

Date Prepared: 2-2016

CURRICULUM VITAE

Christopher M. Norris, PhD
Associate Professor, with tenure, Regular Faculty
Pharmacology and Nutritional Sciences
Sanders-Brown Center on Aging
University of Kentucky College of Medicine



I. GENERAL INFORMATION

Office Address **800 S. Limestone St, 224 Sanders-Brown Building**
Lexington, KY, 40536

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Telephone **859-218-2308**

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II. EDUCATION

Undergraduate

Washington & Jefferson College

Washington, PA

09/1988-05/1992 BA, Psychology, Cum Laude

Undergraduate research: "Spatial categorization in infants".

Advisor: Dr. Paul C. Quinn

Professional/Graduate

Wake Forest University

Winston-Salem, NC

09/1992-05/1994 M.A., Experimental Psychology

Master's Thesis: "Relationship between inhibition of the acoustic startle response and the protection of prepulse processing"

Advisor: Dr. Terry D. Blumenthal

University of Virginia

Charlottesville, VA

09/1994-05/1998 Ph.D., Neuroscience

Doctoral Thesis: "Changes in hippocampal synaptic function during aging"

Advisor: Dr. Thomas C. Foster

II. EDUCATION (continued)

Post-Graduate

- Molecular and Biomedical Pharmacology, University of Kentucky College of Medicine**
Lexington, KY
07/1998-09/2003 Postdoctoral Fellowship/Scholarship
Research Project: L-type Ca²⁺ channel regulation in primary hippocampal neurons by the protein phosphatase, calcineurin
Advisor: Dr. Philip Landfield
- Molecular and Biomedical Pharmacology, University of Kentucky College of Medicine**
Lexington, KY
09/2003-07/2004 Research Associate
Research Project: Calcineurin and biobehavioral markers of aging
Advisors: Drs. Philip Landfield and Susan Kraner

III. ACADEMIC APPOINTMENTS

Faculty

- University of Kentucky College of Medicine**
Lexington, KY
07/2004-06/2010 Assistant Professor of the Department of Pharmacology and Nutritional Sciences and the Sanders-Brown Center on Aging, Regular Faculty, Tenure-track, Academic, Full time
- 06/2010-present Associate Professor of the Department of Pharmacology and Nutritional Sciences and the Sanders-Brown Center on Aging, Regular Faculty, With tenure, Academic, Full time

IV. CONSULTING ACTIVITIES

National/International

- McGraw-Hill Education**
2007 Academic Reviewer
Description: Provided critical review of Basic and Clinical Pharmacology (12th Edition), Chapter 55:Immunopharmacology
- University of Wisconsin, Milwaukee**
02/2008 Milwaukee, WI
Consultant/Electrophysiology
Description: Consulted Dr. James Moyers' lab on extracellular recording techniques in hippocampal slices.

V. TEACHING ACTIVITIES

Wake Forest University

Winston-Salem, NC

1993-1994 Behavioral Research Statistics Laboratory/Undergraduate students
Topic: Research statistics in behavioral research (2 h)

University of Virginia

Charlottesville, VA

1997-1998 Medical Neuroscience laboratory/Medical Students
Topic: Neuroanatomy (2 h)

University of Kentucky College of Medicine

Lexington, KY

2003 Advanced Molecular Pharmacology/Pharmacology Graduate program/Graduate and professional students
Topics: NMDA receptors/Voltage gated Ca²⁺ channels (1.5 h), Ca²⁺ signaling via calcineurin. (1.5 h)

2005 Aging of the Nervous System/ANA710/Integrated Biomedical Sciences Program/Graduate Students
Topics: Aging-related changes in synaptic plasticity (1.5 h), Role of Neuroglia in Brain Aging (1.5 h)

2005-present Molecular Drug Targets and Therapeutics/PHA622/Pharmacology Graduate Program/Graduate and Professional Students
Topics: Drugs of abuse (2-3 h); Antiparkinsonian and antipsychotic Drugs (1 h); Immunosuppressants (1 h)

2007-2012 Medical Pharmacology/MD824/Medical School students
Topics: Drugs of abuse (3 h); Antipsychotics (1 h); Immunosuppressants (2-3 h)

2012 Aging of the Nervous System/ANA710/Integrated Biomedical Sciences Program/Graduate Students
Topics: Ca²⁺ dysregulation and neurologic dysfunction with aging (1.5 h)

2006-present Dental Pharmacology/OBI836/Dental Students
Topics: Drugs of abuse (1-2 h)

2013-present Behavioral Basis of Medicine/MD813/Medical School students
Topics: Drugs of abuse (2 h); Antipsychotics (1 h)

2013-present Foundations of Infection, Disease and Therapeutics/MD810/Medical School students
Topics: Immunosuppressants (2 h)

VI. ADVISING ACTIVITIES

Student Advising

University of Kentucky College of Medicine

Lexington, KY

PhD Advisees

- 10/2004-12/2007 *Michelle Sama*, Molecular and Biomedical Pharmacology
Role: Primary Mentor
Dissertation title: Characterization of the calcineurin/NFAT pathway in astrocyte-based immune/inflammatory processes and Alzheimer's disease pathology
Present position: Assistant Professor, Vermont Technical College, Randolph Center, VT)
- 09/2005-05/2008 *Dusan Jeftinija*, Molecular and Biomedical Pharmacology
Role: Co-Mentor
Dissertation title: The Role of the L-type Voltage-gated Calcium Channel Ca (V) 1.2 in Skeletal Muscle Development and Fiber Type Specification
Present position: Graduate Student School of Pharmacy, University of Kentucky
- 09/2006-05/2011 *Diana (Mathis) Sama*, Gerontology
Dissertation title: Interactions between Ca²⁺ dysregulation and Neuroinflammation
Present position: Post-doc SCoBIRC, University of Kentucky, Mentor: Kathryn Saatman
- 09/2007-05/2012 *Jennifer Furman*, Molecular and Biomedical Pharmacology
Role: Primary Mentor
Dissertation title: Emerging potential of astrocytes and calcineurin/NFAT signaling in the treatment of Alzheimer's disease
Present position: Post-doc UT Southwestern Medical Center, Mentor: Marc Diamond
- 09/2012-present *Melanie Pleiss*, Pharmacology and Nutritional Sciences
Role: Primary Mentor
Dissertation title: Astrocytic calcineurin and connexin43 gap junctions in Alzheimer's disease

