

Alexander Kaplan Converse, Ph.D.

Curriculum vitae

22 April 2020

Waisman Center
University of Wisconsin-Madison
Madison, WI 53705 USA
001/608/265.6604
akconverse@wisc.edu
<http://brainimaging.waisman.wisc.edu/~converse/>

EDUCATION

- 1980-1984 Reed College, Portland, Oregon, BA, Physics
- 1985-1993 UW-Madison, PhD, Physics, emphasis experimental nuclear, advisor Willy Haeberli
- 2000-2002 UW-Madison, Postdoctoral Trainee, Medical Physics, emphasis PET and MR neuroimaging, advisor Andrew Roberts

POSITIONS AND EMPLOYMENT

- 1985-1988 Research Assistant, Department of Physics, UW-Madison
- 1988-1990 Research and Teaching Assistant, Department of Physics, ETH (Swiss Federal Institute of Technology), Zurich
- 1991-1993 Research Assistant, Department of Physics, UW-Madison
- 1993-1997 Renewable energy consultant, Madison, Wisconsin
- 1997-1999 Computer Programmer, Epic Systems Corporation, Madison, Wisconsin
- 2000-2002 Postdoctoral Fellow, Department of Medical Physics, UW-Madison
- 2002-2007 Assistant Scientist, Waisman Center, UW-Madison, supervisor Richard Davidson
- 2002- Director of microPET Imaging, Waisman Center, UW-Madison
- 2008-2016 Associate Scientist, Waisman Center, UW-Madison, supervisor Richard Davidson
- 2012- Permanent Principal Investigator Status, UW-Madison
- 2016- Senior Scientist, Waisman Center, UW-Madison, supervisor Bradley Christian
- 2016- Affiliate Faculty, Department of Medical Physics, UW-Madison

PUBLICATIONS

Refereed Journal Articles

(Contributions to **D**esign of study, **P**erformance of experiments, **A**nalysis of data, **W**riting of manuscript)

1. Sromicki J, **Converse A**, Lang J, Müller R (1989) Method for measurements of absolute analyzing powers in nuclear-reactions. *Physical Review C* 40:R1111-R1113. (**W**)
2. Sromicki J, Allet M, **Converse A**, Hajdas W, Lang J, Lüscher H, Müller R, Naviliat-Cuncic O, Haeberli W, Miller MA, Quin PA (1990) An experiment to investigate time-reversal invariance in the decay of Li-8. *Journal de Physique* 51:C6527-C6530. (**P**)
3. Liechti J, Allet M, **Converse A**, Deutsch J, Gimenonogues F, Lang J, Lüscher H, Müller R, Naviliat-Cuncic O, Prieels R, Quin PA, Severijns N, Sromicki J (1991) Production of polarized N-12 with the C-12(p,N-12)n reaction. *Nuclear Physics A* 533:292-306. (**P**)
4. Allet M, Hajdas W, Lang J, Lüscher H, Müller R, Naviliat-Cuncic O, Sromicki J, **Converse A**, Haeberli W, Miller MA, Quin PA (1992) Search for time-reversal violation in the beta-decay of Li-8. *Physical Review Letters* 68:572-575. (**P**)
5. **Converse A**, Haeberli W, Hajdas W, Kistryn S, Lang J, Liechti J, Lüscher H, Müller R, Smyrski R, Sromicki J (1992) Absolute calibration of the transverse analyzing power in proton-carbon elastic scattering at 50.24 MeV. *Physical Review C* 45:2320-2327. (**PAW**)
6. **Converse A**, Allet M, Haeberli W, Hajdas W, Lang J, Liechti J, Lüscher H, Miller MA, Müller R, Naviliat-Cuncic O, Quin PA, Sromicki J (1993) Measurement of the asymmetry parameter for ³⁵Ar beta-decay as a test of the CVC hypothesis. *Physics Letters B* 304:60-64. (**DPAW**)
7. Barnhart TE, **Converse AK**, Dabbs KA, Nickles RJ, Buckley K, Jivan S, Ruth TJ, Roberts AD (2003) Water-cooled grid support for high power irradiation with thin target windows. *Applied Radiation & Isotopes* 58:21-26. PMID: 12485659 (**P**)
8. **Converse AK**, Barnhart TE, Dabbs KA, DeJesus OT, Larson JA, Nickles RJ, Schneider ML, Roberts AD (2004) PET Measurement of rCBF in the presence of a neurochemical tracer. *Journal of Neuroscience Methods* 132:199-208. PMID: 14706718 (**DPAW**)
9. Nickles RJ, Barnhart TE, Avila-Rodrigues MA, **Converse AK**, Sundaresan R, Nye JA, Dick DW, Roberts AD (2004) Production of N-16 for instrument calibration. *Radiochimica Acta* 92:229-232. (**P**)
10. Barnhart TE, **Converse AK**, Dabbs KA, Schueller MJ, Stone CK, Nickles RJ, Roberts AD (2005) Production of [¹⁷F]CH₃F (t_{1/2}=65 sec), an improved PET tracer for rCBF measurement. *Applied Radiation and Isotopes* 62:525-532. PMID: 15701406 (**DPAW**)
11. DeJesus OT, Flores LG, Murali D, **Converse AK**, Bartlett RM, Barnhart TE, Oakes TR, Nickles RJ (2005) Aromatic L-amino acid decarboxylase turnover in vivo in

- rhesus macaque striatum: A microPET study. *Brain Research* 1054:55-60. PMID: 16055094 (**PAW**)
12. Fox AS, Oakes TR, Shelton SE, **Converse AK**, Davidson RJ, Kalin NH (2005) Calling for help is independently modulated by brain systems underlying goal-directed behavior and threat perception. *Proc Natl Acad Sci USA* 102:4176-4179. PMID: 15753316 PMC554810 (**P**)
 13. Holmes JH, Sorkness RL, Meibom SK, Sundaram SK, Perlman SB, **Converse AK**, Pyzalski RW, Hahn AD, Korosec FR, Grist TM, Fain SB (2005) Noninvasive mapping of regional response to segmental allergen challenge using magnetic resonance imaging and [F-18]fluorodeoxyglucose positron emission tomography. *Magnetic Resonance in Medicine* 53:1243-1250. PMID: 15906295 (**DPAW**)
 14. Schneider ML, Moore CF, Barnhart TE, Larson J, DeJesus OT, Mukherjee J, Nickles RJ, **Converse AK**, Roberts AD, Kraemer GW (2005) Moderate-level prenatal alcohol exposure alters striatal dopamine system function in rhesus monkeys. *Alcoholism: Clinical and Experimental Research* 29:1685-1697. PMID: 16205369 (**PAW**)
 15. DeJesus OT, Flores LG, **Converse AK**, Bartlett RM, Murali D, Jeraj R, Oakes TR, Nickles RJ, Jaskowiak CJ (2006) Assessing environmental chemical uptake in fetal brain in utero: A preliminary PET/CT study. *Journal of Radioanalytical and Nuclear Chemistry* 269:561-564. (**P**)
 16. Schneider ML, Moore CF, Gajewski LL, Laughlin NK, Larson J, Gay C, Roberts AD, **Converse AK**, DeJesus OT (2007) Sensory processing disorders in a nonhuman primate model: Evidence for occupational therapy practice. *American Journal of Occupational Therapy* 61:247-253. PMID: 18269511 (**PAW**)
 17. Avila-Rodriguez MA, Selwyn RG, Hampel JA, Thomadsen BR, DeJesus OT, **Converse AK**, Nickles RJ, (2007). Positron emitting resin microspheres as surrogates of ⁹⁰Y SIR-spheres: A radiolabeling and stability study. *Nuclear Medicine and Biology* 34:585-590. PMID: 17591559 (**PW**)
 18. Selwyn RG, Avila-Rodriguez MA, **Converse AK**, Hampel JA, Jaskowiak CJ, McDermott JC, Warner TF, Nickles RJ and Thomadsen BR (2007) ¹⁸F-labeled resin microspheres as surrogates for ⁹⁰Y resin microspheres used in the treatment of hepatic tumors: a radiolabeling and PET validation study *Phys.Med.Biol.* 52:7397-7408. PMID: 18065846 (**PW**)
 19. Schneider ML, Moore CF, Gajewski LL, Larson JA, Roberts AD, **Converse AK** and DeJesus OT (2008) Sensory processing disorder in a primate model: Evidence from a longitudinal study of prenatal alcohol and prenatal stress effects *Child Dev.* 79:100-113. PMID: 18269511 PMC4226060 (**PAW**)
 20. Cheng TE, Yoder KK, Normandin MD, Risacher SL, **Converse AK**, Hampel JA, Miller MA and Morris ED (2009) A rat head holder for simultaneous scanning of two rats in small animal PET scanners: Design, construction, feasibility testing and kinetic validation *Journal of Neuroscience Methods* 176:24-33. PMID: 18824025 PMC3725621 (**DPA**)

21. Christian BT, Vandehey NT, Fox AS, Murali D, Oakes TR, **Converse AK**, Nickles RJ, Shelton SE, Davidson RJ and Kalin NH (2009) The distribution of D2/D3 receptor binding in the adolescent rhesus monkey using small animal PET imaging *Neuroimage* 44:1334-1344. PMID:19015034 PMC2649779 (**PA**)
22. Vandehey NT, Garell PC, Hampel JA, Murali D, Smith EM, Davidson R, **Converse AK**, Nickles RJ and Christian BT (2009) PET measurement of changes in D2/D3 dopamine receptor binding in a nonhuman primate during chronic deep brain stimulation of the bed nucleus of the stria terminalis *J.Neurosci.Methods* 176:129-135. PMID:18824196 PMC2638170 (**PA**)
23. Fox AS, Shelton SE, Oakes TR, **Converse AK**, Davidson RJ and Kalin NH (2010) orbitofrontal cortex lesions alter anxiety-related activity in the primate bed nucleus of stria terminalis *Journal of Neuroscience* 30:7023-7027. PMID: 20484644 PMC2915894 (**P**)
24. Vandehey NT, Moirano JM, **Converse AK**, Holden JE, Mukherjee J, Murali D, Nickles RJ, Davidson RJ, Schneider ML and Christian BT (2010) High-affinity dopamine D-2/D-3 PET radioligands F-18-fallypride and C-11-FLB457: A comparison of kinetics in extrastriatal regions using a multiple-injection protocol *Journal of Cerebral Blood Flow and Metabolism* 30:994-1007. PMID: 20040928 PMC2897717 (**P**)
25. **Converse AK**, Larsen EC, Engle JW, Barnhart TE, Nickles RJ and Duncan ID (2011) ¹¹C-(R)-PK11195 PET imaging of microglial activation and response to minocycline in zymosan-treated rats *Journal of Nuclear Medicine* 52:257-262. PMID: 21233178 PMC3761794 (**DPAW**)
26. **Converse AK**, Aubert Y, Farhoud M, Weichert JP, Rowland IJ, Ingrisano NM, Allers KA, Sommer B and Abbott DH (2012) Positron emission tomography assessment of 8-OH-DPAT-mediated changes in an index of cerebral glucose metabolism in female marmosets *NeuroImage* 60:447-455. PMID: 22233732 PMC3763841 (**DPAW**)
27. Murali D, Barnhart TE, Vandehey NT, Christian BT, Nickles RJ, **Converse AK**, Larson JA, Holden JE, Schneider ML, and DeJesus OT (2013) An efficient synthesis of dopamine transporter tracer [18F]FECNT *Applied Radiation and Isotopes* 72:128-32. PMID: 23208243 PMC3540169 (**DW**)
28. Christian BT, Wooten DW, Hillmer AT, Tudorascu DL, **Converse AK**, Moore CF, Ahlers EO, Barnhart TE, Kalin NH, Barr CS, and Schneider ML (2013) Serotonin transporter genotype affects serotonin 5-HT1A binding in primates *Journal of Neuroscience* 36:2512-6. PMID: 23392679 PMC3711259 (**DPW**)
29. **Converse AK**, Moore CF, Moirano JM, Ahlers EO, Larson JA, Engle JW, Barnhart TE, Murali D, Christian BT, DeJesus OT, Holden JE, Nickles RJ, and Schneider ML (2013) Prenatal stress induces increased striatal dopamine transporter binding in adult nonhuman primates *Biological Psychiatry* 74:502-510. PMID: 23726316 PMC3775901 (**DPAW**)

