

Kristina A. Simeone, Ph.D.
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Department of Pharmacology
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Education

Postdoctoral Fellowship II. Neurology Research Center Barrow Neurological Institute & St. Joseph's Medical Center Phoenix, AZ. Principal Investigator: Jong M. Rho, M.D.	2008-2009
Postdoctoral Fellowship I. Neurology Research Center Barrow Neurological Institute & St. Joseph's Medical Center, Phoenix, AZ. Principal Investigator: Jack F Kerrigan, M.D.	2006-2008
Ph.D. Anatomy and Neurobiology in Biological Sciences University of California at Irvine (UCI), Irvine, CA. Thesis Advisor: Tallie Z. Baram, M.D., Ph.D. Thesis Title: Neuroplasticity of the Hypothalamic-Pituitary-Adrenal Axis evoked by Early-Life Experience: Molecular and Functional Aspects	2001-2006
B.S. Neuroscience with Honors Regis University, Denver, CO Thesis Advisor: Eugene R. Delay, Ph.D.	1996-2000

Current Position

Assistant Professor Department of Pharmacology Creighton University School of Medicine (CUSOM)	2011-present
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Other Positions and Employment

Resident Assistant Professor, Department of Pharmacology, CUSOM Omaha, NE	2009-2011
Teaching Assistant. Department of Developmental Genetics, UCI, Irvine, CA	2002-2003
Senior Research Associate. Dr. Leena Peltonen, Department of Human Genetics, University of California at Los Angeles, Los Angeles, CA.	2000-2001
Student Research Assistant. Dr. Eugene Delay, Department of Neuroscience, Regis University, Denver, CO.	1998-2000
Student Research Assistant. Dr. Richard Thompson, Department of Biological Sciences, University of Southern California, Los Angeles, CA.	1998

Professional Memberships

Member, American Epilepsy Society
Member, Society for Neuroscience
Member, Women in Medical Science

Honors and Awards

Travel Award for 'Curing the Epilepsies 2013: Pathways Forward Conference' sponsored by NIH NINDS in Bethesda, MD.	4/2013
American Epilepsy Society, Member of the Scientific Advisory Board	2010-2012
Excellence in Research Award from CUSOM	2012
New Investigator Award from CUSOM	2012
Health Future Foundation Faculty Development Award	2009-2011
Selected to attend the AAMC "Early Career Women Faculty Professional Development Seminar," Washington DC.	7/2010
ARCS (Achievement Rewards for College Scientists) Award UCI, Irvine, CA	2005-2006

Service Activities

<u>Grant Reviewer</u>	
NIH Neuroendocrinology, Neuroimmunology, Rhythms and Sleep Study Section	02/2015
Creighton University, Center for Undergraduate Research and Scholarship	4/2014
NIH Clinical Neuroplasticity and Neurotransmission Study Section	12/2013
<u>Committee Assignments and Administrative Services</u>	
Executive Committee, CUSOM	2014-present
Committee to develop undergraduate neuroscience BS and MS degree programs, CUSOM	2014-present
Committee to develop an Interdisciplinary Bioscience Gateway Graduate Program, CUSOM	2013-2014
Committee to develop Center for Undergraduate Research and Scholarship, CUSOM	2013
Decision Accelerator Leadership Committee, CUSOM	2012
Medical Student Interviewer, CUSOM	

Invited Reviewer

Epilepsia
Neuroscience Letters
Molecular and Cellular Neuroscience
Reviewer for two chapters in *Homeostatic Control of Brain Function*
Eds. S. Masino and D. Boison, Oxford Press.

Annual Judge at Scientific Symposia

Midwest Student Biomedical Research Forum, Omaha, NE
St Albert's Research Symposium, CUSOM, Omaha, NE

Grants and Contract Awards

<u>Ongoing Research Support</u>	
National Institutes of Health, NINDS R01 (NS085389)	2014-2019

Title: PPARgamma, Epilepsy and Therapeutics.
Direct Costs: \$1,093,750
Role: Co-I

National Institute of Health NINDS (NS072179) 2012-2017
Title: Adenosine, Hypocretin and Sleep disorder co-morbidities Associated Epilepsy
Direct Costs: \$1,093,749
Role: PI

Health Future Foundation Faculty Start-up Funds 2011-Present
Creighton University School of Medicine
These funds enable new faculty members to set-up a laboratory and establish a viable research program.