Postdoctoral advisees/Senior Scientists

- 2005–2011 *Hafiz Mohammad Abdul*, Sanders-Brown Center on Aging
Role: Primary Supervisor
Present position: Scientist II Proteostasis Therapeutics Inc., Boston MA)
- 2012-present Pradoldej Sompol: Scientist II, Sanders-Brown Center on Aging
Role: Primary Supervisor
- 2013-present Susan Kraner: Scientist III, Sanders-Brown Center on Aging
Role: Primary Supervisor

VIII. ADVISING ACTIVITIES (continued)

Rotation students

2004	Leslie Gilmer, Gayle Joseph
2006	Sourik Ganguly
2008	Robin Webb
2010	Paulina Davis
2012	Isabel Derera, Cassi Binkley
2013	Kendra Staggs, Maria Dixon
2015	Jacob Dunkerson

High School/Undergraduate/Professional Students

2012	Korey Brammell (undergraduate)
2013	Phillip Norton (Medical Student)
2014-2015	Esther Putman (Lafayette High School Student)

Thesis & Dissertation Committees

2007	Justin Nickels, Anatomy and Neurobiology (outside reviewer):
2008	Justin Rogers, Pharmacology
2009	Michelle Stephens, Anatomy and Neurobiology (outside reviewer):
2010	Robert Hunt, III, Physiology (outside reviewer)
2011	Martin Zane, Center for Neurodegenerative Diseases University of Texas Medical Branch, Galveston TX (outside reviewer)
	Pamela Phares, College of Nursing (outside reviewer)
2012	Robin Webb, Biochemistry
2013	Kathleen Schoch, Physiology (outside reviewer)
2014	Thomas Platt, Biochemistry (outside reviewer)
	Paulina Davis, Pharmacology
2017(expected)	Erica Weekman, Physiology
2017 (expected)	Olga Zolochovska, Center for Neurodegenerative Diseases University of Texas Medical Branch, Galveston TX (outside reviewer)
2019 (expected)	Han Ly, pharmacology

Mentored Awards

Donovan Scholarship:	Diana Sama 2008-2010
PhRMA Foundation Pre Doctoral Fellowship:	Jennifer Furman 2011-2013
NIH T32:	Pradoldej Sompol, 2012-2014
PhRMA Foundation Pre Doctoral Fellowship:	Melanie Pleiss 2014-2015
NIH F31:	Melanie Pleiss 2015-2017
Irene & Eric Simon Brain Research Foundation Summer Fellowship	Esther Putman

Invited Referee for Academic Appointment, Promotion or Tenure

	University of Kentucky College of Medicine
	Lexington, KY
09/2014	Recommendation for Promotion to Rank of Associate Professor

VII. ADMINISTRATIVE ACTIVITIES & UNIVERSITY SERVICE

University

University of Kentucky
Lexington, KY

07/2012-present **Administration**
Member, Institutional Biosafety Committee

College

University of Kentucky College of Medicine
Lexington, KY

2016- **Education & Research**
2010–2012 Shared Governance Committee
2011-2012 Gerontology Student Affairs Committee
2011-2012 Lymph Node/Marrow/Blood Curriculum Committee
2011-2012 Behavioral Basis Curriculum Committee

Department

**University of Kentucky Department of Molecular and Biomedical
Pharmacology**
Lexington, KY

2008-2010 **Administration**
Faculty search committee, Molecular and Biomedical
Pharmacology
2008–present Full member of the Graduate Faculty
2009–present Affiliate Faculty Member of the UK Graduate Center for
Gerontology

2009–present **Education & Research**
2009 Course Director, PHA622-002, Neuropharmacology
Master Educator Fellowship Seminar Series Participant

**University of Kentucky, College of Medicine Sanders-Brown
Center on Aging**
Lexington, KY

2010–2013 **Administration**
Faculty search committee
2011 Rodent behavior core exploratory committee

VIII. HONORS & AWARDS

1991-1992	President of Psi Chi, National Honor Society in Psychology Washington & Jefferson Chapter, Washington & Jefferson College
1992	Top Psychology Scholar Award, Given to two psychology majors based on GPA and research excellence - Washington & Jefferson College
1997	Glenn Foundation/American Federation for Aging Research Graduate Scholarship
1997	Michael J. Peach Outstanding Graduate Student Award Nominee, Based on research and academic achievement, University of Virginia
1998	Eric Lothman Award for Outstanding Research in the Neurosciences, University of Virginia
1999, 2002', 03	Postdoctoral Research Forum Award, University of Kentucky Neuroscience Research Day
1998-2000	Neurobiology of Aging Postdoctoral Fellowship (T32), University of Kentucky
2000-2003	Postdoctoral National Research and Service Award (F32) from the National Institute on Aging
2005-2015	Charles T. Wethington Award for Research Excellence, University of Kentucky Medical Center, University of Kentucky

X. PROFESSIONAL ACTIVITIES, PUBLIC SERVICE & PROFESSIONAL DEVELOPMENT

Memberships

1998-present	Society for Neuroscience
1998-present	Bluegrass Chapter of the Society for Neuroscience
1998-present	Molecular and Cellular Cognition Society
2013-present	Researchers Against Alzheimer's
2014-present	International Society to Advance Alzheimer's Research and Treatment (ISTAART)
2014-present	American Society for Neurochemistry

Positions Held

2005-2006:	Activities coordinator, Bluegrass Society for Neuroscience
2015-	President-Elect, Bluegrass Society for Neuroscience
2015	ISTAART Innate Immunity PIA executive committee member

X. PROFESSIONAL ACTIVITIES, PUBLIC SERVICE & PROFESSIONAL DEVELOPMENT (cont'd)

National Institutes of Health Study Sections

2006–2008	ZRG1 F02A NIH <i>Ad Hoc</i> member
2008	ZHD1 SRC(99) NIH Program Project review committee member
2009	ZAG1 ZIJ-6 (O7) NIA Special Emphasis Panel, RC2 grant reviewer
2010	ZRG1 BCMB-B NIH, Special Emphasis Panel member
2011	NIGMS SCORE grant panel member
2012	ZAG1 ZIJ-2 (J1)2012 NIH PPG review committee member
2013	ZNS1 SRB-N (04), NIH EUREKA <i>Ad hoc</i> study section member ZRG1 MDCN-B (03) M NIH Conflict study section member
2014	NIH CNNT, <i>Ad hoc</i> reviewer
2015	ZRG1 BDCN-W (05) NIH Conflict study section member
2016	ZRG1 CMBG, <i>Ad hoc</i> reviewer

