

Syed Omar Ahmad, OTD, Ph.D., OTR/L

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Education:

- 1995 Bachelor of Science in Occupational Therapy
Department of Occupational Therapy
Washington University, St. Louis, Missouri
- 2000 Doctor of Occupational Therapy (Summa Cum Laude)
Department of Occupational Therapy
Creighton University, Omaha, Nebraska
- 2002 Doctor of Philosophy, Neuroanatomy with an Emphasis on Neuropharmacology
Warnborough College, Ireland

Certifications:

- 2003 Certificate, Stereology Resource Center, New Orleans, Louisiana
- 2022 Certificate, Harvard X, Leaders of Learning
- 2022 Certificate, Harvard X, The Opioid Crisis in America

Employment History:

- May 2018-Present The Virginia Gore Neuro-Occupation Lab, LLC. Principle Investigator and CEO. Providing consulting, scientific and Neuro-Stereology services on a contract basis, May 21-Aug 19th.
- July 2011-Present Saint Louis University, Tenured Full Professor of Occupational Therapy and Occupational Sciences, Core Faculty in the Center for Neuroscience. Principle Investigator in the Virginia Gore Neuro-Occupation Lab 2011-2017. Associate Dean for Research in the Doisy School of Health Sciences 2011-2013, Associate Dean for Graduate Education (Interim) 2012-2013. Duties performed from Aug 20th-May 20th. Clinical Practice in ASD and other Neurobehavioral Disorders in a Community, strengths-based Occupational Therapy task oriented group (Judo).
- June 2004-June2011 University of Kansas Medical Center, Program Manager, Associate Professor with Tenure (Clinical practice in orthotics, splinting, CIT, pediatrics and neurorehabilitation). 2011-2018, Adjunct Faculty

January 2004-June 2006 Rocky Mountain University, Associate Professor, Graduate Program Director, DSc Clinical Neuroscience (Part-time)

January 2003- June 2004 University of Texas at El Paso, Assistant Professor (Clinical practice in burn therapy, acute care, and pediatrics)

June 2000- January 2003 Creighton University, Assistant Professor (Clinical practice in psychosocial OT, substance abuse, burn therapy and inpatient rehabilitation)

May 1997- June 1998 Washington University School of Medicine Program in Occupational Therapy, Clinical Faculty, Teaching assistant

May 1995-June 2000 Barnes-Jewish Hospital (and Barnes-Jewish Hospital West County), Clinical Faculty, Management (Clinical practice in rehabilitation, acute care, neurorehabilitation, burn therapy, acute psychiatry, orthotics, hand therapy and orthopedics)

May 1997- June 2000 Therapeutic Specialties, Inc. Partner, Senior Consultant (Faculty Practice)

Professional Membership:

1995-present American Occupational Therapy Association, #00052600

2007-present International Society for Stereology

1999-present Society for Neuroscience, #100039253

1995-present National Board for Certification in Occupational Therapy, #1006207

2000-2008 Licensed Occupational Therapist, License #820 (Nebraska)

2007-2016 Licensed Occupational Therapist, License #17-02445 (Kansas)

1995-2001,
2011-present Licensed Occupational Therapist, License #2016005750 (Missouri)

Honors:

2015 Doisy College of Health Sciences Excellence in Scholarly Endeavors

2014 Alpha Eta Society (International Society for Scholarship in Allied Health)

2012-Present Scientific Reviewer for Elsevier Scientific Journals

2010-Present Scientific reviewer for Aging Research Reviews, Neurobiology of Disease

2011 Stata Norton Award for Teaching Excellence (KUMC)

2008 Editorial Review Group Chair, Occupational Therapy (Doody Publishing)

- 2004-Present Ad Hoc Reviewer for Stereology (Elsevier Science. Reviewed for Neuroscience, Neuroscience Letters)
- 2007 High-Q Foundation Stereology and Inflammation invited expert on Stereology (with Daniel Peterson, Cristoph Schmitz, and Bente Pakkenberg)
- 2000 Pi Theta Epsilon Inductee (National Honor Society for Occupational Therapy)

Peer Reviewed Publications:

Ahmad, S., Longhurst, J., Stiles, D., Downard, L., Martin, S. (2023). A meta-analysis of exercise intervention and the effect on Parkinson's Disease Symptoms. *Neuroscience Letters*, 137162, ISSN 0304-3940. <https://doi.org/10.1016/j.neulet.2023.137162>

Polinski, N. K., Martinez, T. N., Ramboz, S., Sasner, M., Herberth, M., Switzer, R., **Ahmad, S. O.**, Pelligrino, L. J., Clark, S. W., Marcus, J. N., Smith, S. M., Dave, K. D., & Frasier, M. A. (2022). The GBA1 D409V mutation exacerbates synuclein pathology to differing extents in two alpha-synuclein models. *Disease models & mechanisms*, 15(6), dmm049192. <https://doi.org/10.1242/dmm.049192>

Polinski, N, Martinez, T, Gorodinski, A., Gaerus, R., Sasner, R., Herberth, M., Switzer, R., **Ahmad, S.**, Cosden, M., Kandebo, M., Drolet, R., Buckett, P., Shan, W., Chen, Y., Pellegrino, L., Ellsworth, G., Dungan, L., Hirst, W., Clark, S., and Dave, K. (2021). Decreased glucocerebrosidase activity and substrate accumulation of glycosphingolipids in a novel GBA1 D409V knock-in mouse model. *PLoS One* 16(6):e0252325

Jaegers LA, Vaughn MG, Werth P, Matthieu MM, **Ahmad SO**, Barnidge E. Work-Family Conflict, Depression, and Burnout Among Jail Correctional Officers: A 1-Year Prospective Study. (2021) *Saf Health Work*. Jun;12(2):167-173. doi: 10.1016/j.shaw.2020.10.008. Epub 2020 Oct 27. PMID: 34178393; PMCID: PMC8209357.

Jaegers LA, **Ahmad SO**, Scheetz G, Bixler E, Nadimpalli S, Barnidge E, Katz IM, Vaughn MG, Matthieu M. (2020). Total Worker Health®Needs Assessment to Identify Workplace Mental Health Interventions in Rural and Urban Jails. *American Journal of Occupational Therapy*.

Jaegers LA, Matthieu M, Werth P, **Ahmad SO**, Barnidge E, Vaughn MG. (2020). Stressed out: Predictors of depression among jail officers and deputies. *The Prison Journal*: Vol 100(2) 240-261

Ahmad, S.O., Baun, J., Tipton, B., Tate, Y., Switzer III, R.C. (2019). Modification of AgNOR staining to reveal the nucleolus in thick sections specified for stereological and pathological assessments of brain tissue. *Heylion*: 5_EO347

Jaegers LA, Matthieu M, Vaughn MG, Werth P, Katz IM, **Ahmad SO**. (2019, publish ahead of print). Posttraumatic stress disorder and job burnout among jail officers. *Journal of Occupational and Environmental Medicine*. doi: 10.1097/JOM.0000000000001600

Alicia Flach; Lisa Jaegers, Mary Krieger, Emily Bixler, Patrick Kelly, Edward P. Weiss, **S. Ahmad** (2017). Endurance Exercise Improves Function in Individuals with Parkinson's Disease: A Meta-analysis. *Neuroscience Letters*: 659, 115-119.

Royeen, C. B., Brasic, J. R., Dvorak, L., Provasnik-O'Brien, C., Sethi, C., **Ahmad, S. O.** (2016). Neuroscience Literacy: "Brain Tells" as Signals of Brain Dysfunction Affecting Daily Life. *Journal of Allied Health*, 45(4), 278-282.

