

# 2014 Research Annual Report

## Psychiatry



### Division Summary

#### RESEARCH AND TRAINING DETAILS

Number of Faculty	21
Number of Joint Appointment Faculty	3
Number of Support Personnel	22
Direct Annual Grant Support	\$1,207,981
Direct Annual Industry Support	\$151,581
Peer Reviewed Publications	34

#### CLINICAL ACTIVITIES AND TRAINING

Number of Staff Psychiatrists	1
Number of Clinical Fellows	19
Number of Other Students	15
Inpatient Encounters	4,055
Outpatient Encounters	37,436

### Division Photo



Row 1: S Sampang  
Row 2: R Gilmore, C Engel, J Bowden, E Harris  
Row 3: S Delgado, D Vogel, R Gilman, M Sorter, B Kurtz  
Row 4: A Cavalieri, E Pedapati

## Significant Accomplishments

### Lessening the impact of post-traumatic stress

**Rich Gilman, PhD**, is Director of Clinical Care and Training at the newly established University of Cincinnati (UC) Health Stress Center Program. The center brings together clinicians from UC Health, Cincinnati Children's and the Cincinnati Veterans Administration Medical Center. They care for families living with post-traumatic stress disorder (PTSD), with the goal of alleviating the impact of PTSD and resuming a healthy life. Established in part by seed money from the Joey Votto Foundation, several clinical trials are underway, including projects funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

### Lowering the risk of self-injury

Children and adolescents struggling with acute psychiatric disorders frequently pose a serious risk to themselves from self-injury or suicide attempts. Inpatient psychiatric units are high-risk sites for such behaviors. Division-wide efforts to improve safe management of these patients, led by **Michael Sorter, MD**; **Dan Vogel, MD**; and **Adam Hill, MSN, RN-BC**, have decreased significant self-injury events from near-monthly to no occurrences in more than 700 days and more than 5,000 inpatient admissions. Through performance improvement methodology, they developed better assessment and risk prediction tools to improve care and achieve these safe outcomes for patients.

### OCD research recognized

Obsessive Compulsive Disorder (OCD) is a neuropsychiatric condition that affects two percent of children worldwide. First-line treatment with cognitive behavior therapy plus medication only leads to remission in half of the children treated. **Elana Harris, MD, PhD**, has initiated a research program to look for a

neurophysiological marker that will predict treatment response in children with OCD, thereby eliminating the need for a trial-and-error approach in the choice of treatment and tailor the treatment to what is best suited for each individual. In recognition of her efforts, the National Institute of Mental Health awarded Harris a Mentored Patient-Oriented Research Career Development Award (K23) that protects her time so that she can hone her skills in magnetoencephalography.

## Research Highlights

Craig Erickson, MD, and Logan Wink, MD

In 2013 we demonstrated that acamprosate engaged molecular deficits associated with autism spectrum disorder and fragile X disorder. Specifically, acamprosate was shown to normalize levels of brain derived neurotrophic factor (BDNF) and secreted amyloid precursor protein alpha in the blood of youth with these disorders. Additionally, change in these molecular blood markers correlated with positive clinical treatment response in youth.

