2018 Summary of Advances Discussion

IACC Full Committee Meeting
January 16, 2019

Susan A. Daniels, Ph.D.
Director, Office of Autism Research Coordination
Executive Secretary, IACC
National Institute of Mental Health

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

• Annual report 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 2018

   Summary of Advances – ballots due February 1, 2019

☐ 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 2019 IACC meeting
2018 IACC Summary of Advances Nominations Statistics

• 10 IACC members submitted a total of 43 nominations:

  • Question 1 (Diagnosis & Screening): 6
  • Question 2 (Biology): 8
  • Question 3 (Risk Factors): 14
  • Question 4 (Treatments & Interventions): 3
  • Question 5 (Services): 5
  • Question 6 (Lifespan Issues): 3
  • Question 7 (Infrastructure & Surveillance): 4
Question 1: Screening and Diagnosis

Nov 2018

Diagnosis of Autism Spectrum Disorder After Age 5 in Children Evaluated Longitudinally Since Infancy
Ozonoff S, Young GS, Brian J, Charman T, Shephard E, Solish A, Zwaigenbaum L.

Oct 2018

A longitudinal study of parent-reported sensory responsiveness in toddlers at-risk for autism.

Fragile X mental retardation 1 gene enhances the translation of large autism-related proteins. Greenblatt EJ, Spradling AC.
Question 3: Risk Factors

Jun 2018

Case-control meta-analysis of blood DNA methylation and autism spectrum disorder.

Dec 2018

Transcriptome-wide isoform-level dysregulation in ASD, schizophrenia, and bipolar disorder.
Question 3: Risk Factors


Autism spectrum disorder and birth spacing: Findings from the study to explore early development (SEED).
Schieve LA, Tian LH, Drews-Botsch C, Windham GC, Newschaffer C, Daniels JL, Lee LC, Croen LA, Fallin MD.
Question 4: Treatments and Interventions

Stedman A, Taylor B, Erard M, Peura C, Siegel M.
Zerbo O, Qian Y, Ray T, Sidney S, Rich S, Massolo M, Croen LA.
Question 6: Lifespan Issues

(There were no nominations covering Question 6 topics from October – December 2018)
Question 7: Infrastructure and Surveillance


Question 7: Infrastructure and Surveillance

Child maltreatment in autism spectrum disorder and intellectual disability: results from a population-based sample.
McDonnell CG, Boan AD, Bradley CC, Seay KD, Charles JM, Carpenter LA.

Schendel DE, Thorsteinsson E.