



Annual Conference Highlights

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The Seaver Autism Center’s sixteenth annual Advances in Autism Conference was held this past fall at Mount Sinai School of Medicine (MSSM) and included several scientific presentations, as well as breakout workshops presented in conjunction with our com-

and novel treatment possibilities; and current pharmacological, behavioral, educational, and group treatments of autism. “It was a wonderful conference, and I intend on attending next year as well. The speakers were excellent, and the information was cutting edge,” said one conference participant.



2012 Annual Advances in Autism Conference speakers

munity partners. Participants included psychiatrists and several other health care professionals, educators, family members, and advocates. They learned about current model systems of autism; advances in understanding the causes of autism

and novel treatment possibilities; and current pharmacological, behavioral, educational, and group treatments of autism. “It was a wonderful conference, and I intend on attending next year as well. The speakers were excellent, and the information was cutting edge,” said one conference participant.

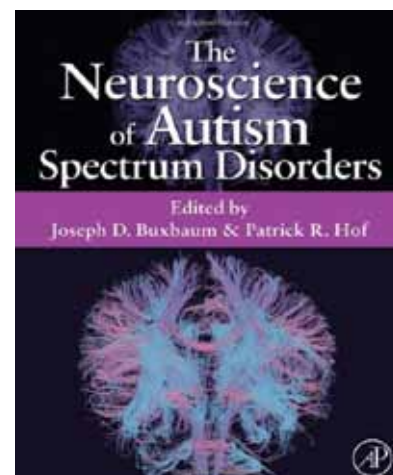
“We were happy to welcome an increased number of participants, and we enjoyed the opportunity to discuss the field of autism spectrum disorders with researchers, advocates, and family members,” said Dr. Joseph Buxbaum, Director of the Seaver Autism Center.

The morning included three scientific presentations by Drs. Joseph Buxbaum, Timothy Roberts, and Walter Kaufmann, as well as a personal presentation by Jamie Rosenblum. The afternoon featured a keynote presentation by Dr. Simon Baron-Cohen and three breakout workshops focusing on treatments and services for individuals with autism spectrum disorders (ASD).

New Textbook

The *Neuroscience of Autism Spectrum Disorders* is a new volume edited by Drs. Joseph Buxbaum and Patrick Hof of Mount Sinai School of Medicine. It is a current survey and synthesis of the most important findings in the neuroscience of autism within the past 20 years, including such topics as etiology, neuropathology, imaging, and pathways/models. Several researchers within the Seaver Autism Center contributed chapters, in-

cluding, Drs. Ozlem Bozdagi Gunal, Joseph Buxbaum, Guiqing Cai, Hala Harony-Nicolas, Alex Kolevzon, Latha Soorya, and Neha Uppal. The volume is an in-depth review of neurobiological research that increases understanding of and ability to treat ASDs, and it is a useful aid to parents and professionals alike. To learn more about this textbook, please visit <http://tiny.cc/mountsinaitextbook>.



Scientific Presentations

► **“GETTING TO NOVEL TREATMENT APPROACHES IN AUTISM SPECTRUM DISORDERS”**

JOSEPH BUXBAUM, PHD
SEAVER AUTISM CENTER, MSSM

After providing a brief overview of ASD, Dr. Buxbaum presented recent findings on the genetics of ASD and explained the importance of moving forward in gene discovery. He noted the genes that have been discovered to date, and he identified barriers to gene discovery. Importantly, he proposed a path forward and discussed the Autism Sequencing Consortium (ASC), an international group of researchers involved in high-throughput sequencing in autism (Please see page 4 for more on the ASC).



► **“TARGETED TREATMENTS IN RETT SYNDROME: IMPLICATIONS FOR AUTISM SPECTRUM DISORDERS”**

WALTER E. KAUFMANN, MD
BOSTON CHILDREN'S HOSPITAL,
HARVARD MEDICAL SCHOOL

Dr. Kaufmann provided a thorough overview of Rett Syndrome and explained that it is a clinical diagnosis characterized by impaired synaptic development. Dr. Kaufmann also shared preliminary results of his study testing the effects of insulin-like growth factor-1 in children with Rett Syndrome. In the last segment of his presentation, he demonstrated how new knowledge of Rett Syndrome and Fragile X Syndrome can be effective in learning about ASD.



► **“ELECTROPHYSIOLOGIC SIGNATURES OF LANGUAGE IMPAIRMENT IN ASD”**

TIMOTHY ROBERTS, PHD
THE CHILDREN'S HOSPITAL
OF PHILADELPHIA, PERELMAN
SCHOOL OF MEDICINE AT THE
UNIVERSITY OF PENNSYLVANIA

Dr. Roberts provided a thorough and exciting overview of electrophysiological technologies used in his laboratory, and he shared how he measures the brain electrical activity of study participants. Because the techniques used by Dr. Roberts measure language impairment, they have a strong application to autism research and therefore may lead to novel treatments and interventions in the future.