Grant reviews non-NIH

2003–present	Alzheimer's Association Research Grants Program
2008	Biotechnology and Biological Sciences Research Council
2009	Alzheimer's and Related Diseases Research Award Fund
2010	New Zealand Health Research Council
2010-2011	Medical Research Council
2010, '12, '14	University of Kentucky ADC pilot grants
2011	Louisiana Board of Regents' Research Competitiveness Subprogram
2013	Stichting Alzheimer Onderzoek-Fondation Recherche Alzheimer grant review
2015	Paul G. Allen Family Foundation

Editorial Boards

2011-2013	World Journal of Biological Chemistry
2011–present	PLoS ONE
2015–present	Frontiers in Neuroscience, Neuropharmacology

Journal Peer-Reviewing since 2003

Have provided peer review for over 40 different Scientific journals including *The Journal of Neuroscience*, *Journal of Biological Chemistry*, *Proceedings of the National Academy of Sciences USA*, *Glia*, *Neurobiology of Aging*, *Progress in Neurobiology*, *Journal of Alzheimer's Disease*, *Journal of Neurochemistry*, and *Journal of Neuroinflammation*

Media Contributions

Alzheimer's Research Forum (www.alzforum.org)

10/18/2009	The skinny on NFATs-- Mediators of A β Toxicity? Interviewer/columnist: Tom Fagan; Web-based News story (link)
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X. PROFESSIONAL ACTIVITIES, PUBLIC SERVICE & PROFESSIONAL DEVELOPMENT (cont'd)

Media Contributions (cont'd)

- 12/2/2009 Chicago: NFATs, Calcineurin—Mediators of AD, PD Pathogenesis?
Interviewer/columnist: Esther Landhuis
Web-based News story ([link](#))
- 2/19/2010 Calcium Hypothesis—Studies Beef Up NFAT, CaN, Astrocyte
Connections. Interviewer/columnist: Esther Landhuis
Web-based News story ([link](#))

Invited Commentary on Research Articles

- Alzheimer's Research Forum** (www.alzforum.org)
- 04/15/2010 Abdul et al., J Neurosci. 2009 Oct 14;29(41):12957-69. ([link](#))
- 10/01/2010 Cruchaga et al PLoS Genet. 2010 Sep;6(9) ([link](#))
- 02/25/2011 Mair et al Nature. 2011 Feb 17;470(7334):404-8. ([link](#))
- 08/27/2014 Caraveo et al., PNAS 2014 Aug 26;111(34):E3544-52 ([link](#))
- 12/22/2014 Lian et al Neuron Dec 18. pii: S0896-6273 ([link](#))

Community Service

- 2003– Judge for science fairs at Glendover (2003-2005) and Stonewall
Elementary Schools (2005-present)
- 2006,2007 Neuroscience exhibit for the Fayette County Science Fair Finals
- 2007: Neuroscience exhibit for Explorium, the Lexington Children's Museum
- 2006 – 2009 Neuroscience Exhibit for Brain Awareness Week, Stonewall Elementary
- 2011 Neuroscience exhibit for Stonewall Elementary Science Night

XI. SPEAKING ENGAGEMENTS

Local

University of Kentucky Lexington, KY

- 2004: "*Effects of Calcineurin on Brain Aging Biomarkers*"
Sanders-Brown Center on Aging
- 2006 "*Role of calcineurin in astrocyte activation associated with
Alzheimer's disease*" Center of Biomedical Research Excellence
- 2007 "*Role of calcineurin signaling in brain aging*" Sanders-Brown Center
on Aging
- 2008 "*Critical Role for the Calcineurin/NFAT Signaling Pathway in
Neuroinflammation: Implications for Alzheimer's Disease*"
Sanders-Brown Center on Aging

XI. SPEAKING ENGAGEMENTS (cont'd)

Local (cont'd)

- 2011 *"Targeting astrocytes in a mouse model of Alzheimer's disease"*
Sanders-Brown Center on Aging
- 2012 *"Astrocytes as therapeutic targets in Alzheimer's disease"*
Sanders-Brown Foundation Lunch Meeting
- 2012 *"Targeting Astrocytes in Animal Models of Alzheimer's Disease and TBI"*
Spinal Cord and Brain Injury Research Center
- 2014 *"Adventures with astrocytes"*
Sanders-Brown Center on Aging

State/Regional

- 1992: *"Formation of a categorical representation for the spatial relation 'between' by 6- to 7-month-old infants"*
Western Pennsylvania Undergraduate Psychology Conference, Meadville, PA
- 2014 *"The Forgotten Cells in AD: Astrocytes"*
Fourth Annual Markesbery Symposium on Aging and Dementia

National/International

- 01/1998 **Winter Conference on the Neurobiology of Learning and Memory. Park City, UT**
"MK-801 improves retention in aged rats: implications for altered neural plasticity in age-related memory deficits"
- 10/2003 **Department of Biochemistry and Molecular Biology, University of Louisville College of Medicine. Louisville, KY**
"Effects of Calcineurin on Brain Aging Biomarkers"
- 11/2007 **Society for Neuroscience Meeting. San Diego, CA**
"Role for the calcineurin/NFAT pathway in astrocyte-based immune/inflammatory processes: Implications for Alzheimer's disease"
- 2/2009 **Department of Biology, Drexel University. Philadelphia, PA**
"Role of calcineurin signaling in neuroinflammation and Alzheimer's Disease"
- 2/2009 **Department of Neuroscience, Cell Biology, and Physiology, Wright State University. Dayton, OH**
"Calcineurin: A dual threat in aging and Alzheimer's disease"
- 7/2010: **International Conference on Alzheimer's Disease, Honolulu, HI**
"Calcineurin: A dual threat in aging and Alzheimer's disease"

XI. SPEAKING ENGAGEMENTS (cont'd)

National/International (cont'd)