Liang, J., Kerstin Lindemeyer, A., Suryanarayanan, A., Meyer, E.M., Marty, V.N., **Omar Ahmad, S.**, Shao, X.M., Olsen, R.W., Spigelman, I. (2014) Plasticity of GABAA receptor-mediated neurotransmission in the nucleus accumbens of alcohol-dependent rats. *Journal of Neurophysiology*. 112, 1: 39 - 50

Dave, K., De Silva, S, Sheth, N, Ramboz, S., Beck, M, Quang, C, Switzer III, R, **Ahmad, S.**, Sunkin, S, Walker, D, Cui, X, Fisher, D, McCoy, A, Gamber, K., Ding, X, Goldberg, M, Benkovic, S, Baptista, M, Fiske, B, Sherer, T, and Frasier, M. (2014). Phenotypic characterization of recessive gene knockout rat models of Parkinson's disease. *Neurobiology of Disease*. NBD-13-856R1. 70:190-203.

Healy-Stoffel, M., **Ahmad, S.**, Standford, J., Levant, .B (2014). Differential effects of intrastriatal 6-hydroxydopamine on cell number and morphology in midbrain dopaminergic subregions of the rat. *Brain Research*, BRES-D-13-01562. 1574:113-119

Healy-Stoffel, M., **Ahmad, S.**, Standford, J., Levant, .B (2013). Altered nucleolar morphology in substantia nigra dopamine neurons following 6-hydroxydopamine lesion in rats. *Neuroscience Letters*, 546: 25-30

Park, J., **Ahmad, S.** (2012). What is the potential of animal models to inform occupational therapy theories and interventions from the perspective of neuroscience? *Therapeutic Science for Neurorehabilitation*. 1, 39-56.

Healy-Stoffel, M., **Ahmad, S.**, Stanford, J., Levant, B. (2012). A novel use of the combined tyrosine hydroxylase and silver nucleolar staining to determine the effects of a unilateral intrastriatal 6-hydroxydopamine lesion in the substantia nigra: A stereological Study. *Journal of Neuroscience Methods*. 210:187-194

Liberman, D., Taha, J., **Ahmad, S.**, Most, S. (2011). The Effects of corticosteroids on functional recovery and neuron survival in facial nerve crush injuries in mice. *The Archives of Facial and Plastic Surgery*. 13(2):117-124

Lau, Y., Patki, G., Le, W., **Ahmad, S.**(2011). Neuroprotective effects and mechanisms of exercise in a chronic mouse model of Parkinson's disease with moderate neurodegeneration. *European Journal of Neuroscience*: 1-11

Ahmad, S., Park, J., Stenho-Bittel, L., Lau, Y. (2009). Effects of endurance exercise on the ventral tegmental area neurons in the chronic 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine and probenecid-treated mice. *Neuroscience Letters*: 25664

Honghong Yao, Fuwang Peng, Navneet Dhillon, Shannon Callen, Sirosh Bokhari, Lisa Stehno-Bittle, **Omar Ahmad**, John Q Wang and Shilpa Buch (2009) "Involvement of TRPC channels in CCL2-mediated neuroprotection against Tat toxicity." *Journal of Neuroscience JN-RM-2781-08R1*

Natarajan, P., Oelschlager, A., Agah, A., Pohl, P., **Ahmad, S.**, Liu, W. (2008). Current clinical practice in stroke rehabilitation: A regional survey. *Journal of Rehabilitation Research and Development*. 45(6):841-849

Ahmad, S., Park, J., Radel, J., Levant, B. (2008). Reduced numbers of dopamine neurons in the substantia nigra pars compacta and ventral tegmental area of rats fed an n-3 polyunsaturated fatty acid deficient diet: A stereological study. *Neuroscience Letters*. 438:303-307

Scott, S., Diaz, N., **Ahmad, S.** (2007). Stereological analysis of cell number and size during post-natal development in the rat substantia nigra. *Neuroscience Letters*. 23;419(1):34-7. Epub 2007 Apr 8

Vuchetich, P., Hamilton, W., **Ahmad, S.** Makoid, M. (2006). Analyzing course objectives: Assessing critical thinking in the Pharmacy curriculum. *The Journal of Allied Health vol. 35(4):253-275*.

Glynn, G., **Ahmad, S.** (2003). Regional variations in the physiology of the rat caudate-putamen. In vivo subregional effects of amphetamine on extracellular dopamine concentration. *The Journal of Neural Transmission* vol. 110, issue 5: 461-485.

Glynn, G., **Ahmad, S.** (2003). Regional variations in the physiology of the rat caudate-putamen. Effects of amphetamine and amphetamine induced dopamine release on basal and cortical stimulation evoked multiple unit activity. *Journal of Neural Transmission* vol. 110, issue 5: 443-460.

Glynn, G., **Ahmad, S.** (2002) Three dimensional electrophysiological topography of the rat corticostriatal system. *Journal of Comparative Physiology. A, Neuroethology, Sensory, Neural, and Behavioral Physiology.* 188(9): 639-703.

Ahmad, S., Behr, S. (2002). Instructional Validity and Critical Thinking in an Occupational Therapy Curriculum. *Education Special Interest Section Quarterly*, vol 1, 4-8.

Ahmad, S. (2002). Exploration of the dorsal basal ganglia and motor performance: Electrophysiology, topography and neurosurgical outcomes of the corticostriatal pathway, caudate, putamen and the globus pallidus. (Research Exposition available from the *Warnborough College Graduate School*, Bray, Ireland.)

Ahmad, S., Scott, S., Mu, K. (2001). A Meta-Analysis of Functional Outcomes of Patients With Parkinson's Disease Treated With Unilateral Pallidotomy. *Neuroscience Letters*, vol.312/3: 153-156.

Zardetto-Smith, A., Mu, K., **Ahmad, S.,** Royeen, C.B. (2000). A Model Program For Bringing Neuroscience to Children: An Informal Neuroscience Education Program Bridges a Gap. *The Neuroscientist*, vol.6, 3, 159-168.

Peer Reviewed Images:

Ahmad, S. (2007). Ovarian Stem Cells. *Synapse* vol 7: 16 (Peer Reviewed Photograph).

Ahmad, S. (2006). Ovarian follicle. *Synapse* vol 6: 12 (Peer Reviewed Photograph).

Ahmad, S. (2005). Sample Nucleolus 1. *Synapse* vol 5: 15 (Peer Reviewed Photograph).

Published Peer-Reviewed Abstracts:

Ahmad, S., Longhurst, J., Stiles, D., Born, J., Scheffler, K., Vogel, K. (2023). Occupationally based exercises compare well with gold standard exercises for patients with Parkinson's Disease,: A meta-synthesis (Abstract). Society for Neuroscience, Washington, D. C. (PSTR261, control #3180)

Longhurst JK, Carlson S, Chiu Y, **Ahmad SO**, Landers MR, Fritz N. (2023). Thinner Entorhinal, Premotor, Sensorimotor Cortices Are Associated with Poor Dual-Task Performance in Parkinson's Disease. APTA 2022 Combined Sections Meeting, February 23-25.

Ahmad, SO., Longhurst, J, Stiles, DL, Downard, L. Martin, S., Dinh, H. (2022). A meta-analysis of exercise intervention and the effect on Parkinson's Disease Symptoms (Abstract). Society for Neuroscience, Proceedings: OASIS. 2022-S1564-SfN. San Diego, CA.

Bradford, C., Polinski, N., Martinez, T., Clark, S., Smith, S., Switzer, R., **Ahmad, S.**, Ramboz, S., Sasner, M., Herberth, M., Menalled, L., Baptista, M., Dave, K., Frasier, M. (2019). The Michael J. Fox Foundation's efforts to understand the relationship between GABA1 and Alpha Synuclein through the development and characterization of preclinical models. [Abstract] Chicago, IL: Proceedings from the Society for Neuroscience.

Ahmad, S., Barillier, K., Kingsley, B., Kuminick, M., Baun, J., York, T., Switzer, R. (2019). Comparison of occlusion and staining techniques in rodents with induced CVA injuries and the use and effectiveness of Ischemia Contrast Stain. [Abstract] Chicago, IL: Proceedings from the Society for Neuroscience.

Ahmad, S., Joseph, J., Spalding, E., Stevens, N., Toth, S (2018). Integrating student education in the research process with a stereological study: The effects of environmental enrichment on the number and size of TH+ neurons in the Substantia Nigra Pars Compacta, and Hippocampal size in Rats. [Abstract] San Diego, CA.: Proceedings from Society for Neuroscience.

