PROGRAM SCHEDULE

6:00-6:10 PM “NEUROBIOLOGY OF POSTTRAUMATIC STRESS DISORDER”
María Emma Castro, M.D.
Department of Psychiatry, Harvard Medical School, VA Boston Healthcare System

6:10-6:20 PM “USE OF INFORMAL SERVICES FOR MENTAL HEALTH PROBLEMS IN ETHNIC/RACIAL MINORITIES”
Angela Camacho-Durán, M.D.
Psychiatrist and Psychosomatic Medicine fellow, Cambridge Health Alliance

6:20-6:30 PM “TRACTOGRAPHY AND DIFFUSION VALUES IN PERINATAL SEVERE HYPOXIC BRAIN INJURY”
Maddy Artunduaga, M.D.
Department of Neurology, Children’s Hospital Boston

6:30-6:40 PM “ROLE OF EMERGING IMAGING TECHNIQUES IN THE DIAGNOSIS AND RISK STRATIFICATION OF PATIENTS WITH HYPERTROPHIC CARDIOMYOPATHY”
Héctor Medina, M.D.
Department of Cardiac Imaging, Massachusetts General Hospital

6:40-6:50 PM “APOLIPOPROTEIN C-III AND CARDIOVASCULAR DISEASES”
Carlos O. Mendivil-Anaya, M.D., Ph.D Candidate
Department of Nutritional Biochemistry, Harvard School of Public Health

BREAK

7:00-7:10 PM “RNA EXPRESSION PROFILE OF SIMIAN-IMMUNODIFICIENCY VIRUS (SIV) SPECIFIC CD8+ T CELLS IN RHESUS MONKEYS”
Ana María González, M.D. Ph.D.
Division of Viral Pathogenesis, Beth Israel Deaconess Medical Center

7:10-7:20 PM “UNDERSTANDING THE GENETIC CAUSES OF MICROTIA USING DNA MICROARRAYS AND NEXT-GENERATION SEQUENCING”
María Alexandra Artunduaga, M.D.
Department of Genetics, Harvard Medical School

7:20-7:30 PM “USING SYNTHETIC BIOLOGY AND APPLIED MATH TO STUDY INDIVIDUALITY, ALTRUISM AND GENETIC CIRCUITS”
Juan Manuel Pedraza, Ph.D.
Department of Systems Biology, Harvard Medical School

7:30-7:40 PM “SEARCHING FOR THE “MAGIC BULLET” AGAINST CHEMOTHERAPY: DEVELOPMENT OF TARGETED POLYMERIC NANOVEHICLES”
Pedro M. Valencia, M.S., Ph.D. Candidate
Department of Chemical Engineering and David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology.

7:40-7:50 PM “THE AMERICAN SCIENCE MODEL: LESSONS FOR COLOMBIAN RESEARCH”
Silvia López-Guzmán, M.D.
Department of Pulmonary and Critical Care Medicine, Brigham and Women’s Hospital

8:00-9:00 PM RECEPTION
Dr. Castro LaCouture was born and raised in Valledupar, the birthplace of Vallenato music. As a high school senior and valedictorian of one of the best schools in Colombia, two things were clear for her: she wanted to provide high quality mental health care to those most in need, and in order to do so, she needed to get outstanding training. With such goals in mind, she moved to Bogota to start medical training at the Colegio Mayor de Nuestra Señora del Rosario, where she spent a great part of her clerkships and rotations learning about mental health disorders. Shortly after medical school graduation, she worked as a co-investigator in a research study of the Prodromal syndrome as a risk factor for a first psychotic episode in a Latin-American population. This great interest in clinical research brought her to the US, where she started training in Psychiatry. She was brought in contact with Ann Rasmusson, MD, a well-known PTSD expert, who has been mentoring her for some time now. Dr. Rasmusson has also been guiding Dr. Castro in the development of her research project, “Effects of Steroid Contraception on GABAergic Neuroactive Steroids Relevant to the Pathophysiology of Posttraumatic Stress Disorder”. Upon completion of her training at the Harvard South Shore Psychiatry Residency Program, Dr. Castro will be joining a clinical practice in California, where she will be able to fulfill her dream of helping others, while at the same time continuing her research work on traumatic reactions.