Completed Research Support
Mitochondrial Impairment During Epileptogenesis 2010-2011
Epilepsy Foundation of America
Total: \$50,000 (Directs: \$50,000. Indirects: \$0)
Role: PI

A Novel Mitochondria-Targeted Treatment to Prevent Epilepsy and its Pathology 2010-2011
LB 692 New Initiatives Research Grant Program
Total: \$99,769 (Directs: \$99,769. Indirects: \$0)
Role: PI

The Role of Hypocretin in the Sleep Disorders of Epilepsy 2009-2011
Heath Future Foundation
Total: \$19,973 (Directs: \$19,973. Indirects: \$0)
Role: PI

Efficacy of Ramelteon in Animal Models of Chronic Limbic Epilepsy: 2008-2009
A Pilot Study
Takeda Pharmaceuticals
Total: \$80,000 (Directs: \$80,000. Indirects: \$0)
Role: Co-I

Multi-electrode recordings of human epileptic hypothalamic hamartoma 2006
tissue.
Barrow Neurological Foundation
Total: \$67,000 (Directs: \$67,000. Indirects: \$0)
Role: Co-I

Pre-doctoral Training Fellowship 2003-2005
National Institutes of Health, NINDS
University of California at Irvine
Role: Pre-doctoral Fellowship

Professional Development

Scholarship in Teaching Excellence (SITE) workshop, Creighton University. 6/2010
NSF grant writing workshop, Creighton University. 6/2010
Stereology course (Society for Neuroscience workshop) 2007

Cambridge Electronics Design short course for multi-electrode array analyses	2007
siRNA short course (Society for Neuroscience workshop)	2006

Peer-Reviewed Research Publications (Chronological)

* Co-first authors.

Please note, I have published under KA Dorenbos, KA Fenoglio and KA Simeone

1. Sullivan PG, Dubé CM, **Dorenbos K**, Steward O, Baram TZ (2003). Mitochondrial uncoupling protein-2 contributes crucially to the resistance of immature brain to excitotoxic neuronal death. *Ann Neurol.* 53:711-7.
2. Sullivan PG, Rippey NA, **Dorenbos K**, Concepcion RC, Agarwal AK, Rho JM (2004). The ketogenic diet increases mitochondrial uncoupling protein levels and activity in mouse hippocampus. *Ann Neurol.* 55:576-80.
3. Brown MR, Sullivan PG, **Dorenbos KA**, Modafferi EA, Geddes JW, Steward O (2004). Nitrogen disruption of synaptoneurosomes: an alternative method to isolate brain mitochondria. *J Neurosci Methods* 137:299-303.
4. **Fenoglio KA**, Brunson KL, Avishai-Eliner S, Chen Y, Baram TZ (2004). Region-specific onset of handling-induced changes in corticotropin-releasing factor and glucocorticoid receptor expression. *Endocrinology* 145:2702-6.
5. **Fenoglio KA**, Brunson KL, Avishai-Eliner S, Stone BA, Kapadia BJ, Baram TZ (2005). Enduring handling-evoked enhancement of hippocampal memory function and glucocorticoid receptor expression involves activation of the corticotropin-releasing factor type 1 receptor. *Endocrinology* 146:4090-6.
6. **Fenoglio KA**, Chen Y, Baram TZ (2006). Neuroplasticity of the hypothalamic-pituitary-adrenal (HPA) axis early in life requires recurrent recruitment of stress-regulating brain regions. *J Neurosci.* 26:2434-42.
7. **Fenoglio KA**, Brunson KL, Baram TZ (2006). Hippocampal neuroplasticity induced by early-life stress: functional and molecular aspects. *Front Neuroendocrinol.* 27:180-92.
8. Chen Y, **Fenoglio KA**, Dube CM, Grigoriadis DE, Baram TZ (2006). Cellular and molecular mechanisms of hippocampal activation by acute stress are age-dependent. *Mol Psychiatry.* 11:992-1002.
9. **Fenoglio KA**, Wu J, Kim DY, Simeone TA, Coons SW, Rekate HL, Rho JM, Kerrigan JF (2007). Hypothalamic Hamartoma: Basic Mechanisms of Intrinsic Epileptogenesis. *Semin Pediatr Neurol.* 14:51-9.
10. Kim DY, **Fenoglio KA**, Nakada S, Coons S, Wu J, Rekate H, Kerrigan JF, Rho JM (2008). GABA(A) receptor-mediated activation of L-type calcium channels induces neuronal excitation in surgically resected human hypothalamic hamartomas. *Epilepsia* 49:861-71.
11. Beggs J, Nakada S, **Fenoglio KA**, Coons S, Wu J, Kerrigan JF (2008). Hypothalamic hamartomas associated with epilepsy: Ultrastructural features. *J Neuropath and Exp Neurol.* 67:657-68.
12. Kim DY, **Fenoglio KA**, Kerrigan JF, Rho JM (2009). Bicarbonate contributes to GABA(A) receptor-mediated neuronal excitation in surgically resected human hypothalamic hamartomas. *Epilepsy Res.* 83:89-93.
13. **Fenoglio-Simeone KA**, Wilke JC, Milligan HL, Allen C, Rho JM, Maganti R (2009). Ketogenic diet treatment abolishes seizure periodicity and improves diurnal rhythmicity in epileptic Kcna1-null mice. *Epilepsia* 50:2027-34.
14. **Fenoglio-Simeone KA***, Mazarati A*, Hockley S, Shin D, Wilke J, Milligan H, Sankar R, Rho J, Maganti R (2009). Effects of the Selective Melatonin Receptor Agonist Ramelteon. *Epilepsy and Behav.* 16:52-7.