- 6/2013 Department of Physiology, Emory University. Atlanta, GA
"Targeting astrocytes in injury and disease" (June 6th)
- 7/2013 FASEB Biology of Calcains in Health Disease meeting,
Saxtons River, VT
"Calpain interactions with the protein phosphatase calcineurin in
Alzheimer's disease"
- 10/2013 NIH Symposium on Alzheimer Disease, International
Conference on Psychology, Autism and Alzheimer's Disease,
San Antonio, TX
"Targeting astrocytes as a therapeutic strategy for Alzheimer's
disease"
- 3/2015 American Society for Neurochemistry Meeting, Atlanta, GA
"Targeting astrocyte signaling pathways protects hippocampal
synaptic function following traumatic brain injury"
- 4/2015 Frontiers in Neuroscience Seminar Series, Emory University,
Atlanta, GA
"Astrocytes, cytokines, and synaptic dysfunction in neuro-
degenerative conditions"
- 10/2015 Irene & Eric Simon Brain Research Foundation, New York, NY
"Role of astrocytes in TBI and Alzheimer's disease"

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

A. PUBLICATIONS

Peer-Reviewed Original Research in Professional, Scientific or Educational Journals

1. Blumenthal TD, Schicatano EJ, Chapman JC, **Norris CM**, Ergenzinger ER (1996). Prepulse effects on magnitude estimation of startle eliciting stimuli and responses. *Attention, Perception and Psychophysics* **58**:73-80.
2. **Norris CM**, Blumenthal TD (1996) A relationship between inhibition of the acoustic startle response and the protection of prepulse processing. *Psychobiology* **24**:160-168.
3. **Norris CM**, Korol DL, Foster TC (1996) Increased susceptibility to induction of long-term depression and long-term potentiation reversal during aging. *The Journal of Neuroscience* **16**:5382-5392.
[F1000](#) article recommendation ([link](#))
4. Foster TC, **Norris CM** (1997) Age-associated changes in Ca²⁺-dependent processes: relation to hippocampal synaptic plasticity. *Hippocampus* **7**:602-612.

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

A. PUBLICATIONS (cont'd)

5. **Norris CM**, Halpain S, Foster TC (1998) Reversal of age-related alterations in synaptic plasticity by blockade of L-type Ca^{2+} channels. *The Journal of Neuroscience* **18**:3171-3179.
6. **Norris CM**, Halpain S, Foster TC (1998) Alterations in the balance of protein kinase/phosphatase activities parallel reduced synaptic strength during aging. *Journal of Neurophysiology* **80**:1567-1570.
7. **Norris CM**, Foster TC (1999) MK-801 improves retention in aged rats: implications for altered neural plasticity in age-related memory deficits. *Neurobiology of Learning and Memory* **71**:194-206.
8. Quinn PC, **Norris CM**, Pasko RN, Schmader TM, Mash C (1999) Formation of a categorical representation for the spatial relation 'between' by 6- to 7-month-old infants. *Visual Cognition* **6**:569-585.
9. Foster TC, Sharrow KM, Masse JR, **Norris CM**, Kumar A (2001) Calcineurin links Ca^{2+} dysregulation with brain aging. *The Journal of Neuroscience* **21**:4066-4073.
10. **Norris CM**, Blalock EM, Porter, NM, Chen, K-C, Landfield PW (2002) Calcineurin enhances L-type Ca^{2+} channel activity in hippocampal neurons: Increased effect with age in culture. *Neuroscience* **110**:213-225.

-----JOINED UK AS ASSISTANT PROFESSOR IN JULY 2004-----

11. **Norris CM**, Kadish I, Blalock EM, Chen KC, Thibault V, Porter NM, Landfield PW, Kraner SD (2005). Calcineurin triggers reactive/inflammatory processes in astrocytes and is upregulated in aging and Alzheimer's models. *The Journal of Neuroscience* **25**:4649-4658. **Notes**: Corresponding Author
12. Blalock EM, Chen K-C, Stromberg AJ, **Norris CM**, Kadish I, Kraner SD, Porter NM, Landfield PW (2005) Harnessing the power of gene microarrays for the study of brain aging and Alzheimer's disease: Statistical reliability and functional correlation. *Ageing Research Reviews* **4**:481-512.
13. **Norris CM**, Blalock EM, Thibault O, Brewer LD, Clodfelter GV, Porter, NM, Landfield PW (2006) Electrophysiological mechanisms of delayed excitotoxicity: Positive feedback loop between NMDA receptor current and depolarization-mediated glutamate release. *Journal of Neurophysiology* **96**:2488-2500.
14. Jeftinija DM, Hebert SL, **Norris CM**, Wang QB, Rich MM, Kraner SD (2007) The Ca_v 1.2 Ca^{2+} channel is expressed in the sarcolemma of type I and IIa skeletal muscle fibers. *Muscle and Nerve* **36**: 482-490.
15. Sama MA, Mathis DM, Furman JL, Artiushin IA, Mohammad Abdul H, Kraner SD, **Norris CM** (2008) Interleukin-1 β -dependent signaling between glia and neurons depends critically on astrocytic calcineurin/NFAT activity. *Journal of Biological Chemistry* **283**:21953-21964.

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

A. PUBLICATIONS (cont'd)

16. Abdul MH, Sama MA, Furman JL, Mathis DM, Beckett TL, Weidner AM, Patel ES, Baig I, Levine, H III, Murphy MP, Kraner SD, **Norris CM** (2009) Cognitive decline in Alzheimer's disease is associated with selective changes in calcineurin/NFAT signaling. *The Journal of Neuroscience* **29**:12957–12969.
**Featured article on the [Alzheimer's Research Forum](#)*
17. **Norris CM**, Scheff SW (2009) Recovery of afferent function and synaptic strength in hippocampal CA1 following traumatic brain injury. *Journal of Neurotrauma* **26**:2269–2278.
18. Furman JL, Artiushin IA, **Norris CM** (2010) Disparate effects of serum on basal and evoked NFAT activity in primary astrocyte cultures. *Neuroscience Letters* **469**:365–369.
19. Abdul MH, Furman JL, Sama MA, Mathis DM, **Norris CM** (2010) NFATs and Alzheimer's disease. *Molecular and Cellular Pharmacology*, **2**:7-14.
20. **Norris CM**, Blalock EM, Chen K-C, Porter, NM, Thibault O, Kraner SD, Landfield PW (2010) Hippocampal 'zipper' slice studies reveal a necessary role for calcineurin in the increased activity of L-type Ca²⁺ channels with aging. *Neurobiology of Aging* **31**:328–338.