## Division Publications

1. Abd-Elseyed AA, Delgado SV, Livingstone M. **Self-image perception of 171 children and adolescents with cleft lip and palate from 22 countries.** *Ochsner J.* 2013; 13:204-7.
2. Adler CM, DelBello MP, Weber WA, Jarvis KB, Welge J, Chu WJ, Rummelhoff E, Kim MJ, Lee JH, Strakowski SM. **Neurochemical effects of quetiapine in patients with bipolar mania: a proton magnetic resonance spectroscopy study.** *J Clin Psychopharmacol.* 2013; 33:528-32.
3. Barzman DH, Mossman D, Appel K, Blom TJ, Strawn JR, Ekhaton NN, Patel B, DelBello MP, Sorter M, Klein D, Geraciotti TD, Jr.. **The association between salivary hormone levels and children's inpatient aggression: a pilot study.** *Psychiatr Q.* 2013; 84:475-84.
4. Bitter SM, Weber WA, Chu WJ, Adler CM, Eliassen JC, Strakowski SM, Delbello MP. **N-acetyl Aspartate Levels in Adolescents With Bipolar and/or Cannabis Use Disorders.** *J Dual Diagn.* 2014; 10:39-43.
5. Budimirovic D, Hagerman R, Latan G, Erickson C. **Fragile X: From Neurodevelopmental to Neurodegenerative Disorders.** *Acta Scientiae, Ekomed.* 2014; April-May:47-51.
6. Chu WJ, Delbello MP, Jarvis KB, Norris MM, Kim MJ, Weber W, Lee JH, Strakowski SM, Adler CM. **Magnetic resonance spectroscopy imaging of lactate in patients with bipolar disorder.** *Psychiatry Res.* 2013; 213:230-4.
7. Deckman T, DeWall N, Way B, Gilman R, Richman S. **Can Marijuana Reduce Social Pain?.** *Social Psychological and Personality Science.* 2014; 5:131-139.
8. Delgado S, Strawn J. **Difficult Psychiatric Consultations: An Integrated Approach.** New York; Springer.
9. Donfrancesco R, Marano A, Innocenzi M, Toni L, Di Lelio A, Milone A, Sposato M, Mazzotta G, Valenti V, Melegari MG, DelBello MP. **A comparison of bipolar disorders in children in Italy and the United States.** *J Affect Disord.* 2014; 159:53-5.
10. Erickson CA, Veenstra-Vanderweele JM, Melmed RD, McCracken JT, Ginsberg LD, Sikich L, Scahill L, Cherubini M, Zarevics P, Walton-Bowen K, Carpenter RL, Bear MF, Wang PP, King BH. **STX209 (arbaclofen) for autism spectrum disorders: an 8-week open-label study.** *J Autism Dev Disord.* 2014; 44:958-64.
11. Erickson CA, Wink LK, Early MC, Stieglmeyer E, Mathieu-Frasier L, Patrick V, McDougale CJ. **Brief report: Pilot single-blind placebo lead-in study of acamprosate in youth with autistic disorder.** *J Autism Dev Disord.* 2014; 44:981-7.
12. Erickson CA, Wink LK, Ray B, Early MC, Stieglmeyer E, Mathieu-Frasier L, Patrick V, Lahiri DK,

