

# 2013 Portfolio Analysis Projects

## QUESTION 3: WHAT CAUSED THIS TO HAPPEN AND CAN IT BE PREVENTED?

2013 Projects: 147

2013 Funding: \$55,666,351

### 3.S.A

Coordinate and implement the inclusion of approximately 20,000 subjects for genome-wide association studies, as well as a sample of 1,200 for sequencing studies to examine more than 50 candidate genes by 2011. Studies should investigate factors contributing to phenotypic variation across individuals that share an identified genetic variant and stratify subjects according to behavioral, cognitive, and clinical features. *IACC Recommended Budget: \$43,700,000 over 4 years.*

2013 Projects: 11

2013 Funding: \$4,965,929

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">Genome-wide expression profiling data analysis to study autism genetic models</a>	Luo, Rui	University of California, Los Angeles	\$0	Autism Speaks
<a href="#">Genomic influences on developmental course and outcome in Infants at risk of ASD: A Baby Siblings Research Consortium (BSRC) Study</a>	Zwaigenbaum, Lonnie	University of Alberta	\$149,882	Autism Speaks
<a href="#">Genomic influences on development and outcomes in Infants at risk of ASD</a>	Zwaigenbaum, Lonnie	University of Alberta	\$337,779	Autism Speaks
An exploration of genetic and behavioral variables in Autism Spectrum Disorder	Dixon, Dennis	Center for Autism and Related Disorders (CARD)	\$30,800	Center for Autism and Related Disorders
<a href="#">1/4-The Autism Sequencing Consortium: Autism gene discovery in &gt;20,000 exomes</a>	Buxbaum, Joseph	Mount Sinai School of Medicine	\$817,786	National Institutes of Health
<a href="#">2/4-The Autism Sequencing Consortium: Autism gene discovery in &gt;20,000 exomes</a>	Daly, Mark	Broad Institute, Inc.	\$483,807	National Institutes of Health
<a href="#">3/4 - The Autism Sequencing Consortium: Autism gene discovery in &gt;20,000 exomes</a>	Devlin, Bernie	University of Pittsburgh	\$276,478	National Institutes of Health

<a href="#">Sporadic mutations and autism spectrum disorders</a>	Eichler, Evan	University of Washington	\$713,231	National Institutes of Health
<a href="#">Rapid phenotyping for rare variant discovery in autism</a>	Nelson, Stanley	University of California, Los Angeles	\$661,281	National Institutes of Health
<a href="#">4/4 The Autism Sequencing Consortium: Autism gene discovery in &gt;20,000 exomes</a>	State, Matthew	University of California, San Francisco	\$759,778	National Institutes of Health
<a href="#">Autism genetics: Homozygosity mapping and functional validation</a>	Walsh, Christopher	Boston Children's Hospital	\$735,107	National Institutes of Health

### **3.S.B**

Within the highest priority categories of exposures for ASD, identify and standardize at least three measures for identifying markers of environmental exposure in biospecimens by 2011. *IACC Recommended Budget: \$3,500,000 over 3 years.*

**2013 Projects: 2**  
**2013 Funding: \$0**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">Environmental exposures measured in deciduous teeth as potential biomarkers for autism risk</a>	Palmer, Raymond	University of Texas Health Science Center at San Antonio	\$0	Autism Speaks
<a href="#">Dissemination of Early Life Exposure Assessment Tool (ELEAT)</a>	Schmidt, Rebecca	University of California, Davis	\$0	Autism Speaks

### **3.S.C**

Initiate efforts to expand existing large case-control and other studies to enhance capabilities for targeted gene – environment research by 2011. *IACC Recommended Budget: \$27,800,000 over 5 years.*

**2013 Projects: 6**  
**2013 Funding: \$4,680,036**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">Perinatal exposure to airborne pollutants and associations with autism phenotype</a>	Volk, Heather	University of Southern California	\$149,737	Autism Speaks

<a href="#">Air pollution, MET genotype and ASD risk: GxE Interaction in the EMA Study</a>	Croen, Lisa	Kaiser Permanente	\$150,000	Autism Speaks
<a href="#">Prenatal and neonatal biologic markers for autism</a>	Croen, Lisa	Kaiser Foundation Research Institute	\$725,197	National Institutes of Health
<a href="#">Autism risk, prenatal environmental exposures, and pathophysiologic markers</a>	Hertz-Picciotto, Irva	University of California, Davis	\$1,759,913	National Institutes of Health
<a href="#">The CHARGE study: childhood autism risks from genetics and the environment</a>	Hertz-Picciotto, Irva	University of California, Davis	\$1,151,250	National Institutes of Health
<a href="#">The role of germline mutation and parental age in autism spectrum disorders</a>	Sebat, Jonathan	University of California, San Diego	\$743,939	National Institutes of Health