Dr. Camacho completed Medical School at Escuela Colombiana de Medicina, Universidad El Bosque. She started her clinical clerkships with MGH and BWH during her last year of medical school, thus gaining experience in the US healthcare system. She returned to Colombia, her native country, and chose to complete the obligatory social service in underserved areas of Colombia, in order to become a licensed physician. She then worked as a General Practitioner in Bogota, and in the Student's Health Services at her Medical school. She graduated from the Harvard Southshore Psychiatry Residency program in July 2009. She completed a fellowship in Psychoanalytically Oriented Psychodynamic Psychotherapy at the Boston Psychoanalytic Institute during her last year of residency, and has also been working over the past 1.5 year with Dr.Maggie Alegria in Multicultural Research at the Cambridge Center for Multicultural Research. Such work yielded a poster for Mysell day in May 2009. Additionally, she has also pursued training in Psycho-Oncology and Palliative Care for evaluation and management of terminally ill patients at the Dana Farber Cancer Institute. Dr. Camacho has been a fellow in Psychosomatic Medicine at the Harvard affiliated fellowship program in the Cambridge Hospital. She has faced the challenge in trying to enhance professional and supportive relationships with colleagues who work with medically ill patients so that the approach to their care is holistic in the sense of meeting biological, psychological and social needs. Dr. Camacho’s next step envisions working in a teaching general hospital, being able to work with minority populations, as well as to continue practicing psychotherapy. Ultimately, her goal is to be able to address the unattended mental health needs in her home country and especially the marginal areas of the Magdalena.
Dr. Artunduaga works as a Research Fellow at the Fetal-Neonatal Imaging and Developmental Science Center at Children’s Hospital of Boston. She completed her medical school at the Pontificia Universidad Javeriana in Bogota after graduating Valedictorian from her high school and being ranked in the top-50 best ICFES (SAT-like) examination in Colombia. She started her experience in the U.S. as a last year medical student rotating through several hospitals including UT San Antonio, Baylor College of Medicine, MGH, Children’s Hospital of Boston and Children’s Hospital of Philadelphia. She has published peer-reviewed articles in Emergency Radiology and the Journal of Computed Assisted Tomography, has coauthored one book chapter about advances in neuroradiology and has three radiology research projects on-going about tractography and NIRS -near infrared spectroscopy- in neonates. In June, she will be starting radiology residency at Baylor College of Medicine. After that, she plans to pursue fellowships in pediatric radiology and pediatric interventional radiology. Her long-term goal is to become an academic radiologist back in Colombia but also partnering with U.S. institutions to help with the advancement of science and technology in her field.

Dr. Medina finished Medical School at Javeriana University in Bogota, Colombia in 1999. He completed his social service year at the Red Cross in 2001 and then moved to Cleveland, Ohio to pursue further training in Internal Medicine at the Cleveland Clinic Foundation, Cleveland. In 2005, he attended the Johns Hopkins School of Public Health where he finished a Master in Public Health with a concentration in Epidemiology and Biostatistics. In 2006, he was accepted as a clinical fellow at Baylor College of Medicine in Houston where he finished his cardiology training in 2009. Currently, Dr. Medina is enrolled in the Department of Cardiac Imaging at the Massachusetts General Hospital. He is interested in outcomes research related to cardiac imaging and modeling randomized clinical trials based in cardiac computed tomography and cardiac magnetic resonance.

Dr. Mendivil-Anaya is currently a fourth year doctoral student in Nutritional Biochemistry at the Harvard School of Public Health. He trained as a physician and diabetes specialist at the National University of Colombia between 1994 and 2005, and then got a Graduate Degree in Statistics from the same University. His research focuses in the metabolism of cholesterol and fats in the body and their relationship with cardiovascular diseases, using tools that range from stable isotopes and mass spectrometry to large-scale epidemiology. Dr. Mendivil-Anaya has co-authored over 16 scientific articles, three book chapters on diabetes and diseases of the metabolism and has been invited to present his work at multiple national and international meetings. Currently, he is actively involved with education. Being sponsored by the Universidad de Los Andes under the Educational Development Plan made him realize the importance of enlightening others about the importance of the metabolism of lipids in human health. He has helped co-organizing several conferences in Colombia and he gives science classes to undergraduate students in Harvard. For his excellent teaching skills, Dr. Mendivil-Anaya received two teaching awards in 2008 and 2009. In the near future, he plans to return to Colombia to work as a professor in biochemistry and physiology at the medical school of the Universidad de los Andes.
Ana María González, MD, PhD
Division of Viral Pathogenesis
Beth Israel Deaconess Medical Center

Dr. González is a Medical Doctor from the Pontificia Universidad Javeriana (Bogotá, Colombia) and a PhD in Immunology and Virology from The Ohio State University. Her graduate work at the laboratory of Dr. Linda Saif focused in the development of safer and novel Rotavirus vaccines. Rotavirus prevention is of particular importance because it is the main leading cause of severe diarrheal diseases in infants worldwide and an important cause of mortality in developing countries. She also studied rotavirus-induced adaptive and innate immunity using germ-free piglets as a model of neonatal and human infants. Her work has been presented in multiple national and international virology and immunology meetings and in 16 published articles in journals such as Journal of Virology, Virology and Clinical Vaccine Immunology. Dr. González is the author of two book chapters on Rotavirus immunity. After finishing her graduate studies, Dr González began working as a postdoctoral fellow in the laboratory of Norman Letvin at Harvard Medical School. Her laboratory studies Simian Immunodeficiency Virus (SIV) in Rhesus macaques as a model of HIV infection in humans. Currently, she is developing techniques to study virus specific CD8+ T cells that are important in the control of SIV/HIV viremia after infection.