15. Head E, Nukala VN, **Fenoglio-Simeone KA**, Muggenburg BA, Cotman CW, Sullivan PG (2009). Effects of age, dietary and behavioral enrichments on brain mitochondria in a canine model of human aging. *Exp Neurol*. 220:171-6.
16. **Fenoglio-Simeone KA***, Chan M*, Muhammad L, Seminara S, Kerrigan JF. (2010) Precocious Puberty Associated with Hypothalamic Hamartomas Correlates with Anatomic Features but not with Expression of GnRH, TGF α , or KISS1. *Horm Res Paediatr*.73:312-9.
17. **Simeone KA**, Kim DY, Kerrigan JF, Rho JM, Simeone TA (2011). L-type calcium channel blockade reduces network activity in human epileptic hypothalamic hamartoma tissue. *Epilepsia* 52:531-540.
18. Kerrigan JF, Parsons A, Rice SG, **Simeone KA**, Shetter AG, Abl A, Prenger E, Coons SW (2012). Hypothalamic Hamartomas: Neuropathological Features with and without Prior Gamma Knife Radiosurgery. *Stereotact Funct Neurosurg*. 91:45-55.
19. Simeone TA, **Simeone KA**, Samson KK, Kim DY, Rho JM (2013). Loss of the Kv1.1 potassium channel promotes pathologic sharp waves and high frequency oscillations in in vitro hippocampal slices. *Neurobio Dis*. 54:68-8.
20. Simeone TA, Matthews SA, Samson KK, **Simeone KA** (2014) *In vivo* ketogenic diet treatment attenuates pathologic sharp waves and high frequency oscillations in *in vitro* hippocampal slices from epileptic Kv1.1a knockout mice. *Epilepsia*. 55:44-9.
21. **Simeone KA**, Matthews SA, Samson KK, Simeone TA. (2014) Targeting deficiencies in mitochondrial respiratory complex I and functional uncoupling exerts anti-seizure effects in a genetic model of temporal lobe epilepsy and in a model of acute temporal lobe seizures. *Exp Neurol*. 251:84-90.
22. Kim DY*, **Simeone KA***, Simeone TA, Pandya J, Wilke J, Ahn Y, Geddes J, Sullivan PG, Rho JM (*in press*). Ketone Bodies Mediate Anti-Seizure Effects Through mPT. *Annals of Neurology*.

Book Chapters (Peer Reviewed and Invited):

1. Simeone KA, Johnson CJ, Samson KK, Roundtree HM, **Simeone TA**, Tarhok LA. (*in press*). Sleep In Masino & Boison (Eds), *Brain Homeostasis*. Oxford Press.

