

**CAROLINE J. KETCHAM, PhD**

PROFESSOR AND CHAIR  
Department of Exercise Science

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**EDUCATION**

2003	<b>PhD</b>	Arizona State University, Tempe, AZ	Exercise Science / Motor Control 'Pattern of oculomotor control in continuous multijoint drawing movements'
1999	<b>MS</b>	Arizona State University, Tempe, AZ	Exercise Science / Motor Control 'Bradykinesia in Parkinson's Disease: A Kinematic Analysis'
1996	<b>BA</b>	Colby College, Waterville, ME	Biology/ Psychology
1995		Sea Education Association Semester, Boston College, Woods Hole, MA	

**PROFESSIONAL EXPERIENCE**

2016 – Present	<i>Co-Director</i> , Elon BrainCARE Research Institute, Elon College, Elon University
2007 – Present	<i>Faculty</i> , Elon University, Elon NC
	2017 – Present Professor, Department of Exercise Science
	2014 – Present Chair, Department of Exercise Science
	2012 – 2015 Director of Health Professions Advising
	2011 – 2017 Associate Professor, Department of Exercise Science
	2009 – Present Neuroscience Faculty, Neuroscience Program
	2007 – 2011 Assistant Professor, Department of Exercise Science
2004 – 2007	<i>Assistant Professor; Graduate Faculty</i> , Texas A&M University, College Station, TX Department of Health and Kinesiology Faculty of Neuroscience Huffines Institute for Sports Medicine and Human Performance
1997 – 2004	<i>Graduate Work/Student</i> , Arizona State University, Tempe, AZ
	2003 – 2004 <i>Faculty Research Associate</i> , Motor Control Laboratory
	1997 – 2003 <i>Graduate Research Assistant</i> , Motor Control Laboratory
	2000 – 2001 <i>Research Assistant</i> , Neuroscience Division, Imperial College School of Medicine, UK
	1999 – 2001 <i>NASA Graduate Student Researcher</i> , Johnson Space Center
	1997 – 1999 <i>Graduate Teaching Assistant</i> , Department of Kinesiology
1994 – 1995	<i>Neuropsychology/TBI Intern</i> , Valley Children's Hospital, Fresno, California

**HONORS AND AWARDS**

2017	Ward Family Excellence in Mentoring Award, Elon University
2014	Elon College Outstanding Service Award
2013	PKAL Summer Leadership Institute for STEM Participant
2010	Faculty Award for Excellence in Scholarship, School of Education
2009	Faculty Sustainability Scholar
2007	Teacher of the Year, Division of Kinesiology, Texas A&M University
2006	Montague Teaching Excellence Scholar Award, Texas A&M University
2005	Montague Teaching Excellence Scholar Nominee, Texas A&M University
2004-2005	Woman's Progress Award, Texas A&M University
2002-2003	Graduate Academic Scholarship
2001	Society for Neuroscience Travel Grant Award Winner
2001-2002	Achievement Reward for College Scientists (ARCS) Scholar
2001	Outstanding Graduate Student, Graduate College Accolades
2000-2001	Preparing Future Faculty Fellow
1999	Faculty Women's Association Distinguished Master's Student Nominee

## SCHOLARLY PUBLICATIONS <sup>(1</sup>mentored student; \* I put student authors 1<sup>st</sup> ~ these are considered 1<sup>st</sup> author publications in my field; links will send you to paper)