María Alexandra Artunduaga, MD
Department of Genetics
Harvard Medical School

Before studying medicine, Dr. Artunduaga was nominated as one of the best seniors in high school in Colombia for her performance in the ICFES examination (SAT-like test). She was awarded with the “Andrés Bello” scholarship and participated in the “Bachilleres por Colombia” scholarship program sponsored by the Colombian State Oil Company (ECOPETROL). She studied medicine at Pontificia Universidad Javeriana in Bogotá, Colombia. During her last year of medical school, Dr. Artunduaga was chosen to finish her studies at Harvard Medical School, Mount Sinai School of Medicine and Baylor College of Medicine. This experience motivated her towards getting ECFMG certification to practice medicine in the United States. In 2007, she was accepted to join the Department of Genetics in Harvard Medical School as a postdoctoral research fellow in the Seidman laboratory. Dr. Artunduaga's basic science research is focused on molecular causes of external ear malformations associated with deafness (microtia). She is an accomplished and committed scientist, having won a number of awards for young scientists, including a first prize in basic science research from the American Society of Pediatric Otolaryngology and a fellowship from the American Association of University Women in 2009. Her work has reached national and international attention, with publications in The New England Journal of Medicine, Nature Genetics and The Journal of Pediatrics. Dr. Artunduaga’s ultimate goal is to become a surgeon-scientist to be able to return to her home country to lead an academic center for research and treatment of craniofacial anomalies.

Juan Manuel Pedraza, PhD
Department of Systems Biology
Harvard Medical School

Juan Manuel Pedraza received a B.S. in Physics and a B.S. in Math from the Universidad de los Andes in Bogotá, Colombia, where he studied with a full scholarship, the “Beca 40 años”, for his performance in the Colombian national school-leaving exam (ICFES). During his time at Los Andes University, he worked on stochastic processes and chaos, in particular anomalous diffusion in Hamiltonian systems. This research resulted in two international publications. He then joined the van Oudenaarden Biophysics lab at MIT as a PhD. His graduate work involved the study of stochastic gene expression in genetic circuits, which resulted in several groundbreaking publications in Science, Nature, PNAS among others. At MIT, he received a Lester Wolfe Fellowship (2000-2004) and the Martin Deutsch Award for Excellence in Experimental Physics (2005). In 2006, he joined the Paulsson lab in the Department of Systems Biology at Harvard Medical School. He is currently studying the evolution of social behavior, specifically the conditions under which competition between individuals and competition between groups balance each other. He was awarded the Alejandro Ángel Escobar Foundation prize in 2008 as one of Colombian’s top researchers in the Exact, Physical and Natural Sciences.
Pedro M. Valencia, MS, PhD Candidate

Department of Chemical Engineering
David H. Koch Institute for Integrative Cancer Research
Massachusetts Institute of Technology

Pedro is 3rd year PhD Candidate in the department of Chemical Engineering at MIT. He is co-advised by MIT Institute Professor Robert Langer, Harvard Medical School Associate Professor Omid Farokhzad and MIT Mechanical Engineering Assistant Professor Rohit Karnik. He received his Master of Science Degree in Chemical Engineering Practice from MIT during which he lead and participated in consulting-type projects with General Mills (Minneapolis, USA), GlaxoSmithKline (Singapore) and Bioprocess Technology Institute (Singapore). He received his B.S. in chemical engineering from University of Wisconsin-Madison where he graduated 1st of his class out of 47. During his undergraduate studies he worked in Vienna University of Technology (Vienna, Austria), Center for Material Elaboration and Structural Studies (CEMES) (Toulouse, France), and MIT’s institute for Soldier Nanotechnologies. He was awarded NSF Graduate Research Fellowship in 2008 and has presented some of his graduate work in national and international conferences such as Nanotech 2009 (Houston Texas), MicroTAS 2009 (Jeju, South Korea), and US-Japan Symposium on Drug Delivery Systems 2009 (Maui, Hawaii).

Dr. López Guzmán is a Medical Doctor from the Pontificia Universidad Javeriana (Bogotá, Colombia). She completed her medical training in 2006 and proceeded to work with the Corporation for Biological Research (CIB, Medellín, Colombia) and the Rosario University Medical School (Bogotá, Colombia) doing research in the genetic epidemiology of autoimmune disease in large cohorts of colombian patients with Rheumatoid Arthritis, Systemic Lupus Erythematosus, Scleroderma and Multiple Sclerosis. Her research was focused on the family aggregation of different autoimmune diseases and its relation to certain polymorphisms present in this population, and within a subset of these patients she studied the association between previously unrecognized Rheumatoid Arthritis-related risk factors and cardiovascular disease. Her work on these topics reached national and international attention, with publications on the Journal of Autoimmunity and Seminars in Arthritis and Rheumatism and a presentation in the European League Against Rheumatism (EULAR) international meeting. Her interest in getting further training on molecular and translational biology in preparation for future graduate studies brought her to the Brigham and Women’s Hospital’s Pulmonary and Critical Care Division where she works currently as a Postdoctoral Research Fellow in the Baron lab. Her present research focuses on the role of Nitric Oxide in critical lung disease using relevant animal models of Acute Respiratory Distress Syndrome and Pulmonary Fibrosis.