### **3.S.D**

Enhance existing case-control studies to enroll racially and ethnically diverse populations affected by ASD by 2011. *IACC Recommended Budget: \$3,300,000 over 5 years.*

**2013 Projects: 2**

**2013 Funding: \$3,168,451**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">ACE Network: Autism Genetics, Phase II: Increasing representation of human diversity</a>	Geschwind, Daniel	University of California, Los Angeles	\$162,535	National Institutes of Health
<a href="#">ACE Network: Autism Genetics, Phase II: Increasing representation of human diversity</a>	Geschwind, Daniel	University of California, Los Angeles	\$3,005,916	National Institutes of Health

### **3.S.E**

Support at least two studies to determine if there are subpopulations that are more susceptible to environmental exposures (e.g., immune challenges related to infections, vaccinations, or underlying autoimmune problems) by 2012. *IACC Recommended Budget: \$8,000,000 over 2 years.*

**2013 Projects: 7**

**2013 Funding: \$282,300**

Project Title	Principal Investigator	Institution	Funding	Funder
---------------	------------------------	-------------	---------	--------

<a href="#">Research project about a potential infectious origin of autism</a>	Montagnier, Luc	Institut de Recherche Luc Montagnier	\$0	Autism Research Institute
<a href="#">To Study Maternal Anti-GAD Antibodies in Autism</a>	Russo, A.J.	Hartwick College	\$5,260	Autism Research Institute
<a href="#">Prevalence and patterns of medical co-morbidity and healthcare use before ASD diagnoses in children</a>	Croen, Lisa	Kaiser Foundation Research Institute	\$149,999	Autism Speaks
Novel Proteomics Approach to Oxidative Posttranslational Modifications Underlying Anxiety and Autism Spectrum Disorders	Lipton, Stuart	Sanford Burnham Medical Research Center	\$0	Brain & Behavior Research Foundation
<a href="#">PROTEOMIC MAPPING OF THE IMMUNE RESPONSE TO GLUTEN IN CHILDREN WITH AUTISM</a>	Alaedini, Armin	Columbia University New York Morningside	\$67,041	Department of Defense
<a href="#">Maternal autoreactivity and autoimmune disease in autism</a>	Diamond, Betty	The Feinstein Institute for Medical Research	\$0	Simons Foundation
<a href="#">Environmental exposure unveils mitochondrial dysfunction in autism</a>	Giulivi, Cecilia	University of California, Davis	\$60,000	Simons Foundation

### **3.S.F**

Initiate studies on at least 10 environmental factors identified in the recommendations from the 2007 IOM report "Autism and the Environment: Challenges and Opportunities for Research" as potential causes of ASD by 2012. *IACC Recommended Budget: \$56,000,000 over 2 years (revised in 2010).*

**2013 Projects: 1**  
**2013 Funding: \$0**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">UC Davis Center for Children's Environmental Health (CCEH) Bridge</a>	Pessah, Isaac	University of California, Davis	\$0	Autism Speaks

### **3.S.G**

Convene a workshop that explores the usefulness of bioinformatics approaches to identify environmental risk factors for ASD by 2011. *IACC Recommended Budget: \$35,000 over 1 year.*  
**(This objective was completed in 2011.)**

### **3.S.H**

Support at least three studies of special populations or use existing databases to inform our understanding of environmental risk factors for ASD in pregnancy and the early postnatal period by 2012. Such studies could include:

- Comparisons of populations differing in geography, gender, ethnic background, exposure history (e.g., prematurity, maternal infection, nutritional deficiencies, toxins), and migration patterns; and
- Comparisons of phenotype (e.g., cytokine profiles), in children with and without a history of autistic regression, adverse events following immunization (such as fever and seizures), and mitochondrial impairment. These studies may also include comparisons of phenotype between children with regressive ASD and their siblings.

