynamics of Infectious Diseases
- Biomarkers and the Development of Acute and Chronic Diseases
- Public Health Genomics: Genetic and Environmental Determinants of Health
Words from the M2M Directors

Dr. Ken Brigham and Dr. Julie Gazmararian

We are excited to publish our first M2M newsletter and share with you the exciting, full year we have had with the inaugural year of the M2M program. We have been fortunate to have five outstanding students in our program who deserve special thanks for their enthusiasm and substantive contributions to the program as well as the breadth of knowledge and interest they bring. The launch of our weekly seminar series has been stimulating throughout the year – with guest lectures from our faculty, students and invited guests. We are already making plans for next year’s series and also plan to coordinate several “field trips” for our students for more “hands on” exposure – for example, to the Centers for Disease Control and Prevention, Predictive Health Institute’s Center for Health Discovery and Well Being and other places in the Atlanta area. We hosted a visit from the Burroughs Wellcome Foundation’s Victoria McGovern and were pleased with her response to our program. A holiday party was a chance for faculty and students to mingle and get to know one another in an informal setting. We anticipate our upcoming M2M retreat will be an excellent opportunity to review where we are and to engage in a conversation about our successes and opportunities for enriching the program. Our second group of students has been selected. They are an outstanding group that will complement the current students with an additional breadth of interests and career plans. Initiating a new graduate program that is as novel as this one has enormous rewards for those of us privileged to be a part of it. The effort also presents challenges. Disciplinary boundaries are not always easily breached. There are, inevitably, logistics to deal with. All in all, we think it has gone well and we anticipate as both faculty and students gain experience, the program can only get better. We very much appreciate the cooperation of the faculty and administrators in making M2M possible. This has been an exciting year, and the next year will be even better.

Our First M2M Cohort

PIERRE ANKOMAH is completing his fourth year as a graduate student in the Population Biology, Ecology, and Evolution Program in the MD/PhD program. He is a fellow in the Population Processes and Dynamics of Infectious Disease Track. His research focuses on the evolution of antibiotic resistance and the development of effective treatment strategies. He is currently researching to help improve the understanding of the within-host population and evolutionary dynamics in tuberculosis chemotherapy.

ALAINÉ BROADAWAY is finishing her second year as a graduate student in the Graduate Division of Biological and Biomedical Sciences, in the Population Biology, Ecology, and Evolution program. Her M2M studies are focused on the Public Health Genomics Track. She is currently developing a statistical method that uses parent-offspring trio datasets in order to evaluate polygenic models of inheritance of neuropsychiatric disorders, focusing primarily on the ADHD phenotype.

KATIE COAKLEY is completing her first year as a graduate student in the Graduate Division of Biological and Biomedical Sciences, in the Nutrition Health Sciences program. She is a fellow in the Biomarkers and Development of Acute and Chronic Diseases track. Her courses primarily focus on the connection between disease and nutrition, and the importance of nutrition in public health career goals are to promote the role of nutrition across many scientific fields and advocate for more stringent policies to ensure adequate access to nutrition and nutrition education.

MICHAEL MINA is completing his fourth year in the MD/PhD program, with a PhD in the Population Biology, Ecology and Evolution program and is a fellow in the Population Processes and Dynamics of Infectious Disease Track. His research focuses on the polymicrobial effect of live influenza vaccination on susceptibility to and severity of bacterial respiratory infections, particularly due to streptococcus pneumonia. His work brings together basic immunology and animal models, human population-scale epidemiology and theoretical modeling of infectious disease processes.

AMANDA MUMMERT is finishing her first year as a graduate student in the Anthropology Department, where her courses primarily focus on the interplay between human behavior and health. Amanda’s research concentrates on skeletal tissue and its broader relationship with full body homeostasis. As a fellow in the Predictive Health and Society Track, Amanda’s goals include expanding the role of health in everyday living and challenging individuals to take more active roles in the avoidance of disease.