- McDougle CJ. **Impact of acamprosate on behavior and brain-derived neurotrophic factor: an open-label study in youth with fragile X syndrome.** *Psychopharmacology (Berl)*. 2013; 228:75-84.
13. Findling RL, Cavus I, Pappadopulos E, Vanderburg DG, Schwartz JH, Gundapaneni BK, DelBello MP. **Efficacy, long-term safety, and tolerability of ziprasidone in children and adolescents with bipolar disorder.** *J Child Adolesc Psychopharmacol*. 2013; 23:545-57.
14. Findling RL, Cavus I, Pappadopulos E, Vanderburg DG, Schwartz JH, Gundapaneni BK, DelBello MP. **Ziprasidone in adolescents with schizophrenia: results from a placebo-controlled efficacy and long-term open-extension study.** *J Child Adolesc Psychopharmacol*. 2013; 23:531-44.
15. Findling RL, Pathak S, Earley WR, Liu S, DelBello M. **Safety, tolerability, and efficacy of quetiapine in youth with schizophrenia or bipolar I disorder: a 26-week, open-label, continuation study.** *J Child Adolesc Psychopharmacol*. 2013; 23:490-501.
16. Froehlich T, Delgado S, Anixt J. **Expanding Medication Options for Pediatric ADHD.** *Current Psychiatry*. 2013; 12:20-29.
17. Geraciotti TD, Jr., Jefferson-Wilson L, Strawn JR, Baker DG, Dashevsky BA, Horn PS, Ekhtator NN. **Effect of traumatic imagery on cerebrospinal fluid dopamine and serotonin metabolites in posttraumatic stress disorder.** *J Psychiatr Res*. 2013; 47:995-8.
18. Groman CM, Barzman DH. **The impact of ADHD on morality development.** *Atten Defic Hyperact Disord*. 2014; 6:67-71.
19. Heffner JL, Anthenelli RM, Adler CM, Strakowski SM, Beavers J, DelBello MP. **Prevalence and correlates of heavy smoking and nicotine dependence in adolescents with bipolar and cannabis use disorders.** *Psychiatry Res*. 2013; 210:857-62.
20. Heffner JL, Anthenelli RM, DelBello MP, Stahl L, Strakowski SM. **Mood management and nicotine patch for smoking cessation in adults with bipolar disorder.** *Nicotine Tob Res*. 2013; 15:1805-6.
21. Keeshin BR, Luebke AM, Strawn JR, Saldana SN, Wehry AM, DelBello MP. **Sexual abuse is associated with obese children and adolescents admitted for psychiatric hospitalization.** *J Pediatr*. 2013; 163:154-9 e1.
22. Keeshin BR, Strawn JR. **Psychological and pharmacologic treatment of youth with posttraumatic stress disorder: an evidence-based review.** *Child Adolesc Psychiatr Clin N Am*. 2014; 23:399-411, x.
23. Keeshin BR, Strawn JR, Luebke AM, Saldana SN, Wehry AM, DelBello MP, Putnam FW. **Hospitalized youth and child abuse: a systematic examination of psychiatric morbidity and clinical severity.** *Child Abuse Negl*. 2014; 38:76-83.
24. Keeshin BR, Strawn JR, Out D, Granger DA, Putnam FW. **Cortisol awakening response in adolescents with acute sexual abuse related posttraumatic stress disorder.** *Depress Anxiety*. 2014; 31:107-14.
25. Kemp DE, Correll CU, Tohen M, Delbello MP, Ganocy SJ, Findling RL, Chang K. **Associations among obesity, acute weight gain, and response to treatment with olanzapine in adolescent schizophrenia.** *J Child Adolesc Psychopharmacol*. 2013; 23:522-30.
26. Korostenskaja M, Wilson AJ, Rose DF, Brunner P, Schalk G, Leach J, Mangano FT, Fujiwara H, Rozhkov L, Harris E, Chen PC, Seo JH, Lee KH. **Real-Time Functional Mapping With Electrocorticography in Pediatric Epilepsy: Comparison With fMRI and ESM Findings.** *Clin EEG Neurosci*. 2013; 45:205-211.
27. McNamara RK, Jandacek R, Tso P, Weber W, Chu WJ, Strakowski SM, Adler CM, Delbello MP. **Low docosahexaenoic acid status is associated with reduced indices in cortical integrity in the anterior cingulate of healthy male children: a 1H MRS Study.** *Nutr Neurosci*. 2013; 16:183-90.
28. McNamara RK, Strimpfel J, Jandacek R, Rider T, Tso P, Welge JA, Strawn JR, Delbello MP. **Detection and Treatment of Long-Chain Omega-3 Fatty Acid Deficiency in Adolescents with SSRI-Resistant Major Depressive Disorder.** *PharmaNutrition*. 2014; 2:38-46.

29. Miklowitz DJ, Schneck CD, George EL, Taylor DO, Sugar CA, Birmaher B, Kowatch RA, DelBello MP, Axelson DA. **Pharmacotherapy and family-focused treatment for adolescents with bipolar I and II disorders: a 2-year randomized trial.** *Am J Psychiatry.* 2014; 171:658-67.
30. Patel BD, Barzman DH. **Pharmacology and pharmacogenetics of pediatric ADHD with associated aggression: a review.** *Psychiatr Q.* 2013; 84:407-15.
31. Strakowski SM, Adler CM, Delbello MP. **Is depression simply a nonspecific response to brain injury?** *Curr Psychiatry Rep.* 2013; 15:386.
32. Strawn JR, Wehry AM, Chu WJ, Adler CM, Eliassen JC, Cerullo MA, Strakowski SM, Delbello MP. **Neuroanatomic abnormalities in adolescents with generalized anxiety disorder: a voxel-based morphometry study.** *Depress Anxiety.* 2013; 30:842-8.
33. Weber WA, Dudley J, Lee JH, Strakowski SM, Adler CM, DelBello MP. **A pilot study of alterations in high energy phosphoryl compounds and intracellular pH in unmedicated adolescents with bipolar disorder.** *J Affect Disord.* 2013; 150:1109-13.
34. Wink LK, Early M, Schaefer T, Pottenger A, Horn P, McDougale CJ, Erickson CA. **Body mass index change in autism spectrum disorders: comparison of treatment with risperidone and aripiprazole.** *J Child Adolesc Psychopharmacol.* 2014; 24:78-82.

