

NEWS

Reactions from IMFAR 2016

BY CLAIRE CAMERON

14 MAY 2016

13 May 2016: Day two

Frederick Shic

Assistant Professor in the Child Study Center and of Computer Science, Yale University

Technology goes mainstream: “The technology demonstration session was a bit short on actual demonstrations this year. I think as the submissions become more rigorous and come to represent more practical, refined and mature research, it’s going to be increasingly difficult to draw a line between work that fits in the technology demonstration session and other, standard sessions in the conference. Many researchers highlighting technology-based systems chose to present their work in other sessions this year, which just highlights again how technology is growing in its reach and depth. Technology is not just the realm of prototype and concepts anymore. Increasingly, it’s becoming a mainstay of ‘traditional’ research methods in the ever-expanding toolbox of work improving the lives of individuals with autism.”

Sue Fletcher-Watson

Chancellor’s Fellow in Developmental Psychology, University of Edinburgh

Cognition and autism: “I feel like there’s been a bit less research at the cognitive level of

explanation at IMFAR 2016 compared to previous years — which is not necessarily a bad thing, of course. Cognitive findings can be very useful, but aren't always translated into real-world approaches. A handful of presenters today proved the exception to that rule, as in the case of Anna Remington's excellent talk revealing superior perceptual capacity in the auditory domain among people on the spectrum, which may have lessons for teaching techniques."

Biomarkers: "I also want to flag up a tendency I've noticed for speakers to conclude a report of a simple group difference between people with and without an autism diagnosis, ending their presentation by suggesting that their experimental technique could be used as a **biomarker** for autism. The work required to develop a genuine biomarker — with adequate sensitivity and specificity to distinguish autistic people from other neurodiverse groups (not just from neurotypicals) — is extensive, and researchers should be careful about making this claim lightly."

Donna Werling

Postdoctoral scholar, University of California, San Francisco

Rubbing shoulders: "I was especially impressed with the engagement of self-advocates at this morning's panel session focused on autism in females. This is a growing area of interest, due in large part to vocal individuals from the community, and it is so great that IMFAR has increasingly become a forum in which us researchers can rub shoulders with and hear directly from stakeholders. These experiences are consistently enlightening, humbling and motivating — as exemplified by what I think was the take-home message from today's session: that the intertwining caveats of symptom measurement, ascertainment issues, gendered social expectations and different phenotypic presentation mean that we have far more questions than true answers about the role of sex/gender in the autistic experience. As those of us in the audience were reminded by the self-advocates sitting among us and by the presenters who were so mindful of their language and interpretations, we need to be rigorous and diligent about confronting these caveats head-on."

Women to the fore: "I found it interesting that, based on an admittedly subjective visual scan of the room, the number of female-presenting women who attended the session on autism in females appeared to far outweigh the number of men. Without further data, I cannot determine whether or not this potential skew has any practical significance, but addressing the vast gaps in our understanding of autism in females will be critical for our field at large."

12 May 2016: Day one

Chris Gunter

Associate Professor of Pediatrics, Emory University

From genes to environment: “Last year, there was a wealth of sessions devoted to genetics. The program this year appears to be more focused on environment. While I'm intensely interested in environmental effects, the talks I've attended so far don't have the amount of data I'd like to see to enable critical evaluation of some claims being made.”

Interpret with caution: “In genetics, we too often see preliminary findings of tentative gene-disorder associations reported widely with overly broad interpretations. We all have a responsibility to be accurate with representations and interpretations of data in our communication of science. I would similarly urge caution to those attending and covering the meeting in reporting the environmental associations being presented. For example, several speakers focused on pesticides, but the best available data suggest the strength of any true association specifically between pesticides and autism is less than for inter-pregnancy intervals and much less than for age of parents.”

Katherine Gotham

Assistant Professor of Psychiatry, Vanderbilt University

Adult outcomes: “It's easy to just wring our hands and lament the fact that we have little to offer the adult autism community. We are not where we need to be, by any means, but the morning panel on behavioral interventions for adults with autism was an encouraging reminder that there are a few contenders, either established or new, that are yielding some encouraging findings. These treatment protocols target diverse outcomes: social skills, cognition, vocational skills, emotional health. It was a great reminder that our brains don't have to be 2 years old to be malleable.”