Keynote Presentation

► **“THE FETAL ANDROGEN THEORY OF AUTISM”**

SIMON BARON-COHEN, PHD
CAMBRIDGE UNIVERSITY

Dr. Baron-Cohen's keynote presentation focused on the question of, “Why the male bias?” He discussed differences in brain structure between males and fe-

males, and he demonstrated that there is a biological basis for the unequal gender distribution in autism. More specifically, Dr. Baron-Cohen presented evidence that fetal testosterone levels are correlated with autistic traits and influence sex differences in brain structure.



Afternoon Workshops

► **“PSYCHOSOCIAL INTERVENTIONS IN AUTISM SPECTRUM DISORDERS: FROM RESEARCH TO THE COMMUNITY”**

KARI Y. PHILLIPS, LCSW, WESTCHESTER JEWISH COMMUNITY SERVICES

DANIELLE HALPERN, PSYD, SEAVER AUTISM CENTER, MSSM

TING WANG, PHD, SEAVER AUTISM CENTER, MSSM

In this workshop, the presenters discussed social impairments in autism, the evidence-based social skills intervention research that was conducted in a groundbreaking study at the Seaver Autism Center, the preliminary results of this study, and how this research can be brought into the community.



► **“CURRENT TRENDS IN THE PHARMACOLOGICAL TREATMENT OF AUTISM: A PANEL OF EXPERTS”**

PETER DELLA BELLA, MD, YAI

**ALEX KOLEVZON, MD,
SEAVER AUTISM CENTER, MSSM**

CHARLES CARTWRIGHT, MD, YAI

**DAVID GRODBERG, MD,
SEAVER AUTISM CENTER, MSSM**



This workshop summarized current autism treatments, such as n-acetylcysteine, riluzole, memantine, and oxytocin, and the panel of experts offered an extensive amount of time for questions from both parents and health care providers.

► **“TRANSITIONING ACROSS THE SPECTRUM: A FOCUS ON EDUCATION, RESIDENTIAL OPPORTUNITIES, AND DAY PROGRAMMING”**

**MICHELLE GORENSTEIN-HOLTZMAN, PSYD,
SEAVER AUTISM CENTER, MSSM**

HARRY NUSSBAUM, F-E-G-S

**KATHLEEN KINGSTON, NYS OFFICE FOR PEOPLE
WITH DEVELOPMENTAL DISABILITIES**

DIANNE ZAGER, PHD, PACE UNIVERSITY



Moderated by Dr. Gorenstein-Holtzman, this panel covered services during the transitional period from adolescence to adulthood for young people with autism, focusing on three main areas. The presenters' brief presentations allowed for much-wanted question-and-answer time for workshop participants.

We would like to offer our sincere gratitude to all speakers, exhibitors, supporters, attendees, and to the Seaver Foundation for helping to make the annual Advances in Autism Conference possible.

If you would like to be notified about the 2013 conference, or if you could not attend and are interested in obtaining the materials, please email annualconference@seaverautismcenter.org.

- **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, Mount Sinai School of Medicine, One Gustave L. Levy Place, Box 1668, New York, NY 10029. Our phone number is 212.241.0961 and our web site is www.SeaverAutismCenter.org.
- **SEAVER IS CONTINUING TO GO GREEN!** Please send your email address to seavercentereditor@mssm.edu to receive this newsletter electronically.



Autism Sequencing Consortium Bioinformatics Hub



Established in 2010 by Drs. Joseph Buxbaum and Matthew State (Yale University), the Autism Sequencing Consortium (ASC) is an international group of scientists who share ASD samples, data, and ideas in order to accelerate our understanding of the causes and treatments of ASD. All shared data and analysis is hosted here at MSSM on a super-computer designed by MSSM faculty. Dr. Arthur P. Goldberg, a Seaver Autism Center researcher and computer scientist, has led the development of the new ASC Bioinformatics Hub. The Hub resides on the super-computer and will be used to analyze the sequence of 28,000 individuals for genes implicated in autism, using a new method by which every gene in the genome will be sequenced. The Hub will allow for joint analysis of data from multiple groups, and thus will increase the speed by which autism genes are discovered and novel therapeutics are developed.

More Conference Highlights



Jamie Rosenblum, sibling of an adult with autism, gave a moving and heartfelt presentation on her experience growing up with a brother who has autism.



Mr. Hirschell Levine and Mr. John Cohen, Co-Trustees of the Seaver Foundation, presented welcoming remarks during the morning and afternoon sessions. Alexandra Roth-Kahn (Caring Commission of UJA-Federation of New York) and Lee Rambeau (F-E-G-S) also joined us for introductory remarks.



David Minot (Autism Spectrum News) discusses the newspaper with a conference participant. We were joined by many other exhibitors and community partners.