

2011 Portfolio Analysis Projects

Please note that data are not yet final; additional projects may be added.

Table of Contents

Question	Page Number
Question 1: When should I be concerned?	2
Question 2: How can I understand what is happening?	
Question 3: What caused this to happen and can it be prevented?	
Question 4: Which treatments and interventions will help?	
Question 5: Where can I turn for services?	
Question 6: What does the future hold, particularly for adults?	
Question 7: What other infrastructure and surveillance needs must be met?	

QUESTION 1: WHEN SHOULD I BE CONCERNED?

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1.S.A

Develop, with existing tools, at least one efficient diagnostic instrument (i.e., briefer, less time intensive) that is valid in diverse populations for use in large-scale studies by 2011. *IACC Recommended Budget: \$5,300,000 over 2 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
Biomarkers and diagnostics for ASD	Bahn, Sabine	Institute of Biotechnology	\$149,600	Autism Speaks
Quantitative analysis of craniofacial dysmorphology in autism	Deutsch, Curtis	University of Massachusetts Medical School	\$137,861	Simons Foundation
Early detection of pervasive developmental disorders	Fein, Deborah	University of Connecticut	\$1,025,577	National Institutes of Health
Improving accuracy and accessibility of early autism screening	Howard, Barbara	Total Child Health, Inc.	\$518,904	National Institutes of Health
Assessing the accuracy of rapid phenotyping of nonverbal autistic children	Law, Paul	Kennedy Krieger Institute	\$ 124998	Autism Speaks
Autism dysmorphology measure validity study	Miles, Judith	University of Missouri	\$195,570	Simons Foundation
Validation of a screening questionnaire for ASD in older children	Smith, Christopher	Southwestern Autism Research & Resource Center (SARRC)	\$0	Southwest Autism Research & Resource Center
Multimedia tool for psychology graduate student ASD assessment training	Strickland, Dorothy	Virtual Reality Aids, Inc.	\$449,703	National Institutes of Health

1.S.B

Validate and improve the sensitivity and specificity of new or existing screening and diagnostic tools, including comparative studies of general developmental screening versus autism-specific screening tools, in both high-risk and population-based samples, including those from resource-poor international settings and those that are diverse in terms of age, socio-economic status, race, ethnicity, gender, characteristics of ASD, and general level of functioning by 2012. *IACC Recommended Budget: \$5,400,000 over 3 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
Attention to social and nonsocial events in children with autism	Bahrick, Lorraine	Florida International University	\$0	Autism Speaks
Leadership Education in Neurodevelopmental Disabilities	Biasini, Fred	University of Alabama at Birmingham	\$2,500	Health Resources and Services Administration
University of Georgia &#8211; Carolina Autism Resource and Evaluation Center (UGA-CARES): A collaborative autism screening project utilizing web-based technology	Campbell, Jonathan	University of Georgia	\$0	Organization for Autism Research
Validation of a Korean version of the QABF with children with ASD	Dixon, Dennis	Center for Autism and Related Disorders (CARD)	\$10,320	Center for Autism and Related Disorders
Computer Assisted Autism Care (CAAC)	Downs, Stephen	Indiana University - Purdue University at Indianapolis	\$491,768	Agency for Healthcare Research and Quality
Cultural equivalence of autism assessment for Latino children	Magana, Sandra	University of Wisconsin - Madison	\$74,250	National Institutes of Health
Baby Siblings Research Consortium	Staff Member	Autism Speaks (AS)	\$45,000	Autism Speaks
Novel methods for testing language comprehension in children with ASD	Tager-Flusberg, Helen	Boston University	\$127,500	Autism Speaks

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Sensory based CNS diagnostics for the clinic	Tommerdahl, Mark	University of North Carolina at Chapel Hill	\$218,946	National Institutes of Health
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1.S.C

Conduct at least three studies to identify reasons for the health disparities in accessing early screening and diagnosis services, including identification of barriers to implementation of and access to screening, diagnosis, referral, and early intervention services among diverse populations, as defined by socioeconomic status, race, ethnicity, and gender of the child, by 2012. *IACC Recommended Budget: \$2,000,000 over 2 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
Dissemination of multi-stage screening to underserved culturally-diverse families	Martinez-Pedraza, Frances	University of Massachusetts Boston	\$28,000	Autism Speaks