30. **Converse AK (PI)**, Ahlers EO, Travers BG, Davidson RJ (2014) Tai chi training reduces self-report of inattention in healthy young adults *Frontiers in Human Neuroscience* 8 (13):1-7. PMID: 24478679 PMC3902356 (**DPAW**)
31. Hillmer AT, Tudorascu DL, Wooten DW, Lao PJ, Barnhart TE, Ahlers EO, Resch LM, Larson JA, **Converse AK**, Moore CF, Schneider ML, Christian BT (2014) Changes in the $\alpha 4\beta 2^*$ nicotinic acetylcholine system during chronic controlled alcohol exposure in nonhuman primates *Drug and Alcohol Dependence* 138:216–9. PMID: 24602361 PMC3992705 (**DPW**)
32. Rajala AZ, Zaitoun I, Henriques JB, **Converse AK**, Murali D, Epstein ML, Populin LC (2014) Dopamine transporter gene susceptibility to methylation is associated with impulsivity in non-human primates *Journal of Neurophysiology* 112:2138-46. PMID: 25122707 PMC4274929 (**DPAW**)
33. Hillmer AT, Wooten DW, Tudorascu DL, Barnhart TE, Ahlers EO, Resch LM, Larson JA, **Converse AK**, Moore CF, Schneider ML, Christian BT (2014) The effects of chronic alcohol self-administration on serotonin-1A receptor binding in nonhuman primates *Drug and Alcohol Dependence* 144:119026. PMID: 25220896 PMC4253864 (**DPW**)
34. **Converse AK**, Moore CF, Holden JE, Ahlers EO, Moirano JM, Larson JA, Resch LM, DeJesus OT, Barnhart TE, Nickles RJ, Murali D, Christian BT, Schneider ML (2014) Moderate level prenatal alcohol exposure induces sex differences in dopamine D1 receptor binding in adult rhesus monkeys *Alcoholism: Clinical and Experimental Research* 38:2934-43. PMID: 25581649 PMC4293080 (**DPAW**)
35. **Converse AK**, Ahlers EO, Bryan TW, Hetue JD, Lake KA, Ellison PA, Engle JW, Barnhart TE, Nickles RJ, Williams PH, DeJesus OT. (2015) Mathematical modeling of positron emission tomography (PET) data to assess radiofluoride transport in living plants following petiolar administration *Plant Methods* 11:18 1-7 PMID: 25774208 PMC4359769 (**DPAW**)
36. Fox AS, Oler JA, Shackman AJ, Shelton SE, Raveendran M, McKay DR, **Converse AK**, Alexander A, Davidson RJ, Blangero J, Rogers J, Kalin NH. (2015) Intergenerational neural mediators of early-life anxious temperament. *Proceedings of the National Academy of Sciences of the United States of America*. 112:9118-22. PMID: 26150480 PMC4517228 (**P**)
37. **Converse AK**, Aubert Y, Allers KA, Sommer B, Abbott DH. (2015) Flibanserin-Stimulated Partner Grooming Reflects Brain Metabolism Changes in Female Marmosets. *Journal of Sexual Medicine*. 12:2256-66. PMID: 26635207 (**DPAW**)
38. Barrett B, Grabow M, Middlecamp C, Mooney M, Checovich MM, **Converse AK**, Gillespie B, Yates J (2016) Mindful climate action: health and environmental co-benefits from mindfulness-based behavioral training. *Sustainability*. 8, 1040 (20 pages). PMID: 28008371 (**DW**)
39. Grabow M, Bryan T, Checovich MM, **Converse AK**, Middlecamp C, Mooney M, Torres ER, Younkin SG, Barrett, B (2018) Mindfulness and climate change action: a feasibility study. *Sustainability*. 10, 1508 (24 pages) (**DPAW**)

40. Betthausen TJ, Cody KA, Zammit MD, Murali D, **Converse AK**, Barnhart TE, Stone CK, Rowley HA, Johnson SC, Christian BT (2019) In vivo characterization and quantification of neurofibrillary tau PET radioligand [¹⁸F]MK-6240 in humans from Alzheimer's disease dementia to young controls. *Journal of Nuclear Medicine*. 60:93-99 PMID 29777006 (P)
41. Birn RM*, **Converse AK* (Shared First Authorship)**, Rajala AZ*, Alexander, AL, Block WF, McMilan AB, Christian BT, Filla CN, Murali D, Hurley SA, Jenison RL, Populin LC (2019) Changes in endogenous dopamine induced by methylphenidate predict functional connectivity in non-human primates. *Journal of Neuroscience*. 39:1436-1444. PMID: 30530859 (DAW) *Authors have contributed equally and share first authorship
42. Moirano JM, Bezgin GY, Ahlers EO, Koetter R, **Converse AK (PI)** (2019) Rhesus macaque brain atlas regions aligned to an MRI template. *Neuroinformatics*. 17:295-306 PMID: 30291569 (DPAW)
43. Schneider ML, Moore CF, Ahlers EO, Barnhart TE, Christian BT, DeJesus OT, Engle JW, Holden JE, Larson JA, Moirano JM, Murali D, Nickles RJ, Resch LM, **Converse AK (Corresponding Author)** (2019) PET measures of D1, D2 and DAT binding are associated with heightened tactile responsivity in Rhesus macaques: Implications for sensory processing disorder. *Frontiers in Integrative Neuroscience*. 13(29): 1-13 PMID 31379528 (DPAW)

Manuscripts in Review (Principal Investigator)

44. Sulzer SH, Trueba C, and **Converse AK (PI)** (in review at *Sage Open*) Acceptability of CAM Interventions for ADHD among College Students: Implications for Tai Chi (DPAW)

Manuscripts in Preparation (Principal Investigator)

45. **Converse AK (PI)**, Barrett BP, Chewing B, and Wayne PM (in prep for *Complementary Therapies in Medicine*) Tai Chi Training for ADHD: A Feasibility Trial in College Students (DPAW)
46. Converse AK (PI) (in prep for *Journal of Cerebral Blood Flow and Metabolism*) Pharmacokinetic modeling of tracer binding with time-varying receptor availability: derivation and internal validation of reference tissue models. **Converse AK (PI)**, Moirano JM, Flores LG, Kronenfeld KV, Hampel JA, Vandehey NT, Barnhart TE, Oakes TR, Roberts AD, Holden JE, Nickles RJ, and Davidson RJ (in prep for *Journal of Cerebral Blood Flow and Metabolism*) [¹⁷F]fluoromethane PET imaging of regional cerebral blood flow in rhesus during amphetamine challenge (DPAW)
47. **Converse AK (PI)**, Moirano JM, Flores LG, Kronenfeld KV, Hampel JA, Murali D, Barnhart TE, Oakes TR, Roberts AD, Ruth TR, Christian BT, DeJesus OT, Holden

- JE, Nickles RJ, and Davidson RJ (in prep for *Journal of Cerebral Blood Flow and Metabolism*) [¹⁸F]desmethoxyfallypride PET imaging of dopamine release in rhesus striatum during amphetamine challenge (**DPAW**)
48. **Converse AK (PI)** and Tengowski MW (in prep for *Biological Psychiatry*) PET imaging of dopamine D₂ receptor occupancy by a candidate antipsychotic in rhesus (**DPAW**)
 49. Higgins AT and **Converse AK (PI)** (in prep for *IEEE Transactions on Medical Imaging*) Characterization of PET spatial uniformity for macaque neuroimaging (**DPAW**)
 50. Hirnstein MA, Moirano JM, Flores LG, Kronenfeld KV, Hampel JA, Murali D, Barnhart TE, Oakes TR, Roberts AD, Ruth TR, Christian BT, DeJesus OT, Holden JE, Nickles RJ, Davidson RJ, and **Converse AK (PI)** (in prep for *Journal of Cerebral Blood Flow and Metabolism*) [¹⁸F]desmethoxyfallypride PET imaging of dopamine release in rat striatum during amphetamine challenge (**DPAW**)
 51. Klemm AS, Barrett BP, Davidson RJ, Hinshaw SP, and **Converse AK (PI)** (in prep for *Journal of Attention Disorders*) A mindfulness approach to ADHD across the lifespan (**DPAW**)

Manuscripts in Preparation (Co-Investigator)

52. **Converse AK**, Aubert YA, Murali D, DeJesus OT, Allers KA, Sommer B, and Abbott DH (in prep for *Biological Psychiatry*) PET neuroimaging of 5-HT_{1A} and SERT responses to chronic 8-OH-DPAT and flibanserin treatments in female marmosets (**DPAW**)
53. **Converse AK**, Travers BT, Alexander AL, and Lainhart JE (in prep for *NeuroImage*) White matter integrity and ADHD symptoms in autism spectrum disorder (**AW**)
54. **Converse AK**, Ritters LV, and Paul-Murphy J (in prep for *Journal of Nuclear Medicine*) PET imaging of cerebral glucose metabolism in avian experimental arthritis (**DPAW**)
55. **Converse AK**, Moore CF, Larson JA, Barnhart TE, Murali D, Christian BT, DeJesus OT, Holden JE, Nickles RJ, Schneider ML (in prep for *Biological Psychiatry*) Effects of prenatal alcohol and stress exposure on alcohol self administration and dopamine D₁, D₂, and DAT binding in rhesus (**DPAW**)

Corporate Author

56. Powers WJ, Clarke WR, Grubb RL, Jr., Videen TO, Adams HP, Jr., Derdeyn CP and COSS Investigators (2011) Extracranial-intracranial bypass surgery for stroke prevention in hemodynamic cerebral ischemia: the Carotid Occlusion Surgery Study randomized trial *Jama-Journal of the American Medical Association* 306:1983-1992. PMID: 22068990

Book Chapter

57. Schneider ML, Moore CF, DeJesus OT, **Converse AK** (2007). Prenatal stress influences on neurobehavior, stress reactivity, and dopaminergic function in rhesus macaques. In T. Burbacher, G. P. Sachtet, & K. S. Grant (Eds.), *Primate models of children's health and developmental disabilities* (pp.213-258). New York: Elsevier

Dissertation

58. **Converse AK** (1993) A measurement of the asymmetry parameter for ^{35}Ar beta-decay as a test of the CVC hypothesis. UW-Madison.

