

2017 Summary of Advances Nominations April – October 2017



Joshua A. Gordon, M.D., Ph.D.
Director, National Institute of Mental Health
Chair, IACC

Question 1: Screening and Diagnosis



Science
Translational
Medicine

Jun 2017

Functional neuroimaging of high-risk 6-month-old infants predicts a diagnosis of autism at 24 months of age.

Emerson RW, Adams C, Nishino T, Hazlett HC, Wolff JJ, Zwaigenbaum L, Constantino JN, Shen MD, Swanson MR, Elison JT, Kandala S, Estes AM, Botteron KN, Collins L, Dager SR, Evans AC, Gerig G, Gu H, McKinstry RC, Paterson S, Schultz RT, Styner M; IBIS Network, Schlaggar BL, Pruett JR Jr, Piven J

The International Journal of Research and Practice  Volume 21 Number 5 July 2017

autism 

Aug 2017

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



Aug 2017

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

Kostopoulos P, Gerig G, Dager SR, Paterson S, Schultz RT, Styner MA, Hazlett HC, Piven J; Infant Brain Imaging Study Network



Oct 2017

Evaluating social (pragmatic) communication disorder.

Mandy W, Wang A, Lee I, Skuse D

Question 2: Biology



nature

Jul 2017

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

Constantino JN, Kennon-McGill S, Weichselbaum C, Marrus N, Haider A, Glowinski AL, Gillespie S, Klaiman C, Klin A, Jones W



Apr 2017

Neurogenetic analysis of childhood disintegrative disorder.

Gupta AR, Westphal A, Yang DYJ, Sullivan CAW, Eilbott J, Zaidi S, Voos A, Vander Wyk BC, Ventola P, Waqar Z, Fernandez TV, Ercan-Sencicek AG, Walker MF, Choi M, Schneider A, Hedderly T, Baird G, Friedman H, Cordeaux C, Ristow A, Shic F, Volkmar FR, Pelphrey KA

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.

Palmer N, Beam A, Agniel D, Eran A, Manrai A, Spettell C, Steinberg G, Mandl K, Fox K, Nelson SF, Kohane I

Question 3: Risk Factors



Jun 2017

Fetal and postnatal metal dysregulation in autism.

Arora M, Reichenberg A, Willfors C, Austin C, Gennings C, Berggren S, Lichtenstein P, Anckarsäter H, Tammimies K, Bölte S

The logo for Nature Neuroscience is located on the left side of the slide. It features the words 'nature' and 'neuroscience' in a white font on a dark teal background. To the right of the text is a stylized graphic of a neuron with branching dendrites and an axon.

nature
neuroscience

Aug 2017

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

Geisheker MR, Heymann G, Wang T, Coe BP, Turner TN, Stessman HAF, Hoekzema K, Kvarnung M, Shaw M, Friend K, Liebelt J, Barnett C, Thompson EM, Haan E, Guo H, Anderlid BM, Nordgren A, Lindstrand A, Vandeweyer G, Alberti A, Avola E, Vinci M, Giusto S, Pramparo T, Pierce K, Nalabolu S, Michaelson JJ, Sedlacek Z, Santen GWE, Peeters H, Hakonarson H, Courchesne E, Romano C, Kooy RF, Bernier RA, Nordenskjöld M, Gecz J, Xia K, Zweifel LS, Eichler EE

Question 3: Risk Factors



Apr 2017



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

Golding J, Ellis G, Gregory S, Birmingham K, Iles-Caven Y, Rai D, Pembrey M

nature

Sep 2017

Maternal gut bacteria promote neurodevelopmental abnormalities in mouse offspring.

Kim S, Kim H, Yim YS, Ha S, Atarashi K, Tan TG, Longman RS, Honda K, Littman DR, Choi GB, Huh JR

Question 3: Risk Factors



AUTISM RESEARCH
January, 2017 | Volume 10 | Number 1

Apr 2017 [Epub ahead of print]

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

Kim D, Volk H, Girirajan S, Pendergrass S, Hall MA, Verma SS, Schmidt RJ, Hansen RL, Ghosh D, Ludena-Rodriguez Y, Kim K, Ritchie MD, Hertz-Picciotto I, Selleck SB

nature
neuroscience

Jul 2017

Rates, distribution and implications of postzygotic mosaic mutations in autism spectrum disorder.

Lim ET, Uddin M, De Rubeis S, Chan Y, Kamumbu AS, Zhang X, D'Gama AM, Kim SN, Hill RS, Goldberg AP, Poultney C, Minshew NJ, Kushima I, Aleksic B, Ozaki N, Parellada M, Arango C, Penzol MJ, Carracedo A, Kolevzon A, Hultman CM, Weiss LA, Fromer M, Chiocchetti AG, Freitag CM; Autism Sequencing Consortium, Church GM, Scherer SW, Buxbaum JD, Walsh CA

Question 3: Risk Factors



Jan 2017

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

Pardo CA, Farmer CA, Thurm A, Shebl FM, Ilieva J, Kalra S, Swedo S

The logo for the journal Cell is located in the middle left of the slide. It consists of the word 'Cell' in white, bold, sans-serif font, set against a dark blue rectangular background.