### PEER-REVIEWED PUBLISHED MANUSCRIPTS

- Ketcham C.J.**, Cochrane G.D.<sup>1</sup>, Brown L.<sup>1</sup>, Vallabhajosula S., Patel K., Hall E.E. (in press, Dec 2017) Neurocognitive performance, concussion history and balance performance during a distraction dual-task in collegiate student-athletes. *Athletic Training and Sport Health*
- Nepocatyč S., **Ketcham C.J.**, Vallabhajosula S., Balilionis G. (2018). The effects of unstable surface balance training on postural sway, functional ability, and flexibility in women. *Journal of Sports Medicine and Physical Fitness*, 58 (1-2), 27-24. [doi:10.3736/S0022-4707.16.06797-9](https://doi.org/10.3736/S0022-4707.16.06797-9)
- Ketcham C.J.**, Hall E.E., Miller P.C. (2017) Co-mentoring undergraduate research: Student, faculty and institutional perspectives. *PURM: Perspectives of Undergraduate Research Mentoring*, 6.1, 1-13. [blogs.elon.edu/purm/files/2017/10/final\\_Ketcham-Hall-Miller\\_main.pdf](https://blogs.elon.edu/purm/files/2017/10/final_Ketcham-Hall-Miller_main.pdf)
- Nicholson B.A.<sup>1</sup>, Pollack M., **Ketcham C.J.**, Fitz Gibbon H.M., Bradley E.D., Bata M. (2017) Beyond the Mentor-Mentee Model: A Case for Multi-Mentoring in Undergraduate Research. *PURM: Perspectives of Undergraduate Research Mentoring*, 6.1, 1-14. [http://blogs.elon.edu/purm/files/2017/10/Nicholson\\_et\\_al\\_6.1.pdf](http://blogs.elon.edu/purm/files/2017/10/Nicholson_et_al_6.1.pdf)
- Bradley E.D., Fitz Gibbon H.M., Bata M., **Ketcham C.J.**, Pollack M., Dolan E. (in press, May 2017) Structure of mentoring in undergraduate research: multi-mentor models. *SPUR: Scholarship and Practice of Undergraduate Research*.
- Ketcham C.J.**, Bowie M, Buckley T.A., Baker M., Patel K., Hall E.E. (2017) The value of speech-language pathologists in concussion management. *Current Research: Concussion*, 4(1), e8-e13. [doi:10.1055/s-0037-1603645](https://doi.org/10.1055/s-0037-1603645).
- Harvey K.P.<sup>1</sup>, Hall E.E., Patel K., Barnes K.P., **Ketcham C.J.** (2017) Potential factors influencing recovery from concussion in collegiate student-athletes. *Journal of Concussion*, 1, 1-6. [doi: 10.1177/20597-00217707084](https://doi.org/10.1177/20597-00217707084).
- Cochrane G.D.<sup>1</sup>, Sundman M.<sup>1</sup>, Hall E.E., Kostek M.C., Patel K. Barnes K.P., **Ketcham C.J.** (2017) Genetics have influence on neurocognitive performance at baseline but not concussion history in collegiate student-athletes. *Clinical Journal of Sports Medicine*. [doi:10.1097/JSM.0000000000000443](https://doi.org/10.1097/JSM.0000000000000443)
- \*Hupfeld K.E.<sup>1</sup>, **Ketcham C.J.**, Schneider H.D. (2017) Transcranial direct current stimulation (tDCS) to Broca's area: Persisting effects on non-verbal motor behaviors. *Neurological Disorders and Therapeutics*, 1(1), 1-5. [doi:10.15761/NDT.1000102](https://doi.org/10.15761/NDT.1000102).
- Howell D.R., Oldham J.R., DiFabio M., Vallabhajosula S., Hall E.E., **Ketcham C.J.**, Meehan M.P., Buckley T.A. (2017). Single-task and dual-task gait performance values in healthy collegiate athletes: implications for concussion management. *Journal of Applied Biomechanics*, 33(1), 24-31. [doi: 10.1123/jab.2015-0323](https://doi.org/10.1123/jab.2015-0323).
- \*Hupfeld K.E.<sup>1</sup>, **Ketcham C.J.**, Schneider H.D. (2017) Transcranial direct current stimulation (tDCS) to the supplementary motor area (SMA) influences performance on motor tasks. *Experimental Brain Research*, 235(3), 851-859. [doi: 10.1007/s00221-016-4848-5](https://doi.org/10.1007/s00221-016-4848-5).
- Cottle J.E.<sup>1</sup>, Hall E.E., Patel K., Barnes K.P., **Ketcham C.J.** (2017). Concussion baseline testing: pre-existing factors, symptoms, and neurocognitive performance. *Journal of Athletic Training*, 52(2), 77-81. [doi: 10.4085/1062-6050-51.12.21](https://doi.org/10.4085/1062-6050-51.12.21)
- Ketcham, C.J.** Hall, E.E. (2016). Caring for your brain: What I need to know about concussions. *Frontiers for Young Minds: Understanding Health*, 4(17), doi: 10.3389/frym.2016.00017
- \*Hupfeld K.E.<sup>1</sup>, **Ketcham C.J.** (2016) Transcranial direct current stimulation on motor and language planning in minimally verbal children with Autism Spectrum Disorder (ASD): Feasibility, limitations, and future directions. *Journal of Childhood and Developmental Disorders*. 2(3), 1-12. [doi.org/10.4172/2472-1786.100029](https://doi.org/10.4172/2472-1786.100029)
- Buckley T.A., Vallabhajosula S., Oldham J., Munkasy B.A., Evans K.M., Krazeise D.A., **Ketcham C.J.**, Hall E.E (2016) Evidence of a conservative gait strategy in athletes with a history of concussions. *Journal of Sport and Health Science*, 5, 417-423. [doi:10.1016/j.jshs.2015.03.010](https://doi.org/10.1016/j.jshs.2015.03.010)
- Jennings L.<sup>1</sup>, Nepocatyč S., **Ketcham C.J.**, Duffy D.M. (2016). The effect of summer camp intervention on the nutrition knowledge and dietary behavior of adolescent girls. *Health Promotion Practice*, 17(4),521-529. [doi: 10.1177/1524839915627998](https://doi.org/10.1177/1524839915627998)