Patent

59. **Converse AK** (2000) Refractive spectrum splitting photovoltaic concentrator system, U.S. Patent #6,015,950, issued 1/18/2000.

Conference Proceedings

60. Wise T, **Converse A**, Price JS (1989) Test of storage cell for polarized atomic hydrogen. *American Institute of Physics Conference Proceedings* 187:1527-1534. 8th International Symposium on High-Energy Spin Physics, 12-17 Sep 1988, Minneapolis.
61. **Converse AK** (1996) Refractive spectrum splitting optics for use with photovoltaic cells. *Proceedings of the IEEE Photovoltaic Specialists Conference* 1299-1302, 13-17 May 1996, Washington.
62. **Converse AK** (1997) Refractive spectrum splitting optics for use with photovoltaic cells: a research plan and qualitative demonstration. *American Institute of Physics Conference Proceedings* 404:373-376 First Conference on Future Generation Photovoltaic Technologies, 24-26 March 1997, Denver.
63. Barnhart TE, **Converse AK**, Dabbs KA, Nickles RJ, Roberts AD (2002) High Current Production of ^{11}C , ^{13}N , ^{15}O , ^{17}F , and ^{18}F for PET using a 3 MV electrostatic tandem accelerator. *Proceedings of the 9th International Workshop on Targetry and Target Chemistry* 38-45, 23-25 May 2002, Turku, Finland.
64. **Converse AK**, Nye JA, Barnhart TE, Dick DW, Avila-Rodrigus MA, Sundaresan R, Nickles RJ, Kalin NH, Roberts AD (2003) MicroPET performance in the presence of the third gamma. *Conference Record of the IEEE Nuclear Science Symposium and Medical Imaging Conference* 1797-1799, 19-25 October 2003, Portland, Oregon.

65. Nickles RJ, Roberts AD, Nye JA, **Converse AK**, Barnhart TE, Avila-Rodriguez MA, Sundaresan G, Dick DW, Hammas RJ and Thomadsen BR (2004) Assaying and PET imaging of Yttrium-90: ^{90}Y 34ppm. *Conference Record of the IEEE Nuclear Science Symposium and Medical Imaging Conference*, 6:3412-3414, 16-22 Oct 2004, Rome.
66. **Converse AK**, DeJesus OT, Flores LG, Holden JE, Kelley AE, Moirano JM, Nickles RJ, Oakes TR, Roberts AD, Ruth TJ, Vandehey NT, Davidson RJ (2005) Development of a dual tracer PET method for imaging dopaminergic neuromodulation [invited plenary talk]. *Proceedings of the 9th International Conference on Advanced Technology and Particle Physics: Astroparticle, Particle and Space Physics, Detectors and Medical Physics Applications* 682-691, 17-21 October 2005, Villa Olmo, Como. (Also listed under Invited Talks below).
67. Avila-Rodriguez MA, Selwyn RG, **Converse AK** and Nickles RJ (2006) ^{86}Y and ^{89}Zr as PET imaging surrogates for ^{90}Y : a comparative study [best oral presentation] *American Institute of Physics Conference Proceedings* 854:45-47, 9th Mexican Symposium on Medical Physics, 18-21 March 2006, Guadalajara.
68. Zakszewski E, Moirano JM, Fox AS, Adluru N, **Converse AK**, Shelton SE, Kalin NH and Alexander AL (2011) Comparison of probabilistic diffusion tensor tractography and histological tracer studies in the rhesus macaque *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention Workshop on Computational Diffusion MRI* 18-22 September, Toronto.
69. **Converse AK**, Ahlers EO, Williams PH, Engle JW, Barnhart TE, Nickles RJ and DeJesus OT (2011) Fluoride transport in brassica: a positron emission tomography botanical study [poster MIC9.S-1] *IEEE Nuclear Science Symposium and Medical Imaging Conference, Conference Record* 23-29 October, Valencia.
70. **Converse AK**, Ahlers EO, Bryan TW, Williams PH, Barnhart TE, Engle JW, Nickles RJ, DeJesus OT (2013) Positron emission tomography (PET) of radiotracer uptake and distribution in living plants: methodological aspects *Journal of Radioanalytical and Nuclear Chemistry* 297:241-6.

HONORS AND AWARDS

- | | |
|------|--|
| 2004 | Concorde microPET R4/P4 Image of the Year and Dynamic Image of the Year (\$20,000 towards service contract) |
| 2005 | CTI-Concorde microPET Multimodality Image of the Year (\$5,000 towards service contract) |
| 2006 | Siemens microPET Multimodality Image of the Year (\$5,000 towards service contract) and Honorable Mention |
| 2014 | Frontiers Top 10 Neuroscience Research Articles for Converse et al. (2014) Tai chi training reduces self-report of inattention in healthy young adults <i>Frontiers in Human Neuroscience</i> 8 (13):1-7. PMID: 24478679 |

1S10RR029358-01A1 **Converse (PI)** 5 Jun 2011 - 4 Jun 2012
 NIH/NCRR \$561,200 (total) Role: Principal Investigator
UW-Madison Small Animal PET: High Resolution Large Bore Tomograph
 Funding will be used for a small animal positron emission tomography (PET) scanner to replace existing equipment. This equipment will be used for longitudinal in vivo studies of animal models of human pathologies and imaging of fundamental biological processes. This will allow the UW-Madison PET imaging program to continue to accommodate the increasing number of studies of pathologies such as mood disorders, fetal alcohol exposure, multiple sclerosis, and Parkinson's disease.

R21 EB004482 **Converse (PI)** 19 Jul 2005 - 30 Apr 2008 50%
 NIH/NIBIB \$388,546 (total) Role: Principal Investigator
Simultaneous PET Imaging of rCBF and Dopamine Release
 The major goal of this project is to develop a dual tracer PET method for simultaneously measuring dopamine release and blood flow alteration in the brain using rats and rhesus monkeys. The method would eventually be used in humans for imaging dopaminergic neuromodulation associated with tasks.

AGR DTD 07/26/04 **Converse (PI)** 26 Jul 2004 - 25 Jul 2006 20%
 Pfizer \$226,107 (total) Role: Principal Investigator
Positron Emission Tomography Measurement of Test Compound Dopamine Receptor Occupancy and Persistence
 This study used PET to determine the dopamine D2 type receptor occupancy in rhesus striatum by a candidate antipsychotic compound to aid in setting dose levels for human trials.

1R13EB015316-01 **Converse (PI)** 1 Apr 2012 - 31 Mar 2013
 NIH/NIBIB and NCI \$14,000 (total) Role: Principal Investigator
IEEE Medical Imaging Conference Trainee Support
 This project will provide financial assistance to twenty graduate students and postdoctoral fellows to attend the 2012 IEEE Medical Imaging Conference. This will advance the training of the next generation of scientists and engineers in the field, allowing them to refine and develop new methods for medical imaging. These methods will in turn allow for better diagnosis and monitoring of disease and thereby improve public health.

Completed Research Support (Co-Investigator/Collaborator, Alphabetical by PI)

SAP#43006595 Abbott (PI) 12/15/2005 - 12/31/2009 20%
 Boehringer Ingelheim \$1,574,817 (total) Role: Co-Investigator
Use of the common marmoset model of female hyposexuality to evaluate test compounds' abilities to restore normal frequency of female sexual behavior
 This nonhuman primate study will lead to the development of microPET brain imaging of relevant neural changes involved in enhancing female sexual behavior in a nonhuman

primate, and will lead to further clinical trials by Boehringer Ingelheim.

R01 AG031110 Christian (Sub-PI) 1 Jan 2015 - 31 Aug 2017 10%
NIH/NIA University of Pittsburgh subcontract Role: Associate Scientist
Natural History of Amyloid Deposition in Adults with Down Syndrome
A study to prospectively neuroimage amyloid deposition in a population at risk for developing Alzheimer's Disease

P50 MH100031 Davidson (PI) 1 Sep 2013 - 31 Aug 2018 20%
NIH/NIMH Role: Senior Scientist
Early Neurodevelopmental Origins of Anxiety
A center to investigate the underlying brain circuits and molecular pathways that contribute to anxious temperament early in life, which will aid development of early interventions to prevent debilitating diseases.

P50-MH069315 Davidson (PI) 02/01/2004 - 12/31/2008 5%
NIH/NIMH \$2,132,780 (FY04) Role: Researcher
Affective style: Neural and Behavioral substrates
Center to study affective style from neural and psychobiological perspectives. Both animal and human studies were conducted.

DE-SC0005281 DeJesus (PI) 09/01/2010-12/31/2014 40%
DOE Role: Co-Investigator
PET Imaging of Plant Physiology using Simple Ions, Molecules and Small Peptides
A study to image plant physiology with PET in order to advance research in bioenergy and bioremediation as well as in nuclear medicine and industry.

R21 NS054933 DeJesus (PI) 4/1/2007 - 3/31/2009 5%
NIH/NINDS \$346,461 (total) Role: Co-Investigator
New Dopamine D1 Agonists as PET Imaging Agents
The goal is to develop new PET imaging agents for dopamine D1 receptor-subtype using the novel PET isotope ¹¹C-34m.

TR 3761-A-10 Duncan (PI) 10/01/2005 - 09/30/2010 20%
National Multiple Sclerosis Society \$3,389,980 (total) Role: Co-Investigator
Remyelination and neuroprotective strategies for lesions in multiple sclerosis
The goal of this project is to devise strategies that will remyelinate axons and protect them in demyelinating disease.