Emphasis on environmental factors that influence prenatal and early postnatal development is particularly of high priority. Epidemiological studies should pay special attention to include racially and ethnically diverse populations. *IACC Recommended Budget: \$12,000,000 over 5 years.*

**2013 Projects: 12**

**2013 Funding: \$5,137,711**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
<a href="#">Very early behavioral indicators of ASD risk among NICU infants: A prospective study</a>	Gardner, Judith	Institute for Basic Research in Developmental Disabilities	\$149,986	Autism Speaks
<a href="#">Early life environmental exposures and autism in an existing Swedish birth cohort</a>	Lee, Brian	Drexel University	\$0	Autism Speaks
<a href="#">Investigation of Transgenerational Neurodevelopmental Impacts of Gestational Pharmaceuticals</a>	Mortensen, Erik	Institute of Preventive Medicine at Frederiksberg Hospital	\$100,000	Autism Speaks
<a href="#">Prenatal Androgen in Meconium and Early Autism Spectrum Disorder Related Neurodevelopmental Outcomes</a>	Park, Bo	Drexel University	\$29,423	Autism Speaks
<a href="#">Parental Exposures to Occupational Asthmagens and Risk of Autism Spectrum Disorders</a>	Singer, Alison	Johns Hopkins University	\$29,500	Autism Speaks

<a href="#">Gestational exposure questionnaire validation and feasibility study</a>	Walker, Cheryl	University of California, Davis	\$20,262	Autism Speaks
<a href="#">Risk factors, comorbid conditions, and epidemiology of autism in children</a>	Nylund, Cade	Henry M. Jackson Foundation	\$0	Department of Defense
<a href="#">Neonatal biomarkers in extremely preterm babies predict childhood brain disorders</a>	Kuban, Karl	Boston Medical Center	\$3,655,744	National Institutes of Health
<a href="#">In utero antidepressant exposures and risk for autism</a>	Perlis, Roy	Massachusetts General Hospital	\$343,560	National Institutes of Health
<a href="#">Epidemiological research on autism in Jamaica - Phase II</a>	Rahbar, Mohammad	University of Texas Health Science Center at Houston	\$607,366	National Institutes of Health
<a href="#">Gestational metabolic conditions and autism</a>	Walker, Cheryl	University of California, Davis	\$77,000	National Institutes of Health
<a href="#">Prenatal folic acid and risk for autism spectrum disorders</a>	Cubells, Joseph	Emory University School of Medicine	\$124,870	Simons Foundation

### **3.S.I**

Support at least two studies that examine potential differences in the microbiome of individuals with ASD versus comparison groups by 2012.  
*IACC Recommended Budget: \$1,000,000 over 2 years.*

**2013 Projects: 8**

**2013 Funding: \$960,391**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
Modeling Gut Microbial Ecology and Metabolism in Autism Using an Innovative Ex Vivo Approach	Allen-Vercoe, Emma	University of Guelph	\$22,441	Autism Research Institute
<a href="#">Regressive autism as an infectious disease: Role of the home as an environmental factor</a>	Finegold, Sydney	VA Medical Center, Los Angeles	\$0	Autism Research Institute
<a href="#">Elevated urinary P-cresol in small autistic children: Origin and consequences</a>	Persico, Antonio	Universita Campus Bio-Medico di Roma	\$0	Autism Research Institute
Role of Intestinal Microbiome in Children with Autism	Winter, Harland and Kushak, R.	Massachusetts General Hospital	\$29,000	Autism Research Institute
<a href="#">Defining the underlying biology of gastrointestinal dysfunction in autism</a>	Ashwood, Paul	University of California, Davis	\$0	Autism Speaks

<a href="#">Modeling gut microbial ecology and metabolism in autism using an innovative ex vivo approach</a>	Allen-Vercoe, Emma	University of Guelph	\$0	Department of Defense
<a href="#">Investigating the gut microbiome for novel therapies and diagnostics for autism</a>	Patterson, Paul	California Institute of Technology	\$558,136	National Institutes of Health
<a href="#">Autism, GI symptoms and the enteric microbiota</a>	Li, Ellen	The Research Foundation of the State University of New York at Stony Brook	\$350,814	Simons Foundation

### **3.S.J**

Support at least three studies that focus on the role of epigenetics in the etiology of ASD, including studies that include assays to measure DNA methylations and histone modifications and those exploring how exposures may act on maternal or paternal genomes via epigenetic mechanisms to alter gene expression, by 2012. *IACC Recommended Budget: \$20,000,000 over 5 years.*

