

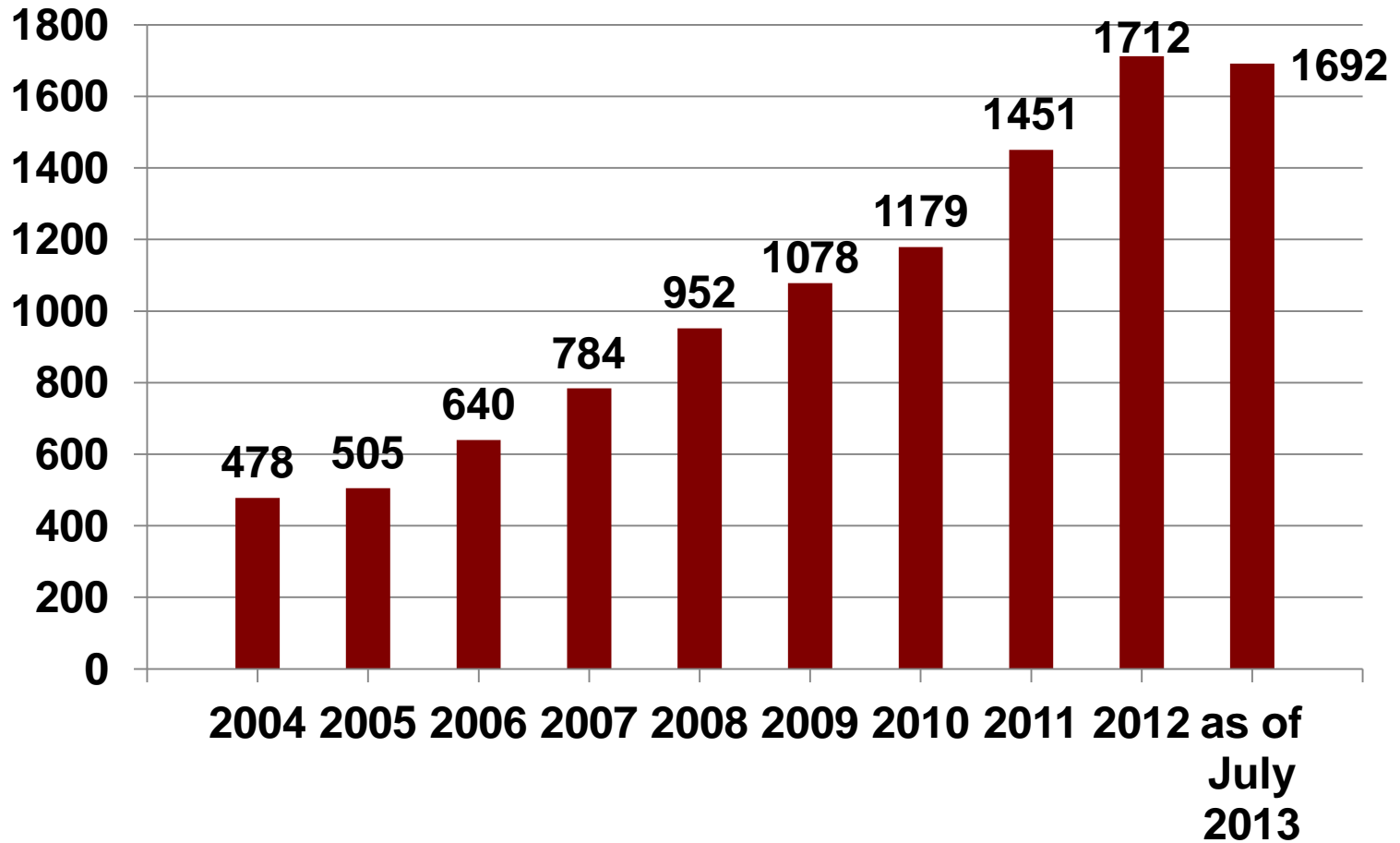
Meeting of the IACC

Science Update

Thomas R. Insel, M.D.