1.S.E

Conduct at least one study to determine the positive predictive value and clinical utility (e.g., prediction of co-occurring conditions, family planning) of chromosomal microarray genetic testing for detecting genetic diagnoses for ASD in a clinical setting by 2012. *IACC Recommended Budget: \$9,600,000 over 5 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
Gene dosage imbalance in neurodevelopmental disorders	Ledbetter, David	Emory University	\$690,019	National Institutes of Health

1.L.A

Identify behavioral and biological markers that separately, or in combination, accurately identify, before age 2, one or more subtypes of children at risk for developing ASD, and evaluate whether these risk markers or profiles can improve early identification through heightened developmental monitoring and screening by 2014. *IACC Recommended Budget: \$33,300,000 over 5 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
Biomarkers for autism and for gastrointestinal and sleep problems in autism	Anderson, George	Yale University	\$0	Department of Defense-Army
Visual attention and fine motor coordination in infants at risk for autism	Bhat, Anjana	University of Connecticut	\$73,315	National Institutes of Health
Early social and emotional development in toddlers at genetic risk for autism	Campbell, Susan	University of Pittsburgh	\$369,348	National Institutes of Health
ACE Center: Gaze perception abnormalities in infants with ASD	Chawarska, Katarzyna	Yale University	\$293,130	National Institutes of Health
Developmental characteristics of MRI diffusion tensor pathway changes in autism	Conturo, Thomas	Washington University	\$188,027	National Institutes of Health
ACE Center: MRI studies of early brain development in autism	Courchesne, Eric	University of California, San Diego	\$349,341	National Institutes of Health
Development of neural pathways in infants at risk for autism spectrum disorders	Dobkins, Karen	University of California, San Diego	\$312,028	National Institutes of Health
Are autism spectrum disorders associated with leaky-gut at an early critical period in development?	Dobkins, Karen	University of California, San Diego	\$302,820	National Institutes of Health

The emergence of emotion regulation in children at-risk for autism spectrum disorder	Ekas, Naomi	University of Miami	\$8,719	National Institutes of Health
Serum antibody biomarkers for ASD	German, Dwight	University of Texas Southwestern Medical Center	\$570,780	Department of Defense-Army
Misregulation of BDNF in autism spectrum disorders	Hempstead, Barbara	Weill Cornell Medical College	\$75,000	Simons Foundation
Early identification of autism: A prospective study	Iverson, Jana	University of Pittsburgh	\$481,734	National Institutes of Health
Sensor-based technology in the study of motor skills in infants at risk for ASD	Iverson, Jana	University of Pittsburgh	\$242,606	National Institutes of Health
Identification of lipid biomarkers for autism	Kang, Jing	Massachusetts General Hospital	\$0	Department of Defense-Army
Physical and clinical infrastructure for research on infants-at-risk for autism at Yale	Klin, Ami	Emory University	\$0	Simons Foundation
The ontogeny of social visual engagement in infants at risk for autism	Klin, Ami	Emory University	\$ 479,226	National Institutes of Health
Brain-behavior growth charts of altered social engagement in ASD infants	Klin, Ami	Yale University	\$208,333	Simons Foundation
Growth charts of altered social engagement in infants with autism	Klin, Ami	Emory University	\$0	Simons Foundation
ACE Center: Assessment Core	Klin, Ami	Yale University	\$541,624	National Institutes of Health
ACE Center: Linguistic and social responses to speech in infants at risk for autism	Kuhl, Patricia	University of Washington	\$301,655	National Institutes of Health

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RNA expression studies in autism spectrum disorders	Kunkel, Louis	Children's Hospital Boston	\$500,000	Simons Foundation
Signatures of gene expression in autism spectrum disorders	Kunkel, Louis	Children's Hospital Boston	\$0	Simons Foundation
Epigenetic biomarkers of autism in human placenta	LaSalle, Janine	University of California, Davis	\$576,142	Department of Defense-Army
Electrophysiological, metabolic and behavioral markers of infants at risk	Nelson, Charles	Children's Hospital Boston	\$395,734	Simons Foundation
Infants at risk of autism: A longitudinal study	Ozonoff, Sally	University of California, Davis	\$582,633	National Institutes of Health
Temporal coordination of social communicative behaviors in infant siblings of children with autism	Parlade, Meaghan	University of Pittsburgh	\$0	Autism Speaks
Physical and clinical infrastructure for research on infants-at-risk for autism at Yale	Pelphrey, Kevin	Yale University	\$219,581	Simons Foundation
Studying the biology and behavior of autism at 1-year: The Well-Baby Check-Up approach	Pierce, Karen	University of California, San Diego	\$272,245	National Institutes of Health
ACE Center: Clinical Phenotype: Recruitment and Assessment Core	Pierce, Karen	University of California, San Diego	\$310,430	National Institutes of Health
ACE Network: A longitudinal MRI study of infants at risk for autism	Piven, Joseph	University of North Carolina at Chapel Hill	\$3,246,479	National Institutes of Health
Supplement to NIH ACE Network grant: "A longitudinal MRI study of infants at risk for autism"	Piven, Joseph	University of North Carolina at Chapel Hill	\$180,000	Simons Foundation