Ahmad, S. O., Alicia Flach, I; Lisa Jaegers, Mary Krieger, Emily Bixler, Patrick Kelly, Edward P. Weiss, (2017). Endurance Exercise Improves Function in Individuals with Parkinson's Disease: A Meta-analysis. [Abstract] Washington, D.C.: Proceedings from the Society for Neuroscience.

Ahmad, S. O., Caponera, G. (2017). Neuronal numbers in the ventral tegmental area and the nucleus accumbens in alcohol preferring and non-preferring rats [Abstract] Washington, D.C.: Proceedings from the Society for Neuroscience.

Jaegers L, Matthieu M, Barnidge E, **Ahmad O**, Scheetz G, Dick R, Nadimpalli S,

Kelly, P. "Identifying Occupational Stressors to Inform Workplace Health Programs for Jail Corrections Officers in Eastern Missouri," SLU Health Sciences Collaborative Research Initiative, Health Sciences Multidisciplinary Research Symposium, St. Louis, MO, April, 13, 2016.

Jaegers L, Matthieu M, Barnidge E, **Ahmad O**, Scheetz G, Dick R, Nadimpalli S, Kelly, P. "Identifying Occupational Stressors to Inform Workplace Health Programs for Jail Corrections Officers in Eastern Missouri," Saint Louis University Doisy College of Health Sciences Scholarship Symposium, St. Louis, MO, March 2, 2016.

Ahmad, S. O., Schleif, E. (2016). Stereology of the substantia nigra pars compacta comparing total numbers of tyrosine hydroxylase negative neurons to tyrosine hydroxylase positive neurons in 3 different mouse models. [Abstract] San Diego, CA. : Proceedings from Society for Neuroscience.

Jaegers L, Barney K, Matthieu M, Barnidge E, Kelly P, **Ahmad O**, Parker K. "Determining the Mental and Physical Health Needs of Corrections Officers in Missouri for the Development of a Total Worker Health™ Program," Saint Louis University Doisy College of Health Sciences Scholarship Symposium, St. Louis, MO, February 20, 2015.

Ahmad, S., Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R. (2015). Immunohistochemical Characterization of Multiple Sclerosis Plaques in Human Brain. [Abstract]. Society for Neuroscience, Chicago, IL.

Ahmad, S., Royeen, C., Provasnick, C. (2015) BrainTells: A Teaching Model for students and families on cognitive disability. [Abstract]. Society for Neuroscience, Chicago, IL.

Ahmad, S., Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R. (2015). Morphometric characterization of AgNOR stain in the human MS brain. [Abstract]. International Congress of the AD/PD Society, Nice, France.

Ahmad, S. O., (2014). Using course objectives and the Learning Through Discussion Method to establish instructional validity in a small-group graduate neuroscience class. [Abstract]. Society for Neuroscience, Washington, D.C. 2014-H-1926-SfN

Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R., and **Ahmad, S.**, (2014). Immunohistochemical characterization of multiple sclerosis plaques in the human brain. [Abstract]. Society for Neuroscience, Washington, D.C.

Martinez, T.N., Sasner, M., Herberth, M., Switzer, R., **Ahmad, S. O.**, Luk, K., Ramboz, S., Kudwa, A., Kirik, D., Mandel, R., Nisi, R., Dismuke, D., Das, S., Frasier, M., and Dave, K. (2014). Characterization, comparison, and cross-validation of *in vivo* alpha-synuclein models of parkinsonism. [Abstract]. Society for Neuroscience, Washington, D.C.

Price, C. J., Sutherland, M.L., Mathews, J., Fennel, T.R., Black, S. L., Watson, R. W., Snyder, R.W., Switzer, R. C., **Ahmad, S. O.** (2014). Evaluation of Israpindine (ISR) for neuroprotective potential in the MPTP/Probenicid mouse model for PD. [Abstract]. Society for Neuroscience, Washington, D.C.

Ahmad, S. O., Stoeffel_Healey, R., Stanford, J., Levant, B. (2013). Novel AgNor stain Nucleolar Morphology in Substantia Nigra Dopamine Neurons Following Unilateral Intrastratial 6-Hydroxydopamine in Rats " [Abstract: 2013-S-5764-SfN]. Society for Neuroscience, San Diego, CA

Stoeffel_Healey, R., **Ahmad, S. O.**, Stanford, J., Levant, B. (2013). Changes in Nucleolar Morphology in Substantia Nigra Dopamine Neurons Following Unilateral Intrastratial 6-Hydroxydopamine in Rats" [Abstract: A-459-0002-00657]. AD/PD 2013, Florence, Italy

Liang, J., Lindenmeyer, K., Suryanarayman, A., Meyer, E., Marty, V., **Ahmad, S.**, Olsen R., Spiegelman, I. (2012). GABA_A receptor plasticity in the nucleus accumbens of alcohol-dependent rats [Abstract]. International Society for Biomedical Research on Alcoholism.

Dave, K., De Silva, S., Rambos, S., Beck, M., Quang, C., Benkovic, S., **Ahmad, S.**, Sunkin, S., Walker, D., Gamber, K., Aziz, J., Baptista, M., Das, S., Dufour, A., Eberling, J., Facheris, M., Fiske, B., Sheth, N., Sherer, T., Urkowitz, A., Frasier, M. (2012). MJFF animal models 2: Phenotypic characterization of the autosomal recessive (Parkin-1, Pink-1 and DJ-1) gene knockout rat models of Parkinson's disease [Abstract]. Society for Neuroscience.

Stoffel, M., **Ahmad, S.**, Stanford, J., Levant, B. (2012). Changes in nucleolar morphology in substantia nigra dopamine neurons following unilateral intrastratial 6-hydroxydopamine in rats [Abstract]. Society for Neuroscience.

Stoffel, M., **Ahmad, S.**, Stanford, J., Levant, B. (2011). Effects of 6-hydroxydopamine unilateral lesion on dopamine cell number and volume in the substantia nigra pars compacta: A stereological study utilizing TH and silver nucleolar stain [Abstract]. Society for Neuroscience.

Switzer, R., Baun, J., Tipton, C., Segovia, C., **Ahmad, S.**, Benkovic, S. (2011). Modification of AgNOR staining to reveal nucleolus in thick sections specified for stereological assessment of dopaminergic neurotoxicity in SNPC. [Abstract]. Society for Neuroscience.

Ahmad, S., Almli, C., Park, J. (2010). A comparison of 2d image analysis and design-based stereology for evaluating morphological changes in the midbrain dopamine system [Abstract]. Society for Neuroscience.

Jaber, A., Vidoni, E., **Ahmad, S.**, Burns, J. (2010). The association between physical activity, cognitive function, and the performance of activities of daily living in patients with early Alzheimer's disease [Abstract]. Society for Neuroscience.

Ahmad, S., Manzardo, A., Park, J., Penic, E. (2009). Stereological examination of the mesocortical dopamine system in alcohol preferring and non-preferring Wistar rats [Abstract]. Society for Neuroscience.

Almli, C., Abel, R., Levy, T., Switzer, R., Park, J., **Ahmad, S.** (2008). Effects of complex rich versus standard laboratory rearing environments on brain and behavioral development of rats [Abstract]. Society for Neuroscience.

Scott, S., **Ahmad, S.** (2008). Unbiased morphometry of dopaminergic neurons in the ventral tegmental area during postnatal development [Abstract]. Society for Neuroscience.

Ahmad, S., Park, J., Radel, J., Levant, B. (2008). Reduced numbers of dopamine neurons in the substantia nigra pars compacta and ventral tegmental area of rats fed an n-3 polyunsaturated fatty acid-deficient diet: A stereological study. [Abstract]. Society for Neuroscience.

Ahmad, S., Park, J., Oppermann-Budt, J., Stenho-Bittel, L., J., Lau, Y. (2007). Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the MPTP/probenecid model for Parkinson's disease [Abstract]. University of Kansas Faculty Research Day.