-----Promoted to ASSOCIATE PROFESSOR IN JULY 2010-----

21. Mohammad Abdul H, Baig I, Levine, H III, Guttman RP, **Norris CM** (2011) Proteolysis of calcineurin is increased in human hippocampus during mild cognitive impairment and is stimulated in primary neuronal cultures by oligomeric Aβeta. *Aging Cell*, **10**:103-113.
22. Gant JC, Chen K-C, **Norris CM**, Thibault O, Blalock EM, Porter NM, Landfield PW (2011) Rapamycin or knockdown of FKBP12.6/1b recapitulates aging-like Ca²⁺ dysregulation in hippocampal neurons. *The Journal of Neuroscience*. **31**:1593-1603.
23. Mathis DM, Furman JL, **Norris CM** (2011) Preparation of acute hippocampal slices from rats and transgenic mice for the study of synaptic alterations during aging and amyloid pathology. *Journal of Visualized Experiments*, **49**: pii: 2330. <http://www.jove.com/details.stp?id=2330>. – 8 page article.
24. Thibault O, Pancani T, Landfield PW, **Norris CM** (2012) Reduction in neuronal L-type Ca²⁺ channel current density in hippocampal “zipper” slices from mid-age memory-deficient APPxPS1 mice. *Biochimica et Biophysica Acta*, **1822**:546-549.
25. Sama DM, Mohammad-Abdul, H, Furman JL, Szymkowski, DE, Scheff, SW, **Norris, CM** (2012) Inhibition of soluble tumor necrosis factor ameliorates synaptic alterations and Ca²⁺ dysregulation in aged rats. *PLoS ONE*, **7**(5):e38170. doi:10.1371/journal.pone.0038170. --10 page article

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

A. PUBLICATIONS (cont'd)

26. Bachstetter AD, **Norris, CM**, Sompol P, Wilcock DM, Goulding D, Neltner JH, St Clair D, Watterson DM, Van Eldik LJ (2012) A small molecule suppressor of proinflammatory cytokine production attenuates glial activation and prevents synaptic dysfunction in an Alzheimer's disease transgenic mouse model. *The Journal of Neuroscience*, **32**:10201–10210.
27. Furman JL, Sama DM, Gant JC, Beckett TL, Murphy MP, Bachstetter AD, Van Eldik LJ, **Norris CM** (2012) Targeting astrocytes ameliorates neurologic changes in a mouse model of Alzheimer's disease. *The Journal of Neuroscience*, **32**: 16129 – 16140. [“This Week in the Journal” featured article](#)
28. Sama DM, **Norris CM** (2013) Calcium dysregulation and neuroinflammation: Discrete and integrated mechanisms for age-related synaptic dysfunction. *Ageing Research Reviews*, **12**:982-995.
29. Wang W-X, Danaher J, Miller CS, Berger JR, Vega NG, Wilfred BS, Neltner JH, **Norris CM**, Nelson PT (2014) Expression of MiR-15/107 family microRNAs in human tissues and rat brain cells. *Genomics, Proteomics & Bioinformatics* **12**:19-30.
30. Niedowicz DM, Reeves VL, Platt TL, Kohler K, Beckett TL, Powell DK, Lee TL, Sexton TR, Song ES, Brewer LD, Latimer CS, Kraner SD, Larson KL, Ozcan S, **Norris CM**, Hersh LB, Porter NM, Wilcock DM, Murphy MP (2014) Obesity and diabetes cause cognitive dysfunction in the absence of accelerated β -amyloid deposition in a novel murine model of mixed or vascular dementia. *Acta Neuropathologica Communications* **2**:64. doi: 10.1186/2051-5960-2-64. -- 17 page article
31. Gant JC, Blalock EM, Chen KC, Kadish I, Porter NM, **Norris CM**, Thibault O, Landfield PW (2014) FK506-binding protein 1b/12.6: A key to aging-related hippocampal Ca^{2+} dysregulation? *European Journal of Pharmacology* **739**:74-82.
32. Furman JL **Norris CM** (2014) Calcineurin and glial signaling: Neuroinflammation and beyond. *Journal of Neuroinflammation* **11**:158. -- 12 page article
33. **Norris CM**, Sompol P, Roberts KN, Ansari M, Scheff SW (2016) Pycnogenol protects CA3-CA1 synaptic function in a rat model of traumatic brain injury. *Experimental Neurology* **276**:5-12.
34. Furman JL, Sompol P, Kraner SD, Pleiss MM, Putman EJ, Dunkerson J, Mohammad Abdul H, Scheff SW, **Norris CM** (2016) Blockade of astrocytic calcineurin/NFAT signaling helps to normalize hippocampal synaptic function and plasticity in a rat model of traumatic brain injury. *The Journal of Neuroscience* **36**:1502-1515. [“This Week in the Journal” featured article](#)

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

Manuscripts submitted or in revision

35. Pleiss MM, Mohammad Abdul H, Furman JL, Guttman RP, Nelson PT, **Norris CM** (2015) Calcineurin proteolysis in astrocytes: Implications for impaired synaptic function. *Biochimica et Biophysica Acta*, Submitted, **pending revision**
Notes: Reviewer 1 requested additional positive/negative controls for antibody labeling in human tissue
36. Pettigrew LC, Kryscio RJ, **Norris CM** (2015) Hippocampal synaptic Integrity, cognition, function, and post- ischemic cell loss. Submitted, **pending revision** to *PLoS ONE*.
37. Ghatak A, Manocha GD, Puig KL, Kraner SD, **Norris CM**, Walker D, Combs CK (2015) NFATc2 Modulates Microglial Activation in the APP/PS1 Mouse Model of Alzheimer's Disease. **Submitted** to *Journal of Neuroinflammation*
38. Brouillette J, Ménard C, Quirion R, Bontempi B, Schneider JS, **Norris CM**, Ferland G, Bézard E, Gaudreau P, Lombroso PL (2015) The tyrosine phosphatase STEP is implicated in age-related memory decline across different species. Submitted, **In revision**. *Proceedings of the National Academy of Sciences USA*
Notes: Reviewers requested additional proof of mechanism data in transgenic Animals; Experiments are underway and resubmission is scheduled for late 2015