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Placental vascular tree as biomarker of autism/ASD risk	Salafia, Carolyn	Research Foundation for Mental Hygiene, Inc.	\$0.00	Department of Defense-Army
ACE Center: Integrated Biostatistical and Bioinformatic Analysis Core (IBBAC)	Schork, Nicholas	University of California, San Diego	\$205,018	National Institutes of Health
Neurophysiological investigation of language acquisition in infants at risk for ASD	Seery, Anne	Boston University	\$28,000.00	Autism Speaks
Family/Genetic study of autism	Smith, Christopher	Southwestern Autism Research & Resource Center (SARRC)	\$50,000	Southwest Autism Research & Resource Center
Neurobehavioral research on infants at risk for SLI and autism	Tager-Flusberg, Helen	Boston University Medical Campus	\$671,693	National Institutes of Health
Neurobehavioral research on infants at risk for SLI and autism (supplement)	Tager-Flusberg, Helen	Boston University Medical Campus	\$345,307	National Institutes of Health
Predicting autism through behavioral and biomarkers of attention in infants	Tonnsen, Bridgette	University of South Carolina	\$35,518	National Institutes of Health
Dynamics of cortical interactions in autism spectrum disorders	Victor, Jonathan	Cornell University	\$60,000	Simmons Foundation
Multiplexed suspension arrays to investigate newborn and childhood blood samples for potential immune biomarkers of autism	Vogt, Robert	Centers for Disease Control and Prevention (CDC)	\$0	Department of Defense
Using near-infrared spectroscopy to measure the neural correlates of social and emotional	Wagner, Jennifer	Harvard University	\$15,000	Brain & Behavior Research Foundation

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development in infants at risk for autism spectrum disorder				
Abnormal vestibulo-ocular reflexes in autism: A potential endophenotype	White, Keith	University of Florida	\$0	Department of Defense
Identifying gastrointestinal (GI) conditions in children with autism spectrum disorders (ASD)	Winter, Harland	Harvard Medical School	\$0	Autism Speaks

1.L.B

Develop at least five measures of behavioral and/or biological heterogeneity in children or adults with ASD, beyond variation in intellectual disability, that clearly relate to etiology and risk, treatment response, and/or outcome by 2015. *IACC Recommended Budget: \$71,100,000 over 5 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
A prospective multi-system evaluation of infants at risk for autism	Bauman, Margaret	Massachusetts General Hospital	\$0	Department of Defense-Army
Restricted repetitive behavior in autism	Bodfish, James	University of North Carolina at Chapel Hill	\$377,158	National Institutes of Health
Imitation in autism	Bolton, Patrick	King's College London	\$0	Autism Speaks
Neural mechanisms underlying obsessive compulsiveness in ASD	Carrasco, Melisa	University of Michigan	\$31,987	National Institutes of Health
Development of face processing in infants with autism spectrum disorders	Chawarska, Katarzyna	Yale University	\$409,613	National Institutes of Health

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ACE Center: Early detection and intervention in infants at risk for autism	Dawson, Geraldine	University of Washington	\$614,004	National Institutes of Health
Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Dey, Anind	Carnegie Mellon University	\$16,000	National Science Foundation
Translational developmental neuroscience of autism	Di Martino, Adriana	New York University School of Medicine	\$164,718	National Institutes of Health
Extraction of functional subnetworks in autism using multimodal MRI	Duncan, James	Yale University	\$353,349	National Institutes of Health
Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Forsyth, David	University of Illinois at Urbana-Champaign	\$0	National Science Foundation
A prospective multi-system evaluation of infants at risk for autism	Herbert, Martha	Massachusetts General Hospital	\$0.00	Department of Defense-Army
Neural predictors of language acquisition after intensive behavioral intervention	Jeste, Shafali	University of California, Los Angeles	\$181,207	National Institutes of Health
Multiple social tasks and social adjustment	Kang, Sun-Mee	California State University, Northridge	\$143,550	National Institutes of Health
Autism spectrum disorder in Down syndrome: A model of repetitive and stereotypic behavior for idiopathic ASD	Kaufmann, Walter	Kennedy Krieger Institute	\$0	Autism Speaks
ACE Center: Eye-tracking studies of social engagement	Klin, Ami	Yale University	\$293,269	National Institutes of Health

