

Neurology

Division Details

RESEARCH AND TRAINING DETAILS

Faculty	42
Joint Appointment Faculty	3
Research Fellows and Post Docs	4
Research Graduate Students	12
Total Annual Grant Award Dollars	\$2,531,799
Total Annual Industry Award Dollars	\$2,905,087

CLINICAL ACTIVITIES AND TRAINING

Staff Physicians	1
Clinical Fellows	5
Inpatient Encounters	3,339
Outpatient Encounters	31,060



Row 1: L Timchenko, C Tian, G Aungaroon, A Byars, J Capal, J Vannest C Venkatesan, I Rybalsky, T Arthur, D Gilbert, A Hershey, H O'Brien, C Gross, K Peariso, S Wu

Row 2: P Horn, B Siroky, R Arya, B Hallinan, T Glauser, T Dye, D Franz, C Thomas, K Wesselkamper, E Broomall, D Krueger, M Skelton, JM Taylor, H Greiner

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Division Publications

1. Powers SW; Coffey CS; Chamberlin LA; Ecklund DJ; Klingner EA; Yankey JW; Korbee LL; Porter LL; Hershey AD; Investigators CHAMP. **Trial of Amitriptyline, Topiramate, and Placebo for Pediatric Migraine.** *The New England journal of medicine.* 2017; 376:115-124.
2. French JA; Lawson JA; Yapici Z; Ikeda H; Polster T; Nobbout R; Curatolo P; de Vries PJ; Diugos DJ; Berkowitz N. **Adjunctive everolimus therapy for treatment-resistant focal-onset seizures associated with tuberous sclerosis (EXIST-3): a phase 3, randomised, double-blind, placebo-controlled study.** *The Lancet.* 2016; 388:2153-2163.
3. Martin KR; Zhou W; Bowman MJ; Shih J; Au KS; Dittenhafer-Reed KE; Sisson KA; Koeman J; Weisenberger DJ; Cottingham SL. **The genomic landscape of tuberous sclerosis complex.** *Nature Communications.* 2017; 8:15816.
4. Glauser TA; Holland K; O'Brien VP; Keddache M; Martin LJ; Clark PO; Cnaan A; Dlugos D; Hirtz DG; Shinnar S. **Pharmacogenetics of Antiepileptic Drug Efficacy in Childhood Absence Epilepsy.** *Annals of Neurology.* 2017; 81:444-453.

