On September 10, 2017, the Seaver Autism Center hosted the 21st Annual Advances in Autism Conference. The conference was held at the beautiful and historic New York Academy of Medicine and it brought together academic experts in the field of autism spectrum disorder, individuals with autism and their families as well as community groups. As our knowledge of the field grows year after year, so does the number of individuals who are interested in learning more. We once again celebrated with record attendance from a diverse audience of researchers, healthcare professionals, educators, and individuals with autism and their families.

Opening remarks of the conference were made by John D. Cohen, Esq. co-trustee of the Beatrice and Samuel A. Seaver Foundation, and Joseph D. Buxbaum, PhD, Director of the Seaver Autism Center. The first talk of the day was given by Dr. Catalina Betancur, Director of Research as French National Institute of Health and Medical Research. She discussed the genetics of autism, from gene discovery to understanding the underlying neurobiological mechanisms. Following Dr. Betancur was Alex Kolevzon, MD, who is the Clinical Director at Seaver Autism Center for Research and Treatment. Dr. Kolevzon discussed the biology of schizophrenia.

Similar to autism spectrum disorder, understanding the biology of schizophrenia has been difficult as it is etiologically and clinically heterogeneous. The Seaver Center has recently been awarded a study titled “Large-scale reprogramming and expression analysis of patient-derived neural cells in schizophrenia” (NIMH, R01MH111679). This project involves a collaboration with the New York Stem Cell Foundation (NYSCF) to generate the first large scale, highly standardized library of induced pluripotent stem cells (iPSCs) and neurons derived from patients with schizophrenia. iPSCs are somatic cells from a simple patient biopsy that have been reprogrammed into pluripotent stem cells. They are similar to embryonic stem cells, and therefore self-renew and can be differentiated into other cell types, including neural cells. Seaver scientists will perform gene expression profiling on the schizophrenia and control iPSC-derived neurons and use innovative systems biological analyses to achieve a
the usage of rare genetic disorders to develop novel therapeutics. The final speaker of the morning was Elizabeth Burns, PhD. Dr. Burns served as our family note speaker, giving a remarkable presentation entitled “Fact and Fiction: My Daughter, Autism and Me”. After lunch, Carissa Casicio, PhD, Associate Professor of Psychiatry and Behavioral Sciences at Vanderbilt University Medical Center took the podium. She spoke about sensory differences in autism from clinical and neuroscience perspectives. Rounding out the list of speakers was Shelli Avenevoli, PhD. Dr. Avenevoli delivered the Scientific Keynote presentation with a discussion surrounding the advances in and future directions of autism research. We closed out the conference with a panel of the day’s speakers, moderated by Dr. Buxbaum, who took time to answer questions from the audience.

We want to thank our community of supporters for continuing to join us each year to share knowledge and create a center for support and learning.

NEW STEM CELL GRANT
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deepen understanding of the neuronal pathways that are disrupted in schizophrenia and to potential novel drug targets.

These approaches are significant because they will provide better understanding of the neurobiology of schizophrenia and facilitate drug discovery. Moreover, this project will allow us to develop a new area of expertise. As we start collecting samples and generating iPSC lines for several forms of syndromic ASD, this project will allow us to build strong expertise on creating and analyzing iPSC-derived neuronal models of autism.
Our 2017 Seaver Fellows and Scholars marked the ninth class to be welcomed by the Seaver Center. With the generous support of the Seaver Foundation, the Seaver Center supports research-based fellowships for graduate students, postdoctoral fellows and junior faculty in areas such as genetic analysis, development of model systems for autism, neuroimaging studies, and development and assessment of behavioral and pharmacological interventions for autism.

With this early career support from the Seaver Foundation, fellows and scholars are poised to obtain further funding from a variety of sources, including the National Institutes of Health, and foundations such as Autism Science Foundation, Phelan-McDermid Syndrome Foundation, and Brain and Behavior Research Foundation.

Congratulations to this year’s class of Seaver Fellows!

The Seaver Fellowship Program enhances all areas of research at the Seaver Autism Center, and has proven to be a successful launching pad for young scientists.

We are grateful to the Seaver Foundation for this ongoing support and contribution to the research and treatment of ASD.

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Vincent Luo is joining as a Seaver Graduate Fellow in the lab of Dr. Matthew Shapiro. He will be focusing his work on brain oscillations in a rat model of Phelan-McDermid Syndrome.

Josefa Sullivan joins the Seaver Fellowship Program as a graduate fellow in the lab of Dr. Anne Schaefer, a former Seaver Faculty Scholar. She will be working on transcriptional dysregulation of long genes in autism.

Carla Golden is a graduate fellow in the lab of Dr. Joseph D. Buxbaum and Dr. Hala Harony-Nicolas. Her work is focused on characterizing a rat model of Fragile X Syndrome. She will use a multi-level approach in order to better understand brain mechanisms and regions affected in FXS, with the potential of discovering new treatment targets and providing an output measure for screening of potential therapies for both males and females.
2017 SEAVER FOUNDATION SITE VISIT

At the 2017 annual Seaver Foundation Site Visit this past September, the Trustees of the Beatrice and Samuel A. Seaver Foundation, Hirschell E. Levine, Esq., and John D. Cohen, Esq. made a generous donation to the Seaver Autism Center to support initiatives outlined in the Center’s strategic plan. As always, the Seaver Autism Center is extraordinarily grateful to the Seaver Foundation for their unwavering support and generosity since the founding of the Center in 1993.

If you would like to support active research and programs at the Seaver Autism Center, please visit www.seavaurstismcenter.org or call 212-241-0349.