JENNIFER SCHYMICK

NIH-Oxford Scholar 2005

Research Area: Neurogenetics

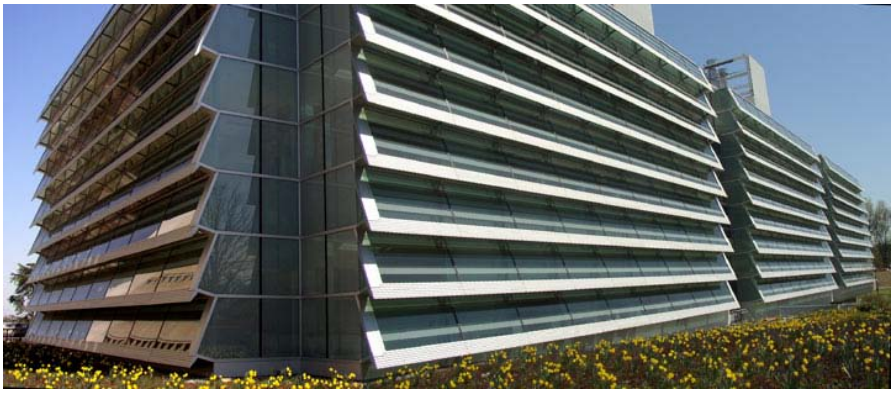
Jennifer Schymick grew up in Tustin, California and in 1998 moved to Boston, Massachusetts to pursue her interests in science and technology at the Massachusetts Institute of Technology. She graduated from MIT in 2002 with a Bachelor of Science in Biology. As an undergraduate, Jennifer was inspired to pursue a career in both medicine and the field of genetics. From 1999-2002, she spent three summers at the Los Alamos National Laboratories working on the Human Genome Project as a member of the bioinformatics finishing team. During the school year, she conducted genetics research on Inflammatory Bowel Disease at the MIT Whitehead Institute for Biomedical Research under the supervision of Dr. John D. Rioux. Specifically, she investigated the IBD6 genetic locus on chromosome 19p13 using single nucleotide polymorphism association analysis. Upon graduating, Jennifer joined the research and development team at Ambry Genetics in Aliso Viejo, CA. At Ambry, she developed genetic screening assays to identify mutations causing diseases such as cystic fibrosis, chronic pancreatitis, and hereditary nonpolyposis colon cancer.

In 2005, Jennifer was accepted into the NIH-Oxford-Cambridge Scholars program and became a student of Clinical Medicine at Keble College at the University of Oxford where she studied under Dr. Kevin Talbot and Dame Kay Davies at the Oxford Centre for Gene Function. At the NIH, Jennifer was mentored by Drs. Bryan Traynor, Andrew Singleton and John Hardy at the National Institute on Aging. Her D.Phil. thesis focused on identifying genetic causes of sporadic amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease. ALS is a rapidly progressing fatal neurodegenerative disease that affects 10,000 Americans each year. Jennifer applied genome-wide technologies to better define the complex genetics underlying this disease and published the first

genome-wide association study of sporadic ALS in Lancet Neurology in 2007. Data from this study is now publically available, thereby, serving as a valuable resource for other ALS researchers. In addition, Jennifer has contributed to numerous publications investigating candidate ALS genes and the genetic overlap between ALS and frontotemporal dementia.

Upon graduating from Oxford in 2009, Jennifer began her medical studies at the University of California Irvine School of Medicine as an NIH-supported M.D./Ph.D. student.

Oxford Centre for Gene Function, Oxford



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