

# Clinical and Research Fellows in Autism

## Training the first generation of autism specialists

Although autism affects 1 out of 150 children in some form, according to the U.S. Centers for Disease Control and Prevention, there is still little known about the neurological disorder, which affects a person's ability to communicate, engage in social interactions, and respond appropriately to the environment. The cause is not clear, there is no cure—and no test can detect it.

Much of the reason so little is known about the disorder is that there are so few physicians who understand autism and the needs of those affected by the disorder, according to autism advocates. The key, they stress, is building the first real community of physicians, researchers, and other medical professionals who specialize in autism.

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NANCY LURIE MARKS

"I have met so many families over the years that have been frustrated in their search for good medical care for their children and siblings with autism," says Nancy Lurie Marks, founder and chair of the Nancy Lurie Marks Family Foundation, which provides major support for autism research.

"At the heart of the problem is that medical diagnosis is difficult when a patient cannot tell us where they feel pain, what they might have swallowed, or how they might have injured themselves," Lurie Marks adds. "Where are the doctors who will accept the

challenge of diagnosing those who cannot communicate what ails them?"

To help address the need for more physicians who work with both pediatric and adult autism patients, Harvard Medical School (HMS) has created the Nancy Lurie Marks Clinical and Research Fellowship Program in Autism thanks to a \$5 million gift from Lurie Marks.

The multifaceted program furnishes funding for HMS students and junior faculty members interested in pursuing a deeper understanding of autism and neurological disorders, and supports the Medical School's focus on neuroscience. Half of the faculty members' time will be spent seeing patients in the clinic.

"We too at Harvard Medical School share Nancy Lurie Marks's commitment to increasing understanding of autism's causes, and to finding more effective therapies for this disorder," HMS Dean Jeffrey Flier says. "With this gift, we have begun the process of training the next generation of autism specialists, both clinicians and researchers, who will lead investigations in this field in the coming decades."

Lurie Marks, who has as an adult family member with autism, says the new program is a leap forward in the field of autism research. "I've spent a lifetime looking for answers and searching the best treatments for people with autism," she says. "Now that Harvard has joined in this quest, it is my hope that this new partnership will result in new treatments for people with autism, and hope for their families."

To help increase the number of experts at the post-graduate and junior faculty level, two Nancy Lurie Marks Clinical and Research Fellows will be selected each year from the field of medicine as well as pharmacy, nursing, and allied health. However, most of these individuals will have already earned their MD degree, as well as having completed one or two years of subspecialty training. In addition, two Nancy Lurie Marks Post-Doctoral Fellows will be selected each year to pursue autism-specific research at HMS.

The program also bolsters the number of Medical School students studying autism. Up to four Nancy Lurie Marks Summer Scholars will be selected each year. Two of these HMS students may be chosen at a later stage in their Medical School careers to become Nancy Lurie Marks Scholars in Medicine in order to pursue an additional year of autism-focused training before graduating.

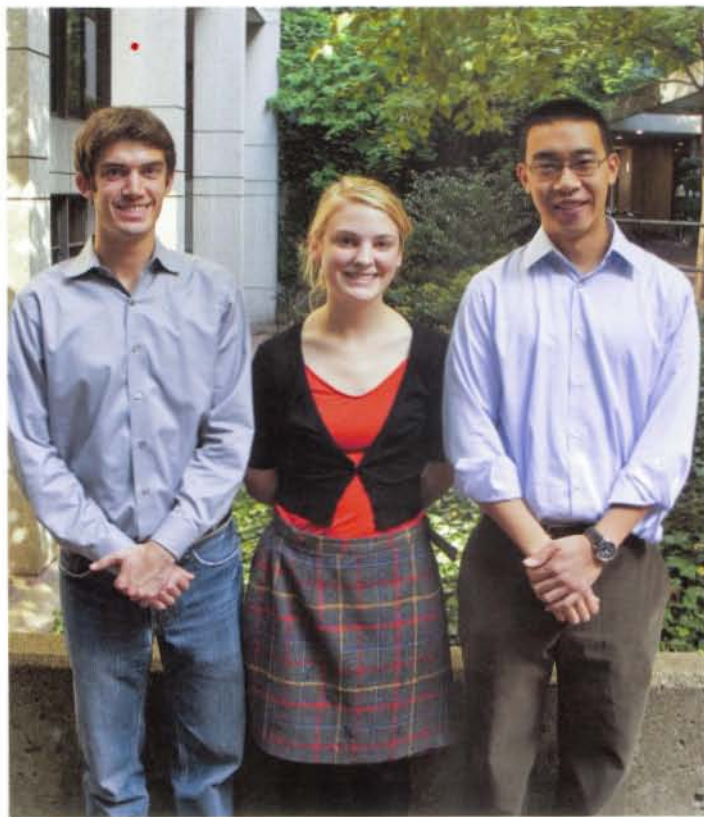
Both fellows and scholars will work with a mentor in the field of neuroscience or autism research, and be paired with a laboratory, either in an HMS lab or in one of the HMS-affiliated academic medical centers. By supporting both fellows and scholars, the program aims to advance autism-based research in genetics, genomics, neurology, neuroscience, psychology, informatics, developmental pediatrics, endocrinology, and molecular biology.

The first round of students chosen for the scholars program includes Michael Coulter AB '08, who has a background in genetics; Katharine Clapham AB '08, whose work includes studying brain development; and David Lin, who has focused on neurology. All three are members of the HMS Class of 2012.

Lin, who is also part of the neurology division in the Harvard-MIT Division of Health Sciences and Technology Research Assistant Program, says the Lurie Marks scholarship has enabled him to conduct research on mice and how their brain neurons function. "We look at how changes in their neurons may explain some of the things we see in patients with autism," Lin says.

"I am very excited to be able to rigorously test various observations about autism, combining clinical hypotheses with laboratory research," Lin says. "The Nancy Lurie Marks scholarship has been fundamental in allowing me to pursue this work."

In addition to this gift, Lurie Marks has also provided \$29 million to Massachusetts General Hospital (MGH) in order to create the Lurie



Nancy Lurie Marks Scholars in Medicine Michael Coulter AB '08, HMS '12, Katharine Clapham AB '08, HMS '12, and David Lin HMS '12

Autism Center, the director of which will occupy an endowed chair at HMS.

The new center will build on the pediatric autism research already under way at MGH, as well as enable the hospital to expand into helping adult patients with autism, a central focus of both the MGH and HMS gifts.

Steven E. Hyman, Harvard's provost, a neurobiologist by training, and the former director of the National Institutes of Mental Health, remarks, "Nancy Lurie Marks's generosity will allow our researchers and clinicians to attack autism on parallel tracks—by supporting much-needed research and adult care for autism spectrum disorders and providing the highly specialized training our clinicians need to work with the patients and families burdened by these conditions. We are honored that Nancy has entrusted Harvard Medical School and MGH with this responsibility."