Ahmad, S., Crabtree, J., Griffiths, Y. (2007). Using Course Objectives and the Learning Through Discussion Method to Establish Instructional Validity [Abstract]. Society for Neuroscience.

Ahmad, S., Park, J., Stenho-Bittel, L., J., Lau, Y. (2007). Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the mild chronic mouse MPTP/probenecid model for Parkinson's disease [Abstract]. Society for Neuroscience.

Lau, Y., Das, K., Pothakos, K., **Ahmad, S.** (2007) Impact of endurance exercise on nigrostriatal neuronal recovery in the chronic mouse MPTP/probenecid model of parkinsonism with moderate and severe neurodegeneration [Abstract]. Society for Neuroscience.

Ahmad, S., Park, J., Oppermann-Budt, J., Lau, Y. (2007). Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the chronic mouse MPTP/probenecid model for Parkinson's disease [Abstract]. International Brain Conference (peer reviewed).

Ahmad, S., Park, J., Stenho-Bittel, L., Lau, Y. (2006). Effects of endurance exercise on physical habilitation and substantia nigra neurons in the chronic mouse MPTP/probenecid model for Parkinson's disease [Abstract]. Abstract Control Number: 11117, Presentation Number: 675.17. Society for Neuroscience.

Scott, S., Diaz, N., **Ahmad, S.** (2006). Stereological analysis of cell number and size as a function of age in the rat substantia nigra [Abstract]. Society for Neuroscience.

Ahmad, S. (2004). A Case for Neuro-Occupation [Abstract]. *Proceedings of the 17'th Annual Midwest Deans' Occupational Therapy Research Conference*, 34.

Ahmad, S., Correa, E.(2004). Stereological Analysis of Dopaminergic Neurons in the Caudo-Putamen of Age-Differentiated Rats: Structure Function Analysis and Performance Impacts [Abstract]. *Proceedings of the 17'th Annual Midwest Deans' Occupational Therapy Research Conference*, 48.

Ahmad, S., Hamilton, W., Vuchetich, P., Makoid, M. (2003). Evaluating Critical Thinking in the Curriculum [Abstract]. *16'th Annual Midwest Deans' Occupational Therapy Research Conference*, 42.

Ahmad, S., Griffiths, Y. (2003). Using Course Objectives and the Learning Through Discussion Method to Establish Instructional Validity [Abstract]. *Proceedings of the 16'th Annual Midwest Deans' Occupational Therapy Research Conference*.

Glynn, G., **Ahmad, S.** (2002) Three dimensional electrophysiological topography of the rat corticostriatal system [Abstract]. *Proceedings of the 15'th Annual Midwest Deans' Occupational Therapy Research Conference*, 59-60.

Ahmad, S., Behr, S. (2002). Instructional Validity and Critical Thinking in an Occupational Therapy Curriculum [Abstract]. *Proceedings of the 15'th Annual Midwest Deans' Occupational Therapy Research Conference*, 56.

Ahmad, S., Scott, S., Mu, K. (2001). A Meta-Analysis of Functional Outcomes of Patients With Parkinson's Disease Treated With Unilateral Pallidotomy [Abstract]. *Proceedings of the 15'th Annual Midwest Deans' Occupational Therapy Research Conference*, 45.

Books/ Chapters:

Ohia, S., **Ahmad, S.**, Shara, M. (In press). Functional Performance, analgesics, and anesthetics. Chapter in Ohia, Peyton, Opere (Eds.) *General Principles of Drug Action and Functional Performance*. St. Louis, MO: Mosby

Alsharif, N., **Ahmad, S.** (In press). Functional Performance and Central Nervous System Acting Drugs. Chapter in Ohia, Peyton, Opere (Eds.) *General Principles of Drug Action and Functional Performance*. St. Louis, MO: Mosby

Park, J. **Ahmad, S.** (2014). 2D and 3D Morphometric analyses comparing three rodent models. In Neurostereology: Unbiased Stereology of Neural Systems (Peter Mouton, Ed.) Wiley Blackwell: Ames, IA. p.233.

Ahmad, S., Park, J., Stenmho-Bittel, L., Lau, Y. (2006). Effects of endurance exercise on physical habilitation and substantia nigra neurons in the chronic mouse MPTP/probenecid model for Parkinson's disease. *Society for Neuroscience 2006 Press Book* (peer reviewed).

Ahmad, S., Alsharif, N., Royeen, M. (2005). Arab Americans. Chapter in Royeen, Crabtree (Eds.) *Culture in Rehabilitation: From Competency to Proficiency*. Upper Saddle River, NJ: Prentice-Hall. P 181-202 (peer reviewed Chapter)

University Grant/Research Activities (Funded):

Ahmad, S. (PI) , Longhurst, J. (2022). Understanding Rehabilitation Treatment Trends In Patients With Parkinson's Disease. J1T948 Washington University Institute of Clinical and Translational Sciences supported by the NIH/National Center for Advancing Translational Sciences (NCATS), CTSA grant #UL1TR002345. \$5,000

Volz-Doll, J (PI) , **Ahmad, S.** (Senior and Project Mentor) Title of Proposed Project: Integrating Care: Building Evidence for Occupational and Physical Therapy in Primary Care. AOTF Research Priority: Health care experience: access, care coordination, utilization Research Approach: Pilot study HSR Pilot Study Option #1: \$100,000 (In Review).

Ahmad, S., Neuroscience Associates (Michael J. Fox, Sep. 2014- ongoing most recent indirect \$20,000, SLU 2021). Contract to count TH+ and Nissl + Neurons in Bilateral Substantia Nigra of 210 mice. \$370,000 Role: P.I.

Jaegers, L. (Principal), Kelly, P. V. (Co-Investigator), Barnidge, E. (Co-Investigator), Matthieu, M. M. (Co-Investigator), **Ahmad, S. O.** (Co-Investigator), 20134, Subcontract, "A Prospective Study of Health Among Newly Hired Corrections Officers", Healthier Workforce Center for Excellence, University, \$29,998.00, Funded. (sub: April 22, 2016, start: July 1, 2016, end: June 30, 2017).

Ahmad, S. (Research Triangle Institute, 2014-2015). Neuronal counts in SNPC of pharma-treated rats. Research Contract, \$30,000 indirect, \$84,000 direct. Role: P.I.

Ahmad, S. (Merck Pharmaceuticals and Therapeutics, 2013-2014). Neuronal counts in SNPC of pharma-treated rats. Research Contract, \$30,000 indirect, \$74,000 direct. Role: P.I.

Levant, B., **Ahmad, S.** (\$335,000 D.C.) N-3 Fatty Acids: Roles in Parkinson's Disease (Funded via NIH, NINDS, # R21 NS067422-01A1, 2010-2013). Role: Co-investigator

Ahmad, S. Neuroscience Associates (John Commisong, Amerantis Bioscience, April 2012-2013). Contract to count Neurons in SNPC in 60 rats. \$50,000 indirect, \$80,000 direct. Role, P.I.

Ahmad, S., NeuroScience Associates (Michael J. Fox, Sep. 2010- 2014). Contract to count Neurons in the Substantia Nigra of 210 rats and 100 mice. \$450,000 Role: P.I.

Levant, B., Stanford, J., **Ahmad, S.** (\$35,000 D.C. Completed, Published 2011) Lied Endowed Basic Science Pilot Research Grant entitled "Dietary N-3 Fatty Acids: A Risk Factor for Parkinson's Disease?" Role: Co-Investigator

Ahmad, S. (P.I.), Almlı, C. (\$36,370 D.C., to initiate Jan 1, 2009. Completed 2010). The neuronal effects of enriched environments on animals raised in an enriched environment post neonatal middle cerebral artery infarct. Neuroscience Associates Seed Grant #Q2008-4752-2. Role: P.I.

Ahmad, S. Morphometric Analysis of Dopaminergic neurocircuitry in rats bred to prefer alcohol (Funded via the Hubert and Richard Hanlon Trust, \$32,119/year for 5 years, Completed). Role: P.I.