04-0074 Fain (PI) 07/01/2004 - 06/30/2008 10%
Sandler Program for Asthma Research Role: Co-Investigator
Non-Invasive Imaging of Airway Closure, Edema and Cellular Activation in an Animal Model of Asthma

72. **Converse AK** and Christian BT (2013) Invited educational talk: Animal models and pre-clinical imaging modalities: PET neuroimaging of rhesus. World Molecular Imaging Conference, Educational Session 04: Biology and Pathology – Central Nervous System, 18 Sep 2013, Savannah.
73. **Converse AK** (2016) Invited talk (regional conference): High resolution PET neuroimaging at UW-Madison. 2nd Annual Midwest Preclinical Imaging Consortium, 15-17 May 2016, Madison.

Talks

74. **Converse AK** and Roberts AD. New initiatives in neuroimaging with positron emission tomography at UW. Faculty for the 21st Century National Assembly, Project Kaleidoscope, Association of American Colleges and Universities, 19 October 2001, UW-Madison.
75. **Converse AK**, Barnhart TE, Dabbs KA, DeJesus OT, Nickles RJ, Roberts AD (2002) Experimental design for simultaneous measurement of dopamine (DA) release and regional cerebral blood flow (rCBF) in rhesus monkeys using [¹¹C]raclopride (RAC), [¹⁷F]fluoromethane (FM), and PET [oral presentation]. Society for Neuroscience Annual Meeting 2-7 Nov 2002 Orlando.
76. **Converse AK**, Barnhart TE, Dallas CB, DeJesus OT, Holden JE, Jivan S, Nickles RJ, Oakes TR, Ruth TJ, Vandehey NT, Roberts AD (2004) Where angels fear to tread: applications of ¹¹C produced with 6.8 MeV protons [poster and oral lab report]. 10th International Workshop on Targetry and Target Chemistry, 13-15 Aug 2004, Madison.
77. **Converse AK**, Houser EN, Larsen EC, Vandehey NT, Avila-Rodriguez MA, Hampel JA, Grudzinski JJ, Weichert JP, Nickles RJ and Holden JE (2006) [¹¹C]PK11195 PET Imaging of Microglial Activation [oral presentation] National Multiple Sclerosis Society Translational Research Partnerships Investigator Meeting, 1-3 Nov 2006, Orlando.
78. **Converse AK**, Larsen EC, Engle JW, Nickles RJ and Duncan ID (2009) MicroPET imaging of inflammation in the brain [oral presentation] National Multiple Sclerosis Society Translational Research Partnerships Investigator Meeting 2nd meeting, 14-16 January, New York.

Other Conference Presentations

79. Roberts AD, Nickles RJ, Dabbs KA, **Converse AK**, Barnhart TE, Schueller MJ (2000) Fluorine-17 fluoroalkanes: a new class of cerebral blood flow agents [abstract]. CTI RDS Users' Meeting, 26-29 Oct 2000, Amsterdam.
80. Roberts AD, Nickles RJ, Dabbs KA, **Converse AK**, Barnhart TE, Schueller MJ, Dick DW (2000) Gas-jet synthesis of fluoroalkanes labeled with [F-17] [oral presentation]. International Symposium on Radiohalogens, 9-13 Sep 2000, Whistler, Canada.

81. **Converse AK**, Barnhart TE, Dabbs KA, DeJesus OT, Dick DW, Larson JA, Nickles RJ, Schneider ML, Roberts AD (2001) Modulated delivery of [¹⁷F]fluoromethane (FM) for simultaneous PET measurement of rCBF and [¹⁸F]fallypride (FAL) concentration [poster 956.14]. Society for Neuroscience Annual Meeting, 10-15 Nov 2001, San Diego.
82. **Converse AK**, Dabbs KA, Barnhart TE, Dick DW, Larson J, Nickles RJ, Schneider ML, Schueller MJ, Roberts AD (2001) Modulated delivery of F-17-fluoromethane for PET measurement of regional cerebral blood flow [poster] *J Nucl Med* 42:930 Suppl. Society of Nuclear Medicine, 23-27 Jun 2001, Toronto.
83. Dabbs KA, **Converse AK**, Barnhart TE, Dick DW, Larson J, Nickles RJ, Oakes TR, Schneider ML, Schueller MJ, Shelton SE, Roberts AD (2001) Visual activation using F-17-fluoromethane in rhesus monkey.[abstract] *J Nucl Med* 42:934 (Suppl.) Society of Nuclear Medicine, 23-27 Jun 2001, Toronto.
84. Nickles RJ, Roberts AD, Dick DW, Schueller MJ, **Converse AK**, Dabbs KA, Barnhart TE, Kalin NH (2001) An integrated lab for the PET imaging of cerebral activation. *J Nucl Med* 42:1118 Suppl. Society of Nuclear Medicine, 23-27 Jun 2001, Toronto.
85. Roberts AD, DeJesus OT, Schneider ML, Barnhart TE, **Converse AK**, Dabbs KA, Dick DW, Larson J, Schueller MJ, Nickles RJ (2001) Paired [¹⁸F]FMT and [¹⁸F]FAL PET studies in rhesus monkeys exposed to in utero alcohol and maternal stress [abstract]. *J Nucl Med* 42:54 (Suppl.) Society of Nuclear Medicine, 23-27 Jun 2001, Toronto.
86. DeJesus OT, Murali D, Flores LG, **Converse AK**, Dick DW, Oakes TR, Roberts AD, Nickles RJ (2003) Synthesis of [F-18]-ZD1839 as a PET imaging agent for epidermal growth factor receptors.[abstract] *Journal of Labelled Compounds and Radiopharmaceuticals* 46:S1, International Symposium on Radiopharmaceutical Chemistry, 10-14 Aug 2003, Sydney.
87. Roberts AD, Barnhart TE, **Converse AK**, Dabbs KA, Oakes TR, Nickles RJ, Stone CK, Haraldsson HM, Tononi G (2003) Improving cerebral blood flow measurement in human activation experiments with 17F-CH3F vs. 15O-H2O [abstract]. International Symposium on Cerebral Blood Flow, Metabolism, and Function, 29 Jun - 3 Jul 2003, Calgary.
88. Barnhart TE, **Converse AK**, Dabbs KA, Oakes TR, Nickles RJ, Stone CK, Ferrarelli F, Haraldsson HM, Tononi G, Roberts AD (2004) TMS brain activation using [17F]CH3F/PET to measure rCBF [abstract]. Organization for Human Brain Mapping Annual Conference, 13-17 June 2004, Budapest.
89. Barnhart TE, Dabbs KA, **Converse AK**, Oakes TR, Nickles RJ, Stone CK, Haraldsson HM, Tononi G, Roberts AD (2004) [17F]CH3F vs. [15O]H2O: rCBF measurements in human activation experiments [poster 839]. *J Nucl Med* 45:262P, Society of Nuclear Medicine, 19-23 Jun 2004, Philadelphia.
90. Barnhart TE, Roberts AD, DeJesus OT, Flores LG, Murali D, Oakes TR, **Converse AK**, Dick DW, Mukherjee J, Larson JA, Moore CF, Schneider ML (2004) Paired [18F]FAL and [18F]FMT PET studies in timing of moderate alcohol exposure in

- rhesus monkeys during pregnancy [oral presentation No. 35]. *J Nucl Med* 45:13P, Society of Nuclear Medicine, 19-23 Jun 2004, Philadelphia.
91. Dallas CB, Barnhart TE, **Converse AK**, Oakes TR, Nickles RJ, Nye JA, Vandehey NT, Roberts AD (2004) Removing [¹²C]CH₄ in target gas for improving specific activity of in target [¹¹C]CH₄ [poster]. Workshop on Targetry and Target Chemistry, 13-15 Aug 2004, Madison.
 92. DeJesus OT, Flores LG, Murali D, **Converse AK**, Bartlett RM, Barnhart TE, Oakes TR, Nickles RJ (2004) Striatal aromatic amino acid decarboxylase turnover in vivo in primate brain: a micropet study [oral presentation No. 34]. *J Nucl Med* 45:13P, Society of Nuclear Medicine, 19-23 Jun 2004, Philadelphia.
 93. DeJesus OT, Murali D, Flores LG, **Converse AK**, Bartlett RM, Dick DW, Oakes TR, Arnsten AF, Nickles RJ, Harding AE (2004) PET imaging of [¹⁸F]Iressa in mouse xenograft tumors [poster I, 5]. Signal Transduction, 25-28 Jan 2004, Luxemborg.
 94. Holmes JH, Sorkness RL, Meibom SK, Sundaram SK, Perlman SB, **Converse AK**, Pyzalski RW, Hahn AD, Grist TM, Fain SB (2004) MRI and PET Imaging of asthma-like reaction to a segmental ragweed challenge in a small animal model [e-poster]. International Society for Magnetic Resonance in Medicine 12th Scientific Meeting, 15-21 May 2004, Kyoto.
 95. Nickles RJ, Nye JA, Dick DW, Avila-Rodrigues MA, Sundaresan R, Martin CC, Vandehey NT, Barnhart TE, **Converse AK**, Roberts AD (2004) Detectors to close the loop: approaching intelligent unattended operation [abstract]. Workshop on Targetry and Target Chemistry, 13-15 Aug 2004, Madison.
 96. Oakes TR, Fox AS, **Converse AK**, Barnhart TE, Vandehey NT, Thottakara PJ, Shelton SE and Kalin NH (2004) Analysis of microPET FDG data from awake rhesus monkeys [poster] IEEE Nuclear Science Symposium and Medical Imaging Conference , 16-22 Oct 2004, Rome.
 97. Vandehey NT, Barnhart TE, Dallas CB, Nickles RJ, Oakes TR, Roberts AD, **Converse AK** (2004) Design of an automated chemistry rig for production of [¹¹C]CH₃I [poster]. Workshop on Targetry and Target Chemistry, 13-15 Aug 2004, Madison.
 98. Vandehey NT, Barnhart TE, Dallas CB, Hampel JA, Nickles RJ, Oakes TR, Roberts AD, **Converse AK** (2004) Design of an Automated Chemistry Rig for production of [¹¹C]CH₃I [oral presentation]. UW-Madison, Biomedical Engineering Symposium.
 99. Xue B, Collins D, Flores LG, Barnhart TE, **Converse AK**, Murali D, DeJesus OT, Nickles RJ, Mukherjee J (2004) 18F-fallypride binding in the rat spinal cord [poster]. *J Nucl Med* 45:258P, Society of Nuclear Medicine, 19-23 Jun 2004, Philadelphia.
 100. Badie B, Gianthy T, Durkee B, Longino M, Pinchuk A, **Converse AK**, Weichert JP (2005) MicroPET evaluation of Iodine-124 labeled NM404 in a rat CNS-1 brain tumor model [abstract]. Society for Molecular Imaging, 7-10 Sep 2005, Cologne.
 101. Barnhart TE, **Converse AK**, Oakes TR, Nye JA, Dick DW, Murali D, Ferrarelli F, Massimini M, Tononi G, Schneider ML, Larson J, Mukherjee J, Stone CK, DeJesus OT, Nickles RJ, Roberts AD (2005) Methodological development of dynamic

