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SAVE THE DATE
18TH ANNUAL SEAVER AUTISM CENTER ADVANCES IN AUTISM CONFERENCE

Seaver Autism Center Researchers at IMFAR 2014

Every year, autism researchers from around the world gather at the International Meeting for Autism Research (IMFAR) sponsored by the International Society for Autism Research. This year in Atlanta, GA, over ten current and former Seaver Autism Center researchers, including students and junior faculty, were featured in poster and oral presentations. Joseph Buxbaum, PhD, Director of

the Seaver Autism Center, was featured at the annual IMFAR press conference, and the Seaver Center hosted the annual Seaver IMFAR Reunion Reception for current and former members, friends, and collaborators. [See photos on page 4.](#)

RESEARCH PRESENTATIONS

Researchers presented on a range of topics from genetics to animal models and clinical trials.

Teresa Tavassoli, PhD, Seaver Postdoctoral Fellow, gave an oral presentation titled, "How Can We Robustly Measure Sensory Reactivity; A New DSM-5 Criterion for Autism Spectrum Disorder."

Karim Ibrahim, MS, graduate student at the University of Hartford and former clinical psychology trainee at the Seaver Autism Center, also gave an oral presentation titled, "Here's Looking at You: Neural Effects of a Cognitive-Behavioral



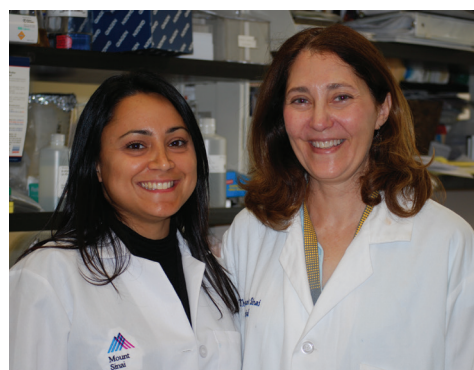
Hala Harony-Nicolas, PhD, Seaver Fellow and Instructor in the Department of Psychiatry, gave an oral presentation titled, "A novel Shank3-deficient rat model to understand the neural basis of autism."

Continued on next page

New Research Intern Begins Second Career

We would like to introduce Ms. Carol Eisenberg, a new research intern at the Seaver Autism Center. Carol is currently pursuing her post-baccalaureate studies at Columbia University, and she will graduate this December. She is also the mother of two children – Emma, 18, who will be starting Sarah Lawrence College in the fall, and David, 15, who attends Alpine Learning Group and is on the autism spectrum.

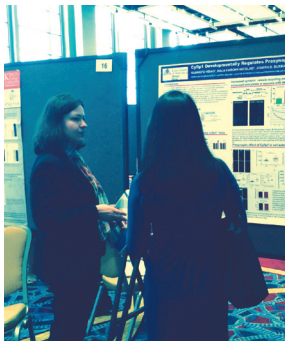
For many years, Carol worked in finance and marketing at MCI in Washington, DC before leaving when she had children. In 2002, Carol moved with her children and husband, Harvey, to California to work with the University of California, Santa Barbara on Applied Behavioral Analysis for their son David. In 2005, the Eisenbergs moved to the New York area where Harvey is a partner at the premier New York City law firm Weil, Gotshal & Manges.



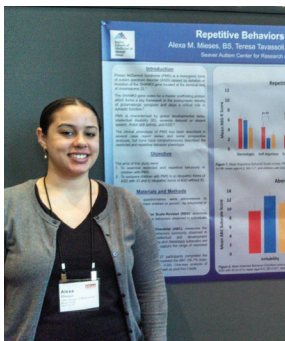
Silvia De Rubeis, PhD, Seaver Postdoctoral Fellow, and Ms. Carol Eisenberg, Research Intern

Researchers at IMFAR 2014 Continued from page 1

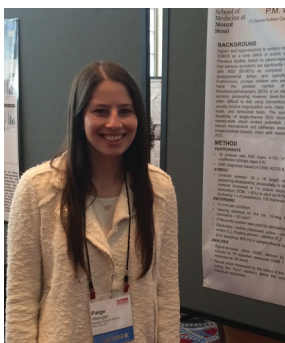
Social Skills Treatment on Eye Gaze Processing in Children with Autism—a Randomized, Comparative Study.” Karim is conducting his dissertation research under the mentorship of Ting Wang, PhD, Assistant Professor of Psychiatry at the Seaver Autism Center.



Ozlem Bozdagi Gunal, MD, PhD, Assistant Professor of Psychiatry at the Seaver Autism Center, gave a poster presentation titled, “Cyp11 Developmentally Regulates Presynaptic Function.”



Alexa Mieses, medical student at the Icahn School of Medicine at Mount Sinai, gave a poster presentation titled, “Mapping the Phenotype of Phelan-McDermid Syndrome.”