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Perception of social and physical contingencies in infants with ASD	Klin, Ami	Yale University	\$319,523	National Institutes of Health
Autism: Social and communication predictors in siblings	Landa, Rebecca	Kennedy Krieger Institute	\$738,922	National Institutes of Health
Neuroimaging & symptom domains in autism	Levitt, Jennifer	University of California, Los Angeles	\$10,135	National Institutes of Health
Using a direct observation assessment battery to assess outcome of early intensive behavioral intervention for children with autism	MacDonald, Rebecca	New England Center for Children	\$10,000	Organization for Autism Research
Magnetic source imaging and sensory behavioral characterization in autism	Marco, Elysa	University of California, San Francisco	\$176,229	National Institutes of Health
Cellular structure of the amygdala in autism	Morgan, John	University of California, Davis	\$51,326	National Institutes of Health
Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Narayanan, Shrikanth	University of Southern California	\$0	National Science Foundation
Functional brain networks in autism and attention deficit hyperactivity disorder	Nigg, Joel	Oregon Health & Science University	\$149,841	Simons Foundation
Analyses of brain structure and connectivity in young children with autism	Nordahl, Christine	University of California, Davis	\$249,000	National Institutes of Health
Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Picard, Rosalind	Massachusetts Institute of Technology	\$0	National Science Foundation

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Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Rehg, James	Georgia Tech Research Corporation	\$24,000	National Science Foundation
The intersection of autism and ADHD	Reiersen, Angela	Washington University in St. Louis	\$161,293	National Institutes of Health
Electrophysiological signatures of language impairment in autism spectrum disorder	Roberts, Timothy	Children's Hospital of Philadelphia	\$344,521	National Institutes of Health
CDI-Type I: Understanding regulation of visual attention in autism through computational and robotic modeling	Scassellati, Brian	Yale University	\$0	National Science Foundation
Collaborative research: Computational behavioral science: Modeling, analysis, and visualization of social and communicative behavior	Sclaroff, Stan	Trustees of Boston University	\$0	National Science Foundation
Components of limited activity monitoring in toddlers with ASD	Shic, Frederick	Yale University	\$82,750	National Institutes of Health
ACE Center: The development of the siblings of children with autism: A longitudinal study	Sigman, Marian	University of California, Los Angeles	\$309,408	National Institutes of Health
Social-emotional development of infants at risk for autism spectrum disorders	Stone, Wendy	University of Washington	\$598,969	National Institutes of Health
Clinical and behavioral phenotyping of autism and related disorders	Swedo, Susan	National Institutes of Health	\$2,117,811	National Institutes of Health
Family studies of sensorimotor and neurocognitive heterogeneity in autism spectrum disorders (ASD)	Sweeney, John	University of Texas Southwestern Medical Center at Dallas	\$0	Department of Defense

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Electrophysiological correlates of cognitive control in autism	Takarae, Yukari	University of California, Davis	\$129,098	National Institutes of Health
A novel quantitative framework to study lack of social interactions in autism	Torres, Elizabeth	Rutgers, The State University of New Jersey - New Brunswick	\$0	National Science Foundation
HCC: Medium: Automatic detection of atypical patterns in cross-modal affect	Van Santen, Jan	Oregon Health & Science University	\$0	National Science Foundation
Identifying neurobiological markers of the broader autism phenotype	Wilson, Sarah	University of Melbourne	\$106,245	Department of Defense-Army
Social evaluation in infants and toddlers	Wynn, Karen	Yale University	\$409,613	National Institutes of Health
Predicting useful speech in children with autism	Yoder, Paul	Vanderbilt University	\$607,697	National Institutes of Health
Predicting useful speech in children with autism (supplement)	Yoder, Paul	Vanderbilt University	\$195,164	National Institutes of Health

1.L.C

Identify and develop measures to assess at least three "continuous dimensions" (e.g., social reciprocity, communication disorders, and repetitive/restrictive behaviors) of ASD symptoms and severity that can be used by practitioners and/or families to assess response to intervention for people with ASD across the lifespan by 2016. *IACC Recommended Budget: \$18,500,000 over 5 years.*