**2013 Projects: 19**

**2013 Funding: \$4,972,257**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
<a href="#">Genome-wide examination of DNA methylation in autism</a>	Fallin, Dani	Johns Hopkins University	\$149,999	Autism Speaks
<a href="#">5-Hydroxymethylcytosine-mediated epigenetic regulation in autism spectrum disorders</a>	Jin, Peng	Emory University	\$60,000	Autism Speaks
Paternal age and epigenetic mechanisms in psychiatric disease	Milekic, Maria H.	Research Foundation for Mental Hygiene, Inc/NYSPI	\$15,000	Brain & Behavior Research Foundation
Evaluating the Functional Impact of Epigenetic Control Related Genes Mutated in both Schizophrenia and Autism	Xu, Bin	Columbia University	\$0	Brain & Behavior Research Foundation
<a href="#">Human neurobehavioral phenotypes associates with the extended PWS/AS domain</a>	Beaudet, Arthur	Baylor College of Medicine	\$587,398	National Institutes of Health
<a href="#">In vivo function of neuronal activity-induced MeCP2 phosphorylation</a>	Chang, Qiang	University of Wisconsin - Madison	\$277,792	National Institutes of Health
<a href="#">Cell specific genomic imprinting during cortical development and in mouse models</a>	Dulac, Catherine	Harvard University	\$308,216	National Institutes of Health

<a href="#">Environment, the perinatal epigenome, and risk for autism and related disorders</a>	Fallin, Margaret	Johns Hopkins University	\$1,400,550	National Institutes of Health
<a href="#">Epigenetic and transcriptional dysregulation in autism spectrum disorder</a>	Geschwind, Daniel	University of California, Los Angeles	\$748,775	National Institutes of Health
<a href="#">Mechanisms of valproic acid-induced neurodevelopmental and behavioral defects</a>	Krueger, Bruce	University of Maryland, Baltimore	\$302,269	National Institutes of Health
<a href="#">Project 2: Perinatal epigenetic signature of environmental exposure</a>	Lasalle, Janine	University of California, Davis	\$105,416	National Institutes of Health
<a href="#">Methylomic and genomic impacts of organic pollutants in Dup15q syndrome</a>	LaSalle, Janine	University of California, Davis	\$338,560	National Institutes of Health
<a href="#">Exploring interactions between folate and environmental risk factors for autism</a>	Schmidt, Rebecca	University of California, Davis	\$153,615	National Institutes of Health
<a href="#">Genome-wide analyses of DNA methylation in autism</a>	Chess, Andrew	Mount Sinai School of Medicine	\$0	Simons Foundation
<a href="#">Conservation of imprinting for autism-linked genes in the brain</a>	Gregg, Christopher	University of Utah	\$60,000	Simons Foundation
<a href="#">5-hydroxymethylcytosine-mediated epigenetic regulation in autism</a>	Jin, Peng	Emory University	\$200,000	Simons Foundation
<a href="#">Regulation of gene expression through complex containing AUTS2</a>	Reinberg, Danny	New York University School of Medicine	\$100,854	Simons Foundation
<a href="#">Mutations in heterochromatin-related genes in autism</a>	Shifman, Sagiv	Hebrew University of Jerusalem	\$0	Simons Foundation
<a href="#">Epigenetic DNA modifications in autistic spectrum disorders</a>	Song, Hongjun	Johns Hopkins University School of Medicine	\$163,813	Simons Foundation

### **3.S.K**

Support two studies and a workshop that facilitate the development of vertebrate and invertebrate model systems for the exploration of environmental risks and their interaction with gender and genetic susceptibilities for ASD by 2012. *IACC Recommended Budget: \$1,535,000 over 3 years.*

**2013 Projects: 3**  
**2013 Funding: \$0**



Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">The role of serotonin in social bonding in animal models</a>	Simon, Rebecca	University of California, Davis	\$0	Autism Science Foundation
Cellular and Synaptic Dissection of the Neuronal Circuits of Social and Autistic Behavior	Peca, Joao	University of Coimbra	\$0	Brain & Behavior Research Foundation
<a href="#">Genetic and environmental interactions leading to autism-like symptoms</a>	Pfaff, Donald	The Rockefeller University	\$0	Simons Foundation

