

# **IACC Update**

## **January 2011**

Thomas Insel, M.D.

Director, National Institute of Mental Health and Chair, IACC  
IACC Full Committee Meeting - January 18, 2011

# How can I understand what is happening?



N = 277  
 ASD/189 Con  
 AB to 45kDA  
 9.7% Aut vs  
 3.6% Con  
 Correl w lower  
 fcn/cog

Autoantibodies to cerebellum in children with autism associate with behavior

Paula Goines<sup>a,b</sup>, Lori Haapanen<sup>a,b</sup>, Robert Boyce<sup>a,b</sup>, Paul Duncanson<sup>a,b</sup>, Daniel Braunschweig<sup>a,b</sup>,  
 Lora Delwiche<sup>c,d</sup>, Robin Hansen<sup>b,d,e</sup>, Irva Hertz-Picciotto<sup>b,c,d</sup>, Paul Ashwood<sup>b,f</sup>, Judy Van de Water<sup>a,b,\*</sup>

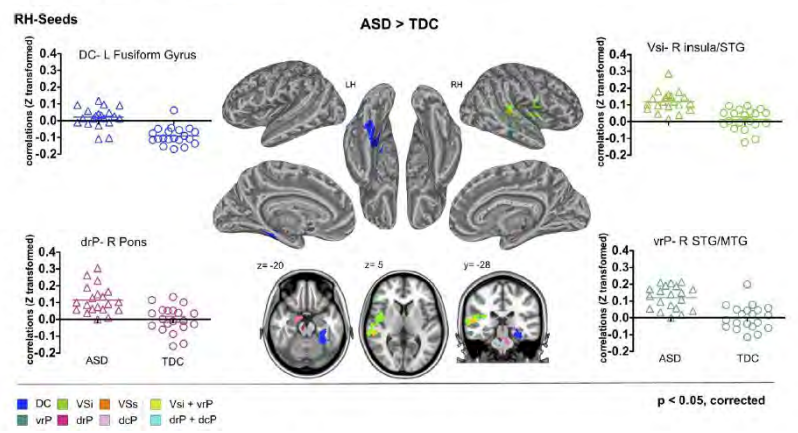
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## Aberrant Striatal Functional Connectivity in Children with Autism

Adriana Di Martino, Clare Kelly, Rebecca Grzadzinski, Xi-Nia Maria Angeles Mairena, Catherine Lord, F. Xavier Castellanos

Biological Psychiatry 2011

N = 20 ASD vs 20 Con  
 Age = 7.6 – 13.5 yrs  
 Seeds in striatum



# What caused this to happen and can it be prevented?

## Polybrominated diphenyl ethers in relation to autism and developmental delay: A case-control study

N = 100

cases

11 PBDE

congeners

GCMS

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## Residential Proximity to Freeways and Autism in the CHARGE Study

Heather E. Volk, Irva Hertz-Picciotto, Lora Delwiche,  
Fred Lurmann, and Rob McConnell

doi: 10.1289/ehp.1002835 (available at <http://dx.doi.org/>)  
Online 16 December 2010



N = 304 ASD;  
259 CON  
3<sup>rd</sup> Trimester  
< 309m of  
freeway  
OR = 2.22

# What caused this to happen and can it be prevented?

## Closely Spaced Pregnancies Are Associated With Increased Odds of Autism in California Sibling Births



**WHAT'S KNOWN ON THIS SUBJECT:** Autism has been associated with pregnancy and birth complications that may indicate a suboptimal prenatal environment. Although the interpregnancy interval (IPI) may affect the prenatal environment, the association between the IPI and risk for autism is not known.

**AUTHORS:** Keely Cheslack-Postava, PhD, MSPH,<sup>a</sup> Kayuet Liu, DPhil,<sup>b</sup> and Peter S. Bearman, PhD<sup>b</sup>

<sup>a</sup>Robert Wood Johnson Foundation Health and Society Scholars, Columbia University, New York, New York; and <sup>b</sup>Paul F. Lazarsfeld Center for the Social Sciences, Columbia University, New York, New York

N = 662, 730 2<sup>nd</sup> births; IPI < 12 mos vs IPI > 36 mos risk for ASD OR = 3.39

## Neonatal Jaundice, Autism, and Other Disorders of Psychological Development



**WHAT'S KNOWN ON THIS SUBJECT:** Little and inconclusive evidence has been published regarding the association between neonatal jaundice and autistic disorders.

**AUTHORS:** Rikke Damkjær Maimburg, MPH, PhD,<sup>a,b</sup> Bodil Hammer Bech, MD, PhD,<sup>a</sup> Michael Væth, PhD,<sup>c</sup> Bjarne Møller-Madsen, MD, DMSci,<sup>d</sup> and Jørn Olsen, MD, PhD<sup>a,e</sup>

N = 733,826 Danish births, HR = 1.67, higher in multiparous and winter births

# Which treatments and interventions will help?

THE JOURNAL OF CHILD  
PSYCHOLOGY AND PSYCHIATRY



*Journal of Child Psychology and Psychiatry* 52:1 (2011), pp 13–21

doi:10.1111/j.1469-7610.2010.02288.x

## Intervention targeting development of socially synchronous engagement in toddlers with autism spectrum disorder: a randomized controlled trial

**Rebecca J. Landa,<sup>1</sup> Katherine C. Holman,<sup>2</sup> Allison H. O'Neill,<sup>3</sup> and Elizabeth A. Stuart<sup>4</sup>**

<sup>1</sup>Kennedy Krieger Institute, Center for Autism and Related Disorders, Johns Hopkins University School of Medicine, Department of Psychiatry and Behavioral Sciences, Baltimore, MD, USA; <sup>2</sup>Towson University, Department of Special Education, Towson, MD, USA; <sup>3</sup>University of Maryland School of Public Health, Department of Epidemiology and Biostatistics, College Park, MD, USA; <sup>4</sup>Johns Hopkins Bloomberg School of Public Health, Departments of Mental Health and Biostatistics, Baltimore, MD, USA

N = 50 ASD toddlers 21 – 33 months; 6 month Rx of Interpersonal Synchrony; doubling of social engagement (17% - 42%), generalization



# **HHS Secretary's Report to Congress**

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## **Report to Congress on Activities Related to Autism Spectrum Disorders and Other Developmental Disabilities Under the Combating Autism Act of 2006 (FY 2006-FY 2009)**

**Prepared by the Office of Autism Research Coordination  
National Institutes of Health  
Department of Health and Human Services**

Will be posted to the IACC Website Reports Section Soon:  
<http://iacc.hhs.gov/reports/>