Manuscripts in preparation

39. MacPherson KP, Sompol P, Kannarkat G, Chang J, **Norris CM**, Tansey MG (2015) Modulation of soluble TNF signaling alters CNS immune cell populations and rescues impaired synaptic plasticity in 5xFAD mice. **Manuscript in preparation**
Notes: Data is collected and organized into figures; writing is nearly complete; submission anticipated for December, 2015 or January 2016
40. Sompol P, Kraner SD, Pleiss MP, Artiushin IA, Batten SR, Gerhardt GA **Norris CM** (2015) Inhibition of astrocytic calcineurin/NFAT signaling improves hippocampal synaptic function and suppresses hyperexcitability in the 5xFAD mouse model of Alzheimer's disease. **Manuscript in preparation**
Notes: Data is collected and organized into figures; writing is underway; submission anticipated for December, 2015
41. Pleiss MM, Furman JL, Mohammad Abdul H, Artiushin IA, **Norris CM** (2015). Regulation of connexin 43 phosphorylation by calcineurin in astrocytes: implications for neuroinflammation and Alzheimer's disease. **Manuscript in preparation**.
Notes: Data collection is completed; figures are being organized; submission is planned for December 2015 or January 2016

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

Books, Book Chapters, Monographs

1. **Norris CM** (2014) Calpain interactions with the protein phosphatase calcineurin in neurodegeneration. *Advances in Biochemistry in Health and Disease*. **8**:17-45

Letters, Book Reviews, Lay Press

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B. ABSTRACT PRESENTATIONS since 2005

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Mathis DM, **Norris CM** (2007) Network activity in hippocampal cultures depends on the CN/NFAT pathway. *Society for Neuroscience Abstracts* **37**:360.7.

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XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

B. ABSTRACT PRESENTATIONS since 2005 (cont'd)

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- Furman JL, Sama MA, Mathis DM, Kraner SD, Artiushin IA, **Norris CM** (2008) Modulation of A β neuronal toxicity by astrocytic calcineurin/NFAT signaling. *Society for Neuroscience Abstracts* **38**:52.6.
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XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

B. ABSTRACT PRESENTATIONS since 2005 (cont'd)

- Furman JL, Mathis DL, Beckett TL, Murphy MP, **Norris CM** (2011) Chronic suppression of NFAT-mediated astrocyte activation preserves neurologic function in a mouse model of Alzheimer's Disease. *Society for Neuroscience Abstracts*. **41**:
- Furman JL, Mohmmad Abdul H, **Norris CM** (2012) Alterations in connexin 43 phosphorylation during the progression of Alzheimer's disease: Possible role of astrocytic calcineurin. *Alzheimer's Association International Conference*. P2-109.
- Furman JL, Beckett TL, Murphy MP, **Norris CM** (2012) Suppression of astrocytic calcineurin/NFAT activity reverses pathological hallmarks of Alzheimer's disease in aged, Tg6799 APP/PS1 mice. *Society for Neuroscience Abstracts*. **42**:49.08.
- Pleiss M, Furman JL, Mohmmad Abdul H, **Norris CM** (2012) Dephosphorylation of the astrocytic gap junction protein, connexin 43, is increased in human hippocampus during Mild Cognitive Impairment. *Society for Neuroscience Abstracts*. **42**:49.26.
- Van Eldik LJ, **Norris CM**, Sompol P, Wilcock DM, Goulding D, Neltner JH, St Clair D, Watterson DM, Bachstetter AD (2012) Early stage drug treatment that normalizes glia proinflammatory cytokine production attenuates synaptic dysfunction in an Alzheimer's disease-related mouse model. *Society for Neuroscience Abstracts*. **42**:49.12.
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- Norris CM**, Furman JL, Gant JC, Beckett TL, Murphy MP (2013) Targeting astrocytes reverses select pathological hallmarks of Alzheimer's disease in 5xFAD mice. *International conference on Alzheimer's and Parkinson's Diseases*: 11:195.
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XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

B. ABSTRACT PRESENTATIONS since 2005 (cont'd)

- Norris CM**, Furman JL, Pleiss MM, Sudduth TL, Wilcock DM, Scheff SW (2013) Inhibition of astrocytic calcineurin/NFAT activity protects hippocampal synaptic function in an intact rat model of traumatic brain injury. *Society for Neuroscience Abstracts* **43**: 521.20.
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- Pleiss MM, Furman JL, Mohmmad Abdul H, **Norris CM** (2014) A novel reagent modulates CN/Cx43 interactions during the progression of Alzheimer's disease *Alzheimer's & Dementia* **10**: P652. AAIC July 2014 Copenhagen, Denmark
- Pleiss MM, Mohmmad Abdul H, Furman JL, Guttman RP, Patel E, Wilcock DM, Nelson PT, **Norris CM** (2014) Calcineurin proteolysis is associated with astrocyte and small vessel pathology. *Soc for Neuroscience Abstracts* **44**:43.08
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- Sompol P, Pleiss MM, Furman JL, Kraner SD, Batten SR, Murphy MP, Gerhardt GA, **Norris CM** (2015) Inhibition of the astrocytic calcineurin/NFAT pathway quells glutamatergic hyperactivity in a mouse model of Alzheimer's disease. *46th Annual American Society for Neurochemistry Meeting* PTW01-11
- Norris CM**, Sompol P, MacPherson KP, Tansey MG (2015) Peripheral administration of the novel TNF inhibitor XPro1595® improves synaptic function in the 5xFAD Model of Alzheimer's Disease. *Alzheimer's & Dementia in press*. AAIC July 2015 Washington DC.
- Macpherson KP, Sompol P, Kannarkati GT, Chang J, **Norris CM**, Tansey MG (2015) Modulation of soluble TNF signaling alters CNS immune cell populations and rescues impaired synaptic plasticity in 5xFAD mice. *Society for Neuroscience Abstracts* **45**:198.07
- Maheed ZR, Frazier HN, Hampton K, Maimaiti S, Anderson KL, Popovic J, Brewer LB, Kraner SD, **Norris CM**, Porter NM, Craven RJ, Thibault O (2015) Characterization of a truncated human insulin receptor signaling. *Society for Neuroscience Abstracts* **45**:305.19.

