

# UCSF Autism and Neurodevelopment Program Newsletter

Spring 2011

Page 1

## Greetings

Greetings from the UCSF Autism and Neurodevelopment Program (ANP). We hope you and your family are having a wonderful start to the New Year. The ANP is growing by leaps and bounds in our clinical care and research endeavors. On the clinical front, we have introduced a new visit model to allow for greater depth of evaluation, diagnostic feedback, counseling and long-term follow-up. We plan to continue expanding our multidisciplinary clinics to include genetic and neurologic care in the coming months. As always, we provide integrated psychiatric care in the form of differential diagnosis and treatment planning. For the past several months, we have been providing pharmacotherapeutic interventions for the patients we have evaluated in clinic. This is an evolution of the Autism Clinic that has already proven very useful and popular with our families.

The ANP research team now includes investigators from across the UCSF campuses and departments. We are striving to better understand the causes of autism pioneering novel approaches, from stem cell projects to genetic studies and functional neuroimaging. The JumpStart Learning to Learn program is continuing to provide outstanding parent training to empower caregivers in creating the best environment for their child. We have begun clinical medication trials (learn more in the research section below).

We will continue to seek new treatments as our team brings ideas from the laboratory to the clinic. We welcome your ideas and your ongoing support of our mission to integrate personalized care with innovative research and education for individuals and families with autism and neurodevelopmental disabilities.

Thank you for your interest and participation in our clinics and research,  
The UCSF Autism and Neurodevelopment Program

## ANP Research Findings

- Dr. Weiss and colleagues have identified an important chromosomal region (16p11.2) that can cause up to 1% of autism spectrum disorders. This exciting finding has led to a national study to better understand autism in this group. For more information see: <http://www.simonsvipconnect.org/>
- Dr. Sherr and colleagues study individuals who are missing the connection between the right and left sides of their brain; this syndrome is called **Agenesis of Corpus Callosum**. In this structural brain syndrome, up to 40% of individuals have autism traits. Cognitive testing, brain imaging, and genetic studies are underway to understand the causes and effects of this structural brain difference.
- Dr. Hendren and colleagues are investigating whether B12 and Omega-3 fatty acids have beneficial effects for children with autism and what are potential biological markers to indicate which children might be helped.



*Left to right: Dr. Elysa Marco, Dr. Eva Ihle, Dr. Bryna Siegel, Dr. Robert Hendren, Tahle Sendowski*

*Not present in the photo: Dr. Lauren Weiss, Dr. Elliot Sherr, Dr. Tony Wynshaw-Boris, and Dr. John Rubenstein,*

## Tips of the Trade (from Dr. Bryna Siegel):

Playdates: Consider a 'big brother' or 'big sister' ('bossy' 8-12 year old) for enriched playtime for your 3-6 year old child with autism. Pay them as a BIT ('babysitter-in-training')--with just a couple of guidelines like 'Show \_\_\_ how to do fun stuff with his \_\_\_\_\_. You're the big kid, so you can be a little bossy.'

## Events

ANP is hosting the 2<sup>nd</sup> **JumpStart Autism Conference** this summer. For Additional Information Contact: [info@autismjumpstart.org](mailto:info@autismjumpstart.org) 415.391.3417

Other Bay Area events where you can find the ANP team are:

**April 9<sup>th</sup>** : Walk Now for Autism Speaks, Sonoma, Windsor Town Green:  
Join this entertaining fundraising event of the nation's largest autism science and advocacy organization. Walk Now for Autism Speaks is dedicated to funding research into the causes, prevention, treatments and a cure for autism; increasing awareness of autism spectrum disorders; and advocating for the needs of individuals with autism and their families.

**April 16<sup>th</sup>** : EdRev 2011, AT&T Park in San Francisco.

The largest national gathering of students who learn differently, produced by Parents Education Network (PEN). The conference offers a wide range of informational, educational and support opportunities for students with learning and attention difficulties, their families and the educators and professionals who work with them.

For Additional Information: <http://edrevsf.org/>

**April 16<sup>th</sup>** : South Bay Area Autism Resources Fair. Presented by Wings Learning Center and hosted by Notre Dame De Namure University, Belmont, CA. Come and learn about local and regional resources, connect with other parents and family members, gather information on interventions and treatments and meet top professionals. The program includes eight to ten mini workshops addressing core challenges of ASD as well as a resource fair with vendors serving autism across the ages and spectrum.

