Anesthesiology

Division Details

RESEARCH AND TRAINING DETAILS

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
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<tr>
<td>Faculty</td>
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<tr>
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<tr>
<td>Research Fellows and Post Docs</td>
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<tr>
<td>Research Graduate Students</td>
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<tr>
<td>Total Annual Grant Award Dollars</td>
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<tr>
<td>Total Annual Industry Award Dollars</td>
<td>$15,730</td>
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CLINICAL ACTIVITIES AND TRAINING

<table>
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<tr>
<td>Staff Physicians</td>
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<td>Staff Psychiatrists</td>
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<tr>
<td>Inpatient Encounters</td>
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<tr>
<td>Outpatient Encounters</td>
<td>38,624</td>
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Division Publications


2. 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.


6. Liu X; Green KJ; Ford ZK; Queme LF; Lu P; Ross JL; Lee FB; Shank AT; Hudgins RC; Jankowski MP. Growth hormone regulates the sensitization of developing peripheral nociceptors during cutaneous inflammation. *Pain*. 2017; 158:333-346.


10. Thienprayoon R; Porter K; Tate M; Ashby M; Meyer M. Risk Stratification for Opioid Misuse in Children, Adolescents, and Young Adults: A Quality Improvement Project. *Pediatrics*. 2017; 139:e20160258.


12. LaSarge CL; Pun RYK; Munthering MB; Danzer SC. Disrupted hippocampal network physiology following PTEN deletion from newborn dentate granule cells. *Neurobiology of Disease*. 2016; 96:105-114.


14. Patino M; Kalin M; Griffin A; Minhasuddin A; Ding L; Williams T; Ishman S; Mahmoud M; Kurth CD; Szmuk P. Comparison of Postoperative Respiratory Monitoring by Acoustic and Transthoracic Impedance Technologies in Pediatric Patients at Risk of Respiratory Depression. *Anesthesia and Analgesia*. 2017; 124:1937-1942.


16. Chidambaran V; Venkatasubramanian R; Zhang X; Martin LJ; Niu J; Mizuno T; Fukuda T; Meller J; Vinks AA; Sadhasivam S. **ABCC3 genetic variants are associated with postoperative morphine-induced respiratory depression and morphine pharmacokinetics in children. The Pharmacogenomics Journal.** 2017; 17:162-169.

17. Molliver DC; Rau KK; Jankowski MP; Soneji DJ; Baumbauer KM; Koerber HR. **DELETION OF THE MURINE ATP/UTP RECEPTOR P2Y(2) ALTERS MECHANICAL AND THERMAL RESPONSE PROPERTIES IN POLYMODAL CUTANEOUS AFFERENTS. Neuroscience.** 2016; 332:223-230.


20. Mahmoud M; Ishman SL; McConnell K; Fleck R; Shott S; Mylaravarupu G; Gutmark E; Zou Y; Szczesniak R; Amin RS. Upper Airway Reflexes are Preserved During Dexmedetomidine Sedation in Children With Down Syndrome and Obstructive Sleep Apnea. *The Journal of Clinical Sleep Medicine*. 2017; 13:721-727.

21. Balyan R; Zhang X; Chidambaran V; Martin LJ; Mizuno T; Fukuda T; Vinks AA; Sadhasivam S. **OCT1 genetic variants are associated with postoperative morphine-related adverse effects in children. Pharmacogenomics.** 2017; 18:621-629.

22. Balyan R; Mecoli M; Venkatasubramanian R; Chidambaran V; Kamos N; Clay S; Moore DL; Mavi J; Glover CD; Szmuk P. **CYP2D6 pharmacogenetic and oxycodone pharmacokinetic association study in pediatric surgical patients. Pharmacogenomics.** 2017; 18:337-348.
23. Fleck RJ; Ishman SL; Shott SR; Gutmark EJ; McConnell KB; Mahmoud M; Mylavarapu G; Subramaniam DR; Szczesniak R; Amin RS. *Dynamic Volume Computed Tomography Imaging of the Upper Airway in Obstructive Sleep Apnea*. The Journal of Clinical Sleep Medicine. 2017; 13:189-196.

24. Chidambaran V; Pilipenko V; Spruance K; Venkatasubramanian R; Niu J; Fukuda T; Mizuno T; Zhang K; Kaufman K; Vinks AA. *Fatty acid amide hydrolase-morphine interaction influences ventilatory response to hypercapnia and postoperative opioid outcomes in children*. Pharmacogenomics. 2017; 18:143-156.

25. Jankowski MP; Baumbauer KM; Wang T; Albers KM; Davis BM; Koerber HR. *Cutaneous neurturin overexpression alters mechanical, thermal, and cold responsiveness in physiologically identified primary afferents*. Journal of neurophysiology. 2017; 117:1258-1265.

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**Grants, Contracts, and Industry Agreements**

### Annual Grant Award Dollars

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Title</th>
<th>Sponsor</th>
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<th>Dates</th>
<th>Amount</th>
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<td>Steve Danzer, PhD</td>
<td>Identification and Reversal of Primary and Secondary Epileptogenic Changes</td>
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<td>Vidya Chidambaran, MD</td>
<td>Morphine Pharmacogenomics to Predict Risk of Respiratory Depression in Children</td>
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<td>Steve Danzer, PhD</td>
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<td>Psychological and Physiological Correlates of Endogenous Pain Modulation Patients with Temporomandibular Joint Disorder (TMJD).</td>
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<td>Luis Fernando Queme</td>
<td>Role of GDNF in the</td>
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### Investigator

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<td>James S Furstein, PhD, CRNA, CNP</td>
<td>Halyard Health</td>
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**Total Annual Industry Award Dollars**

$15,730

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<td>Cobar, PhD</td>
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<td>Jayant Nick Pratap</td>
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<td>Michael P Jankowski, PhD</td>
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**Total Annual Grant Award Dollars**

$2,892,107