- dopamine release using [18F]desmethoxyfallypride [oral presentation]. International Conference on Quantification of Brain Function with PET, 7-11 June 2005, Amsterdam.
102. **Converse AK**, McCutcheon RA, Sladky KK, Paul Murphy J (2005) 2-deoxy-2-[18F]fluoro-d-glucose positron emission tomography imaging of parrot brain [poster]. *Molecular Imaging and Biology* 7:177. Academy of Molecular Imaging, 18-23 March 2005, Orlando.
 103. **Converse AK**, Barnhart TE, Dallas CB, Jivan S, Larson J, Oakes TR, Roberts AD, Ruth TJ, Vandehey NT, Schneider ML (2005) [11C]raclopride imaging of dopamine release in rhesus monkeys [poster]. International Conference on Quantification of Brain Function with PET, 7-11 June 2005, Amsterdam.
 104. DeJesus OT, Flores LG, Murali D, **Converse AK**, Bartlett RM, Oakes TR, Nickles RJ, Jeraj R, Jaskowiak CJ (2005) Assessing environmental chemical exposure in utero: a PET/CT study using a rhesus macaque model [abstract]. International Conference on Nuclear Analytical Methods in the Life Sciences, 17-22 April 2005, Rio de Janeiro.
 105. Grudzinski J, Leach C, Church D, Gianthy T, Durkee B, Longino M, Pinchuk A, **Converse AK**, Wilding G, Weichert JP (2005) Evaluation of radioiodinated NM404 in a mouse PC-3 metastatic bone tumor model [abstract]. Society for Molecular Imaging, 7-10 September 2005, Cologne.
 106. Murali D, Flores LG, **Converse AK**, Bartlett RM, Barnhart TE, Armstrong EA, Nickles RJ, Harari PM, DeJesus OT (2005) Evaluation of [F-18]Iressa as a PET Imaging Agent for Tumors Overexpressing Epidermal Growth Factor (EGF) Receptors [abstract]. *J. Labelled Compounds & Radiopharmaceuticals* 48:S294-S294. International Symposium on Radiopharmaceutical Chemistry, 24-28 June 2005, Iowa City, IA.
 107. Nye JA, Avila-Rodrigues MA, Dallas CB, Vandehey NT, Weichert JP, **Converse AK**, Nickles RJ (2005) Self-sufficiency and opportunity cost: navigating toward expanded distribution of PET feedstocks [abstract]. *J. Labelled Compounds & Radiopharmaceuticals* 48:S109-S109. International Symposium on Radiopharmaceutical Chemistry, 24-28 June 2005, Iowa City, IA.
 108. O'Holloran RX, Corradini NY, Taurisia RZ, Dallas CB, Avila-Rodrigues MA, **Converse AK**, DeJesus OT, Nickles RJ (2005) Phenomenological building blocks: chaining backwards from metabolites [abstract]. *J. Labelled Compounds & Radiopharmaceuticals* 48:S333-S333. International Symposium on Radiopharmaceutical Chemistry, 24-28 June 2005, Iowa City, IA.
 109. Paul Murphy J, **Converse AK**, Sladky KK, McCutcheon RA, Stein T, Steege EE (2005) Using positron emission tomography imaging of the parrot brain to study response to clinical pain [abstract]. Joint Conference American Association of Zoo Veterinarians Conference pp.140-141.
 110. Fox AS, Oakes TR, Shelton SE, **Converse AK**, Davidson RJ, Kalin NH (2005) Threat-related modulation of functional relations between limbic and prefrontal

regions [abstract, 889.7]. Society for Neuroscience Annual Meeting, 12-16 Nov 2005, Washington.

111. Terasawa Grilley E, Keen KL, Kim W, Frost SI, Piscetelli GM, Gallager CL, Alexander AL, **Converse AK**, Nickles RJ, DeJesus OT, Thomson JA, Zhang SC (2005) Effects of embryonic stem cell transplantation in parkinsonian monkeys [abstract,329.13]. Society for Neuroscience Annual Meeting, 12-16 Nov 2005, Washington.
112. Schneider ML, Moore CF, Larson J, Gajewski L, **Converse AK**, Barnhart TE, DeJesus OT and Roberts AD (2005) Prenatal stress alters sensory processing and dopamine function in a nonhuman primate model [oral presentation] Society for Research in Child Development, 7-10 April 2005, Atlanta.
113. **Converse AK**, Moirano JM, Vandehey NT, Murali D, Flores LG, Oakes TR, Holden JE, Roberts AD, Ruth TJ, DeJesus OT, Nickles RJ and Davidson RJ (2006) Simultaneous dual tracer PET imaging of alterations in dopamine D2 receptor occupancy and blood flow in rat brain [Poster P016] *Neuroimage* 31:T59-T59. Neuroreceptor Mapping Conference, 6-8 Jul 2006, Copenhagen.
114. DeJesus OT, Bartlett RM, Flores LG, Murali D, **Converse AK**, Oakes TR, Nickles RJ, Jeraj R and Jaskowiak CJ (2006) A PET/CT study of cerebral dopamine D2 receptors in rhesus macaque fetus in utero [Oral presentation No. 35] *Journal of Nuclear Medicine* 47:13P-13P, 53rd Annual Meeting of the Society of Nuclear Medicine, 3-7 June 2006, San Diego.
115. Emborg ME, Roitberg BZ, Moirano J, Zufferey R, Ebert AD, Joers V, Holden J, **Converse AK**, Koprach JB, Kordower JH and Aebischer P (2006) Lentiviral delivery of glial cell line-derived neurotrophic factor in aged 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-treated rhesus monkeys [poster] *Neurosurgery* 59:481-482. 131st American Neurological Society Annual Meeting, 8-11 Oct 2006, Chicago.
116. Fox AS, Shelton SE, Oakes TR, **Converse AK**, Davidson RJ and Kalin NH (2006) Behaviorally inhibited monkeys demonstrate less coo calls and more amygdala activation during separation [poster EE20] Society for Neuroscience Annual Meeting, 14-18 October 2006, Atlanta.
117. Graner JL, Holden JE, **Converse AK**, Flores LG and Sossi V (2006) Basis function approach to the evaluation of the limits of applicability of graphical methods in the analysis of very high affinity PET ligands [poster P026], *Neuroimage* 31:T70, 6th Neuroreceptor Mapping Conference, 6-8 Jul 2006, Copenhagen.
118. Moirano JM, Vogt KL, DeJesus OT, Murali D, Vandehey NT, Smith EM, Avila-Rodriguez MA, Christian BT, Nickles RJ and **Converse AK** (2006) Measuring arterial input functions for simultaneous dual tracer PET in rats [poster P015] *Neuroimage* 31:T58, 6th Neuroreceptor Mapping Conference, 6-8 Jul 2006, Copenhagen.
119. Avila-Rodriguez MA, DeJesus OT, **Converse AK**, Hampel JA and Nickles RJ (2007) High Specific Activity ⁶⁴Cu for the Radiolabeling of DOTA-conjugates and Bis(thiosemicarbazone) Complexes [oral presentation, session 7] International

Symposium on Radiopharmaceutical Sciences 30 April - 4 May 2007, Aachen, Germany.

120. **Converse AK**, Moirano JM, Flores LG, Vogt KL, Hampel JA, Murali D, Vandehey NT, Smith EM, Oakes TR, Roberts AD, Christian BT, DeJesus OT, Holden JE, Nickles RJ and Davidson RJ (2007) Simultaneous dual tracer PET imaging of alterations in dopamine D2 receptor occupancy and blood flow in rhesus brain [poster 965] Joint Molecular Imaging Conference, 8-11 Sep 2007, Providence.
121. DeJesus OT, Murali D, **Converse AK** and Nickles RJ (2007) Development of [³⁴mCl]-Labeled Dopamine D1 Agonists as PET Imaging Agents [poster P252] International Symposium on Radiopharmaceutical Sciences, 30 Apr - 4 May 2007, Aachen, Germany.
122. Fox AS, Shelton SE, Oakes TR, **Converse AK**, Davidson RJ, Rogers J and Kalin NH (2007) Studies in rhesus monkeys reveal that 5-HT_{1A} S-Carriers have multiple stress associated neural vulnerabilities [poster #107] *Biol.Psychiatry* 61:36S-36S, Society of Biological Psychiatry, 17-19 May 2007, San Diego.
123. Moirano JM, Vogt KL, Flores LG, Hampel JA, Murali D, Smith EM, Vandehey NT, Christian BT, Nickles RJ, deJesus OT, Holden JE and **Converse AK** (2007) Input function measurement for simultaneous dual tracer PET in rats and primates [poster 782] Joint Molecular Imaging Conference, 8-11 Sep 2007, Providence.
124. Selwyn RG, Avila-Rodriguez MA, Nickles RJ, Thomadsen BR, Welsh JS, **Converse AK** and Hampel JA (2007) A new positron-emitting microsphere to assess the *in vivo* distribution and to improve the dosimetry of ⁹⁰Y SIR-Spheres[®] in Selective Internal Radiation Therapy (SIRT): A microPET study [poster No. 1359] Society of Nuclear Medicine, 2-6 June 2007, Washington.
125. Smith EM, **Converse AK**, Davidson RJ, Hampel JA, Kalin NH, Shelton SE and Christian BT (2007) MicroPET MAP reconstruction of PET neuroligands: an examination of quantitation [poster No. 1719] Society of Nuclear Medicine, 2-6 June 2007, Washington.
126. Vogt KL, Moirano JM, Flores LG, Murali D, Smith EM, Vandehey NT, Oakes TR, Roberts AD, Ruth TJ, Christian BT, DeJesus OT, Holden JE, Kelley AE, Nickles RJ, Davidson RJ and **Converse AK** (2007) Determining Arterial Input Functions for Simultaneous Dual Tracer PET Imaging of Dopaminergic Neuromodulation MidBrains Neuroscience Conference, 28 Apr 2007, Macalester College, Saint Paul, Minnesota.
127. Smith EM, Vandehey NT, Hampel JA, Murali D, **Converse AK**, Shelton SE, Davidson RJ, Kalin NH and Christian BT (2007) Comparison of [C-11]DASB DVR differences for MAP versus FBP reconstruction algorithms [poster 999] Joint Molecular Imaging Conference, 8-11 Sep 2007, Providence.
128. Vandehey NT, Garell PC, Avila-Rodriguez MA, **Converse AK**, Davidson RJ, Hampel JA, Nickles RJ, Murali D, Oakes TR, Smith EM and Christian BT (2007) Investigation of D2 receptor changes during hypothalamic deep brain stimulation using [¹⁸F]fallypride [poster No. 1132] Society of Nuclear Medicine, 2-6 June 2007, Washington.