## Faculty, Staff, and Trainees

### Faculty Members

**Michael Sorter, MD**, Associate Professor

**Leadership** Director, Division of Psychiatry

**Drew Barzman, MD**, Assistant Professor

**Leadership** Director of Child and Adolescent Forensic Psychiatry Service

**Sandra Batsel-Thomas, MD**, Assistant Professor

**Jennifer Bowden, MD**, Assistant Professor

**Anthony Cavalieri, MD**, Assistant Professor

**Cynthia Daugherty, MD**, Assistant Professor

**Sergio Delgado, MD**, Associate Professor

**Leadership** Director of Outpatient Services

**Carol Engel, MD**, Assistant Professor

**Leadership** Residency Training Director, Triple Board Program

**Craig Erickson, MD**, Assistant Professor

**Richard Gilman, PhD**, Professor

**Reyna Gilmore, MD**, Assistant Professor

**Elana Harris, MD**, Assistant Professor

**Emily Harris, MD**, Assistant Professor

**Mark Johnson, MD**, Assistant Professor

**Brian Kurtz, MD**, Assistant Professor

**Leadership** Director of Consultation Services

**Mary Matias-Akhtar, MD**, Assistant Professor

**Daniel Nelson, MD**, Associate Professor

**Leadership** Director of Inpatient Services

**Hilton Rodriguez, MD**, Assistant Professor

**Suzanne Sampang, MD**, Assistant Professor

**Leadership** Residency Training Director, Child and Adolescent Psychiatry

**Raymond Troy, MD**, Assistant Professor

**Daniel Vogel, MD**, Assistant Professor

**Logan Wink, MD**, Assistant Professor

#### Joint Appointment Faculty Members

**Melissa DelBello, MD**, Associate Professor (Psychiatry)

**Jeffrey Strawn, MD**, Assistant Professor (Psychiatry)

**Brooks Keeshin, MD**, Assistant Professor (Psychiatry)

#### Clinical Staff Members

- **Lindsay Tobler, MD**

#### Trainees

- **Deana McReynolds, DO**, PGY 5, Murray State University, Murray KY
- **John Vraciu, DO**, PGY 5, Kent State University, Kent OH
- **Daniel Almeida, MD**, PGY 4, Universidade Federal Do, Ceara, Brazil
- **Amelia Campos, MD**, PGY 4, University of Louisville, Louisville, KY
- **Giuliana Centurion, DO**, PGY 4, Nova Southeastern College of Osteopathic Medicine, Ft. Lauderdale, FL
- **Leslie Deckter, MD**, PGY 4, University of Cincinnati, Cincinnati, OH
- **Diana Frey, MD**, PL 5, Mayo Medical School, Rochester, MN
- **Delanie Janke, MD**, PL 5, University of Texas Medical Branch, Galveston, TX
- **Ernest Pedapati, MD**, PL 5, University of Massachusetts Medical School, North Worcester, MA
- **Courtney Cinko, MD**, PL 4, Rush Medical College, Chicago, IL
- **Paul Houser, MD**, PL 4, St. Louis University School of Medicine, St. Louis, MO
- **Kelli Dominick, MD/PhD**, PL 3, Boston University School of Medicine
- **Yesie Yoon, MD**, PL 3, Yonsei University
- **Sophianne Subbiah, MD**, PL 2, University of Iowa School of Medicine, Iowa City, IA
- **Theresa Umhoefer, MD**, PL 2, University of Wisconsin School of Medicine and Public Health, Madison, WI
- **Melissa Schuman-Wagner, MD**, PL 2, Medical College of Wisconsin, Milwaukee, WI
- **Nina Butler, MD**, PL 1, Michigan State University College of Medicine, East Lansing, MI
- **Martine Lamy, MD/PhD**, PL 1, University of Cincinnati School of Medicine, Cincinnati, OH
- **Joseph Sin, MD**, PL 1, University of Utah, Salt Lake City, UT

## Division Collaboration

Tuberous Sclerosis Clinic, Pharmacogenetics (Daniel A. Nelson, MD / Assure Rx; Pharmacogenetics)

**Neurology** » David Neal Franz, MD and Tracy Glauser

Mental Health Treatment Clinic in Adolescent Medicine Center and Eating Disorders (Carol Brown Engel, MD)

**Adolescent and Transition Medicine** » Laurie A. Mitan, MD

Center for School Crisis and Bereavement, Kelly O'Leary Center/Autism Treatment, Comorbid Intellectual Disability and Mental Illness Services. (Daniel A. Nelson, MD; Dr. Schonfeld (Trama); Craig A. Erickson, MD)

**Developmental and Behavioral Pediatrics** » Patricia Manning-Courtney, MD and Rena J. Sorensen, PhD

Mental Health Consultation. (Emily Harris, MD, MPH)