5. Augustine EF; Gilbert DL. **Clinical pearls and scientific advancement Reconciling tradition with new knowledge.** *Neurology*. 2017; 88:1786-1787.
6. Sánchez Fernández I; Jackson MC; Abend NS; Arya R; Brenton JN; Carpenter JL; Chapman KE; Gaillard WD; Gaínza-Lein M; Glauser TA. **Refractory status epilepticus in children with and without prior epilepsy or status epilepticus.** *Neurology*. 2017; 88:386-394.
7. Cnaan A; Shinnar S; Arya R; Adamson PC; Clark PO; Dlugos D; Hirtz DG; Masur D; Glauser TA; Study CAE. **Second monotherapy in childhood absence epilepsy.** *Neurology*. 2017; 88:182-190.
8. Payne JM; Barton B; Ullrich NJ; Cantor A; Hearps SJC; Cutter G; Rosser T; Walsh KS; Gioia GA; Wolters PL. **Randomized placebo-controlled study of lovastatin in children with neurofibromatosis type 1.** *Neurology*. 2016; 87:2575-2584.
9. Krueger DA; Wilfong AA; Mays M; Talley CM; Agricola K; Tudor C; Capal J; Holland-Bouley K; Franz DN. **Long-term treatment of epilepsy with everolimus in tuberous sclerosis.** *Neurology*. 2016; 87:2408-2415.
10. Kang PB; Jr BJB; Mintz M; Joshi SM; Gilbert DL; Radabaugh C; Ruch-Ross H; Pediat AA; Soc CN. **The child neurology clinical workforce in 2015: Report of the AAP/CNS Joint Taskforce.** *Neurology*. 2016; 87:1384- 1392.
11. Blake RB; Gilbert DL; Schapiro MB. **Child Neurology: Two sisters with dystonia and regression: PLA2G6-associated neurodegeneration.** *Neurology*. 2016; 87:e1-e3.
12. López-Juárez A; Titus HE; Silbak SH; Pressler JW; Rizvi TA; Bogard M; Bennett MR; Ciraolo G; Williams MT; Vorhees CV. **Oligodendrocyte Nf1 Controls Aberrant Notch Activation and Regulates Myelin Structure and Behavior.** *Cell Reports*. 2017; 19:545-557.
13. Gross C; Yao X; Engel T; Tiwari D; Xing L; Rowley S; Danielson SW; Thomas KT; Jimenez-Mateos EM; Schroeder LM. **MicroRNA-Mediated Downregulation of the Potassium Channel Kv4.2 Contributes to Seizure Onset.** *Cell Reports*. 2016; 17:37-45.
14. Jin J; Valanejad L; Thuy PN; Lewis K; Wright M; Cast A; Stock L; Timchenko L; Timchenko NA. **Activation of CDK4 Triggers Development of Non-alcoholic Fatty Liver Disease.** *Cell Reports*. 2016; 16:744-756.
15. Myer GD; Yuan W; Foss KDB; Thomas S; Smith D; Leach J; Kiefer AW; Dicesare C; Adams J; Gubanich PJ. **Analysis of head impact exposure and brain microstructure response in a season-long application of a jugular vein compression collar: a prospective, neuroimaging investigation in American football.** *British journal of sports medicine*. 2016; 50:1276-1285.
16. Wang ET; Taliaferro JM; Lee JA; Sudhakaran IP; Rossoll W; Gross C; Moss KR; Bassell GJ. **Dysregulation of mRNA Localization and Translation in Genetic Disease.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*. 2016; 36:11418-11426.
17. Palomo V; Perez DI; Roca C; Anderson C; Rodríguez-Muela N; Perez C; Morales-Garcia JA; Reyes JA; Campillo NE; Perez-Castillo AM. **Subtly Modulating Glycogen Synthase Kinase 3 beta: Allosteric Inhibitor Development and Their Potential for the Treatment of Chronic Diseases.** *Journal of Medicinal Chemistry*. 2017; 60:4983-5001.
18. Tajhya RB; Hu X; Tanner MR; Huq R; Kongchan N; Neilson JR; Rodney GG; Horrigan FT; Timchenko LT; Beeton C. **Functional KCa1.1 channels are crucial for regulating the proliferation, migration and differentiation of human primary skeletal myoblasts.** *Cell death & disease*. 2016; 7:e2426-e2426.
19. Griffis JC; Nenert R; Allendorfer JB; Vannest J; Holland S; Dietz A; Szaflarski JP. **The Canonical Semantic Network Supports Residual Language Function in Chronic Post-Stroke Aphasia.** *Human Brain Mapping*. 2017; 38:1636-1658.
20. Wink LK; Minshawi NF; Shaffer RC; Plawecki MH; Posey DJ; Horn PS; Adams R; Pedapati EV; Schaefer TL; McDougle CJ. **D-Cycloserine enhances durability of social skills training in autism spectrum disorder.** *Molecular Autism*. 2017; 8:2.
21. Kacperski J; Hershey AD. **Newly Approved Agents for the Treatment and Prevention of Pediatric Migraine.** *CNS Drugs*. 2016; 30:837-844.

22. Thomson KE; Modi AC; Glauser TA; Rausch JR; White HS. **The impact of nonadherence to antiseizure drugs on seizure outcomes in an animal model of epilepsy.** *Epilepsia*. 2017; 58:1054-1062.
23. Arya R; Wilson JA; Fujiwara H; Rozhkov L; Leach JL; Byars AW; Greiner HM; Vannest J; Buroker J; Milsap G. **Presurgical language localization with visual naming associated ECoG high-gamma modulation in pediatric drug-resistant epilepsy.** *Epilepsia*. 2017; 58:663-673.
24. Skoch J; Adelson PD; Bhatia S; Greiner HM; Rydenhag B; Scavarda D; Mangano FT. **Subdural grid and depth electrode monitoring in pediatric patients.** *Epilepsia*. 2017; 58 Suppl 1:56-65.
25. Vannest J; Tenney JR; Altaye M; Byars AW; Spencer C; Maloney TC; Szaflarski JP; Morita D; Glauser TA. **Impact of frequency and lateralization of interictal discharges on neuropsychological and fine motor status in children with benign epilepsy with centrotemporal spikes.** *Epilepsia*. 2016; 57:e161-e167.

Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

Investigator	Title	Sponsor	ID	Dates	Amount
Tracy A Glauser, MD	Cincinnati Neuroscience Clinical Trials Research Center (CinciNEXT)	National Institutes of Health (University of Cincinnati)	U10 NS077311	09/30/2011 - 06/30/2018	\$119,666
Darcy Krueger, MD	Early Biomarkers of Autism Spectrum Disorders in Infants with Tuberous Sclerosis Complex	National Institutes of Health (Children's Hospital Boston)	U01 NS082320	09/01/2012 - 08/31/2017	\$442,778
Darcy Krueger, MD	Developmental Synaptopathies Associated with TSC, PTEN and SHANK3 Mutations	National Institutes of Health (Children's Hospital Boston)	U54 NS092090	09/30/2014 - 07/31/2019	\$80,633
Darcy Krueger, MD	Preventing Epilepsy Using Vigabatrin in Infants with Tuberous Sclerosis Complex	National Institutes of Health (University of Alabama-Birmingham)	U01 NS092595	06/01/2016 - 05/31/2021	\$144,106
Matthew R Skelton, PhD	The role of Na ⁺ , K ⁺ -ATPase function in Creatine Transporter Deficiency	National Institutes of Health	R21 HD080910	09/10/2015 - 08/31/2017	\$198,602
Donald L Gilbert, MD	GABAergic Sensorimotor Dysfunction in Tourette Syndrome	National Institutes of Health (Kennedy Krieger Research Institute)	R01 NS096207	04/15/2016 - 03/31/2021	\$386,139
Christina Gross, PhD	MicroRNA-mediated Silencing of the Kv4.2 Complex in Epilepsy	National Institutes of Health	R01 NS092705	03/15/2016 - 12/31/2020	\$341,250
Shannon Michelle Standridge, DO, MPH	Rett Syndrome, MECP2 Duplication, and Rett Related Disorders Natural History Study	National Institutes of Health (International Rett Syndrome Foundation)	U54 HD061222	03/01/2016 - 07/01/2019	\$110,866
Tracy A Glauser, MD	Pediatric Status Epilepticus Research Group	Pediatric Epilepsy Research Fdn (Children's	RSTFD0000668767	01/01/2016 -	\$9,259

		Hospital Boston)			12/31/2016	
Donald L Gilbert, MD	Pilot Study to Evaluate the Feasibility of a Novel Voluntary Movement Suppression Paradigm using Real-time Motor Physiological Feedback in Children with TS	Tourette Syndrome Association, Inc.	Gilbert_TSA	08/01/2016	\$63,275	-
				07/31/2017		
Allen DeSena, MD, MPH	Collaborative Assessment of Pediatric Transverse Myelitis: Understand, Reveal, Educate- CAPTURE Study	Patient-Centered Outcome Research Inst. (The University of Texas Southwestern)	GMO 160415	05/01/2016	\$20,001	-
				04/30/2017		
Charles V Vorhees, PhD	Annual Meeting of the Neurobehavioral Teratology Society	Food and Drug Administration	R13 FD004852	07/01/2015	\$5,000	-
				06/30/2018		
Charles V Vorhees, PhD	Teratology Training Grant	National Institutes of Health	T32 ES007051	07/01/2016	\$335,060	-
				06/30/2017		
Andrew D Hershey, MD, PhD	Manuscript - The Clinical Utility of Urinary Estrogen and Progesterone Metabolites in the Prediction of Headache in Adolescent Female Migraineurs	National Headache Foundation (University of Cincinnati)	NHF_Hershey	02/01/2016	\$3,245	-
				05/31/2016		
Darcy Krueger, MD	TSC Natural History Database Project	Tuberous Sclerosis Alliance	2013DB18Y3	05/01/2016	\$117,020	-
				12/31/2018		
Andrew D Hershey, MD, PhD	Genomics of Migraine from the CHAMP Study: DNA Exome Sequencing	Migraine Research Foundation	Hershey_MRF	01/01/2017	\$49,979	-
				12/31/2017		
Lubov Timchenko, PhD	DM Conference Grant	Marigold Foundation	Marigold_Timchenko	10/15/2016	\$10,000	-
				10/14/2019		
Darcy Krueger, MD	Research Coordinator Support for TSCure Project	Tuberous Sclerosis Alliance	2016-TSCURE-01	12/01/2016	\$50,000	-
				11/30/2017		
Darcy Krueger, MD	TSC Biosample Repository Contract	Tuberous Sclerosis Alliance	2016BSR18	12/01/2016	\$44,920	-
				12/31/2018		

Total Annual Grant Award Dollars

\$2,531,799

Annual Industry Award Dollars

Investigator	Industry Sponsor	Amount
Brenda Ly Wong, MD	GlaxoSmithKline	\$62,721

John Lynn Jefferies, MD	Summit Pharmaceuticals International	\$556,760
Charles V Vorhees, PhD	Intra-Cellular Therapies	\$12,448
Cuixia Tian, MD	Pfizer, Inc.	\$761,913
Cuixia Tian, MD	Santhera Pharmaceuticals Inc.	\$73,451
Donald L Gilbert, MD	Neurocrine Biosciences	\$511,936
Hope O'Brien, MD	Teva Pharmaceuticals	\$185,965
Lubov Timchenko, PhD	AMO Pharma Ltd	\$2,500
Shannon Michelle Standridge, DO, MPH	Neuren Pharmaceuticals Limited	\$319,490
Steve Wu, MD	EryDel	\$417,903
Total Annual Industry Award Dollars		\$2,905,087