- \*Burgoyne M.E.<sup>1</sup>, **Ketcham C.J.** (2015) Observation of Classroom Performance Using Therapy Balls as a Substitute for Chairs in Elementary School Children. *Journal of Education and Training Studies*, 3(4), 42-48. [doi:10.11114/jets.v3i4.7](https://doi.org/10.11114/jets.v3i4.7).
- \*Diehl S.B.<sup>1</sup>, **Ketcham C.J.**, Duffy D.M (2015) Healthy Living Interventions in a Residential Girl Scout Camp. *Journal of Child and Adolescent Behavior*, 3(2), 1-6. [doi:10.4172/2375-4494.1000197](https://doi.org/10.4172/2375-4494.1000197).
- \*Simermeyer J.L.<sup>1</sup>, **Ketcham C.J.** (2015) Motor planning and End-state Comfort in Children with Autism Spectrum Disorders, *Autism Open Access*, 5(1), 1-4. [doi: 10.4172/2165-7890.1000138](https://doi.org/10.4172/2165-7890.1000138)
- \*Evans K.M.<sup>1</sup>, **Ketcham C.J.**, Folger S., Vallabhajosula S., Hall E.E.(2015) Relationship Between Information Processing and Postural Stability In Collegiate Division I NCAA Athletes: Does Concussion History Matter? *International Journal of Physical Medicine and Rehabilitation*,3(2), 1-6. [doi: 10.4172/2329-9096.1000268](https://doi.org/10.4172/2329-9096.1000268)
- Hall E.E., **Ketcham C.J.**, Crenshaw C., Baker M., McConnell J., Patel K. (2015) Concussion Management in Collegiate Student-Athletes: Return-To-Academics Recommendations. *Clinical Journal of Sports Medicine*,25(3), 291-296. [doi: 10.1097/JSM.0000000000000133](https://doi.org/10.1097/JSM.0000000000000133).
- Ketcham C.J.**, Hall E.E., Bixby W.R., Vallabhajosula S., Folger S.E., Kostek M.C., Miller P.C., Barnes K.F., Patel K. (2014) A neuroscientific approach to the examination of concussions in student-athletes. *Journal of Visualized Experiments*, 8(94), [doi: 10.3791/52046](https://doi.org/10.3791/52046).
- \*Thompson F.<sup>1</sup>, **Ketcham C.J.**, Hall E.E. (2014) Hippotherapy in children with developmental delays: Physical function and psychological benefits. *Advances in Physical Education*, 4, 60-69. [doi:10.4236/ape.2014.42009](https://doi.org/10.4236/ape.2014.42009)
- \*Volkerding K.E.<sup>1</sup>, **Ketcham C.J.** (2013) Biomechanical and proprioceptive differences during drop landings between dancers and non-dancers. *International Journal of Exercise Science*, 6(4), 289-299. <http://digitalcommons.wku.edu/ijes/vol6/iss4/4>
- Rodriguez T.M.<sup>1</sup>, Buchanan J.J., **Ketcham C.J.** (2010) Identifying leading joint strategies in a bimanual coordination task: Does coordination stability depend upon leading joint strategy? *Journal of Motor Behavior*, 42(1), 49-60. [doi: 10.1080/00222890903361471](https://doi.org/10.1080/00222890903361471).
- Ketcham C.J.**, Rodriguez T.M.<sup>1</sup>, Zihlman K.A.<sup>1</sup> (2007) Targeted aiming movements are compromised in non-affected limb of persons with Stroke, *Neurorehabilitation and Neural Repair*, 21(5), 388-397. [doi: 10.1177/1545968306297872](https://doi.org/10.1177/1545968306297872).