### **3.L.A**

Conduct a multi-site study of the subsequent pregnancies of 1,000 women with a child with ASD to assess the impact of environmental factors in a period most relevant to the progression of ASD by 2014. *IACC Recommended Budget: \$11,100,000 over 5 years.*

**2013 Projects: 2**

**2013 Funding: \$411,571**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">Evaluating epidemiological and biostatistical challenges in the EARLI investigation</a>	Heavner, Karyn	Drexel University	\$0	Autism Science Foundation
<a href="#">Early autism risk longitudinal investigation (EARLI) network</a>	Newschaffer, Craig J	Drexel University	\$411,571	National Institutes of Health

### **3.L.B**

Identify genetic risk factors in at least 50% of people with ASD by 2014. *IACC Recommended Budget: \$33,900,000 over 6 years.*

**2013 Projects: 51**

**2013 Funding: \$12,260,187**

Project Title	Principal Investigator	Institution	Funding	Funder
<a href="#">Molecular Characterization of Autism Gene CHD8 in Shaping the Brain Epigenome</a>	Badeaux, Aimee	Boston Children's Hospital	\$35,000	Autism Science Foundation

<a href="#">Examining the Y-chromosome in autism spectrum disorder</a>	Scherer, Stephen	The Hospital for Sick Children	\$0	Autism Speaks
<a href="#">Autism Genome Project (AGP): Genome sequencing and analysis supplement</a>	Scherer, Stephen	The Hospital for Sick Children	\$0	Autism Speaks
<a href="#">Autism Genome Project (AGP)</a>	Staff Member	Autism Speaks (AS)	\$0	Autism Speaks
<a href="#">Identifying genetic variants on the Y chromosome of males with autism</a>	Yuen, Ryan	The Hospital for Sick Children	\$53,430	Autism Speaks
Sequence-based discovery of genes with pleiotropic effects across diagnostic boundaries and throughout the lifespan	Talkowski, Michael E.	Massachusetts General Hospital and Harvard University	\$29,995	Brain & Behavior Research Foundation
Dissecting expression regulation of an autism GWAS hit	Weiss, Lauren A.	University of California, San Francisco	\$15,000	Brain & Behavior Research Foundation
<a href="#">Genetic epidemiology of complex traits</a>	Bailey-Wilson, Joan	National Institutes of Health	\$589,154	National Institutes of Health
<a href="#">Next generation gene discovery in familial autism</a>	Brkanac, Zoran	University of Washington	\$644,126	National Institutes of Health
<a href="#">1/3-Sequencing autism spectrum disorder extended pedigrees</a>	Coon, Hilary	University of Utah	\$286,240	National Institutes of Health
<a href="#">Novel statistical methods for DNA sequencing data, and applications to autism</a>	Ionita, Iuliana	Columbia University	\$314,312	National Institutes of Health
<a href="#">Hypocholesterolemic autism spectrum disorder</a>	Porter, Forbes	National Institutes of Health	\$45,647	National Institutes of Health
<a href="#">3/3-Sequencing autism spectrum disorder extended pedigrees</a>	Schellenberg, Gerard	University of Pennsylvania	\$153,600	National Institutes of Health
<a href="#">Investigation of DUF1220 domains in human brain function and disease</a>	Sikela, James	University of Colorado Denver	\$361,544	National Institutes of Health
<a href="#">Complex genetic architecture of chromosomal aberrations in autism</a>	Talkowski, Michael	Massachusetts General Hospital	\$92,917	National Institutes of Health
<a href="#">Autism genetics: Homozygosity mapping and functional validation</a>	Walsh, Christopher	Boston Children's Hospital	\$150,000	National Institutes of Health
<a href="#">2/3-Sequencing autism spectrum disorder extended pedigrees</a>	Wijsman, Ellen	University of Washington	\$222,480	National Institutes of Health