Peer-Reviewed Research Articles Submitted:

1. Simeone TA, Matthews SA, Samson KK, **Simeone KA** (*submitted*) Regulation of brain PPAR γ mediates ketogenic diet anti-seizure efficacy.
2. Roundtree HM, Simeone TA, Samson KK, **Simeone KA** (*submitted*) Seizure-induced injury diminishes adenosinergic tone in the hypocretin-rich lateral hypothalamus of Kcna1-null epileptic mice.

Peer-Reviewed Research Articles In Preparation:

1. **Simeone TA**, Samson KK, Simeone KA. Carbamazepine inhibition of sharp wave-ripple complexes is associated with synapse-specific effects on neurotransmission and short-term plasticity. (stage: writing)
2. Ranade NP, Samson KK, Simeone KA, **Simeone TA**. Effects of PPAR γ modulation on sharp wave-ripple complexes and high potassium-evoked seizure like events in in vitro hippocampal slices. (stage: writing)
3. **Simeone TA**, Samson KK, Simeone KA. Inhibition of mitochondrial complex I induces the emergence of fast ripple oscillations. (stage: analyzing data and writing)
4. Cezar Gavrilu, **Simeone TA**, Rho JM. Intrinsic biophysical properties of CA1 oriens and radiatum interneurons of epileptic Kcna1-null mice. (stage: analyzing data and writing)

Presentations and Abstracts

Abbreviations: AES, American Epilepsy Society; SFN, Society for Neuroscience; AAAS, American Association for Advancement of Science

Invited Lectures

'Mitochondria as a Novel Anti-Seizure Target,' Biochemistry Seminar Series, CUSOM, Omaha, NE.	2/2015
'Seizure Propagation to the Lateral Hypothalamus and Sleep-Wake Triggers,' Oregon Health Science University, Portland, OR.	5/2014
'Mitochondria, Neurotransmission and Epilepsy,' Biomedical Science Research Series, CUSOM, Omaha, NE.	4/2014
'Ketogenic Diet may Target Hypocretin Circuitry in a Model of Epilepsy and Sleep Disorders,' Ketogenic Diet: Hormone and Hypothalamic Issues Special Interest Group AES Conference, San Diego, CA.	12/2012
'Epilepsy, Sleep Disorders and the Ketogenic Diet,' Neurology Grand Rounds, CUSOM, Omaha, NE	2/2012
'Epilepsy, Sleep Disorders and Adenosine,' William C. Dement Sleep and Chronobiology Summer Research Apprenticeship Program Brown University, Providence, RI.	8/2010
'Mitochondria, Metabolism and Epilepsy,' Department of Biochemistry and Redox Biology Center, University of Nebraska at Lincoln, Lincoln, NE.	11/2010
'Epilepsy and its Sleep Disorder Co-Morbidity: The Role of Adenosine Dysregulation,' Department of Pharmacology and Experimental Neuroscience Seminar Series, University of Nebraska Medical Center, Omaha, NE.	3/2010
'Adenosine, Epilepsy and Sleep,' Molecular Biology Faculty Conference, CUSOM, Omaha, NE	2009
'Epileptogenicity in Human epileptic Tissue <i>In Vitro</i> ,' Epilepsy Research Rounds, Barrow Neurological Institute, Phoenix, AZ	2008
'Mechanisms of Epileptogenesis in Human Hypothalamic Hamartoma.' Neuroscience Symposium, Arizona State University, Phoenix, AZ	2008
'A Planar Multielectrode Array Analysis of Resected Human Hypothalamic Hamartoma Tissue,' Winter Conference on Brain Research, Vale, CO	2007
'Epigenetics: Methylation and Acetylation,' University of California at Irvine, Irvine, CA	2004

Poster Presentations at National and International Meetings

1. Simeone TA, Matthews SA, Samson KK, **Simeone KA** (2014). Brain PPARgamma mediates ketogenic diet anti-seizure efficacy. American Epilepsy Society, Seattle, WA.
2. **Simeone KA**, Roundtree HM, Samson KK, Simeone TA (2014). Consequences of seizure propagation to the sleep regulating lateral hypothalamus. Society for Neuroscience, Washington D.C.