M2M: “Understanding human health: integrating biology, behaviors, environments, and populations”

A Project of the Laney Graduate School

Molecules to Mankind Program (M2M)
Emory University
1518 Clifton Rd, Rm 4047
Atlanta, GA 30322

Phone:
404-712-8779 (o)
404-416-7012 (c)
E-mail: m2m@emory.edu

First M2M Cohort, Fall 2010: Left to right (top), Katie Coakley, Michael Mina, Pierre Ankoham, (bottom) Amanda Mumert and Alaine Broadaway.
The M2M faculty come from a broad spectrum of academic disciplines including medicine, public health and anthropology. There is also a collaborative relationship with faculty at the Georgia Institute of Technology and researchers at the U.S. Centers for Disease Control and Prevention.

Each of the four tracks has two faculty leaders, one from the lab sciences and one from population sciences. They serve as the Executive Committee. Our faculty is comprised of:

**Kenneth Brigham, MD**, M2M Principal Investigator and Director, Track leader, Predictive Health, Samuel Candler Dobbs Professor of Anthropology, College of Arts and Sciences.

**Julie Gazmararian, PhD**, M2M, Co-Principal Investigator and Co-Director, Associate Professor and Director of Graduate Studies Department of Epidemiology, Rollins School of Public Health.

**Michelle Lampi, PhD, MD**, Track leader, Predictive Health, Samuel Candler Dobbs Professor of Anthropology, College of Arts and Sciences.

**Bruce Levin, PhD**, Track leader, Population Processes and Dynamics of Infectious Diseases, Samuel Candler Dobbs Professor of Biology, College of Arts and Sciences.

**Michele Marcus, PhD, MPH**, Track leader, Public Health Genomics: Genetic and Environmental Determinants of Health, Professor of Epidemiology, Rollins School of Public Health.

**K.M. Venkat Narayan, MD, Msc, MBA**, Track leader, Biomarkers and Development of Acute and Chronic Diseases, Hubert Professor of Global Health and Epidemiology, Rollins School of Public Health.

**Stephanie Sherman, PhD**, Track leader, Public Health Genomics: Genetic and Environmental Determinants of Health, Professor of Medicine, Genetics, School of Medicine.

**David S. Stephens, MD**, Track leader, Population Processes and Dynamics of Infectious Diseases, Vice President for Health Affairs Research, Woodruff Health Science Center and Professor of Medicine, School of Medicine.

**Peter W. Wilson, MD**, Track leader, Biomarkers and Development of Acute and Chronic Diseases, Professor of Medicine, Department of Cardiology, School of Medicine.

---

**Dr. Victoria McGovern of Burroughs Wellcome Fund Visits M2M**

On Monday, January 31, the M2M Program welcomed Dr. Victoria McGovern, Senior Program Officer, with the Burroughs Wellcome Fund. She spent much of the morning meeting and visiting with the M2M staff and directors. After that, she met with the M2M students. Since she visited the program on a Monday, she was able to attend an M2M 700 seminar.

The faculty instructor for the seminar was Dr. Ken Brigham.

We invite Dr. McGovern and the BWF staff to visit us again at any time!

---

**M2M ANNUAL RETREAT**

Friday, April 29
12 pm – 5:00 pm

Emory Conference Center
Basswood Room
(Garden Level)
Important Dates to Remember

- April 25, 2011—Final M2M 700 Seminar for spring semester
- April 25-29, 2011—Final Exams for Emory
- April 28, 2011, 4:00 pm—Meeting with Dr. Paul Ehrlich of Stanford University followed by dinner at 7:00 pm hosted by Dr. Bruce Levin
- April 29, 2011—12 pm until 5:00 pm, Annual M2M Retreat, Emory Conference Center Hotel, Basswood Room
- May 9, 2011—End of Spring Term
- May 9, 2011—Commencement
- May 30, 2011—Memorial Day Holiday—University Closed
- July 4, 2011—4th of July Holiday—University Closed
- August 29, 2011, 12:00 pm, M2M Orientation for new class of 2012
- August 29, 2011, 1:00-2:00 pm—First session, fall semester, M2M 700 seminar (all students)
- September 5, 2011, Labor Day Holiday—University Closed

Questions or comments about the M2M newsletter?
Contact Managing Editor, Debbie Byrd
debbie.byrd@emory.edu

The M2M Connection is published each fall and spring semester.