129. Vandehey NT, Garell PC, Murali D, Smith EM, Davidson RJ, **Converse AK**, Nickles RJ and Christian BT (2007) Longitudinal studies tracking dopaminergic changes of two non-human primates during hypothalamic deep brain stimulation using [18F]fallypride PET [poster 1003] Joint Molecular Imaging Conference, 8-11 Sep 2007, Providence.
130. Murali D, Vandehey NT, Christian BT, Nickles RJ, Houser EN, **Converse AK**, Larson JA, Holden JE and Schneider ML (2008) An efficient synthesis of F18-FECNT, a PET tracer for dopamine transporter [abstract, poster 1229] Journal of Nuclear Medicine 49 (supplement 1):288P.
131. **Converse AK**, Aubert Y, Murali D, Weichert JP, DeJesus OT, Nickles RJ and Abbott DH (2008) p-[F-18]-MPPF PET imaging of 5-HT1A receptor binding in marmoset brain *Neuroimage* 41:T148-T148, Poster P088, Neuroreceptor Mapping Symposium 17-19 July 2008, Pittsburgh.
132. Larsen EC, **Converse AK** and Duncan ID (2008) MicroPET detection of zymosan-induced microglial activation in rat white matter *J. Neurochem.* 104:108-108, American Society for Neurochemistry 39th Annual Meeting, 1-5 Mar 2008, San Antonio.
133. **Converse AK**, Moirano JM, Larson JA, Kronenfeld KV, Oakes TR, Holden JE, Moore CF and Schneider ML (2009) PET imaging of cerebral glucose metabolism during executive function in normal rhesus [Poster presentation, Abstract 520, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] Journal of Cerebral Blood Flow & Metabolism 29:S591-S591.
134. Vandehey NT, Moirano JM, Murali D, **Converse AK**, Engle JW, Nickles RJ, Mukherjee J, Schneider ML, Holden JE, Davidson RJ and Christian BT (2009) Considerations in choosing a tracer for measuring extrastriatal dopamine D2/D3 binding [Oral Presentation, Abstract 604, Society of Nuclear Medicine Annual Meeting, 13-17 June 2009, Toronto]
135. Christian BT, Vandehey NT, Moirano JM, Murali D, Wootin D, DeJesus OT, Barnhart TE, **Converse AK**, Nickles RJ, Oakes TR, Mukherjee J, Davidson RJ and Schneider ML (2009) [F-18]MEFWAY and [F-18]MPPF binding to the 5-HT1A receptor in the nonhuman primate [Poster presentation, Abstract 851, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] Journal of Cerebral Blood Flow & Metabolism 29:S353-S354.
136. Lopas LA, Moirano JM, Kurpad KN, Hurley SA and **Converse AK** (2009) Design, construction, and testing of RF coil and animal body holder for simultaneous PET/MRI imaging of rat brain [Poster presentation, Abstract 721, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] Journal of Cerebral Blood Flow & Metabolism 29:S339-S339.
137. Tennessen KR, Ahlers EO, Moirano JM, Murali D and **Converse AK** (2009) Measurement of [18F]MPPF binding in rat hippocampus and cortex by PET [Poster presentation, abstract 1026, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] Journal of Cerebral Blood Flow & Metabolism 29:S328-S328.

138. Vandehey NT, Moirano JM, Murali D, **Converse AK**, Engle JW, Nickles RJ, Mukherjee J, Schneider ML, Holden JE and Christian BT (2009) Comparison of in vivo kinetics of ¹⁸F-fallypride and ¹¹C-FLB-457 [Poster presentation, Abstract 312, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] *Journal of Cerebral Blood Flow and Metabolism* 20:S318-S318.
139. Engle JW, Barnhart TE, Murali D, **Converse AK** and Nickles RJ (2009) Assisting the Alkylation Reaction in the Preparation of (R)-[¹¹C]PK11195 by Solvating KOH in Added Water [Presentation, Abstract, 18th International Symposium on Radiopharmaceutical Sciences, July 2009, Edmonton] *Journal of Labelled Compounds & Radiopharmaceuticals* 52:S281-S281.
140. Ahlers EO, Moirano JM, Christian BT, Holden JE, Moore CF, Schneider ML and **Converse AK** (2009) Assessment of PET quantitative accuracy when using a stereotactic head holder for the rhesus monkey [Poster presentation, Abstract 1140, World Molecular Imaging Conference, 23-26 September 2009, Montreal] *Molecular Imaging and Biology* (2010) 12 (Suppl 1):S2-S461
141. Moirano JM, Hurley SA, Lopas LA, Kurpad KN and **Converse AK** (2009) Qualitative comparison of ¹⁵O-H₂O PET and FAIR arterial spin labeling regional cerebral blood flow imaging methods in rats [Poster presentation, Abstract 1011, World Molecular Imaging Conference, 23-26 September 2009, Montreal] *Molecular Imaging and Biology* (2010) 12 (Suppl 1):S2-S461
142. **Converse AK**, Moirano JM, Ahlers AO, Larson JA, Murali D, Christian BT, DeJesus OT, Nickles RJ, Holden JE, Moore CF and Schneider ML (2009) Striatal DAT binding and reversal task performance in rhesus [Poster presentation, Abstract 1154, World Molecular Imaging Conference, 23-26 September 2009, Montreal] Proceedings published in *Molecular Imaging and Biology*
143. Schneider ML, Moore CF, Larson JA, Thiede AJ and **Converse AK** (2009) Relationship of Stress Responsivity, Serotonin and Dopamine Function, and Alcohol Consumption in a Prospective Longitudinal Primate Study [abstract 211, Research Society on Alcoholism Annual Meeting, 20-24 June 2009, San Diego] *Alcoholism-Clinical and Experimental Research* 33:319A-319A.
144. Aubert Y, **Converse A**, Sommer B, Allers K and Abbott D (2009) Comparison of flibanserin with the 5-HT_{1A} agonist (+)-8-OH-DPAT in affecting interactions between male-female marmoset pairs [Poster presentation, European Society for Sexual Medicine, 15-18 Nov 2009, Lyon] *Journal of Sexual Medicine* 6:422-422.
145. Aubert Y, **Converse AK**, Sommer B, Allers KA, Gustison ML and Abbott DH (2010) Comparison of Flibanserin with the 5-Ht_{1a} Agonist 8-Oh-Dpat in Effecting Interactions between Male-Female Marmoset Pairs [Poster presentation, International Society for the Study of Women's Sexual Health, Annual Meeting, 18-21 Feb 2010, St. Petersburg, Florida] *Journal of Sexual Medicine* 7:118-119.
146. Aubert Y, **Converse AK**, Gustison ML, Diol NR, Edwards AK, Sommer B, Allers KA and Abbott DH (2010) Initial Pet Assessment of Flibanserin-Induced Neural Changes in Female Marmoset Monkeys [Poster presentation, International Society

for the Study of Women's Sexual Health, Annual Meeting, 18-21 Feb 2010, St. Petersburg, Florida] *Journal of Sexual Medicine* 7:131-131.

147. **Converse AK**, Aubert Y, Murali D, Barnhart TE, Sommer B, Allers KA, DeJesus OT, Nickles RJ and Abbott DH (2010) Glucose metabolism in medial prefrontal cortex is associated with serotonin 1A receptor binding in female marmosets [Poster P027, Neuroreceptor Mapping Congress, Glasgow, 22-24 July 2010] *Neuroimage* 52:S85-S86.
148. **Converse AK**, Aubert Y, Murali D, Barnhart TE, Sommer B, Allers KA, DeJesus OT, Nickles RJ and Abbott DH (2010) Positron emission tomography (PET) imaging of 5-HT_{1A} and SERT response to 8-OH-DPAT in female marmosets [Poster 595.15/HHH45] Society for Neuroscience Annual Meeting, 13-17 Nov 2010, San Diego
149. Abbott DH, Aubert Y, **Converse AK**, Allers KA, Gustison ML, Diol NR and Sommer B (2010) Sexual and affiliative behavioral changes induced by flibanserin and the 5-HT_{1A} agonist 8-OH-DPAT in male-female marmoset pairs [Poster 595.13/HHH43] Society for Neuroscience Annual Meeting, 13-17 Nov 2010, San Diego
150. **Converse AK**, Moirano JM, Flores LG, Kronenfeld KV, Barnhart TE, Oakes TR, Roberts AD, Holden JE, Nickles RJ, and Davidson RJ (2013) [¹⁷F]Fluoromethane PET imaging of regional cerebral blood flow in rhesus during amphetamine challenge [Poster 1753] Society of Nuclear Medicine Annual Meeting, 8-12 Jun 2013, Vancouver
151. Higgins AT and **Converse AK** (2016) Spatial uniformity for macaque PET neuroimaging. (regional conference) 2nd Annual Midwest Preclinical Imaging Consortium, 15-17 May 2016, Madison.
152. Sulzer SH, **Converse AK** (PI), and Trueba C (2018) Acceptability of CAM interventions for ADHD among college students: implications for tai chi *Annals of Behavioral Medicine* [meeting abstract C079] 52:S522-S522

CAMPUS AND DEPARTMENTAL TALKS

153. **Converse AK**. Simultaneous PET measurement of dopamine D2 receptor availability and regional cerebral blood flow. Department of Medical Physics Departmental Training Grant Meeting, 30 August 2002, UW-Madison.
154. **Converse AK**. MicroPET. Department of Medical Physics Open House, February 2004, UW-Madison.
155. **Converse AK**. Small animal positron emission tomography. Department of Medical Physics Open House, February 2005, UW-Madison.
156. **Converse AK**, Roberts AD, Nickles RJ, and DeLuca PM. Positron emission tomography (PET) at Madison. Willy Fest (Haeberli Retirement). Department of Physics, 10 June 2005, UW-Madison.