**January through May:** Marin Autism Lecture Series  
These lectures serve as educational resources for parents of children with ASDs. For Additional Information Contact: Karen Kaplan, 415-497-3751, [karensupportsu@comcast.net](mailto:karensupportsu@comcast.net)

## Enrolling Research Studies

### Treatments Trials

**Does the medication memantine help children with autism with communication and socialization?** (CHR #: 10-01867)

- Dr. Robert Hendren is looking at the effect that memantine might have on the core symptoms of autism in children.
- Memantine is currently used to treat adults with Alzheimer's disease but has been prescribed to children with autism with the hopes of improving communication and socialization.
- Eligibility: Children with autism, ages 6-12, verbal.
- Contact: Amber Miller: 415.476.7803, [amber.miller@ucsf.edu](mailto:amber.miller@ucsf.edu)

**Does Methyl B12 help children with autism?** (CHR #: 10-04089)

- Dr. Robert Hendren is evaluating improvements from injectable methyl B12 using behavioral assessments and analysis of specific metabolites in the child's blood.
- A pilot study at UC Davis suggested that methyl B12 improves symptoms in a subgroup of children with autism by increasing key antioxidants.
- Eligibility: Children with autism, ages 3-7.
- Contact: Amber Miller: 415.476.7803, [amber.miller@ucsf.edu](mailto:amber.miller@ucsf.edu)

### Causes and Mechanisms of Autism

**How do children with autism process sound and touch?** (CHR #: 10-01940)

- Dr. Elysa Marco is looking at how children with autism, ADHD, and sensory processing difficulties process sound & touch using non-invasive neuroimaging.
- We want to learn why boys with neurodevelopmental disorders have more difficulty processing auditory, tactile, and especially multisensory information.
- Eligibility: Boys, ages 8-11, with ASD, sensory processing differences, ADHD, or healthy controls.
- Contact: Suzie Hill: 415.640.2680, [susanna.hill@ucsf.edu](mailto:susanna.hill@ucsf.edu)



## ANP is going GREEN!

The ANP is joining the national effort to protect our environment by sending this newsletter via email as much as we can. If you received this newsletter via mail and would like to join our e-mail list, please contact: [tahl.sendowski@ucsf.edu](mailto:tahl.sendowski@ucsf.edu)

**What are the genetic bases of neurodevelopmental disorders?** (CHR #: 10-01008)

- Dr. Elliott Sherr is interested in looking at genetic analyses and structural abnormalities in neurodevelopmental disorders.
- We hope to use brain structure and genetics to help better understand autism.
- Eligibility: Diagnosis of agenesis of the corpus callosum, polymicrogyria, periventricular nodular heterotopias, and cerebellar hypoplasia; all ages.
- Contact: Shivani Vora: 415.502.8039, [voras@neuropeds.ucsf.edu](mailto:voras@neuropeds.ucsf.edu)

**What are the clinical and neuroanatomical changes associated with 16p11.12 and autism?** (CHR #: 10-03523)

- In collaboration with the Simons Foundation, Dr. Sherr and his colleagues are studying individuals with 16p11.2 deletions and duplications
- We hope to better understand the clinical, genetic and neuroanatomical changes associated with 16p11.2, a locus that has been associated with autism.
- Eligibility: Documented 16p11.2 deletion or duplication; all ages.
- Contact: Polina Bukshpun: 415.502.8039, [bukshpun@neuropeds.ucsf.edu](mailto:bukshpun@neuropeds.ucsf.edu)

**Why do more boys than girls have autism?** (CHR #: 10-02794)

- Dr. Lauren Weiss is looking for genes that are related to autism in boys and girls with ASDs and their biological parents.
- We are interested in learning more about genetic differences in boys and girls with ASDs.
- Eligibility: ASD diagnosis (Autism, Asperger's, PDD-NOS); all ages.
- Contact: Keren Messing Guy: 415.476.6988, [keren.messingguy@ucsf.edu](mailto:keren.messingguy@ucsf.edu)

**Autism and the Family****How can we help parents support learning for their child with autism?**

(CHR #: H6397-34445-01)