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS, GRANT & CONTRACT ACTIVITIES

ACTIVE

Project Title: Calcineurin and inflammatory signaling processes in aging and Alzheimer's Disease
Project Number: 2R01 AG027297 (**renewal**)
Principal Investigator(s): Norris
Role in Project: NA
Effort: 40 %
Institution/University: University of Kentucky
Source of Funding: NIH-NIA
Duration of Project: 04/01/2012 to 06/30/17
Total Award: \$1,025,000
Grant Number: Account #3048109207

Project Title: Role of Calcineurin/NFAT Signaling in Traumatic Brain Injury
Project Number: 12-10A
Principal Investigator(s): Norris
Role in Project: NA
Effort: 20 %
Institution/University: University of Kentucky
Source of Funding: Kentucky Spinal Cord and Head Injury Research Trust
Duration of Project: 02/01/2013 – 1/31/2016
Total Award: \$ 300,000
Grant Number: Account #3048110188

Project Title: Pycnogenol and traumatic brain injury
Project Number: 12-16A
Principal Investigator(s): Scheff
Role in Project: Co-I, perform electrophysiological studies
Effort: 10 %
Institution/University: University of Kentucky
Source of Funding: Kentucky Spinal Cord and Head Injury Research Trust
Duration of Project: 02/01/2013 – 1/31/2016
Total Award: \$ 300,000
Grant Number: Account #3048110185

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

ACTIVE (continued)

Project Title: Metabolic syndrome and hippocampal Ca²⁺ dysregulation in aging memory decline
Project Number: 2R01AG033649
Principal Investigator(s): Thibault
Role in Project: Co-I, construction of AAV reagents
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: NIH-NIA
Duration of Project: 3/01/2015-9/21/2020
Total Award: \$1,250,000
Grant Number: Account #3048112498

Project Title: Inflammation and Renin-Angiotensin System Dysfunction as risk factors for AD
Project Number: 1R01AG051514-01
Principal Investigator(s): Tansey
Role in Project: Sub-contract PI
Effort: 5%
Institution/University: University of Kentucky
Source of Funding: NIH/NIA
Duration of Project: 10/01/15 to 09/30/18
Total Award: \$101,097
Grant Number:

Project Title: Astrocytic Calcineurin and Connexin43 Gap Junctions in Alzheimer's Disease
Project Number: 1F31AG047762-01
Principal Investigator(s): Pleiss (Graduate Student)
Role in Project: Primary Mentor
Effort: -
Institution/University: University of Kentucky
Source of Funding: NIH-NIA
Duration of Project: 2/01/2015-1/31/2018
Total Award: \$89,508
Grant Number: Account #3048111996

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

ACTIVE (continued)

Project Title: The impact of PERK on post-traumatic tauopathy in Alzheimers disease
Project Number: --
Principal Investigator(s): Abisambra
Role in Project: Co-I
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: Army Medical Research and Materiel Command
Duration of Project: 9/15/2015 – 9/14/2018
Total Award: \$737,774
Grant Number: Account #3200000192

Project Title: PERK as a central mediator of neurotoxicity in tauopathies
Project Number: 1R01NS091329-01
Principal Investigator(s): Abisambra
Role in Project: Co-I
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: NIH/NINDS
Duration of Project: 11/01/2015 to 10/30/2020
Total Award: \$1,250,000
Grant Number: Account #3200000286

Project Title: Use of novel NFAT inhibitors for the treatment of Alzheimer's-related pathology
Project Number: NA
Principal Investigator(s): Norris
Role in Project: NA
Effort: NA
Institution/University: University of Kentucky
Source of Funding: Hazel Embry Research Fund
Duration of Project: NA
Total Award: ~\$6,000/year
Grant Number: Account #1215396580

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

PENDING

Project Title: Astrocytic connexin 43 modulation in AD
Project Number: 1R21AG051945-01
Principal Investigator(s): Norris
Role in Project: --
Effort: 20%
Institution/University: University of Kentucky
Source of Funding: NIH/NIA
Duration of Project: 9/01/2016 to 9/30/2018
Total Award: \$275,000
Grant Number:
Notes: Scored at 35th percentile;

Project Title: Cellular Mechanisms in Vascular Cognitive Impairment and Dementia;
Project 3: Impact of astrocyte signaling on synaptic function and plasticity in vascular dementia
Project Number: P01NS089453
Principal Investigator(s): Van Eldik
Role in Project: Project 3 Leader
Effort: 20%
Institution/University: University of Kentucky
Source of Funding: NIH/NINDS
Duration of Project: 9/01/2016 to 9/30/2021
Total Award: Total Award: \$7,461,105.00; Project 3: \$1,311,850
Grant Number:
Notes: P01 impact score =45; Project 3 impact score = 34; Resubmitted 9/18/2015

Project Title: Impact of astrocyte signaling on synaptic function and plasticity in vascular dementia
Project Number: R01NS097724-01
Principal Investigator(s): Norris
Role in Project: --
Effort: 20%
Institution/University: University of Kentucky
Source of Funding: NIH/NINDS
Duration of Project: 9/01/2016 to 9/30/2021
Total Award: Total Award: \$1,250,000
Notes: Submitted 10/05/2015

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (Cont'd)

PENDING (cont'd)

Project Title: Dysfunctions in the IL-1 β pathway in vascular cognitive impairment and dementia
Project Number: R01NS#####
Principal Investigator(s): Van Eldik
Role in Project: Co-I
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: NIH/NINDS
Duration of Project: 9/01/2016 to 9/30/2021
Total Award: Total Award: \$1,250,000
Notes: Submitted 11/05/2015

Project Title: Neurovascular astrocyte dysfunction in VCID
Project Number: R01NS#####
Principal Investigator(s): Wilcock
Role in Project: Co-I
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: NIH/NINDS
Duration of Project: 9/01/2016 to 9/30/2021
Total Award: Total Award: \$1,250,000
Notes: Submitted 11/05/2015

