Great Mind Alumni Panelists on Orphan Diseases
October 21, 2011
10:45 a.m.-11:45 a.m.


Irfan Qureshi ‘94

Irfan is an M.D., the Assistant Professor in the Department of Neurology, and an Investigator in the Institute for Brain Disorders and Neural Regeneration at the Albert Einstein College of Medicine. His interest in conducting research was cultivated by completing an externship at Northwestern University while at IMSA. He studied the antioxidant activity of superoxide dismutase in the laboratory of renowned physician-scientist, Teepu Siddique, M.D., who discovered that mutations in this enzyme cause amyotrophic lateral sclerosis. Irfan is currently focused on developing epigenomic and stem cell technologies that can be utilized to treat a broad range of neurological disorders, including those with *orphan* status. In addition, Irfan promotes biomedical technology innovation and commercialization by managing Einstein’s intellectual property portfolio as a member of the Office of Biotechnology Committee on Patents and by serving as an advisor both to early stage companies and to the investors that fund them. Irfan completed his neurology training and earned his M.D. from Einstein, where he was a Philip Hunt Scholar. Prior to starting medical school, Irfan was an analyst at Anthem Capital Management, a venture capital firm. He holds a B.S. in Biomedical Engineering from the Johns Hopkins University, where he graduated with Honors and was inducted into Tau Beta Pi, the national engineering honor society.


Meiye Wu ‘94

Meiye is a Staff Scientist in the Department of Biotechnology and Bioengineering at Sandia National Laboratory in Livermore, CA. Since graduating from IMSA, she received my BA in Neuroscience from Oberlin College, followed by an MA in Molecular Neuropharmacology from Boston University. She has done biomedical research in academia, industry, and now in a National laboratory setting. Currently, she is completing a company sponsored Ph.D. program at UC Davis, working with clinicians to develop microfluidic biomicroelectromechanical diagnostic assays for diagnosing Common Variable Immunodeficiency Disease, a rare genetic disease where the patient’s B and T cells fail to produce adequate amounts of antibodies to protect against infection. Due to its rarity, CVID is commonly missed, and patients suffer for years, sometimes decades before proper diagnosis and treatment are applied. Application of novel technologies into developing new rapid cell-based diagnostics will drastically improve speed of diagnosis and therefore improve the prognosis and quality of life for CVID patients. Her goal is to translate engineering advances and basic Biochemical and Cell Biology of diseases into clinical applications. She believes that Medical Science of tomorrow will increasingly involve engineering and technology, and IMSA students are in a uniquely advantageous position to become physician scientists of the future.

Jennifer Ellis Ward, PhD, ’93

Jennifer is a Post-doctoral Fellow in the Hematology/Oncology Section at Boston University School of Medicine. Jennifer completed her undergraduate studies as a Howard Hughes Scholar at Georgetown University in the laboratory of Dr. Carolyn Hurley. Her current research has developed novel *in vivo* models for the rare disease Primary Systemic AL Amyloidosis. She is now using these models to test potential therapeutics. Her most recent publication demonstrates that the antibiotic doxycycline can disrupt AL amyloid fibrils and prevent amyloid deposition in transgenic mice, which will next be tested in human clinical trials.

While at IMSA, Jennifer had summer internships supported by the NIH at Southern Illinois University School of Medicine in the lab of Dr. Leonard Maroun. She tested the ability of interferon inhibition to improve the phenotypes of a mouse model of Down Syndrome. Due to the lack of basic science funding and the mindset that Down Syndrome was untreatable, Meiogen Biotechnology was founded in 1997 to pursue novel interferon inhibitors as a therapeutic for Down Syndrome. Meiogen relocated to Boston in 1999 and Jennifer pursued her PhD in Microbiology and Immunology at Boston University School of Medicine. She has remained an active contributor to Meiogen as they have expanded their scope through collaborations to other orphan diseases where dysregulated interferon is deleterious, including transplant rejection and HIV encephalitis/AIDS dementia. Meiogen is currently pursing orphan drug status for these indications.