- Dr. Bryna Siegel is collecting data from the Jump Start Learning to Learn program, a five-day, intensive parent coaching program.
- This program trains parents on how to implement behavioral, social, play, and speech and language based intervention techniques, and links them to treatments in their community.
- Eligibility: Recent autism diagnosis.
- Contact: Tahle Sendowski: 415.476.7385, [tahl.sendowski@ucsf.edu](mailto:tahl.sendowski@ucsf.edu)

**How does the stress of parenting affect women's health and aging?** (CHR #: 10-02063)

- Drs. Elissa Epel, Elysa Marco, and Bryna Siegel are studying the relationship between health, stress, and well-being for mothers of children with autism.
- We are asking mothers to share their stories, and we will provide state-of-the-art health feedback.
- Eligibility: Mothers of children, ages 2-12, with autism.
- Contact: Tahle Sendowski: 415.476.7385, [tahl.sendowski@ucsf.edu](mailto:tahl.sendowski@ucsf.edu)

**Awards**

Congratulations to Dr. Bryna Siegel for receiving the Eunice Shriver Prize and Lecturer on Developmental Disabilities in 2010.

Congratulations to Dr. Lauren Weiss for receiving the NIH Director's New Innovator Award and The Young Investigator award of NARSAD: Brain and Behavior Research Fund in 2010/2011.



## Recent ANP Publications

### Treatments

Bertoglio K, James J, Deprey L, Brule N and Hendren R (2010) **Pilot Study of the effect of Methyl B12 Treatment on Behavioral and Biomarker Measures in Children with Autism.** J Altern Complement Med. 16(5):555-60.

Bent S, Bertoglio K, Ashwood P, Bostrom A, Hendren RJ (2010) **A Pilot Randomized Controlled Trial of Omega-3 Fatty Acids for Autism Spectrum Disorders.** J Autism, Dev Disord: Epub ahead of print.

Siegel B, Ihle E, Marco E, Hendren R (2010) **Update on Autism Issues in Treatment and Comorbidity.** Psychiatric Times. 27(10)

### Causes and Mechanisms of Autism

Marco EM, Hinkley LBN, Hill SS, Nagarajan SS (2011) **Sensory Processing in Autism: A Review of Neurophysiologic Findings** Ped Res. Epub ahead of print.

Siegel, Bryna. **"Chapter 28: Reconceptualizing Autistic Spectrum Disorders as Autism-Specific Learning Disabilities and Learning Styles."** Contemporary Directions in Psychopathology. Eds Millon T, Krueger RF, & Simonsen E. New York: The Guilford Press, 2010. 553-564.

O'Driscoll MC, Black GC, Clayton-Smith J, Sherr EH, Dobyns WB (2010) **Identification of genomic loci contributing to agenesis of the corpus callosum.** Am J Med Genet A. 152A(9):2145-59.

Weiss LA, Arking DE, Gene Discovery Project of Johns Hopkins & The Autism Consortium, Daly MJ, Chakravarti A (2009) **A genome-wide linkage and association scan reveals novel loci for autism.** Nature. 461(7265):802-8.

Wahl M, Strominger, Z, Jeremy RJ, Barkovich AJ, Wakahiro M, Sherr EH, Mukherjee P (2009) **Variability of Homotopic and Heterotopic Callosal Connectivity in Partial Agenesis of the Corpus Callosum: A 3T Diffusion Tensor Imaging and Q-Ball Tractography Study.** AJNR Am J Neuroradiol. 30(2):282-9.

Weiss LA (2009) **Autism genetics: emerging data from genome-wide copy-number and single nucleotide polymorphism scans.** Expert Rev Mol Diagn. 9(8):795-803.

Weiss LA, Shen Y, Korn JM, Arking DE, Miller DT, Fossdal R, Saemundsen E, Stefansson H, Ferreira MA, Green T, Platt OS, Ruderfer DM, Walsh CA, Altshuler D, Chakravarti A, Tanzi RE, Stefansson K, Santangelo SL, Gusella JF, Sklar P, Wu BL, Daly MJ; Autism Consortium (2008) **Association between microdeletion and microduplication at 16p11.2 and autism.** N Engl J Med. 358(7):667-75