Director, National Institute of Mental Health and Chair, IACC
IACC Full Committee Meeting – July 9, 2013

Publications Jan 1 – June 30



Articles listed as "autism" in PubMed for first 6 months of each year

Q1. When should I be concerned?

Biological Psychiatry

A Journal of Psychiatric Neuroscience and Therapeutics

May 23, 2013

Compared to What? Early Brain Overgrowth in Autism and the Perils of Population Norms

Raznahan A, Wallace GL, Antezana L, Greenstein D, Lenroot R, Thurm A, Gozzi M, Spence S, Martin A, Swedo SE, Giedd JN

EUROPEAN JOURNAL OF **PAEDIATRIC NEUROLOGY**

May 24, 2013

Confirmation of chromosomal microarray as a first-tier clinical diagnostic test for individuals with developmental delay, intellectual disability, autism spectrum disorders and dysmorphic features

Battaglia A, Doccini V, Bernardini L, Novelli A, Loddo S, Capalbo A, Filippi T, Carey JC

Journal of Autism and Developmental Disorders

April 26, 2013

Children's Compliance with American Academy of Pediatrics' Well-Child Care Visit Guidelines and the Early Detection of Autism

Daniels AM, Mandell DS

Q2. How can I understand what is happening?

nature
neuroscience

June 2, 2013

Circuit level defects in the developing neocortex of Fragile X mice

Goncalves JT, Anstey JE, Golshani P, Portera-Cailliau C

Neuron

May 8, 2013 & June 5, 2013

Excitatory/Inhibitory Synaptic Imbalance Leads to Hippocampal Hyperexcitability in Mouse Models of Tuberous Sclerosis

Bateup HS, Johnson CA, Denefrio CL, Saulnier JL, Kornacker K, Sabatini BL

Temporal and Mosaic Tsc1 Deletion in the Developing Thalamus Disrupts Thalamocortical Circuitry, Neural Function, and Behavior

Normand EA, Crandall SR, Thorn CA, Murphy EM, Voelcker B, Browning C, Machan JT, Moore CI, Connors BW, Zervas M

Q2. How can I understand what is happening?

BRAIN

June 2013

Impaired thalamocortical connectivity in autism spectrum disorder: a study of functional and anatomical connectivity

Aarti Nair, Jeffrey M. Treiber, Dinesh K. Shukla, Patricia Shih, and Ralph-Axel Müller

JAMA Psychiatry

June 18, 2013

Salience Network–Based Classification and Prediction of Symptom Severity in Children With Autism

Lucina Q. Uddin, PhD; Kaustubh Supekar, PhD; Charles J. Lynch, BA; Amirah Khouzam, MA; Jennifer Phillips, PhD; Carl Feinstein, MD; Srikanth Ryali, PhD; Vinod Menon, PhD