<a href="#">Developing new statistical methods to detect variants involved in complex disease</a>	Yao, Yin	National Institutes of Health	\$434,485	National Institutes of Health
<a href="#">Integrative genetic analysis of autism brain tissue</a>	Arking, Dan	Johns Hopkins University School of Medicine	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Bernier, Raphael	University of Washington	\$24,484	Simons Foundation
<a href="#">Genomic profiling of autism families using whole-genome sequencing</a>	Bourgeron, Thomas	Institut Pasteur	\$174,960	Simons Foundation
<a href="#">Sequencing Female-enriched Multiplex Autism Families (FEMFs)</a>	Chakravarti, Aravinda	Johns Hopkins University School of Medicine	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Cook, Edwin	University of Illinois at Chicago	\$23,645	Simons Foundation
<a href="#">Genome-wide analysis of cis-regulatory elements in autism</a>	Corbo, Joseph	Washington University in St. Louis	\$62,500	Simons Foundation
<a href="#">Genomic hotspots of autism</a>	Eichler, Evan	University of Washington	\$0	Simons Foundation
<a href="#">Whole exome sequencing of Simons Simplex Collection quads</a>	Eichler, Evan	University of Washington	\$1,495,957	Simons Foundation
<a href="#">Genetic basis of phenotypic variability in 16p11.2 deletion or duplication</a>	Eichler, Evan	University of Washington	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Elsabbagh ,Mayada	McGill University Health Centre- Montreal Children's Hospital	\$21,268	Simons Foundation
<a href="#">A genome-wide search for autism genes in the SSC UCLA</a>	Geschwind, Daniel	University of California, Los Angeles	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Geschwind, Daniel	University of California, Los Angeles	\$30,000	Simons Foundation
<a href="#">Whole-exome sequencing to identify causative genes for autism</a>	Gleeson, Joseph	Rockefeller University	\$175,000	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Kochel, Robin	Baylor College of Medicine	\$26,824	Simons Foundation
<a href="#">A genome-wide search for autism genes in the SSC Emory</a>	Lese Martin, Christa	Emory University	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Lord, Catherine	Weill Cornell Medical College	\$20,991	Simons Foundation

<a href="#">Simons Simplex Collection support grant</a>	Miles, Judith	University of Missouri	\$30,000	Simons Foundation
<a href="#">Illumina, Inc.</a>	No PI listed	Illumina, Inc.	\$556,250	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Pelphrey, Kevin	Yale University	\$25,704	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Peterson, Bradley	Columbia University	\$21,675	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Saulnier, Celine	Emory University	\$30,000	Simons Foundation
<a href="#">Mutations in noncoding DNA and the missing heritability of autism</a>	Sebat, Jonathan	University of California, San Diego	\$124,987	Simons Foundation
<a href="#">Whole exome sequencing of Simons Simplex Collection quads</a>	State, Matthew	Yale University	\$536,779	Simons Foundation
<a href="#">A genome-wide search for autism genes in the SSC Vanderbilt</a>	Sutcliffe, James	Vanderbilt University Medical Center	\$0	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Sutcliffe, James	Vanderbilt University Medical Center	\$25,735	Simons Foundation
<a href="#">Cryptic chromosomal aberrations contributing to autism</a>	Talkowski, Michael	Massachusetts General Hospital	\$135,649	Simons Foundation
<a href="#">Identification of functional networks perturbed in autism</a>	Vitkup, Dennis	Columbia University	\$60,000	Simons Foundation
<a href="#">Mitochondria and the etiology of autism</a>	Wallace, Douglas	The Children's Hospital of Philadelphia	\$350,000	Simons Foundation
<a href="#">Finding recessive genes for autism spectrum disorders</a>	Walsh, Christopher	Boston Children's Hospital	\$175,000	Simons Foundation
<a href="#">Simons Simplex Collection support grant</a>	Walsh, Christopher	Boston Children's Hospital	\$23,171	Simons Foundation
<a href="#">Genetic basis of autism</a>	Wigler, Michael	Cold Spring Harbor Laboratory	\$4,000,571	Simons Foundation
<a href="#">Autism Genome Project Consortium data reanalysis using computational biostatistics</a>	Wittkowski, Knut	The Rockefeller University	\$0	Simons Foundation
<a href="#">Genomic influences on development and outcomes in infants at risk for autism</a>	Zwaigenbaum, Lonnie	University of Alberta	\$681,108	Simons Foundation

### **3.L.C**

Determine the effect of at least five environmental factors on the risk for subtypes of ASD in the pre- and early postnatal period of development by 2015. *IACC Recommended Budget: \$25,100,000 over 7 years.*