INACTIVE

Project Title: Calcineurin in calcium channel regulation during aging
Project Number: F32AG005903
Principal Investigator(s): Norris
Role in Project: NA
Effort: 100%
Institution/University: University of Kentucky
Source of Funding: NIH-NIA
Duration of Project: 08/01/2000-09/30/2003
Total Award: \$127,660
Grant Number: -

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

INACTIVE (cont'd)

Project Title: Targeted inhibition of astrocytic NFAT activity in a mouse model of Alzheimer's disease (Pilot grant)
Project Number: -
Principal Investigator(s): Norris
Role in Project: NA
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: Alzheimer's Disease Pilot Project Grant, SBCoA-UKADC
Duration of Project: 07/01/2008-06/30/2009
Total Award: \$25,000
Grant Number: NA

Project Title: Role of calcineurin in astrocyte activation associated with Alzheimer's Disease (Pilot grant)
Project Number: P20 RR20171
Principal Investigator(s): Norris
Role in Project: NA
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: Center of Biomedical Research Excellence
Duration of Project: 09/01/05 to 08/30/06
Total Award: \$50,000
Grant Number: -

Project Title: Calcineurin and biobehavioral markers of brain aging
Project Number: 1K01-AG024190
Principal Investigator(s): Norris
Role in Project: NA
Effort: 80%
Institution/University: University of Kentucky
Source of Funding: NIH-NIA
Duration of Project: 10/01/04 to 9/30/09
Total Award: \$430,040
Grant Number: 30468259

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

INACTIVE (cont'd)

Project Title: Calcium Regulation in Brain Aging and Alzheimer's Disease"
Project 1: Gene Expression and Ca²⁺ Regulation in Brain Aging/ AD

Project Number: 5P01AG010836

Principal Investigator(s): Landfield

Role in Project: Collaborator, molecular studies on Ca²⁺ dependent gene regulation

Effort: -

Institution/University: University of Kentucky

Source of Funding: NIH-NIA

Duration of Project: 12/02/05 to 09/31/10

Total Award: \$7,500,000

Grant Number: -

Project Title: Investigation into the interrelationship of the roles of oxidative stress and neuroinflammation in Alzheimer's disease

Project Number: -

Principal Investigator(s): Lovell/Norris

Role in Project: Measurement of inflammatory signaling pathways in human AD brain tissue

Effort: 5%

Institution/University: University of Kentucky

Source of Funding: Kleberg Foundation

Duration of Project: 08/01/08 to 07/31/11

Total Award: \$300,000

Grant Number: -

Project Title: Calcineurin and inflammatory signaling processes in aging and Alzheimer's Disease

Project Number: 1R01 AG027297

Principal Investigator(s): Norris

Role in Project: NA

Effort: 10 %

Institution/University: University of Kentucky

Source of Funding: NIH-NIA

Duration of Project: 09/01/06 to 08/30/11

Total Award: \$1,025,000

Grant Number: Account #3048109207

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

INACTIVE (cont'd)

Project Title: Astrocytic NFAT activity: A promising target for Alzheimer's therapeutics
Project Number: -
Principal Investigator(s): Furman (graduate student)
Role in Project: Primary mentor
Effort: -
Institution/University: University of Kentucky
Source of Funding: PhRMA Foundation
Duration of Project: 02/01/2011 to 01/31/2013
Total Award: \$40,000
Grant Number: Account #3048107937

Project Title: "Hyperglycemia and traumatic brain injury"
Project Number:
Principal Investigator(s): Scheff
Role in Project: Co-I; performed hippocampal slice electrophysiology
Effort: 10 %
Institution/University: University of Kentucky
Source of Funding: Kentucky Spinal Cord and Head Injury Research Trust
Duration of Project: 01/31/09 to 01/30/12
Total Award: \$298,398
Grant Number:

Project Title: MiR-15/107 microRNAs are important genetic regulators in Alzheimer disease
Project Number: 2R56NS061933
Principal Investigator(s): Nelson
Role in Project: Co-I; prepare and consult on the use of primary neural cultures for miRNA studies
Effort: 10 %
Institution/University: University of Kentucky
Source of Funding: NIH-NINDS
Duration of Project: 09/28/12 to 06/30/14
Total Award: \$250,000
Grant Number: Account # 3048109946

Project Title: Aging of Frontal Structure and Function in Down Syndrome and Dementia

XII. RESEARCH & INTELLECTUAL CONTRIBUTIONS

C. SPONSORED RESEARCH PROJECTS (cont'd)

INACTIVE (cont'd)

Project Number: 1R01HD064993
Principal Investigator(s): Head/Schmitt
Role in Project: Co-I; collaborator on calcineurin/NFAT measurements
Effort: 1%
Institution/University: University of Kentucky
Source of Funding: NIH- NICHD
Duration of Project: 09/01/09-08/31/14
Total Award: \$1,664,294
Grant Number: Account # 3048106593

Project Title: Modulation of peripheral inflammation and immune cell traffic in AD by XPro1595

Project Number: -
Principal Investigator(s): Tansey (Emory University)
Role in Project: Subcontract PI
Effort: 10%
Institution/University: University of Kentucky
Source of Funding: Alzheimer's Drug Discovery Foundation
Duration of Project: 10/01/2013-9/30/2014
Total Award: \$100,000
Grant Number: Account #3048111295

Project Title: Astrocytic Calcineurin and Connexin43 Gap Junctions in Alzheimer's Disease

Project Number: -
Principal Investigator(s): Pleiss (graduate student)
Role in Project: Primary mentor
Effort: -
Institution/University: University of Kentucky
Source of Funding: PhRMA Foundation
Duration of Project: 01/01/14 to 01/31/15
Total Award: \$20,000
Grant Number: Account # 3048111258

C. SPONSORED RESEARCH PROJECTS (cont'd)

INACTIVE (cont'd)

Project Title: Sexually dimorphic miR-497 regulates alpha-synuclein and alpha-synucleinopathy
Project Number: 1R21 NS085830
Principal Investigator(s): Nelson
Role in Project: Co-I, preparation of primary neural cultures
Effort: 2%
Institution/University: University of Kentucky
Source of Funding: NIH-NINDS
Duration of Project: 9/22/2013-9/21/2015
Total Award: \$275,000
Grant Number: 3048110900

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