PNAS

June 17, 2013

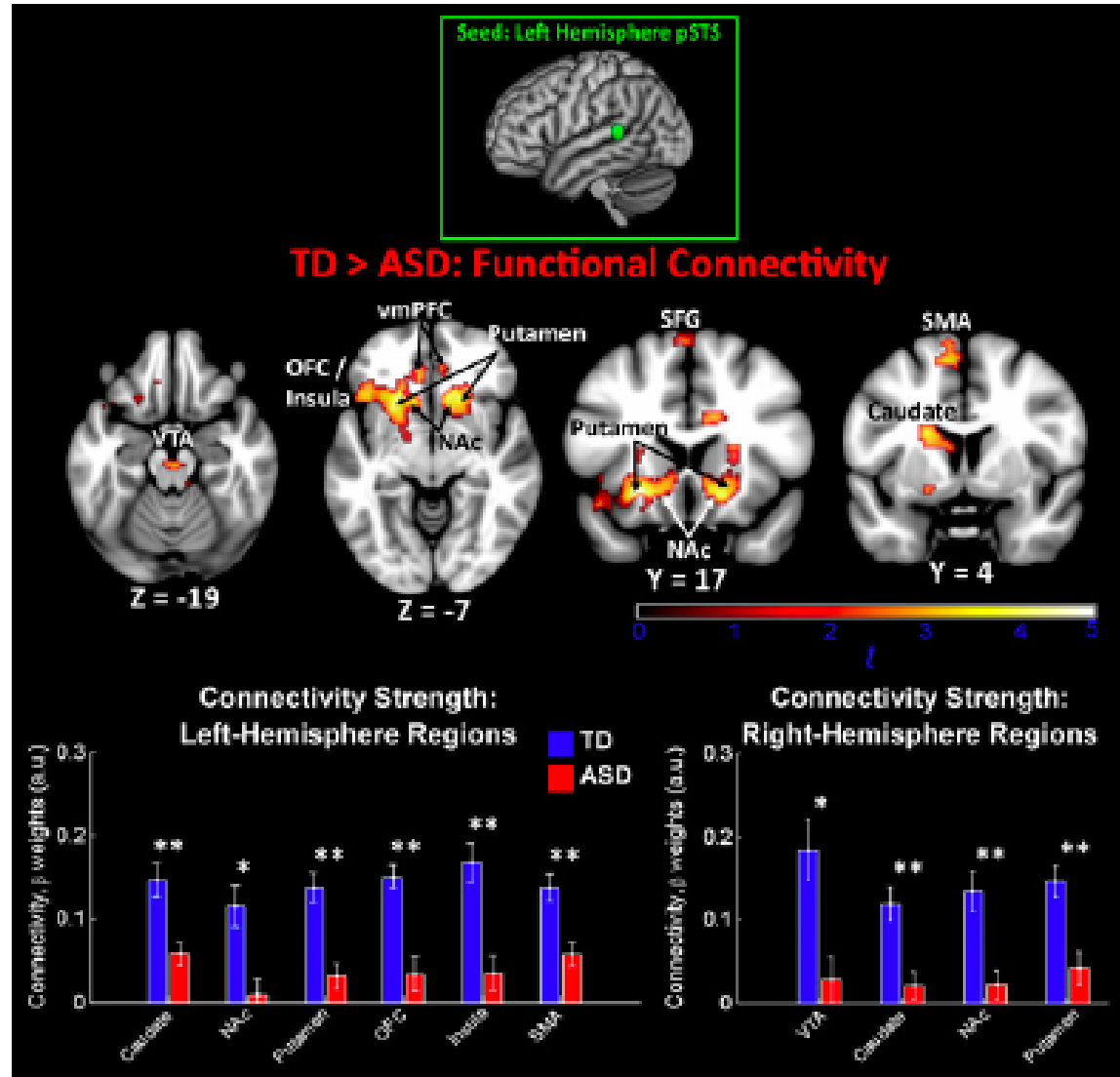
Proceedings of the National Academy of Sciences of the United States of America

Underconnectivity between voice-selective cortex and reward circuitry in children with autism

Abrams DA, Lynch CJ, Cheng KM, Phillips J, Supekar K, Ryali S, Uddin LQ, Menon V

Underconnectivity between voice-selective cortex and reward circuitry in children with autism

Abrams DA, Lynch CJ, Cheng KM, Phillips J, Supekar K, Ryali S, Uddin LQ, Menon V



Q2. How can I understand what is happening?