Ahmad, S., Almlı, C. *The neuronal effects of enriched environments on rats.* (Funded via NeuroScience Associates Seed Grant #Q-2006-4752-1, \$21,180+ animal expenses, Completed, Published 2011). Role: P.I.

Levant, B. *Brain DHA, Dopamine, and Behavior: Roles in ADHD* (funded via #R01 MH067938, \$405,000 DC, 9/30/04 - 6/30/07). Role: Collaborator, providing anatomical and stereological studies.

Lau, Y. Stenho-Bittel, L., **Ahmad, S.** *The Impact of Exercise on Parkinson's Disease Therapy.* (Funded via NIH, NINDS, #R01 NS 47920, completed 2008). Role: Collaborator

Ahmad, S., Correa, E. *A Study of the Qualitative and Quantitative Age Related Changes in Neurons in the Caudo-Putamen of normal Sprague-Dawley Rats.* (Funded via Hot Projects Grant #104, \$9,924, completed 2003). Role: P.I. and Project advisor.

Ahmad, S., Bybee, R., Carlson, M., Reynolds, A., Dominguez, D., Thompson, S., Salvatore, A., Smith, D. *Collegiate Project Assistance Initiative* (Funded Via the Paso Del Norte Health Foundation, #26-8112-04, \$170,000, completed 2003). Role: Co-Primary Researcher.

Ahmad, S., Rocha, Y., Soto, B., Dominguez, M. *Meta-analysis of Functional Outcomes in Parkinson's Patients Treated With Unilateral Pallidotomy* (Funded via Hot Projects Grant #97, completed 2003). Role: P.I. and Project advisor.

Bybee, R., Carlson, M., Reynolds, A., Torres, L., **Ahmad, S.**, Thompson, S., Salvatore, A., Smith, D. Co-Primary Researcher in *Collegiate Project Assistance Initiative* (Funded Via the Paso Del Norte Health Foundation, #26-8111-82, \$150,000, completed 2002). Role: Co-Primary Researcher.

Ahmad, S., Shara, M., Abeyta, A. *Continuous Connection: Consortium for Rural Interdisciplinary Training.* (Funded Via Quentin Burdick Grant # 1-D36 AH 10082-01, completed 2002). Role: P.I.

Ahmad, S., Nerotam, P.K. *Neuroelectrophysiological transcutaneous median nerve stimulation for comatose patients, Creighton University and St. Joseph's Hospital* (Funded, 2001, Protocol published, 2002, completed 2002). Role: P.I.

Ahmad, S., Mu, K., Scott, S. *Outcomes for neurosurgical Parkinson's disease treatments* (Funded, published, 2001, completed 2001). Role: P.I.

Glynn, G., **Ahmad, S.** *Animal models to assist in understanding the effects of dopamine on the striatal pathways* (Funded, 2000-2001, published, 2003). Role: Co-P.I.

Zardetto-Smith, A., Mu, K., **Ahmad, S.**, Royeen, C.B., *Brains Rule Neuroscience Fair, National Institute on Drug Abuse, National Institutes of Health, R25 DA12168*, (Funded, \$465,000 published, 2000, completed 2002). Role: Grant Coordinator.

Ahmad, S., Buchman, T. *Capital Equipment and Service Grant, Barnes-Jewish Rehabilitation Department, for the purchase of a Tech-Scan pressure monitor, and time for data collection and analysis, to determine the effects of different pressures upon scar formation* (Funded, \$105,000, 1996-1998). Role: P.I.

VGNOL Private Contract Consultancy and Grants (Funded):

Ahmad, S., Neuroscience Associates (Axent Biosciences, 2023). Contract to count HuNu +/TH+ neurons in a stem cell graft. 20 animals. \$20,000. Role: P.I., Consultant

Ahmad, S., NeuroScience Associates (Jant, 2022). Contract to count TH+ and Nissl + Neurons in Bilateral Substantia Nigra of 25 Parkinsons Mice. \$50,000 Role: P.I. and Independent Consultant

Ahmad, S., NeuroScience Associates (Jant, June 2021). Contract to count TH+ and Nissl + Neurons in Bilateral Substantia Nigra of 25 Parkinsons Mice. \$50,000 Role: P.I. and Independent Consultant

Ahmad, S., NeuroScience Associates (Michael J. Fox, June 2018). Contract to count TH+ and Nissl + Neurons in Bilateral Substantia Nigra of 44 Parkinsons Mice. \$250,000 Role: P.I. and Independent Consultant

Selected International Peer Reviewed Presentations

Poster Presentation: **Ahmad, S.**, Longhurst, J., Stiles, D., Born, J., Scheffler, K., Vogel, K. (2023). Occupationally based exercises compare well with gold standard exercises for patients with Parkinson's Disease.: A meta-synthesis (Abstract). Society for Neuroscience, Washington, D. C. (PSTR261, control #3180)

Poster Presentation: Bradford, C., Polinski, N., Martinez, T., Clark, S., Smith, S., Switzer, R., **Ahmad, S.**, Ramboz, S., Sasner, M., Herberth, M., Menalled, L., Baptista, M., Dave, K., Frasier, M. (2019). The Michael J. Fox Foundation's efforts to understand the relationship between GABA1 and Alpha Synuclein through the development and characterization of preclinical models. [Abstract] Chicago, Il: Proceedings from the Society for Neuroscience.

Poster Presentation: **Ahmad, S.**, Barillier, K., Kingsley, B., Kuminick, M., Baun, J., York, T., Switzer, R. (2019). Comparison of occlusion and staining techniques in rodents with induced CVA injuries and the use and effectiveness of Ischemia Contrast Stain. [Abstract] Chicago, Il: Proceedings from the Society for Neuroscience.

Poster Presentation: **Ahmad, S. O.**, Alicia Flach,¹; Lisa Jaegers, Mary Krieger, Emily Bixler, Patrick Kelly, Edward P. Weiss, (2017). Endurance Exercise Improves Function in Individuals with Parkinson's Disease: A Meta-analysis. Washington, D.C.: Proceedings from the Society for Neuroscience.

Poster Presentation: **Ahmad, S. O.**, Caponera, G. (2017). Neuronal numbers in the ventral tegmental area and the nucleus accumbens in alcohol preferring and non-preferring rats Washington, D.C.: Proceedings from the Society for Neuroscience.

Poster Presentation: **Ahmad, S. O.**, Schleif, E. (2016). Stereology of the substantia nigra pars compacta comparing total numbers of tyrosine hydroxylase negative neurons to tyrosine hydroxylase positive neurons in 3 different mouse models. San Diego, CA. : Proceedings from Society for Neuroscience.

Poster Presentation: **Ahmad, S.**, Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R. (2015). Immunohistochemical Characterization of Multiple Sclerosis Plaques in Human Brain. Society for Neuroscience, Chicago, IL.

Poster Presentation: **Ahmad, S.**, Royeen, C., Provasnick, C. (2015) BrainTells: A Teaching Model for students and families on cognitive disability. Society for Neuroscience, Chicago, IL.

Poster Presentation: **Ahmad, S.**, Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R. (2015). Morphometric characterization of AgNOR stain in the human MS brain. International Congress of the AD/PD Society, Nice, France.

Poster Presentation: **Ahmad, S.**, Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R. (2015). Morphometric characterization of AgNOR stain in the human MS brain. International Congress of the AD/PD Society, Nice, France.

Poster Presentation: **Ahmad, S. O.**, (2014). Using course objectives and the Learning Through Discussion Method to establish instructional validity in a small-group graduate neuroscience class. Society for Neuroscience, Washington, D.C.

Poster Presentation: Baun, J., Tipton, B., Zurhellen, C., Segovia, C., Switzer, R., and **Ahmad, S.**, (2014). Immunohistochemical characterization of multiple sclerosis plaques in the human brain. Society for Neuroscience, Washington, D.C.

Poster Presentation: Price, C. J., Sutherland, M.L., Mathews, J., Fennel, T.R., Black, S. L., Watson, R. W., Snyder, R.W., Switzer, R. C., **Ahmad, S. O.** (2014). Evaluation of Israpindine (ISR) for neuroprotective potential in the MPTP/Probenicid mouse model for PD. Society for Neuroscience, Washington, D.C.