Paige Weinger, PsyD, Seaver Postdoctoral Fellow, gave a poster presentation titled, “Electrophysiological Assessment of Low-Contrast Visual Function and Neural Noise in Children with Autism Spectrum Disorder.”

PRESS CONFERENCE

Dr. Buxbaum was featured in IMFAR’s annual press conference. His abstract was one of only seven to be selected for the press conference, out of thousands submitted.

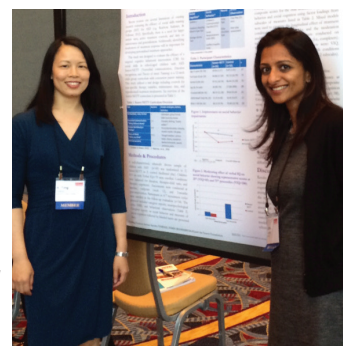
As part of the Scientific Panel titled, “Insulin-like Growth Factor-1 and Its Analogs: Restoration of Biological Deficits in Neurodevelopmental Disorders Associated with Autism,” Dr. Buxbaum presented, “Insulin-like growth factor-1 rescues synaptic and motor deficits in a mouse model of autism and developmental delay and shows evidence for safety and efficacy in a controlled clinical trial of Phelan McDermid Syndrome.” Dr. Buxbaum’s presentation abstract is reproduced below.

Research Summary

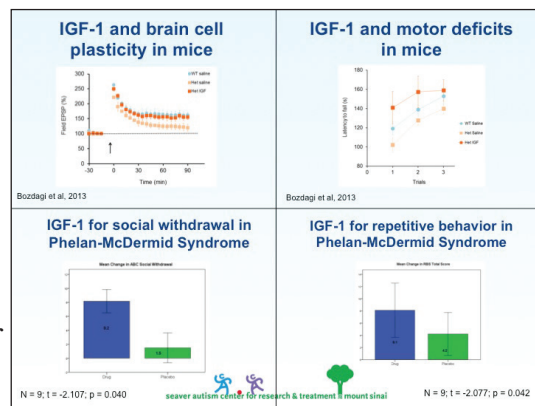
SHANK3 gene deletions and mutations result in Phelan McDermid Syndrome (PMS) and cause autism spectrum disorders (ASD) with a frequency of 0.5% of ASD cases. Loss of *SHANK3* is sufficient to cause the syndrome and is known to produce significant disruption in nerve cell function and plasticity in animal models. Our recent evidence from preclinical studies with mouse models of *SHANK3* deficiency indicates that Insulin-Like Growth Factor-1 (IGF-1) can reverse synaptic plasticity and motor learning deficits at clinically approved doses. More recently another group has shown beneficial effects of IGF-1 in human nerve cells carrying

SHANK3 mutations. IGF-1 is a commercially available therapeutic compound that enters the brain and has beneficial effects on nerve development by promoting nerve cell survival, synaptic maturation, and synaptic plasticity. We have now carried out a pilot study of IGF-1 treatment in nine patients with PMS (ages 5-15) in order to evaluate safety, tolerability, and efficacy for core deficits of ASD, including social impairment and restricted and repetitive behaviors. We approached this aim by employing a placebo-controlled, double-blind, crossover design with three months of treatment with IGF-1 and three months of placebo in random order, separated by a four week wash-out period. Results provide evidence that IGF-1 is safe, well tolerated, and associated with significant improvement in social impairment as measured by the Aberrant Behavior Checklist Social Withdrawal subscale and in repetitive behaviors as measured by the Repetitive Behavior Scale. This study establishes the feasibility of IGF-1 treatment in PMS and contributes pilot data from the first controlled treatment trial in the syndrome. It also provides proof of concept to advance knowledge about developing targeted treatments for additional causes of ASD associated with impaired synaptic development and function.

Several organizations and news outlets reported on research presented by Seaver researchers, including Autism Speaks and the Simons Foundation Autism Research Initiative. To watch Dr. Buxbaum’s IMFAR press conference presentation, please visit <http://tiny.cc/IMFARpressconference>.



Ting Wang, PhD, Assistant Professor of Psychiatry at the Seaver Autism Center, and Latha Soorya, PhD, Assistant Professor of Psychiatry at Rush University Medical Center, former Chief Psychologist and current Adjunct Assistant Professor of Psychiatry at the Seaver Autism Center, collaborated on a poster presentation titled, “Moderators and maintenance from social cognitive skills groups: Results from a randomized comparative trial of Seaver-NETT” (Nonverbal communication, Emotion recognition, and Theory of mind Training).



Summary of research findings

Recent Events



▶ AUTISM SCIENCE FOUNDATION'S (ASF) 5TH ANNIVERSARY CELEBRATION

Joseph Buxbaum, PhD, Director of the Seaver Autism Center, presented at ASF's "Day of Learning," a TED-style scientific conference on autism which was part of ASF's Fifth Anniversary

Celebration. To watch Dr. Buxbaum's presentation, please visit <http://tiny.cc/ASFpresentation>.