Project Title	Principal Investigator	Institution	Funding	Funder
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The development of joint attention after infancy	Adamson, Lauren	Georgia State University	\$291,832	National Institutes of Health
Development of intermodal perception of social events: Infancy to childhood	Bahrick, Lorraine	Florida International University	\$306,550	National Institutes of Health
Intersensory perception of social events: Typical and atypical development	Bahrick, Lorraine	Florida International University	\$134,355	National Institutes of Health
Innovative assessment methods for autism: A proof of principle investigation of "nonverbal" autism	Connolly, John	McMaster University	\$0	Autism Speaks
Characterizing ASD phenotypes by multimedia signal and natural language processing	Elhadad, Noemie	Columbia University	\$339,498	Simons Foundation
Receptive vocabulary knowledge in low-functioning autism as assessed by eye movements, pupillary dilation, and event-related potentials	Gordon, Barry	Johns Hopkins University	\$0	Department of Defense-Army
Developmental social neuroscience in infants at-risk for autism	McPartland, James	Yale University	\$180,092	National Institutes of Health
Neural correlates of social perception in autism	McPartland, James	Yale University	\$15,000	Brain & Behavior Research Foundation
Neural economics of biological substrates of valuation	Montague, P. Read	Baylor College of Medicine	\$379,913	National Institutes of Health
Language development and outcome in children with autism	Naigles, Letitia	University of Connecticut	\$311,574	National Institutes of Health
Language development and outcome in children with autism (supplement)	Naigles, Letitia	University of Connecticut	\$88,096	National Institutes of Health

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Sensory integration and language processing in autism	Silverman, Laura	University of Rochester	\$149,435	National Institutes of Health
Prosodic and pragmatic processes in highly verbal children with autism	Snedeker, Jesse	President & Fellows of Harvard College	\$112,500	Simons Foundation
The functions of stereotypy in children with ASD	Tarbox, Jonathan	Center for Autism and Related Disorders (CARD)	\$11,095	Center for Autism and Related Disorders
Language learning in autism	Ullman, Michael	Georgetown University	\$31,500	Simons Foundation

1. Other

Not specific to any objective

Project Title	Principal Investigator	Institution	Funding	Funder
Social-affective bases of word learning in fragile X syndrome and autism	Abbeduto, Leonard	University of Wisconsin - Madison	\$544,482	National Institutes of Health
The development of selective attention in infancy as measured by eye movements	Adler, Scott	York University	\$53,376	National Institutes of Health
Sensory experiences in children with autism	Baranek, Grace	University of North Carolina at Chapel Hill	\$492,743	National Institutes of Health
CAREER: Enabling community-scale modeling of human behavior and its application to healthcare	Choudhury, Tanzeem	Cornell University	\$0	National Science Foundation
Social and statistical mechanisms of prelinguistic vocal development	Goldstein, Michael	Cornell University	\$0	National Science Foundation

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Autism severity and muscle strength: A correlation analysis	Kern, Janet	University of Texas Southwestern Medical Center	\$4,920	Autism Research Institute
Connectivity in social brain systems in autism	McPartland, James	Yale University	\$197,366	National Institutes of Health
INT2-Large: Collaborative research: Developing social robots	Messinger, Daniel	University of Miami	\$0	National Science Foundation
INT2-Large: Collaborative research: Developing social robots	Movellan, Javier	University of California, San Diego	\$0	National Science Foundation
Test of integrated language and literacy skills validation research	Nelson, Nickola	Western Michigan University	\$494,135	Department of Education
ACE Center: Auditory mechanisms of social engagement	Paul, Rhea	Yale University	\$263,206	National Institutes of Health
Visual processing and later cognitive effects in infants with fragile X syndrome	Rivera, Susan	University of California, Davis	\$237,070	National Institutes of Health
Online communication assessment to improve outcomes for individuals with severe disabilities	Rowland, Charity	Oregon Health & Science University	\$0.00	Department of Education
Dissertation research: Translating diagnoses across cultures: Expertise, autism, and therapeutics of the self in Morocco	Sharp, Lesley	Columbia University	\$14,510	National Science Foundation
Psychometric evaluation of the QABF in children with ASD	Wilke, Arthur	Center for Autism and Related Disorders (CARD)	\$11,069	Center for Autism and Related Disorders
Atypical pupillary light reflex in individuals with autism	Yao, Gang	University of Missouri	\$0.00	Department of Defense-Army

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