Poster Presentation: Martinez, T.N., Sasner, M., Herberth, M., Switzer, R., **Ahmad, S. O.**, Luk, K., Ramboz, S., Kudwa, A., Kirik, D., Mandel, R., Nisi, R., Dismuke, D., Das, S., Frasier, M., and Dave, K. (2014). Characterization, comparison, and cross-validation of *in vivo* alpha-synuclein models of parkinsonism. Society for Neuroscience, Washington, D.C.

Poster Presentation: Price, C. J., Sutherland, M.L., Mathews, J., Fennel, T.R., Black, S. L., Watson, R. W., Snyder, R.W., Switzer, R. C., **Ahmad, S. O.** (2014). Evaluation of Israpindine (ISR) for neuroprotective potential in the MPTP/Probenicid mouse model for PD. Society for Neuroscience, Washington, D.C.

Poster Presentation: **Ahmad, S. O.**, Stoeffel_Healey, R., Stanford, J., Levant, B. (2013). Novel AgNor stain Nucleolar Morphology in Substantia Nigra Dopamine Neurons Following Unilateral Intrastratial 6-Hydroxydopamine in Rats " [Abstract: 2013-S-5764-SfN]. Society for Neuroscience, San Diego, CA

Poster Presentation: Stoeffel_Healey, R., **Ahmad, S. O.**, Stanford, J., Levant, B. Changes in Nucleolar Morphology in Substantia Nigra Dopamine Neurons Following Unilateral Intrastratial 6-Hydroxydopamine in Rats" [Abstract: A-459-0002-00657]. AD/PD (2013)

Poster Presentation: Liang, J., Lindenmeyer, K., Suryanarayman, A., Meyer, E., Marty, V., **Ahmad, S.**, Olsen R., Spiegelman, IGABA_A receptor plasticity in the nucleus accumbens of alcohol-dependent rats. International Society for Biomedical Research on Alcoholism. (2012).

Poster Presentation: Dave, K., De Silva, S., Rambos, S., Beck, M., Quang, C., Benkovic, S., **Ahmad, S.**, Sunkin, S., Walker, D., Gamber, K., Aziz, J., Baptista, M., Das, S., Dufour, A., Eberling, J., Facheris, M., Fiske, B., Sheth, N., Sherer, T., Urkowitz, A., Frasier, M. MJFF animal models 2: Phenotypic characterization of the autosomal recessive (Parkin-1, Pink-1 and DJ-1) gene knockout rat models of Parkinson's disease. Society for Neuroscience. (2012).

Poster Presentation: Stoffel, M., **Ahmad, S.**, Stanford, J., Levant, B. Changes in nucleolar morphology in substantia nigra dopamine neurons following unilateral intrastratial 6-hydroxydopamine in rats . Society for Neuroscience. (2012).

Poster Presentation: Stoffel, M., **Ahmad, S.**, Stanford, J., Levant, B. Effects of 6-hydroxydopamine unilateral lesion on dopamine cell number and volume in the substantia nigra pars compacta: A stereological study utilizing TH and silver nucleolar stain. Society for Neuroscience. (2011).

Poster Presentation: Switzer, R., Baun, J., Tipton, C., Segovia, C., **Ahmad, S.**, Benkovic, S. Modification of AgNOR staining to reveal nucleolus in thick sections specified for stereological assessment of dopaminergic neurotoxicity in SNPC. Society for Neuroscience. (2011).

Poster Presentation: **Ahmad, S.**, Almlı, C., Park, J. A comparison of 2d image analysis and design-based stereology for evaluating morphological changes in the midbrain dopamine system. Society for Neuroscience. (2010).

Poster Presentation: Jaber, A., Vidoni, E., **Ahmad, S.**, Burns, J. The association between physical activity, cognitive function, and the performance of activities of daily living in patients with early Alzheimer's disease Society for Neuroscience. (2010).

Poster Presentation: **Ahmad, S.**, Manzardo, A., Park, J., Penic, E. Stereological examination of the mesocortical dopamine system in alcohol preferring and non-preferring Wistar rats. Society for Neuroscience. (2009).

Poster Presentation: Almlı, C., Abel, R., Levy, T., Switzer, R., Park, J., **Ahmad, S.** Effects of complex rich versus standard laboratory rearing environments on brain and behavioral development of rats. Society for Neuroscience (2008).

Poster Presentation: Scott, S., **Ahmad, S.** Unbiased morphometry of dopaminergic neurons in the ventral tegmental area during postnatal development. Society for Neuroscience (2008).

Poster Presentation: **Ahmad, S.**, Park, J., Radel, J., Levant, B. Reduced numbers of dopamine neurons in the substantia nigra pars compacta and ventral tegmental area of rats fed an n-3 polyunsaturated fatty acid-deficient diet: A stereological study. Society for Neuroscience (2008).

Poster Presentation: **Ahmad, S.**, Crabtree, J., Griffiths, Y. Using Course Objectives and the Learning Through Discussion Method to Establish Instructional Validity [Abstract]. Society for Neuroscience (2007).

Poster Presentation: **Ahmad, S.**, Park, J., Stenho-Bittel, L., J., Lau, Y. Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the mild chronic mouse MPTP/probenecid model for Parkinson's disease [Abstract]. Society for Neuroscience (2007).

Poster Presentation: Lau, Y., Das, K., Pothakos, K., **Ahmad, S.** Impact of endurance exercise on nigrostriatal neuronal recovery in the chronic mouse MPTP/probenecid model of parkinsonism with moderate and severe neurodegeneration [Abstract]. Society for Neuroscience (2007).

Poster Presentation. **Ahmad, S.**, Park, J. Oppermann-Budt, J., Lau, Y. Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the chronic mouse MPTP/probenecid model for Parkinson's disease. International Brain Conference (2007).

Poster Presentation. **Ahmad, S.**, Park, J., Stenho-Bittel, L., Lau, Y. Effects of endurance exercise on physical habilitation and substantia nigra neurons in the chronic mouse MPTP/probenecid model for Parkinson's disease. Society for Neuroscience (2006).

Poster Presentation. Scott, S., Diaz, N., **Ahmad, S.** Stereological analysis of cell number and size as a function of age in the rat substantia nigra. Society for Neuroscience (2006).

Selected National Peer Reviewed Presentations

Longhurst JK, Carlson S, Chiu Y, **Ahmad SO**, Landers MR, Fritz N. Thinner Entorhinal, Premotor, Sensorimotor Cortices Are Associated with Poor Dual-Task Performance in Parkinson's Disease. APTA 2022 Combined Sections Meeting, February 23-25, 2023.

Poster: Bixler E, Scheetz G, Kelly P, Matthieu M, Barnidge E, **Ahmad O**, Jaegers L. "Community health promotion to support corrections workplace health: A mixed methods needs assessment," American Public Health Association (APHA) Annual Meeting, Denver, CO, November 1, 2016.

Poster: Nadimpalli S, Jaegers L, Matthieu M, Barnidge E, **Ahmad O**, Scheetz G, Dick R, Kelly P. "Relationship Between Social Support and Depression Among Jail Corrections Officers - A Pilot Study," American Public Health Association (APHA) Annual Meeting, Denver, CO, October 31, 2016.

Presentation: Royeen, C., Provasnik, C. **Ahmad, S.** (2015). Brain Tells a teaching model for educating students and families on cognitive deficits. 3 hour Institute, AOTA Annual Conference, Nashville, TN.

Presentation: **Ahmad, S. O.** (2014) So You Want to Be a Researcher? AOTA Student Conclave, ST. Louis, MO

Institute WS 410: **Ahmad, S.**, Morrison, T., Radel, J. Rehabilitation of central nervous system injuries: Evidence –based approaches. American Occupational Therapy Conference, Long Beach, CA, (2008).