157. **Converse AK.** Positron emission tomography (PET). Department of Surgery, Division of Plastic and Reconstructive Surgery, Research Program, 2006, UW-Madison.
158. **Converse AK.** PET imaging of [¹⁸F]desmethoxyfallypride displacement following amphetamine challenge in rats. PET Tea, 1 February 2007, UW-Madison.
159. **Converse AK.** Simultaneous PET imaging of dopamine release and blood flow alteration. Waisman Center Brain Imaging Core, Brain Food Lunch, 19 February 2007, UW-Madison.
160. **Converse AK.** Sequential [¹⁸F]DMFP and [¹⁷F]FM imaging of dopamine release and blood flow alteration in rhesus brain. PET Tea, 4 September 2008, UW-Madison.
161. **Converse AK.** Animal brain PET at UW-Madison. Waisman Center Brain Imaging Core, Brain Food Lunch, 5 November 2008, UW-Madison.
162. **Converse AK.** FDG, MPPF, and DASB PET Imaging of 8-OH-DPAT Treated Marmosets. Waisman Center Brain Imaging Core, Brain Food Lunch, 12 March 2008, UW-Madison.
163. **Converse AK.** UW-Madison PET infrastructure: microPET P4. PET Tea, 5 March 2009, UW-Madison.
164. **Converse AK.** Imaging microglial activation. Waisman Center Brain Imaging Core, Brain Food Lunch, 23 March 2011, UW-Madison.
165. **Converse AK.** MicroPET: radiotracer imaging of rodents and nonhuman primates. Waisman Center Town Hall, 2 February 2012, UW-Madison.
166. **Converse AK.** MicroPET: radiotracer imaging of rodents. Waisman Center Brain Imaging Core, Small Animal Imaging Meeting, 1 May 2012, UW-Madison.
167. **Converse AK.** Prenatal stress induces long term increases in striatal dopamine transporters in nonhuman primates. Waisman Center Brain Imaging Core, Brain Food Lunch, 3 May 2012, UW-Madison.
168. **Converse AK.** [¹⁷F]fluoromethane PET imaging of regional cerebral blood flow in rhesus during amphetamine challenge. PET Tea, 4 April 2013, UW-Madison.
169. **Converse AK.** Positron emission tomography (PET) neuroimaging of rhesus and marmoset. Wisconsin National Primate Research Center, Neuroscience Working Group, 17 May 2013, UW-Madison.
170. **Converse AK.** Positron emission tomography (PET) neuroimaging in animals. NIH Conte Center - Early Neurodevelopmental Origins of Anxiety, Undergraduate Summer Research Fellowship Program, 12 July 2016, UW-Madison.
171. **Converse AK.** Pharmacokinetic modeling in PET neuroimaging of nonhuman primates. Department of Medical Physics Seminar. 3 October 2016. UW-Madison
172. **Converse AK.** Tai Chi as a potential therapy for ADHD. UW-Madison Department of Family Medicine and Community Health Fellowship Seminar Series. 12 September 2017, UW-Madison.

COURSE GUEST LECTURES

173. **Converse AK.** Neuroimaging tai chi: the brain in motion. For RJ Davidson undergraduate research credit students, Fun with Affective Neuroscience, Waisman Center, 10 March 2010. UW-Madison.
174. **Converse AK.** Positron emission tomography (PET): I Physics and applications, II Tracers and analysis, III Phantom scan demonstration, IV PET/MR. For RM Birn and AL Alexander Neuroscience Training Program 675 Methods for Neuroimaging research, 27 and 29 November, 4 and 11 December 2012. UW-Madison.
175. **Converse AK.** Pharmacokinetic modeling in biomedical imaging. For SB Fain Medical Physics 574 Imaging in Medicine: Applications, 15 April 2016. UW-Madison
176. **Converse AK.** Biology and chemistry of nuclear medicine (1-4). For BT Christian Medical Physics 563 Radionuclides in Medicine and Biology, 7-19 Nov 2018. UW-Madison

TEACHING

- 2017- Pharmacokinetic modeling in biomedical imaging, UW-Madison
Department of Medical Physics, MP671, Spring semester, graduate level,
2 credits
<https://www.medphysics.wisc.edu/wp/graduate-program/courses/#671a>

SUPERVISION AND MENTORING

Staff

- 2004-2005 Eric E. Steege UW-Madison, Waisman Center, Limited Term Employee.
Assisted with microPET operation and human fMRI study design. Left for
West Virginia University Morgantown Sport and Exercise Psychology PhD
program.
- 2006-2007 Joseph A. Hampel UW-Madison, Waisman Center, Associate Research
Specialist, microPET P4 facility manager. Left for UW-Madison School of
Veterinary Medicine DVM program.
- 2007-2008 Kacey L. Vogt UW-Madison, Waisman Center, Associate Research
Specialist, microPET P4 facility manager. Left for UW-Madison School of
Medicine and Public Health MD program.

- 2008-2013 Elizabeth O. Ahlers UW-Madison, Waisman Center, Research Specialist, microPET P4 facility manager. "Assessment of PET quantitative accuracy when using a stereotactic head holder for the rhesus monkey" [Poster presentation, Abstract 1140, World Molecular Imaging Conference, 23-26 September 2009, Montreal] Proceedings published in Molecular Imaging and Biology. Left for University of Denver Doctor of Psychology (PsyD) program.
- 2013-2015 Samuel T. Doran UW-Madison, Waisman Center, Associate Research Specialist, microPET F220/P4 facility manager. Left to teach English in Vietnam.
- 2015-2017 Andrew T. Higgins UW-Madison, Waisman Center, Associate Research Specialist, microPET F220/P4 facility manager. Left to serve as Lab Manager for Waisman Center human PET Lab.
- 2017- Maxim Slesarev, UW-Madison, Waisman Center, Research Specialist, microPET F220/P4 facility manager

Career Awardee

- 2013-2017 Peter Ferrazzano MD, trainer, NIH K08 "Age-dependent microglial responses in hypoxia-ischemia".

Visiting Scientist

- 2006 Maria Collantes, PhD, MicroPET Research Unit, Center for Applied Medical Research and University Hospital, CIMA-CUN, Pamplona, Spain. Hosted 4-22 December 2006 and trained in small animal PET.

Postdoctoral Trainees

- 2006-2010 Eric C. Larsen, PhD, UW-Madison, Dept of Medical Sciences, School of Veterinary Medicine. Supervisor: Ian Duncan. Mentored as sub-PI of National MS Society award to Duncan. "¹¹C-(R)-PK11195 PET Imaging of Microglial Activation and Response to Minocycline in Zymosan-Treated Rats". Postdoctoral Fellow MindSpec McLean VA 2010-
- 2014 Marco A. Hirnstein, PhD, Department of Biological and Medical Psychology University of Bergen, Norway. Supervisor: Kenneth Hugdahl. Mentoring and training in the use of PET to study the dopamine system. Supervising research, "PET imaging of dopamine release in response to amphetamine in rats." Researcher Department of Biological and Medical Psychology. University of Bergen 2015-.

2014-2015 Sandra H. Sulzer, PhD, Department of Family Medicine, University of Wisconsin-Madison, Supervisor: Barrett. Research supervisor and mentor in study of tai chi as therapy for ADHD. Assistant Professor of Kinesiology and Health Science, Utah State University, Logan 2017-.

Graduate Students (Ph.D.)

2004-2005 Nicholas T. Vandehey, UW-Madison, Medical Physics. Mentored during transition from Roberts to Christian. "Design of an automated chemistry rig for production of [11C]CH3I" [poster]. Workshop on Targetry and Target Chemistry, 13-15 Aug 2004, Madison.

2006-2008 Elizabeth N. Houser, UW-Madison, Medical Physics. Mentored within Nickles lab as sub-PI of Ian Duncan National MS Society Award. "[11C]PK11195 radiochemistry".

2012-2016 Martina Ly, UW-Madison, Neuroscience Training Program. Supervisors: Bendlin and Davidson. Mentoring within Davidson lab. "Aging, brain structure, and cognitive function"

2013-2017 Angela S. Klemm, Fielding Graduate University, Counseling Psychology. Research supervisor and mentor, "ADHD across the lifespan"

2016-2018 Shannon Connell, Fielding Graduate University, Clinical Psychology. External examiner, "The effect of focused attention and open monitoring meditation on resilience and psychological well-being in caregivers of persons with dementia"

Graduate Students (M.S.)

2005-2012 Jeffrey M Moirano, UW-Madison, Medical Physics. Co-chair graduate committee for dissertation, "Methodology for Simultaneous Dual-Tracer PET Investigation of Dopaminergic Neuromodulation" (2007 -). Supervised as RA on Converse NIH R21 "Simultaneous PET Imaging of rCBF and Dopamine Release" (2005 - 2007). Supervised as RA on Schneider NIH R01 (Sep 2007-2010). "Measuring arterial input functions for simultaneous dual tracer PET in rats" [poster P015] Neuroimage 31:T58, 6th Neuroreceptor Mapping Conference, 6-8 Jul 2006, Copenhagen. "Input function measurement for simultaneous dual tracer PET in rats and primates" [poster 782] Joint Molecular Imaging Conference, 8-11 Sep 2007, Providence. "Qualitative comparison of 15O-H2O PET and FAIR arterial spin labeling regional cerebral blood flow imaging methods in rats" [Poster presentation, Abstract 1011, World Molecular Imaging Conference, 23-26 September 2009, Montreal] Proceedings published in Molecular Imaging and Biology. "Rhesus

macaque brain atlas regions aligned to an MRI template"
Neuroinformatics. 17:295-306 PMID: 30291569

- 2013-2014 Sabrina Koehler, TU Darmstadt, Organizational Psychology. Supervised research during exchange program. "Psychological effects of tai chi training"/ "Hand-drawn validation of rhesus template ROIs"
- 2014-2015 Katherine A. Lake, UW-Madison, Biomedical Engineering. "PET imaging of plants". Supervised under Onofre DeJesus DOE award.