3. HM Roundtree, CC Johnson, SA Matthews, TA Simeone, **KA Simeone** (2014). Effects of the dual orexin receptor antagonist almorexant on sleep in the *Kcna1*-null mouse model of epilepsy. MSRB and St. Albert's Research Day, CUSOM.
4. **KA Simeone** (2013). "A Novel Mitochondria-Targeted Anticonvulsant Treatment." NIH Curing the Epilepsies: Pathways Forward Conference in Bethesda, MD.
5. **Simeone KA**, Matthews SA, Samson KK, Simeone TA (2012). "A Novel Mitochondria-targeted Anticonvulsant Treatment." Poster Presenter. AES.
6. Roundtree HM, Samson KK, Simeone TA, **Simeone KA** (2012) "Evidence of Pathology in the Lateral Hypothalamus: A Connection Between Sleep Disorder and Epilepsy in the Kv1.1 Knock-Out Mouse." AES.
7. Ranade NP, Samson KK, **Simeone KA**, Simeone TA (2012). "Anticonvulsant Effects of Pioglitazone on High Potassium Seizure-Like Events in *in vitro* Hippocampal Slices." AES.
8. Samson KK, **Simeone KA**, Rho JM, Simeone TA (2012). "Effects of Ketogenic Diet and Constituents on Pathologic Sharp Waves and High Frequency Oscillations." "Small and Large Neurons from Human Epileptic Hypothalamic Hamartoma: Golgi Analysis of Surgically-Resected Tissue." John F. Kerrigan, A. Parsons, **Kristina A. Simeone**, J. Wu, J. Beggs, S. Coons.
9. **Simeone KA**, Roundtree HM, Samson KK, Simeone TA (2011). "Pathologic Hypocretin Circuitry: A Novel Mechanism of Sleep Disorders Associated with Epilepsy in Kv1.1 Knock-Out Mice." Poster Presenter. AES.
10. Simeone TA, **Simeone KA**, Samson KK, Rho JM (2011). "Loss of Kv1.1 Alpha Subunit Alters Hippocampal Sharp Wave-Ripple Complexes and Promotes the Emergence of Pathologic Fast Ripples." AES.
11. **Simeone KA**, Rho JM, Jain N, Simeone TA (2010). "Pathologic Mitochondria and Refractory Epilepsy: Carbamazepine (CBZ) Directly Modulates Mitochondrial Function in Wild-Type and Epileptic Mice." Poster Presenter. AES.
12. Strobel A, **Simeone KA**, Coons SW, Kerrigan JF (2009). Cellular Density of Human Hypothalamic Hamartomas, AES.
13. Strobel A, **Fenoglio KA**, Muhammad L, Kerrigan JF (2008). Optimization of Golgi Stain to Determine Neuronal Morphology of Human Hypothalamic Hamartoma, AAAS.
14. **Fenoglio KA**, Simeone TA, Kim DY, Schottler F, Rho JM, Kerrigan JF (2007). Hyperexcitability and Hypersynchrony Detected in Human Epileptic Hypothalamic Hamartoma Tissue Using a Multi-Electrode Array, AES, abstract #3.079.
15. Kim DY, **Fenoglio KA**, Coons SW, Wu J, Kerrigan JF, Rho JM (2007). GABAA Receptor-Triggered Calcium Influx Through L-type Calcium Channels Induces Neuronal Excitation in Brain Slices From Surgically-Resected Human Hypothalamic Hamartomas, AES, abstract #3.074.
16. Beggs JL, Nakada S, **Fenoglio KA**, Coons SW, Kerrigan JF (2007). Hypothalamic Hamartomas Associated With Intractable Epilepsy: Ultrastructural Features, AES, abstract #3.071.
17. Kerrigan JF, Nakada S, **Fenoglio KA**, Beggs JL, Wu J, Coons SW (2007). GABAergic Neurons in Hypothalamic Hamartoma Tissue: Immunohistochemical Features. AES, abstract #2.048.
18. Maganti RK, Marsh ST, Good LB, **Fenoglio KA**, Treiman D (2007). Circadian Rhythm Disturbances in Animal Model of Chronic Limbic Epilepsy, AES, abstract #3.079.
19. **Fenoglio KA**, Simeone TA, Schottler F, Kim DY, Rekate HL, Kerrigan JF, Rho JM (2007). A Planar Multielectrode Array Analysis of Resected Human Hypothalamic Hamartoma Tissue. AES, abstract #4.004.
20. Simeone TA, **Fenoglio KA**, Milligan H, Rho JM (2007). Ketone Bodies Decrease Hyperexcitability in Acute Hippocampal Slices from *Kcna1*-null Mice. WCBR, abstract #76.
21. Milligan H, Simeone TA, **Fenoglio KA**, Rho JM (2007). The Ketogenic Diet Is Neuroprotective and Reduces Mitochondrial Oxidative Damage in Mouse Models of Acute and Chronic Seizures. WCBR, abstract #77.
22. **Fenoglio KA**, Chen Y, Kapadia B, Baram TZ (2006). Neuroplasticity of Hypothalamic-Pituitary-Adrenal (HPA) Axis Genes in Developing Rat Involves Recurrent Activation of Stress-Regulating Brain Regions. SfN, abstract #563.19.