Poster Presentation: Scherer, J., Coffman, S., **Ahmad, S.**, Scott, S. Unbiased morphometry of dopaminergic neurons in the ventral tegmental area during post-natal development [Abstract]. Ohio University, Research Day, (2008)

Invited Presentation. High Q Stereology and NeuroInflammation Workshop, Manhattan, N.Y. (2007)

Invited Institute. Ahmad, S. Dunn, W. *Rehabilitation of Adult Sensory Dysfunction: An Evidence-Based Approach*. American Occupational Therapy Association Conference (2005)

Selected State/local Presentations:

Poster Presentation: **Ahmad, S.**, Park, J., Oppermann-Budt, J., Stenho-Bittel, L., J., Lau, Y. Effects of endurance exercise on physical habilitation and ventral tegmental area neurons in the MPTP/probenecid model for Parkinson's disease [Abstract]. University of Kansas Faculty Research Day (2007).

Keynote Speaker. *The Neurological Basis of Ritual and Occupation*. Indiana State Occupational Therapy Association Fall Symposium (2005)

Paper Presentation. *Neuroscience and Occupation*. Indiana State Occupational Therapy Association Fall Symposium (2005)

Invited Lecture. *The Foundations of Stereological Research in Functional Performance*. University of Southern Indiana (2005)

Paper Presentation. A Case for Neuro-Occupation. Proceedings of the 17th Annual Midwest Deans' Occupational Therapy Research Conference (2004).

Paper Presentation. Stereological Analysis of Dopaminergic Neurons in the Caudo-Putamen of Age-Differentiated Rats: Structure Function Analysis and Performance Impacts. Proceedings of the 17th Annual Midwest Deans' Occupational Therapy Research Conference (2004).

Paper Presentation. Evaluating Critical Thinking in the Curriculum. 16th Annual Midwest Deans' Occupational Therapy Research Conference (2003).

Paper presentation. A Meta-Analysis of Functional Outcomes of Patients With Parkinson's Disease Treated With Unilateral Pallidotomy. 15th Annual Midwest Deans' Occupational Therapy Research Conference (2002).

Poster Presentation. Instructional Validity and Critical Thinking in an Occupational Therapy Curriculum. 15th Annual Midwest Deans' Occupational Therapy Research Conference (2002).

Poster Presentation. Three dimensional electrophysiological topography of the rat corticostriatal system. 15th Annual Midwest Deans' Occupational Therapy Research Conference (2002).

Keynote Speaker. Professional Behaviors. Creighton University School of Pharmacy and Health Professions Professionalism Ceremony. Creighton University. Omaha, Nebraska (2002).

Lecturer on Burn Therapy for Washington University School of Medicine, Program in PT. St. Louis, Missouri (1998).

Lecturer on Occupation, and Occupational Form vs. Performance at Missouri College (1996-1999).

Lecturer on Ritual and occupational performance at Creighton University (1999-2002).

International Academic Service

Faculty Director, International Student Service Program: University of Texas at El Paso (January 2003-May 2004)

Faculty Mentor, Program coordinator: Institute for Latin American Concern, Occupational Therapy Service Learning Program, Santiago, Dominican Republic (May-June, 2002)

Faculty Representative, Professional: Occupational Therapy Service learning Experience, Quito, Ecuador (May-June, 2001)

Presenter: *Fixation and graft selection in burned children*. Baca Ortiz, Hospital Del Ninos, Quito, Ecuador (June, 2001).

Presenter: *Burn mask design, implementation and patient selection*. Fundacion de Hermano Miguel, Quito, Ecuador (June 2001).

Presenter: *Indications, patient selection and fabrication of burn garments*. Fundacion de Hermano Miguel, Quito, Ecuador (June 2001).

University Service:

State Practice Act Committee, Washington University, School of Medicine, Program in Occupational Therapy (1997- 1998)

Capital Equipment Committee, Barnes-Jewish Hospital at Washington University, School of Medicine, Program in Occupational Therapy (1997-2000)

Graduate Council, The University of Texas at El Paso (2003-2004)

Vice-Chancellor's Advisory Council on Diversity, University of Kansas Medical Center (Appointed 2005-2011)

University of Kansas Steering Committee (Appointed, 2006-2008, Elected 2008-Present, Chair, 2009-2010)

Associate Deans and Directors Committee for Graduate Education, Saint Louis University, (2012-2013)

Associate Deans and Directors Committee for Research, Saint Louis University, (2011-2013)

Reviewed Grant Applications at SLU for the Cathy Golden Scholarship (2015)

College Service:

Continuing Education Committee, Creighton University, School of Pharmacy and Health Professions, Department of Occupational Therapy (2000-2003)

Dean's Advisory Committee, Creighton University, School of Pharmacy and Health Professions, (2002-2003)

Research Committee (Chair), The University of Texas at El Paso, School of Health Sciences, Program in Occupational Therapy (2003-2004)

Interdisciplinary Ph.D. Committee, The University of Texas at El Paso, School of Health Sciences, Program in Occupational Therapy (2003-2004)

The School of Allied Health Diversity Committee, School of Allied Health, University of Kansas Medical Center (Elected Member, 2005, Elected Chair, 2006-2008)

Saint Louis University, Doisy College of Health Sciences, Associate Dean for Research (Appointed 2011-2013)

Saint Louis University, Doisy College of Health Sciences, Associate Dean for Graduate Education (Appointed Interim, 2012-2013)

Dean's Coordinating Council, Saint Louis University, Doisy College of Health Sciences, (2011-2013)

DCEC, Saint Louis University, Doisy College of Health Sciences, (Ex Officio member, 2012-2013)

DCHS Rank and Tenure Committee (elected member, 2015-2018, Chair 2016)

DCHS Technology Committee (Appointed 2016-2017)

Scholarship Committee, Saint Louis University, Doisy College of Health Sciences (Chair, 2011-2013, 2016-present)

Research Committee, Doisy College of Health Sciences, Saint Louis University (2011-Present, Chair 2011-2013)

College Faculty Manual Task force, Doisy College of Health Sciences, Saint Louis University (2021-present)

College Workforce Task Force, Doisy College of Health Sciences, Saint Louis University (2021-present)

Departmental Service:

Curriculum committee, Washington University, School of Medicine, Program in Occupational Therapy (1997- 1998)

Admission Committee, Washington University, School of Medicine, Program in Occupational Therapy (1997- 1998)

Program Evaluation Committee, Creighton University, School of Pharmacy and Health Professions, Department of Occupational Therapy (2000-2003)

Admissions Committee, Creighton University, School of Pharmacy and Health Professions,
Department of Occupational Therapy (2000-2003)

Program Assessment Committee (Chair), Creighton University, School of Pharmacy and Health
Professions, Department of Occupational Therapy (2000-2003)

Curriculum Committee, Department of Occupational Therapy Education, KUMC (2004-2005)

Graduate Student Travel Committee, University of Kansas Medical Center (Elected, 2004-2011)

Graduate Committee, Department of Occupational Therapy Education, KUMC (2004- 2011)

Awards and Scholarship Committee (Chair), Department of Occupational Therapy Education, KUMC
(2004- 2011)

Doctor of Occupational Therapy Committee, Department of Occupational Therapy Education, KUMC
(2004- 2007)

Program Manager, Ph.D. and OTD recruitment, University of Kansas Medical Center, Therapeutic
Sciences (2007- 2011)

Doctor of Occupational Therapy Development Committee, Department of OT, Doisy College of
Health Sciences, Saint Louis University (2011-present)

Exam Soft Faculty Representative (2016-Present)

OT Progressions Committee (2018-present)

Community Service:

Chairperson, The United States Martial Arts Association Disability Engagement Advisory Committee,
Elected Treasurer, Board of Governors (2016), (2001-present)

Elected Board Member, Gateway to Hope (Breast Cancer Charity) ((2015-2022))

Elected Board Member, USA Combat Wrestling (2016-present)

USMAA North Regional Training Camp, Instructor for Police and Law Enforcement, Instructor for Integrating Children with Special Needs, Minneapolis, MN. (2015)

Clinical Service:

Director (2011-present): (2X/week) for Katamedo Jujitsu, Saint Louis. This is an occupational therapy directed, strengths-based, task-oriented group focusing on individuals with special needs (Cerebral Palsy, Traumatic Brain Injury, Soldiers with PTSD, Autism, Asbergers Syndrome, Downs Syndrome and Cerebro-Vascular Accident, Learning Disabilities, etc.) to enable community integration through participation in a functional activity.

