2017 Summary of Advances
Nominations
April – October 2017

Joshua A. Gordon, M.D., Ph.D.
Director, National Institute of Mental Health
Chair, IACC
Functional neuroimaging of high-risk 6-month-old infants predicts a diagnosis of autism at 24 months of age.

Behavioural and cognitive sex/gender differences in autism spectrum condition and typically developing males and females.
Hull L, Mandy W, Petrides KV
Question 1: Screening and Diagnosis

The emergence of network inefficiencies in infants with autism spectrum disorder.

Evaluating social (pragmatic) communication disorder.
Mandy W, Wang A, Lee I, Skuse D

These slides do not reflect decisions of the IACC and are for discussion purposes only.
Question 2: Biology

**nature**

Infant viewing of social scenes is under genetic control and is atypical in autism.


**Molecular Autism**

Neurogenetic analysis of childhood disintegrative disorder.


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Question 2: Biology

*Cerebral CORTEX*  Mar 2017

Cortical thickness abnormalities in autism spectrum disorders through late childhood, adolescence, and adulthood: a large-scale MRI study.
Khundrakpam BS, Lewis JD, Kostopoulos P, Carbonell F, Evans AC

*JAMA Pediatrics*  Sep 2017

Association of sex with recurrence of autism spectrum disorder among siblings.

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Question 3: Risk Factors

Fetal and postnatal metal dysregulation in autism.

Hotspots of missense mutation identify neurodevelopmental disorder genes and functional domains.

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Question 3: Risk Factors

Grand-maternal smoking in pregnancy and grandchild's autistic traits and diagnosed autism.

Apr 2017

Maternal gut bacteria promote neurodevelopmental abnormalities in mouse offspring.

Sep 2017

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Question 3: Risk Factors

The joint effect of air pollution exposure and copy number variation on risk for autism.

Rates, distribution and implications of postzygotic mosaic mutations in autism spectrum disorder.
Question 3: Risk Factors

Serum and cerebrospinal fluid immune mediators in children with autistic disorder: a longitudinal study.

Genomic patterns of de novo mutation in simplex autism.
Question 3: Risk Factors

Autism risk following antidepressant medication during pregnancy.
Viktorin A, Uher R, Reichenberg A, Levine SZ, Sandin S

Polygenic transmission disequilibrium confirms that common and rare variation act additively to create risk for autism spectrum disorders.

These slides do not reflect decisions of the IACC and are for discussion purposes only.
Cross-site randomized control trial of the Social ABCs caregiver-mediated intervention for toddlers with autism spectrum disorder.
Brian JA, Smith IM, Zwaigenbaum L, Bryson SE
Question 4: Treatments and Interventions

Changes in anxiety following a randomized control trial of a theatre-based intervention for youth with autism spectrum disorder.
Corbett BA, Blain SD, Ioannou S, Balser M

Nutritional and dietary interventions for autism spectrum disorder: a systematic review.
Sathe N, Andrews JC, McPheeters ML, Warren ZE
Question 4: Treatments and Interventions

Hybrid implementation model of community-partnered early intervention for toddlers with autism: a randomized trial.
Shire SY, Chang YC, Shih W, Bracaglia S, Kodjo M, Kasari C

Four-year follow-up of children in the LEAP Randomized Trial: some planned and accidental findings.
Strain PS
Interventions targeting sensory challenges in autism spectrum disorder: a systematic review.
Weitlauf AS, Sathe N, McPheeters ML, Warren ZE
Question 5: Services

Health Affairs

Effects of state insurance mandates on health care use and spending for autism spectrum disorder.

Caron V, Bérubé A, Paquet A
Question 5: Services

Comparisons of self-determination among students with autism, intellectual disability, and learning disabilities: a multivariate analysis.
Chou Y, Wehmeyer ML, Palmer SB, Lee J

Cidav Z, Munson J, Estes A, Dawson G, Rogers S, Mandell D
Examining the efficacy of a family peer advocate model for black and hispanic caregivers of children with autism spectrum disorder.
Jamison JM, Fourie E, Siper PM, Trelles MP, George-Jones J, Buxbaum Grice A, Krata J, Holl E, Shaoul J, Hernandez B, Mitchell L, McKay MM, Buxbaum JD, Kolevzon A

Medicaid waivers targeting children with autism spectrum disorder reduce the need for parents to stop working.
Leslie DL, Iskandarani K, Velott DL, Stein BD, Mandell DS, Agbese E, Dick AW
Disparities in diagnosis and treatment of autism in Latino and non-Latino white families.
Zuckerman KE, Lindly OJ, Reyes NM, Chavez AE, Macias K, Smith KN, Reynolds A
Vocational rehabilitation service patterns: an application of social network analysis to examine employment outcomes of transition-age individuals with autism.
Ditchman NM, Miller JL, Easton AB

Brief report: postsecondary work and educational disruptions for youth on the autism spectrum.
Taylor JL, DaWalt LS
Social media use, friendship quality, and the moderating role of anxiety in adolescents with autism spectrum disorder.
Van Schalkwyk GI, Marin CE, Ortiz M, Rolison M, Qayyum Z, McPartland JC, Lebowitz ER, Volkmar FR, Silverman WK
Durkin MS, Maenner MJ, Baio J, Christensen D, Daniels J, Fitzgerald R, Imm P, Lee LC, Schieve LA, Van Naarden Braun K, Wingate MS, Yeargin-Allsopp M

Geographic patterns of autism spectrum disorder among children of Nurses' Health Study II women.

Nov 2017

May 2017
What is the male-to-female ratio in autism spectrum disorder? A systematic review and meta-analysis.
Loomes R, Hull L, Mandy WPL