▶ SEAVER AUTISM CENTER AT THE 2014 WALK NOW FOR AUTISM SPEAKS

Kaitlin Minnehan, Seaver Autism Center volunteer, Jesslyn Jamison, Clinical Research Coordinator at the Seaver Center, and Ariella Carlin, Seaver Center volunteer and Clinical Research Coordinator in Psychiatry at the Icahn School of Medicine at Mount Sinai represented the Seaver Autism Center.



New Grant Award



Erin Li, medical student at the Icahn School of Medicine, completing a rotation in the Seaver Autism Center, is the recipient of the Autism Science Foundation Predoctoral Research Grant for her project "Mapping the Neurobehavioral Phenotype in Phelan-McDermid Syndrome (PMS)." Her research will be conducted over the next year under her mentor Dr. Alex Kolevzon, Clinical Director of the Seaver Autism Center. The aim for this project is to use a comprehensive assessment battery to characterize the behavioral, cognitive, language, sensory, and motor deficits in PMS.

SEAVER IS CONTINUING TO GO GREEN!

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New Research Intern *Continued from page 1*

As a parent of a child with autism, Carol has strived to learn as much as she can about the disorder and different ways she can help her child. Carol said, "For ten years I sat around reading PubMed, and I decided I needed a degree to better understand the science behind autism."

It is for this reason that Carol decided to embark upon a second career, and she began by pursuing her post-baccalaureate studies at Columbia. She has taken two classes per semester for four years, and she is now completing a research internship to enhance her pre-graduate school experience. Having

been involved with the Seaver Autism Center for many years and seeing that her research interests align closely with those of the Seaver Center, she knew a research internship here would provide her with excellent experience.

Carol is working with Silvia De Rubeis, PhD, Seaver Postdoctoral Fellow, in the laboratory of the Seaver Autism Center, which is led by Joseph Buxbaum, PhD, Director of the Center. Dr. De Rubeis is teaching her the ins and outs of basic research, and Carol is assisting in current studies. Carol said, "The experience is invaluable, and I am working with a



true expert at what she does."

At the end of her three-month research internship, Carol will be taking the GRE and applying for PhD programs in genetics or neuroscience. She is interested in conducting sibling studies, and studies on children with severe autism. Carol added, "The people I'm working with here are extraordinary, and I am in awe of their talent."

Mount Sinai Medical Center
One Gustave L. Levy Place, Box 1230, New York, NY 10029

• **THE SEAVER AUTISM CENTER NEWSLETTER** brings you timely updates about new developments related to research and treatment of autism spectrum disorders, as well as activities at the Seaver Autism Center. To be placed on our mailing list, please contact SeaverCenterEditor@mssm.edu or The Seaver Autism Center, Icahn School of Medicine at Mount Sinai, One Gustave L. Levy Place, Box 1668, New York, NY 10029. Our phone number is 212.241.0961 and our website is www.SeaverAutismCenter.org.

• **SEAVER IS CONTINUING TO GO GREEN!** Please send your email address to seavercentereditor@mssm.edu to receive this newsletter electronically.



ANNUAL REUNION RECEPTION

At the annual Seaver Autism Center IMFAR Reunion Reception, guests enjoyed catching up with former coworkers and meeting new collaborators over drinks and appetizers at Atlanta's local Proof and Provision.



Katherine Bellesheim, former Research Assistant; Teresa Tavassoli, PhD, Seaver Postdoctoral Fellow; and Paige Weinger, PhD, Seaver Postdoctoral Fellow



Current and former Seaver Autism Center researchers with friends and collaborators



Katherine Bellesheim, former Research Assistant; Paige Weinger, PhD, Seaver Postdoctoral Fellow; and Joseph Buxbaum, PhD, Director of the Seaver Autism Center

The Seaver Autism Center for Research and Treatment
at the Icahn School of Medicine at Mount Sinai

PRESENTS THE 18TH ANNUAL

Advances in Autism Conference

Sunday, November 16, 2014

Location:

STERN AUDITORIUM, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
1468 MADISON AVENUE, NEW YORK, NY 10029

FOR MORE INFORMATION PLEASE CONTACT:

JESSICA BROWNFIELD AT JESSICA.BROWNFIELD@MSSM.EDU



KEYNOTE BY:

John Elder Robison

New York Times Bestselling Author of
Look Me in the Eye and *Raising Cubby*

John Elder Robison grew up with Asperger's, at a time when the diagnosis did not exist, and with no inkling of how to pass for normal. In his bestselling memoir, *Look Me in the Eye*, Robison recounts his incredible life with illuminating insight. In his talks, Robison details how he overcame enormous odds to lead a fulfilling life. Robison has been applauded by thousands for his storytelling skill, his on-stage compassion, and his insistence that anyone can lead a successful life according to gifts, not limitations. In affecting, unforgettable talks, Robison reminds us that people "on the spectrum" can develop throughout their lives, and that it's never too late to hope for or expect change.