Pro-Bono Consultant (2004-2011): Resident therapist (3X/week) for CHAMPS Karate. This is a program focusing on individuals with special needs (Cerebral Palsy, Traumatic Brain Injury, Autism, Asbergers Syndrome, Downs Syndrome and Cerebro-Vascular Accident, Learning Disabilities, etc.) to enable community integration through participation in a functional activity.

Senior Occupational Therapist (2007-Present): Hand therapist, nursing home treatment, outpatient and inpatient neurorehabilitation, Burns and trauma, rehabilitation through many settings in the Kansas City area (inpatient/outpatient/community).

Pro-Bono Consultant (1998-2003): Management, supervision and provision of pro-bono practice in mental health maintained in the Drug Dependency Unit of the Indian Health Services Hospital in Winnebago, NE.

Graduate Student Supervision:

Post Doctoral Students:

Inna Lutsenko, MD (20013-2014)
Elham Taherian, MD (2004-2005)
Houman Bolourian, MD (2004-2005)

Ph.D. Students:

Ji-Hyuk Park, M.S. (2005- 2010, committee chair)
Jannah Oppermann-Budt, OTD (2006-ABD)
Charles Romero, M.P.H. (2007-2013)
Alla'a Jaber, OT (2008-2011)

MD/Ph.D. Students:

Michelle Healy (2010-2013, committee member, dissertation accepted with honors)

OTD Students:

Julie Johnson (2017-2021, Committee Chair)
Sara Zimmerman (2016-2019, Committee Member)
Carol Ponciroli (2016-2018, Committee Chair)
Quinn Tyminski (2014-2017, Committee Member)
Julia Henderson-Kalb (2014-2017, Committee Member)

M.S. Students:

Alla'a Jaber, OT (2008-2010, chair)
Andrew Wu, (Thesis Committee 2007-2010)
Karen Vance, OTR (2007-2008)
Fahad Manee, M.S. (Thesis Committee, 2004-2005)
Michelle Panzerello, M.S.O.T. (USI, Jan.2006-May 2006)
Kendra Banschbach, M.S.O.T. (USI, Jan.2006-May 2006)
Christina McClendon, B.S. (2006-2010)

M.O.T Students:

Emily Born (Maters Project Mentor, 2022-2023)((Elected Senior Legacy, Certificate of Merit DCBS))
Julie Scheffler (Maters Project Mentor, 2022-2023))(Elected Senior Legacy, Certificate of Merit DCBS))
Katie Vogel(Maters Project Mentor, 2022-2023))(Elected Senior Legacy, Certificate of Merit DCBS))
Lana Downard (Maters Project Mentor, 2021-2022)
Stephanie Martin (Maters Project Mentor, 2021-2022)
Mia Callari (Masters Project Mentor, 2019-2021)
Madison Fagan (Masters Project Mentor, 2019-2021)
Sara Hirst (Masters Project Mentor, 2019-2021)
Sara Vari (Masters Project Mentor,2019-2021)
Gillian Baker (Masters Project Mentor, 2019-2020)
AnneMarie Berry (Masters Project Mentor, 2019-2020)
Courtney Bertels (Masters Project Mentor, 2019-2020)
Elizabeth Moran (Masters Project Mentor, 2019-2020)
Meghan Nightengale (Masters Project Mentor, 2019-2020)
Anne Piccioti (Masters Project Mentor, 2019-2020)
Josni Joseph (Masters Project Mentor, 2017-2019)
Samantha Toth (Masters Project Mentor, 2017-2019)
Natalie Stevens (Masters Project Mentor, 2017-2019)
Emily Spalding (Masters Project Mentor, 2017-2019)

Gianna Caponera (Masters Project Mentor, 2016-2018)
Emily Schlieff (Masters Project Mentor, 2015- 2017)
Cameron Berger (Masters Project Mentor, 2015- 2017)
Casey Provasnik (Masters Project Mentor, 2014- 2016)
Richard O'Donnell (Masters Project Mentor 2013-2016)
Cindra Roots (Masters Project Mentor, 2007)
Terri Heidemann (Masters Project Mentor, 2007)
Lindsay Alberg (Masters Project Mentor, 2007)
Kim Clements (Masters Project Mentor, 2007)

B.S. Students:

Manaraldeem Fajors (University of Chicago Research Student, 2022-2023)
Hermann Dinh (Neuroscience Undergraduate student 2021-2023)
Tate York (Morphometric Training Fellow, 2013)
Molly Votaw (Research, 2013)
Jennifer Mantese (2012-2013)

Graduate Teaching Assistants:

Muhammad al Hasan, Ph.D. (2004-2006)
Jannah Oppermann-Budt, OTD (2006-2011)
JiHyuk Park, M.S.O.T. (2007-2010)
Angela Blackwell, M.S. (2007-2011)
Noor Ismael, OT (2009-2010)

Graduate Research Assistant:

Benjamin Tseng (Rehabilitation Science Ph.D. Student, summer 2004)

Courses Taught:

OTD 528A & 532 *Occupational Therapy Skills Lab I & II*, Graduate (1997-1998, Lab Instructor and Teaching Assistant, Washington University)

Neurodevelopment Lab, Graduate (1998, Teaching Assistant, Washington University)

OTD 339 *Clinical Anatomy*, Graduate (2000-2002, Instructor of Record, Creighton University)

OTD 340 *Clinical Anatomy Lab*, Graduate (2000-2002, Instructor of Record, Creighton University)

OTD 511 *Neuro-occupation 1*, Graduate (1999, Co-instructor on Teaching Rotation, Creighton University)

OTD 341 *Foundations of Neuro-occupation* (renamed *Clinical Neuroanatomy*), Graduate ((2000-2002, Instructor of Record, Creighton University))

OTD 441 *Musculoskeletal Dimensions of Occupation & Lab*, Graduate (2000-2002, Instructor of Record, Creighton University)

OT 3222 *Biomechanics*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 3221 *Biomechanics Lab*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 4229 *Adult Neurodevelopment*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 4129 *Adult Neurodevelopment Lab*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 4350 *Research in Occupational Therapy*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 4228 *Rehabilitation*, Entry-level clinical (2003, Instructor of Record, UTEP)

OT 4229 *Rehabilitation Lab*, Entry-level clinical (2003, Instructor of Record, UTEP)

OTMS 801 *Applied Neuroscience*, Graduate (2004-2011, Instructor, KUMC)

OCTH 422 *Analysis and Adaptation*, Entry-level clinical (2005, 2007, Co-Instructor, KUMC)

OCTH 462 *Physical Conditions for Facilitating Occupational Performance*, Entry-level clinical (2005-2011, Instructor, KUMC)

OCTH 468 *Facilitating Physical Performance Lab*, Entry-level clinical (2005-2011, Instructor, KUMC)

OCTH 720 *OT Practice Models*, Graduate (2004- 2011, Instructor for Motor Models, 2004-2005 Instructor for Cognitive Models, KUMC)

OCTH 727 *Professional and Technical Writing*, Graduate (2006-2007, Instructor, KUMC)

OCTH 790 *Research Practicum*, Graduate (2007-2011, Co-Instructor, KUMC)

OTMS 799 *Special Topics in Occupational Therapy*, Graduate, Independent Study (2004-2011, Instructor, KUMC)

TS 980 *Advanced Studies in Therapeutic Science*, Graduate, Independent Study (2004-2011, Instructor, KUMC)

MOT 535/5350, *Theoretical Foundations of Occupational Therapy*, Graduate (2011-present, Instructor, SLU)

MOT 517/5170, *Neuroscience in OT*, Graduate (2011- present Instructor, SLU)

MOT 5490, *Applied Research Seminar 1*, Graduate (2021-Present)

MOT 5650, *Applied Research Seminar 3*, Graduate (2021-Present)

References: Upon Request