David Beversdorf

Director, Center for Transcranial Neuroscience, University of Missouri

Not there yet: “A big focus on the ‘envirome’ today, with some presentations on certain gene-environment interactions. Much work is still needed to explore this. It is important, as it may signal the possibility of preventative action in a subset of patients someday. Future genome-envirome-wide association studies alongside tracking epigenetic effects may help to sort these issues out, but the sample sizes would need to be tremendous.”

11 May 2016: Pre-conference

Shafali Jeste

Associate Professor in Psychiatry and Neurology, UCLA David Geffen

Diverse discussions: “The heterogeneity of autism spectrum disorder itself finds perfect representation in the heterogeneity of the attendees of IMFAR, with neurologists, psychologists, interventionists, neurobiologists, speech therapists, patient advocates and geneticists meeting around a common cause. It’s actually quite remarkable. Each year, I try to attend sessions that are not directly related to my own areas of clinical and scientific expertise, as often these sessions inspire new ideas and novel collaborations.”

New frontiers: “This year, the program seems filled with themes that are at the forefront of our field, specifically around novel outcome measures, **biomarkers**, autism in adulthood and brain connectivity. I am also pleased to see an increased emphasis on understanding heterogeneity within the spectrum, rather than the historical focus on group differences.”

James McPartland

Associate Professor of Child Psychiatry and Psychology, Yale School

Wealth of expertise: “As a clinician and a cognitive neuroscientist, I value multiple perspectives on a scientific question. As a person most interested in autism, this is a particularly valuable meeting for me, as it brings together many disciplines to address a common area of content.

IMFAR is also great fun. Having been involved in autism research for nearly 20 years, it is a time to reconnect with colleagues who are also old and dear friends. It’s always a ‘work hard, play hard’ week.”

Paul Lipkin

Director of the Center for Development and Learning, Kennedy Krieger Institute

Synchronizing goals: “I am looking forward to sampling the wide diversity of new research, in part to understand where the field is heading. As director of a participant-powered research program at the **Interactive Autism Network**, it is important for me to see if researchers are in sync with the autism public, investigating the issues that are important to those most affected by them. In my professional role in clinical pediatrics and policy, I look forward to bringing the latest findings to those in pediatric healthcare.”

May 2016: Heading to Baltimore

‘Charm City’s’ historic inner harbor is the scenic backdrop to this year’s **International Meeting for Autism Research** (IMFAR). On Wednesday, some 1,800 autism researchers and clinicians are expected to descend upon the Baltimore Convention Center in Maryland to present close to 1,400 panels, oral sessions and posters over four days.

Now in its 15th year, IMFAR is the **largest and oldest** autism science meeting in the world. The conference brings together a diversity of expertise and disciplines, from junior investigators to practicing clinicians. Keynote speeches by **Irva Hertz-Picciotto**, **Guoping Feng** and **Paul Shattuck** will span **environmental influences**, **molecular mechanisms** and ways to promote positive outcomes for people with autism and their families.

The rest of the program includes presentations on topics ranging from autism genetics to **increasing access to services** and expanding recruitment strategies. New this year is a panel session on research into **transcranial magnetic stimulation** — a technology that involves changing the brain’s neural activity with a powerful magnet.

A number of innovations from **last year’s IMFAR** are slated to repeat this year. Panel sessions will once again follow each keynote address and hors d’oeuvres will accompany the popular evening poster sessions.

There are plenty of opportunities to meet the *Spectrum* team, too. We’re hosting a Twitter chat live from IMFAR on Thursday, 12 May at 4 p.m. EDT. We plan to pose questions about research presented at the conference on Twitter from our handle **@Spectrumgo**, using the hashtag **#IMFARChat**. If you’re at the conference, please stop by and tweet with us in the convention center’s press room. We’re also hosting a ‘Wiki-a-thon’ on Friday, 13 May at 12 p.m. EDT in the press room. There, you can become an editor of our **wiki**, a growing encyclopedia of autism-related terms — and have pizza on us.

Also look out for our **extensive news coverage** of the conference, including our daily dispatches, and quotes from the conference floor. A summary of our activities appears in our IMFAR **newsletter**, which we plan to publish each day of the conference, starting Thursday.

We hope to see you there — in person and online!

*For more reports from the 2016 International Meeting for Autism Research, please **click here**.*