June 18, 2013

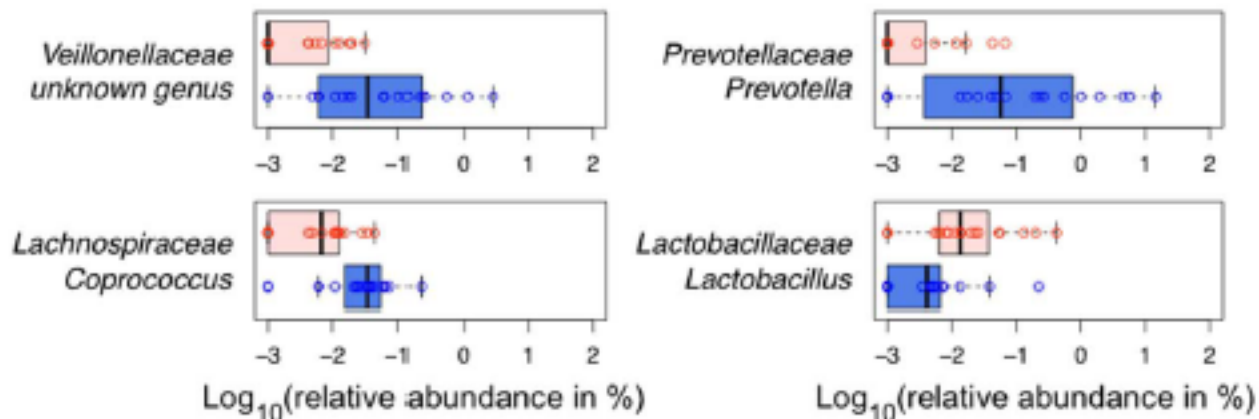
July 3, 2013

Markers of Celiac Disease and Gluten Sensitivity in Children with Autism

Lau NM, Green PHR, Taylor AK, Hellberg D, Ajamian M, Tan CZ, Kosofsky BE, Higgins JJ, Rajadhyaksha AM, Alaedini A

Reduced Incidence of *Prevotella* and Other Fermenters in Intestinal Microflora of Autistic Children

Dae-Wook Kang¹, Jin Gyoon Park², Zehra Esra Ilhan¹, Garrick Wallstrom^{2,3}, Joshua LaBaer², JaB



Q3. What caused this to happen and can it be prevented?

American Journal of Epidemiology

June 27, 2013

Maternal Dietary Fat Intake in Association With Autism Spectrum Disorders

Lyall K, Munger K, O'Reilly E, Santangelo A, and Ascherio A.

JAMA[®]

The Journal of the American Medical Association

April 24, 2013

Prenatal Valproate Exposure and Risk of Autism Spectrum Disorders and Childhood Autism

Christensen J, Gronberg TK, Sorensen MJ, Schendel D, Parner ET, Pedersen LH, Vestergaard M

June 18, 2013

ehp | ENVIRONMENTAL
HEALTH
PERSPECTIVES

Perinatal Air Pollutant Exposures and Autism Spectrum Disorder in the Children of Nurses' Health Study II Participants

Roberts A, Lyall K, Hart J, Laden F, Just A, Bobb J, Koenen K, Ascherio A and Weisskopf M

Q3. What caused this to happen and can it be prevented?

Rare Complete Knockouts in Humans: Population Distribution and Significant Role in Autism Spectrum Disorders