**2013 Projects: 4**

**2013 Funding: \$490,000**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
<a href="#">Prenatal PBDE exposure and ASD-related developmental outcomes in the EARLI cohort</a>	Newschaffer, Craig	Drexel University	\$150,000	Autism Speaks
<a href="#">Prenatal antidepressants and autism spectrum disorder</a>	Vorhees, Charles	Cincinnati Children's Hospital Medical Center	\$0	Department of Defense
<a href="#">PLACENTAL IDENTIFICATION AND IMMUNE QUANTIFICATION OF ACUTE AND/OR CHRONIC INFLAMMATION IN CHILDREN DIAGNOSED WITH PLACENTAL AUTISM IN UNIVERSITY AND COMMUNITY HOSPITALS</a>	Salafia, Carolyn	Institute for Basic Research in Developmental Disabilities	\$148,000	Department of Defense
<a href="#">Assisted reproductive technologies and increased autism risk</a>	Bearman, Peter	Columbia University	\$192,000	National Institutes of Health

### **3.L.D**

Support ancillary studies within one or more large-scale, population-based surveillance and epidemiological studies, including U.S. populations, to collect data on environmental factors during preconception, and during prenatal and early postnatal development, as well as genetic data, that could be pooled (as needed), to analyze targets for potential gene/environment interactions by 2015. *IACC Recommended Budget: \$44,400,000 over 5 years.*

**2013 Projects: 15**

**2013 Funding: \$17,799,693**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
<a href="#">Community-based study of autism spectrum disorders among 7-9 y old children in rural Bangladesh</a>	Christian, Parul	Johns Hopkins University	\$0	Autism Speaks

<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - California</a>	Croen, Lisa	Kaiser Foundation Research Institute	\$1,050,000	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - North Carolina</a>	Daniels, Julie	University of North Carolina at Chapel Hill	\$1,050,000	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - Maryland</a>	Fallin, Margaret Danielle	Johns Hopkins University	\$1,000,000	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - Pennsylvania</a>	Pinto-Martin, Jennifer	University of Pennsylvania/Children's Hospital of Philadelphia	\$1,050,000	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - Data Coordinating Center</a>	Reed, Phillip	Michigan State University	\$868,500	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - Colorado</a>	Robinson, Cordella	Colorado Department of Health and Environment	\$1,050,000	Centers for Disease Control and Prevention
<a href="#">Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) - Georgia</a>	Schendel, Diana; Schieve, Laura; Wiggins, Lisa	Centers for Disease Control and Prevention (CDC)	\$985,604	Centers for Disease Control and Prevention
<a href="#">The UC Davis Center for Children's Environmental Health and Disease Prevention</a>	VanDeWater, Judy	University of California - Davis	\$1,660,178	Environmental Protection Agency
<a href="#">Population-based autism genetics &amp; environment study</a>	Buxbaum, Joseph	Mount Sinai School of Medicine	\$600,532	National Institutes of Health
<a href="#">Project 1: Epidemiology and the environment in autism (Hertz-Picciotto)</a>	Hertz-Picciotto, Irva	University of California, Davis	\$158,613	National Institutes of Health
<a href="#">The roles of environmental risks and GEX in increasing ASD prevalence</a>	Kim, Young Shin	Yale University	\$532,325	National Institutes of Health
<a href="#">Gene-environment interactions in an autism birth cohort</a>	Lipkin, W. Ian	Columbia University	\$6,537,537	National Institutes of Health
<a href="#">Parental age and schizophrenia susceptibility</a>	Ophoff, Roel	University of California, Los Angeles	\$308,000	National Institutes of Health

<a href="#">ACE Network: Multigenerational Familial and Environmental Risk for Autism (MINERvA) Network</a>	Reichenberg, Abraham	Mount Sinai School of Medicine	\$948,404	National Institutes of Health
---	----------------------	--------------------------------	-----------	-------------------------------

### **3.Other**

Not specific to Question 3 objectives

**2013 Projects: 4**

**2013 Funding: \$537,826**

<b>Project Title</b>	<b>Principal Investigator</b>	<b>Institution</b>	<b>Funding</b>	<b>Funder</b>
<a href="#">Improving Environmental Risk Communication in Autism Spectrum Disorders</a>	Yudell, Michael	Drexel University	\$0	Autism Speaks
<a href="#">Non-coding RNAs in autism</a>	Campbell, Daniel	University of Southern California	\$246,000	National Institutes of Health
<a href="#">FOXP2-regulated signaling pathways critical for higher cognitive functions</a>	Konopka, Genevieve	University of Texas Southwestern Medical Center	\$291,826	National Institutes of Health
<a href="#">A history of behavioral genetics</a>	Schaffner, Kenneth	University of Pittsburgh	\$0	National Science Foundation