Undergraduate Students (Independent Study)

- 2003-2004 Joseph A. Hampel UW-Madison Psychology/Pharmacology. Supervised independent study "PET Tracer Purification" Pharmacy Sciences 679 Oral presentation (2004).
- 2003-2004 Nicholas T. Vandehey UW-Madison Biomedical Engineering. "Design of an Automated Chemistry Rig for production of [11C]CH3I" [oral presentation]. UW-Madison, Biomedical Engineering Symposium (2004).
- 2005-2007 Kacey L. Vogt UW-Madison Neurobiology. Supervised independent study projects "FDG PET Imaging of Regional Brain Metabolism in Marmoset Reproductive Behavior: Focus on Methods" (2007) and "Determining Arterial Input Functions for Simultaneous Dual Tracer PET Imaging of Dopaminergic Neuromodulation" MidBrains Neuroscience Conference, Macalester College, Saint Paul, Minnesota, April 28th, 2007
- 2007 Amir Seltz UW-Madison Supervised Independent Study (Zoology 152) Fall 2007, "[18F]fallypride PET measurement of dopamine D2 receptor occupancy by a candidate antipsychotic compound in the pituitary and striatum in rhesus"
- 2008-2009 Luke A. Lopas UW-Madison Genetics. Fall 2007 Hourly, (Neuroscience 699) Spring 2008, "Design and Prototyping of an Animal Holder for Simultaneous PET/MRI Imaging of Rat Brain", Fall 2008 "Construction and Preliminary Testing of RF Coil and Animal Body Holder for Simultaneous PET/MRI Imaging of Rat Brain", Spring 2009 "Design, construction, and testing of RF coil and animal body holder for simultaneous PET/MRI imaging of rat brain" [Poster presentation, Abstract 721, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] *Journal of Cerebral Blood Flow & Metabolism* 29:S339-S339. Continued in UW-Madison School of Medicine and Public Health MD program.
- 2008-2009 Kenneth R. Tennessen UW-Madison Biology. Hourly for microPET data quality control (Summer 2008). Supervised independent study (Fall 2008

and Spring 2009), "Measurement of [18F]MPPF binding in rat hippocampus and cortex by PET" [Poster presentation, abstract 1026, IXth International Conference on Quantification of Brain Function with PET, 29 June - 3 July 2009, Chicago] Journal of Cerebral Blood Flow & Metabolism 29:S328-S328. Continued in UW-Madison School of Pharmacy PharmD program.

- 2008-2009 Jack Ho, Kuya Takami, Joseph Yuen, and Nathan Webeckes. UW-Madison Biomedical Engineering design team. "Quad rat vitals monitor"
- 2009-2010 Caitlyn Collins, Robert Bjerregaard, Matthew Bollom, and Derek Klavas. UW-Madison Biomedical Engineering design team. "Quad rat vitals monitor" Continuation of previous year's project.
- 2010-2011 Jay Johnson, Matthew Bollom, John Renfrew, Kenny Xu, Gabriel Bautista "Quad rat vitals monitor" UW-Madison Biomedical Engineering design team. Continuation of previous year's project.
- 2009-2011 Maria A. Khalil UW-Madison Journalism. Supervising Independent Study (Biology 152/Neuroscience 699) "Microsphere validation of PET/MR measures of regional cerebral blood flow in rat". "Validation of template regions of interest for regional cerebral blood flow measures in rhesus".
- 2012-2013 Matthew Bollom UW-Madison Biomedical Engineering (continuation from BME design team) "Quad rat vitals monitor"
- 2012-2013 Caitlin Bloomer, Tyler Lieberthal, and Chuanxin Weng. "Psychological effects of tai chi training"
- 2012-2014 Clare Chandler "Psychological effects of tai chi training"
- 2012-2016 Erin Crain, "Psychological effects of tai chi training", "Hand-drawn validation of rhesus template ROIs". NIH Conte Undergraduate Fellow, Summer 2015.
- 2012-2015 Daniel Fehrenbach "Psychological effects of tai chi training"
- 2012-2013 Katherine Lake, "PET imaging of plants"
- 2013-2014 Malissa Scola, Monica Whitehouse "Psychological effects of tai chi training"
- 2013-2015 Brittany Lowen "Psychological effects of tai chi training"
- 2013-2014 Kylie Charneski "Psychological effects of tai chi training"

- 2013-2016 Shilpa Cyriac, "Hand-drawn validation of rhesus template ROIs", "A feasibility/pilot trial of tai chi as therapy for college students with ADHD"
- 2015-2016 Haley Braun, "A feasibility/pilot trial of tai chi as therapy for college students with ADHD"
- 2016-2017 Kenneth Fiala, "Postural stability measures"
- 2016- 2017 Margaret Hogan, "A feasibility/pilot trial of tai chi as therapy for college students with ADHD"
- 2016-2018 Alysha Rameshk, "Age and sex dependent asymmetries in rhesus PET imaging: applications of a new brain atlas". Neurobiology Senior thesis. (MP699 and Zoo691/2) NIH Conte Undergraduate Fellow.
- 2016-2019 Lana Hantzsch, "Use of EEG in Studying Tai Chi as an Alternate Therapy for ADHD" (MP699 and Zoo691)
- 2016-2018 Ziyad Sultan, "Heart rate variability and set-shifting reaction time in undergraduates with ADHD". Neurobiology Honors Senior Thesis. (MP699 and Zoo681/2)
- 2016-2019 Haley Fuhr, "EEG measures of undergraduates with ADHD during performance of Tai Chi: A feasibility trial ". Neurobiology Honors Senior Thesis. (MP699 and Zoo681/2) UW-Madison Faculty Honors Committee Trewartha senior thesis award (\$1500).
- 2016-2019 Carly Ebert, "[18F]-Desmethoxyfallypride binding following amphetamine in rat midbrain" (MP699)
- 2016-2019 Grace Herbeck, "SWARII resampling of tai chi pilot trial data [postural stability measures]" (MP699)

SERVICE TO PROFESSION

Grant Review

- 2007 NIH NIDA Special Emphasis Panel, mail (x1)
- 2009 Natural Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant, mail (x1)
- 2015-2017 NIH Shared Instrumentation, ZRG1 SBIB-Y 30 (x3)
- 2018 Netherlands Organisation for Health Research and Development (ZonMW), mail (x1)

Journal Review

2003-2010 Synapse (x5)
 2004-2016 Journal of Nuclear Medicine (x3)
 2010 Medical Physics (x1)
 2010-2018 Journal of Neuroscience Methods (x2)
 2010-2018 European Journal of Nuclear Medicine and Molecular Imaging (x10)
 2011- Associate Editorial Board, American Journal of Nuclear Medicine and Molecular Imaging
 2012 European Journal of Pain (x1)
 2012 Journal of Neurotransmission (x1)
 2013-2014 NeuroImage (x3)
 2014 Frontiers in Psychology (x1)
 2015 Biomed Central Complementary and Alternative Medicine (x1)
 2015 PLOS ONE (x1)
 2016 Journal of Complementary and Integrative Medicine (x1)

Conference Organization

2009-2013 Deputy Program Chair, 2012 IEEE Medical Imaging Conference

Conference Review

2005-2009 International Conference on Quantification of Brain Function with PET (BrainPET) (x3)
 2012- IEEE Medical Imaging Conference (x6)

UNIVERSITY SERVICE

2006-2015 Founder and facilitator, UW-Madison, Monthly PET Tea (59 meetings)
 2006-2012 Representative, UW-Madison Academic Staff Assembly
 2011- Chair, UW-Madison Waisman Center Brain Imaging Core, microPET Users Committee
 2011-2014 Representative, UW-Madison Graduate School, Committee on Academic Staff Issues
 2012-2017 Alternate Representative, UW-Madison Academic Staff Assembly
 2013-2017 Member, UW-Madison PI Committee
 2015-2016 Representative, UW-Madison Office of the Vice Chancellor for Research and Graduate Education, Committee on Academic Staff Issues

COMMUNITY OUTREACH AND MEDIA

- 2006-2013 Annual visits to neighborhood schools with animal and human brains.
- 2014 IDEA Fitness Journal, June 2014, Mind-Body Spirit: "Tai chi benefits for young adults", by Shirley Archer, JD, MA.
- 2015 Huffington Post, 17 June 2015, "Can tai chi and computer games treat your ADHD?" by Scott Shapiro, MD.
- 2015 "Mindful Climate Action" UW-Madison Department of Family Medicine. <https://www.youtube.com/watch?v=IBHJ7hW6VIQ>
- 2015 "Moving towards well being with tai chi" UW-Madison Center for Healthy Minds. <https://www.youtube.com/watch?v=zLBMty0lys4>
- 2015 "When brain metabolism dips, desire goes up in monkeys on 'female Viagra'" Jordana Lenon UW-Madison University Communications <https://news.wisc.edu/when-brain-metabolism-dips-desire-goes-up-in-monkeys-on-female-viagra/>
- 2018 "How to make an open-source, computerized map of the brain" Mason Muerhoff UWMadScience UW-Madison University Communications <https://uwmadscience.news.wisc.edu/biology/how-to-make-an-open-source-computerized-map-of-the-brain/>
- 2018 "Ritalin drives greater connection between brain areas key to memory, attention" Chris Barncard UW-Madison University Communications <https://news.wisc.edu/ritalin-drives-greater-connection-between-brain-areas-key-to-memory-attention/>

RELATED PROFESSIONAL SKILLS

Accelerator radioisotope production
 Radiochemistry (F-18, C-11, O-15, and F-17 labelling for PET)
 Animal handling, anesthesia, vitals monitoring, and minor surgery
 Animal and human research protocols
 Neuroimaging procedures
 Neuroimage analysis
 Programming: C, Python, LabVIEW, IDL, Fortran, Pascal, M, and assembly language
 MRI pulse sequence programming (EPIC)
 Optical design
 Charged particle beam transport modelling
 Instrumentation design and construction
 Machining
 Electronics
 Languages: German, French, and Russian

REFERENCES

David H. Abbott, Ph.D.
 Professor, Department of Obstetrics and Gynecology
 School of Medicine and Public Health

University of Wisconsin-Madison
(608) 263-3583
abbott@primate.wisc.edu

Andrew L. Alexander, Ph.D.
Professor, Department of Medical Physics
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 265-8233
alalexander2@wisc.edu

Bradley T. Christian, Ph.D.
Professor, Department of Medical Physics
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 890-0750
bchristian@wisc.edu

Richard J. Davidson, Ph.D.
William James and Vilas Professor of Psychology and Psychiatry
Department of Psychology
College of Letters and Science
University of Wisconsin-Madison
(608) 265-8189
rjdavids@wisc.edu
Contact: Susan Jensen scjense1@wisc.edu

Onofre T. DeJesus, Ph.D.
Professor, Department of Medical Physics
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 263-8929
odejesus@wisc.edu

Ian D. Duncan, Ph.D.
Professor, Department of Medical Sciences
School of Veterinary Medicine
University of Wisconsin-Madison
(608) 263-9828
duncani@svm.vetmed.wisc.edu

James E. Holden, Ph.D.
Emeritus Professor, Department of Medical Physics
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 262-5998

Alexander K. Converse, Ph.D.

jeholden@wisc.edu

Robert J. Nickles, Ph.D.
Emeritus Professor, Department of Medical Physics
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 263-1026
rnickles@wisc.edu

Luis C. Populin, Ph.D.
Associate Professor, Department of Neuroscience
School of Medicine and Public Health
University of Wisconsin-Madison
(608) 265-6451
lpopulin@wisc.edu

Mary L. Schneider, Ph.D.
Emeritus Professor, Department of Kinesiology
School of Education
University of Wisconsin-Madison
(608) 265-5118
schneider@education.wisc.edu