Neuron
Report

Elaine T. Lim,^{1,4,5,6,7} Soumya Raychaudhuri,^{4,6,9} Stephan J. Sanders,¹⁰ Christine Stevens,⁴ Aniko Sabo,¹¹ Daniel G. MacArthur,^{1,4,6} Benjamin M. Neale,^{1,4,5,6} Andrew Kirby,^{1,4,6} Douglas M. Ruderfer,^{1,3,4,5,6,8,12,14,15} Menachem Fromer,^{1,3,4,5,6,8,12,14,15} Monkol Lek,^{1,4,6} Li Liu,¹⁸ Jason Flannick,^{1,2,4,6} Stephan Ripke,^{1,4,5} Uma Nagaswamy,¹¹ Donna Muzny,¹¹ Jeffrey G. Reid,¹¹ Alicia Hawes,¹¹ Irene Newsham,¹¹ Yuanqing Wu,¹¹ Lora Lewis,¹¹ Huyen Dinh,¹¹ Shannon Gross,¹¹ Li-San Wang,¹⁹ Chiao-Feng Lin,¹⁹ Otto Valladares,¹⁹ Stacey B. Gabriel,⁴ Mark dePristo,⁴ David M. Altshuler,^{1,2,4,6} Shaun M. Purcell,^{1,3,4,5,6,8,12,14,15} NHLBI Exome Sequencing Project, Matthew W. State,¹⁰ Eric Boerwinkle,^{11,21} Joseph D. Buxbaum,^{13,14,15,16,17} Edwin H. Cook,²² Richard A. Gibbs,¹¹ Gerard D. Schellenberg,²⁰ James S. Sutcliffe,²³ Bernie Devlin,²⁴ Kathryn Roeder,¹⁸ and Mark J. Daly^{1,4,5,6,*} Jan, 2013

**PLOS** | GENETICS

June 9, 2013

Network Topologies and Convergent Aetiologies Arising from Deletions and Duplications Observed in Individuals with Autism

Noh HJ, Ponting CP, Boulding HC, Meader S, Betancur C, Buxbaum JD, Pinto D, Marshall CR, Lionel AC, Scherer SW, Webber C

AJHG American Journal of Human Genetics

July 3, 2013

Intellectual Disability Is Associated with Increased Runs of Homozygosity in Simplex Autism

Gamsiz E, Viscidi E, Frederick A, Nagpal S, Sanders S, Murtha M, Schmidt M, Simons Simplex Collection Genetics Consortium, Triche E, Geschwind D et al.

Q4. Which treatments and interventions will help?

frontiers in
INTEGRATIVE NEUROSCIENCE

June 18, 2013

Accommodating to motor difficulties and communication impairments in people with autism: the MORE intervention model

Emerson A, Dearden J

Behavioral
Neuroscience

May 20, 2013

Environmental Enrichment as an Effective Treatment for Autism: A Randomized Controlled Trial

Woo CC, Leon M

Q5. Where can I turn for services?

PEDIATRICS®

June 17, 2013

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Racial and Ethnic Differences in Subspecialty Service Use by Children With Autism

Broder-Fingert S, Shui A, Pulcini CD, Kurowski D, Perrin JM

PSYCHIATRIC SERVICES

June 17, 2013

Impact of State Mental Health Parity Laws on Access to Autism Services

Bilaver LA, Jordan N

MATERNAL & CHILD HEALTH JOURNAL

June 23, 2013

The Relationship Between the Medical Home and Unmet Needs for Children with Autism Spectrum Disorders

Farmer JE, Clark MJ, Mayfield WA, Cheak-Zamora N, Marvin AR, Law JK, Law PA

Q6. What does the future hold, particularly for adults?

Research
in
Developmental
Disabilities

June 18, 2013

Predictors of sustainable work participation of young adults with developmental disorders

Holwerda A, van der Klink JJJ, de Boer MR, Groothoff JW, Brouwer S

*Journal of Autism
and Developmental Disorders*

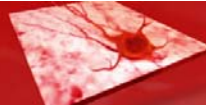
April 26, 2013

Cognitive Enhancement Therapy for Adults with Autism Spectrum Disorder: Results of an 18-month Feasibility Study

Eack SM, Greenwald DP, Hogarty SS, Bahorik AL, Litschge MY, Mazefsky CA, Minshew NJ

Q7. What other infrastructure and surveillance needs must be met?

Molecular
Psychiatry



June 18, 2013

The autism brain imaging data exchange: towards a large-scale evaluation of the intrinsic brain architecture in autism

Di Martino A, et.al.

*Journal of Autism
and Developmental Disorders*

April 7, 2013

The International Collaboration for Autism Registry Epidemiology (iCARE): Multinational Registry-Based Investigations of Autism Risk Factors and Trends

Schendel DE et. al.