2017 Summary of Advances Discussion

IACC Full Committee Meeting
January 17, 2018

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Executive Secretary, IACC
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Summary of Advances

• Annual publication required by the Autism CARES Act

• Lay-friendly summaries of the 20 most significant advances in ASD biomedical and services research, as selected by the IACC

• Typically includes articles addressing all 7 topic areas of the IACC Strategic Plan
Summary of Advances Process

- Monthly emails to solicit article nominations from IACC members
- Advances compiled quarterly and discussed at IACC meetings
- At January IACC meeting, discussion of top articles among those nominated
- IACC members vote on top 20 articles to be included in 2017
  Summary of Advances – ballots due February 2, 2018
- Tie-breaker vote (if necessary)
Summary of Advances Process

• Selected articles are summarized

• Nominated articles not selected are listed in the appendix

• Draft publication is prepared and sent out to committee for very brief review

• Final publication is prepared for release

• Target for release – April 2018 IACC meeting
11 IACC members submitted a total of 81 nominations:

- Question 1 (Diagnosis & Screening): 13
- Question 2 (Biology): 12
- Question 3 (Risk Factors): 19
- Question 4 (Treatments & Interventions): 14
- Question 5 (Services): 10
- Question 6 (Lifesspan Issues): 9
- Question 7 (Infrastructure & Surveillance): 4
2017 Summary of Advances Nominations
October – December 2017

Joshua A. Gordon, M.D., Ph.D.
Director, National Institute of Mental Health
Chair, IACC
Adaptive behavior in autism: minimal clinically important differences on the Vineland-II.

Race influences parent report of concerns about symptoms of autism spectrum disorder.
Donohue MR, Childs AW, Richards M, Robins DL.
A prospective study of the concordance of DSM-IV and DSM-5 diagnostic criteria for autism spectrum disorder.
Mazurek MO, Lu F, Symecko H, Butter E, Bing NM, Hundley RJ, Poulsen M, Kanne SM, Macklin EA, Handen BL.

A comprehensive examination of reading heterogeneity in students with high functioning autism: distinct reading profiles and their relation to autism symptom severity.
McIntyre NS, Solari EJ, Grimm RP, E Lerro L, E Gonzales J, Mundy PC.
Question 1: Screening and Diagnosis


These slides do not reflect decisions of the IACC and are for discussion purposes only.
Increased Extra-axial Cerebrospinal Fluid in High-Risk Infants Who Later Develop Autism.
Longitudinal identification of clinically distinct neurophenotypes in young children with fragile X syndrome.
Bruno JL, Romano D, Mazaika P, Lightbody AA, Hazlett HC, Piven J, Reiss AL.

Examining bidirectional effects between the autism spectrum disorder (ASD) core symptom domains and anxiety in children with ASD.
Duvekot J, van der Ende J, Verhulst FC, Greaves-Lord K.
Question 2: Underlying Biology

**Cerebral CORTEX**

Joint attention and brain functional connectivity in infants and toddlers.

**AUTISM RESEARCH**

I tawt i taw a pully tat: Gestures in canary row narrations by high-functioning youth with autism spectrum disorder.
Silverman LB, Eigsti IM, Bennetto L.
What will my child's future hold? phenotypes of intellectual development in 2-8-year-olds with autism spectrum disorder.
Solomon M, Iosif AM, Reinhardt VP, Libero LE, Nordahl CW, Ozonoff S, Rogers SJ, Amaral DG.

Protracted dendritic growth in the typically developing human amygdala and increased spine density in young ASD brains.
Weir RK, Bauman MD, Jacobs B, Schumann CM.
Cross-tissue integration of genetic and epigenetic data offers insight into autism spectrum disorder.

Identification of developmental and behavioral markers associated with genetic abnormalities in autism spectrum disorder.
Prenatal exposure to fever is associated with autism spectrum disorder in the Boston birth cohort.

Maternal multivitamin intake, plasma folate and vitamin B12 levels and autism spectrum disorder risk in offspring.
Question 3: Risk Factors

A framework to identify contributing genes in patients with Phelan-McDermid syndrome.
Question 3: Risk Factors

Wang M, Li K, Zhao D, Li L.

Severity of ASD symptoms and their correlation with the presence of copy number variations and exposure to first trimester ultrasound.
Webb SJ, Garrison MM, Bernier R, McClintic AM, King BH, Mourad PD.

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Question 4: Treatments and Interventions

Feasibility, acceptability and preliminary treatment outcomes in a school-based CBT intervention program for adolescents with ASD and anxiety in Singapore. Drmic IE, Aljunied M, Reaven J.

Intolerance of uncertainty predicts anxiety outcomes following CBT in youth with ASD.

A pilot investigation of an iOS-based app for toilet training children with autism spectrum disorder.

Weitlauf AS, Sathe N, McPheeters ML, Warren ZE.
Question 5: Services

**Strengthening informal supports to promote behavioral health of youth with intellectual and/or developmental disabilities in rural communities.**
Hepburn SL.

**Associations of quality of life with health-related characteristics among children with autism.**
Kuhlthau KA, McDonnell E, Coury DL, Payakachat N, Macklin E.
Odom SL, Cox A, Sideris J, Hume KA, Hedges S, Kucharczyk S, Shaw E, Boyd BA, Reszka S, Neitzel J.
Factors associated with sustained community employment among adults with autism and co-occurring intellectual disability.
Chan W, Smith LE, Hong J, Greenberg JS, Lounds Taylor J, Mailick MR.

Cognitive enhancement therapy for adult autism spectrum disorder: Results of an 18-month randomized clinical trial.
Eack SM, Hogarty SS, Greenwald DP, Litschge MY, Porton SA, Mazefsky CA, Minshew NJ.

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First impressions of adults with autism improve with diagnostic disclosure and increased autism knowledge of peers.
Sasson NJ, Morrison KE.