23. Burgdorff CJ, **Fenoglio KA**, Baram TZ (2006). A Novel Mouse Model for Chronic Early-Life Stress Based on Altered Maternal Behavior. SfN, abstract #562.9.
24. **Fenoglio KA**, Avishai-Eliner S, Stone BA, Kapadia BJ, Grigoriadis D, Baram TZ (2005). Enduring, Handling-Evoked Enhancements of Hippocampal Memory Function and GR Expression Involve Activation of the Corticotropin Releasing Hormone Receptor, CRF1. Neuroendocrine Workshop, abstract # 15 and at SfN, abstract #527.8
25. **Fenoglio KA**, Chen Y, Brunson KL, Gonzalez-Vega, R, Baram, TZ (2004). Maternal Care-Induced Neuroplasticity of the Hypothalamic-Pituitary-Adrenal (HPA) Axis Involves Synchronized, Recurrent Neuronal Activation of Thalamic Paraventricular Nucleus (PVT). SfN, abstract #760.8
26. **Dorenbos-Fenoglio KA**, Brunson KL, Avishai-Eliner S, Chen Y, Baram TZ (2003). When and Where do Neonatal Handling-Induced Changes in Corticotropin-Releasing Hormone Gene Expression Originate? SfN, abstract #397.7
27. **Dorenbos KA**, Dube CM, Sullivan PG, Steward O, Baram TZ (2002). Enhanced UCP2-Mediated Mitochondrial Uncoupling Contributes Critically to the Resistance of the Immature Brain to Seizure-Induced Neuronal Death. SfN, abstract #32.11
28. Berchtold NC, Sullivan PG, **Dorenbos KA**, Kesslak JP, Steward O, Cotman CW (2002). Exercise-Induced Changes in Mitochondrial Function in Hippocampus. SFN, abstract #751.6
29. **Dorenbos KA**, Delay, ER (2000). Effects of Post-Injury Training on Recovery of Spatial Deficits in Rats. SfN, abstract #842.12
30. Mariotti J, Quintana JM, **Dorenbos KA**, Delay ER (1999). Continuous Wave Doppler Radar as an Automated Behavioral Discriminatory Tool. SfN, abstract.

Poster Presentations at Local Conferences

1. **Simeone KA**, Roundtree HM, Samson KK, Simeone TA (2012). "Pathologic Hypocretin Circuitry: A Novel Mechanism of Sleep Disorders Associated with Epilepsy in Kv1.1 Knock-Out Mice." Creighton University, The Faculty Club Research at Center Stage.
2. Simeone TA, **Simeone KA**, Samson KL, Rho JM (2010). "Normal Network Emergent Properties Hijacked by an Epileptic Brain." Creighton University, The Faculty Club Research at Center Stage.
3. **Simeone KA**, Rho JM, Jain N, Simeone TA (2010). "Pathologic Mitochondria and Refractory Epilepsy: Carbamazepine (CBZ) Directly Modulates Mitochondrial Function in Wild-Type and Epileptic Mice." Poster Presenter. Creighton University, The Faculty Club Research at Center Stage.

Community Outreach

'High-fat diet is no picnic' Front-page article in the Omaha World Herald 1/2013
describing our research with the ketogenic diet. The article included an interview with a local family and their daughter on the diet.