Sep 2017

Genomic patterns of de novo mutation in simplex autism.

Turner TN, Coe BP, Dickel DE, Hoekzema K, Nelson BJ, Zody MC, Kronenberg ZN, Hormozdiari F, Raja A, Pennacchio LA, Darnell RB, Eichler EE

Question 3: Risk Factors



PSYCHOLOGICAL
MEDICINE

May 2017 [Epub ahead of print]

Autism risk following antidepressant medication during pregnancy.

Viktorin A, Uher R, Reichenberg A, Levine SZ, Sandin S

nature
genetics

May 2017 [Epub ahead of print]

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

Weiner DJ, Wigdor EM, Ripke S, Walters RK, Kosmicki JA, Grove J, Samocha KE, Goldstein JL, Okbay A, Bybjerg-Grauholm J, Werge T, Hougaard DM, Taylor J; iPSYCH-Broad Autism Group; Psychiatric Genomics Consortium Autism Group, Skuse D, Devlin B, Anney R, Sanders SJ, Bishop S, Mortensen PB, Børglum AD, Smith GD, Daly MJ, Robinson EB

Question 4: Treatments and Interventions



AUTISM RESEARCH
January 2017 | Volume 10 | Number 1

Jun 2017

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

BEHAVIORAL DEVELOPMENT BULLETIN
Volume 11 | Number 1 | April 2017

Apr 2017

Measuring developmental outcomes in autism spectrum disorder (ASD).

Commons ML, Adhikari D, Giri S, Weinberg M, Baran JJ, Malik E

Question 4: Treatments and Interventions



The International Journal of Research and Practice ● Volume 21 Number 5 July 2017

autism

Apr 2017

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, Balsler M

PEDIATRICS

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

May 2017

Nutritional and dietary interventions for autism spectrum disorder: a systematic review.

Sathe N, Andrews JC, McPheeters ML, Warren ZE

Question 4: Treatments and Interventions



The Journal of Child
Psychology and Psychiatry

May 2017

Hybrid implementation model of community-partnered early intervention for toddlers with autism: a randomized trial.

Shire SY, Chang YC, Shih W, Bracaglia S, Kodjoe M, Kasari C



Jun 2017

Four-year follow-up of children in the LEAP Randomized Trial: some planned and accidental findings.

Strain PS

Question 4: Treatments and Interventions



PEDIATRICS

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

May 2017 [Epub ahead of print]

Interventions targeting sensory challenges in autism spectrum disorder: a systematic review.

Weitlauf AS, Sathe N, McPheeters ML, Warren ZE

Question 5: Services



Health Affairs

Oct 2017

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

Barry CL, Epstein AJ, Marcus SC, Kennedy-Hendricks A, Candon MK, Xie M, Mandell DS

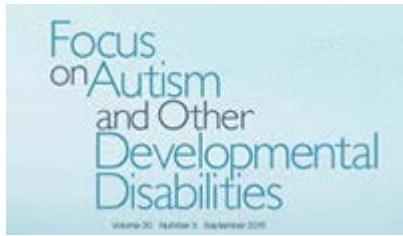


Jun 2017

Implementation evaluation of early intensive behavioral intervention programs for children with autism spectrum disorders: A systematic review of studies in the last decade.

Caron V, Bérubé A, Paquet A

Question 5: Services



Jun 2017

Comparisons of self-determination among students with autism, intellectual disability, and learning disabilities: a multivariate analysis.

Chou Y, Wehmeyer ML, Palmer SB, Lee J

Journal of the American Academy of
**CHILD & ADOLESCENT
PSYCHIATRY**

Sep 2017

Cost offset associated with Early Start Denver Model for children with autism.

Cidav Z, Munson J, Estes A, Dawson G, Rogers S, Mandell D

Question 5: Services



*Journal of Autism
and Developmental Disorders*

May 2017

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

HealthAffairs

Feb 2017

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

Question 5: Services



PEDIATRICS

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

May 2017

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

Question 6: Lifespan Issues



May 2017

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



Sep 2017

Brief report: postsecondary work and educational disruptions for youth on the autism spectrum.

Taylor JL, DaWalt LS

Question 6: Lifespan Issues



*Journal of Autism
and Developmental Disorders*

Jun 2017

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

Question 7: Infrastructure



Nov 2017

Autism spectrum disorder among US children (2002-2010): socioeconomic, racial, and ethnic disparities.

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

American Journal of
Epidemiology

May 2017

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

Hoffman K, Weisskopf MG, Roberts AL, Raz R, Hart JE, Lyall K, Hoffman EM, Laden F, Vieira VM

Question 7: Infrastructure



Journal of the American Academy of
CHILD & ADOLESCENT
PSYCHIATRY

Jun 2017

What is the male-to-female ratio in autism spectrum disorder? A systematic review and meta-analysis.

Loomes R, Hull L, Mandy WPL