**Pediatric Primary Care** » Mona E. Mansour, MD, MS

ADHD Consultations to Pediatricians, Outpatient Care, Inpatient Consultations. (Mark Johnson, MD)

**Behavioral Medicine and Clinical Psychology** » Lori J. Stark, PhD, ABPP and Jeff N. Epstein, PhD

Specialized Consultation Service. (Mark Johnson, MD)

**Oncology** » John P. Perentesis, MD, FAAP

Management of Atypical Antipsychotic/Metabolic Syndrome

**Endocrinology** » Lawrence M. Dolan, MD and David Klein, MD, PhD

Velocardio Facial Syndrome. (Michael T. Sorter, MD; Susan Franer, MSN, CNS)

**Human Genetics** » Howard M. Saal, MD, FACMG

Trauma Treatment and Clinic. (Daniel A. Nelson, MD / Assure Rx; Pharmacogenetics)

**Mayerson Center for Safe and Healthy Children** » Robert Allan Shapiro, MD

International Adoption, Consultation for Mental Health Concerns. (Sandra Batsel-Thomas, MD)

**Infectious Diseases** » Mary Allen Staat, MD, MPH

Outpatient Services and IQ Testing. (Ernest Pedapati, MD, MS; Logan K. Wink, MD)

**Behavioral Medicine and Clinical Psychology** » Jessica M. McClure, PsyD

ED Study. (Sergio V. Delgado, MD; Linda Richey)

**Emergency Medicine** » Jacqueline Grupp-Phelan, MD, MPH

Outpatient Neurology Clinic in Mason. (Elana Harris, MD, PhD)

**Radiology** » Mark DiFrancesco, PhD

MEG Center. (Craig A. Erickson, MD)

**Neurology** » Jing Xiang, MD, PhD and Douglas F. Rose, MD

Autism Biorepository Project. (Tori Schaefer, PhD)

**Biostatistics and Epidemiology** » Ping-I (Daniel) Lin, MD, PhD and Katherine A. Bowers, PhD, MPH

Phenotyping of KO Mouse Models. (Tori Schaefer, PhD)

**Developmental Biology** » Kenneth J. Campbell, PhD

## Grants, Contracts, and Industry Agreements

Grant and Contract Awards	Annual Direct
<b>ERICKSON, C</b>	
<b>Acamprosate in Fragile X Syndrome</b> The John Merck Fund	
01/01/13-12/31/16	\$250,000
<b>Acamprosate in Youth with Autism Spectrum Disorder</b> Autism Speaks Grant Administration	
12/01/12-11/30/15	\$136,340
<b>Extracellular Signal-Related Kinase Biomarker Development in Autism</b> Simons Foundation	
09/01/12-08/31/14	\$91,506
<b>Preclinical Validation of Behavioral, Molecular, and Electrophysiological Effects of Acamprosate in a Mouse Model of Angelman Syndrome</b> Angelman Syndrome Foundation	
10/01/13-09/30/15	\$74,210
<b>HARRIS, E</b>	
<b>Frontal Cortical Gamma Oscillations Mark Contamination Obsessions in Youth</b> National Institutes of Health	
K23 MH 100640	
02/15/14-01/31/18	\$164,645
<b>KOWATCH, R</b>	
<b>Longitudinal Assessment of Manic Symptoms (LAMS)</b> National Institutes of Health	
R01 MH 073816	
07/01/10-02/28/15	\$434,205
<b>PEDAPATI, E</b>	
<b>Cortical Neuroplasticity in Adolescent Depression</b> American Academy of Child & Adolescent Psychiatry	
08/01/13-10/26/14	\$15,000
<b>SCHAEFER, T</b>	
<b>Development of a Novel GABA(A) 2, 3 Agonist in Fragile X Syndrome</b> FRAXA Research Foundation	
07/01/13-06/30/15	\$21,382
<b>WINK, K</b>	
<b>Phenotyping of the Severely Affected Autism Population</b>	

**Current Year Direct      \$1,207,981**

Industry Contracts

**DELGADO, S**

Pfizer, Inc      \$3,297

**ERICKSON, C**

Roche Laboratories, Inc      \$122,704

**WINK, L**

SynapDx      \$25,580

**Current Year Direct Receipts      \$151,581**

**Total      \$1,359,562**