'Food For Thought' on WOWT News 12/2013
Interviewed by Malorie Maddox to discuss how what you eat influences your brain. <http://www.wowt.com/video?videoid=2732523>

'Creighton Pharmacology Professors Probe Mysteries Surrounding Epilepsy' 2014
Interviewed by CUSOM Newsletter to discuss our latest research of how food can have anti-seizure effects in epilepsy.
<http://medschool.creighton.edu/medicine/newscurrent/simeones/index.php>

Teaching Activities

Course Director

ORB 311 (Oral Biology) Dental Pharmacology (5 credits)	2011-Present
PHR 750 (Pharmacology) Discussions in Pharmacology (Co-director)	2012-Present
Neuroscience Journal Club (Co-director)	2013-Present

Lectures

<u>IDC 601 (Interdisciplinary Course) Responsible Conduct of Research</u> Mentoring panel for graduate students (1.5 hrs)	2012-Present
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<u>IDC 216 Endocrine and Reproductive Pharmacology (5 credits)</u> Contraceptive Drugs (1hr) 2 nd yr medical school students	2012-Present
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<u>ORB 411 Dental Pharmacology Review Course</u> Autonomic Drugs (1 hr)	2012-Present
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<u>IDC 105 Small Group Pharmacology Discussions (3 credits)</u> 1 st year medical school course Principles of Pharmacology (4hrs) Clinical trials and pharmacokinetics (4hrs)	2011-Present
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<u>ORB 311 Dental Pharmacology (5 credits)</u> Introduction to autonomic pharmacology (2hrs) Cholinomimetics (1hr) Cholinesterase inhibitors (1hr) Antimuscarinic drugs (1hr) Ganglionic and neuromuscular blockers (1hr) Sympathomimetic drugs (2hrs) Adrenergic blocking drugs (2hrs) Histamine receptor blockers (1hr)	2011-Present
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<u>PHR 750 Small group discussions in Pharmacology (as needed)</u> Neuroscience Introduction (3 hrs) Neuroanatomy (3 hrs) Neurophysiology (3 hrs) Electrophysiology (3 hrs) Experimental Techniques (1 hr) Mitochondrial bioenergetics (2 hrs) Brain oscillations (1 hr) Epilepsy (4 hrs) Neurometabolism (2 hrs) Anti-seizure drugs and therapies (6 hrs)	2012-Present
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<u>Research Neuroanatomy Lecture (as needed)</u> Developed a two-hour small-group training lecture on Neuroanatomy.	2004-Present
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Mentoring

Graduate Student Advisor

Advisor for Pharmacology Doctoral Candidate Harrison Roundtree CUSOM, Omaha, NE	2011-Present
Advisor for Pharmacy Master's Student Shruthi Iyer CUSOM, Omaha, NE	2015-Present

Graduate Student Committee Member

Committee member for Biochemistry doctoral candidate Ryan Groves University of Nebraska, Lincoln, NE	2012-Present
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Mentor

Undergraduate student research: Brianan Zeiba	Starting Winter 2015
Undergraduate student research: Sara Knowles	Starting Winter 2015
Undergraduate student research: Eric Stenak	Spring 2014-Present
Pharmacology Graduate student: Harrison Roundtree	Spring 2011-Present
Medical student (M1) research: Sara Walker	Summer 2013
Medical student (M1) research: Tabitha Weller	Summer 2013
Rotating pharmacology graduate student: Andrew Plotner, CUSOM	Fall 2013
Rotating pharmacology graduate student: Harrison Roundtree, CUSOM	Winter 2010
Rotating pharmacology graduate student: Nicole Gardner, CUSOM	Fall 2010
Undergraduate student research: Elizabeth Reese, CUSOM	Summer 2010
Undergraduate student research: Michael Lowry, University of Connecticut	Summer 2010
Medical student (M1) research: Timothy Randolph, CUSOM	Summer 2010
Rotating pharmacology graduate student: Ankita Nagvekar, CUSOM	Fall 2009
Rotating pharmacology graduate student: Neha Jane, CUSOM	Fall 2009
Anatomy and neurobiology PhD graduate student: Courtney Borgdorf, UCI	2005-2006
Anatomy and neurobiology MD/ PhD graduate student: Autumn Ivy, UCI	2005-2006
Rotating anatomy and neurobiology graduate student, UCI	2005