- Lee G., Fradet, L., **Ketcham C.J.**, Dounskaia, N. (2007) Efficient control of arm movements in advanced age, *Experimental Brain Research*, 177(1), 78-97. [doi:10.1007/s00221-006-0648-7](https://doi.org/10.1007/s00221-006-0648-7).
- Ketcham C.J.**, Dounskaia N.V., Stelmach G.E. (2006) The role of vision in the control of continuous multijoint movements. *Journal of Motor Behavior*, 38(1), 29-44. [doi:10.3200/JMBR.38.1.29-44](https://doi.org/10.3200/JMBR.38.1.29-44)
- Dounskaia N., **Ketcham C.J.**, Leis B., Stelmach G.E. (2005) Disruptions in joint control during drawing arm movements in Parkinson's disease. *Experimental Brain Research*, 164, 311-322. [doi:10.1007/s00221-005-2251-8](https://doi.org/10.1007/s00221-005-2251-8)
- Ketcham C.J.**, Dounskaia N., Stelmach G.E., (2004) Age-related differences in the control of multijoint movements. *Motor Control*, 8, 422-436
- Ketcham C.J.** (2004) Pattern of oculomotor control in continuous multijoint drawing movements. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 64(10-B), 4795.
- Ketcham C.J.**, Dounskaia N.V., Stelmach G.E. (2004) Multijoint movement control: The influence of interactive torques. In S. Mori, D. Stuart, and M. Weisendanger (Eds.) *Brain Mechanisms for the Integration of Posture and Movement*, *Progress in Brain Research*, 143, 207-218, Elsevier Publishing: London. [doi:10.1016/S0079-6123\(03\)43021-5](https://doi.org/10.1016/S0079-6123(03)43021-5)
- Ketcham C.J.**, Hodgson T.L., Kennard C., Stelmach G.E. (2003) Memory-motor transformations are impaired in Parkinson's disease. *Experimental Brain Research* 149(1), 30-39. [doi:10.1007/s00221-002-1332-1](https://doi.org/10.1007/s00221-002-1332-1).
- Ketcham C.J.**, Seidler R.D., van Gemmert A.W.A., Stelmach G.E. (2002) Age related kinematic differences as influenced by task difficulty, target-size, and movement amplitude. *Journal of Gerontology: Psychological Sciences and Social Sciences*, 57B, P54-P64. [doi:10.1093/geronb/57.1.P54](https://doi.org/10.1093/geronb/57.1.P54).
- Dounskaia N.V., **Ketcham C.J.**, Stelmach G.E. (2002) Commonalities and differences in control of a large set of drawing movements. *Experimental Brain Research* 146, 11-25. [doi: 10.1007/s00221-002-1144-3](https://doi.org/10.1007/s00221-002-1144-3).
- Dounskaia N.V., **Ketcham C.J.**, Stelmach G.E. (2002) Influences of biomechanical constraints on horizontal arm movements. *Motor Control* 6: 368-389

**Ketcham C.J.**, Dounskaia N.V., Seidler R.D., Stelmach G.E. (2000) Multijoint control is compromised in Parkinson's disease patients. *Journal of Human Kinetics*, 4(s), 85-95.

### EDITED BOOK (^peer-reviewed/refereed)

^Hall E.E., **Ketcham C.J.** (Eds.) (2017). Concussion in Athletics: Assessment, Management and Emerging Issues: Hauppauge, NY: Nova Science Publishers.

### BOOK CHAPTERS (^peer-reviewed/refereed)

^**Ketcham C.J.**, William E., Mellinger L., Hall E.E. (2017) Feasibility and efficacy on the implementation of a concussion management protocol for club sport participants in a university setting (chp 3). In E.E. Hall and C.J. Ketcham (Eds) *Concussions in Athletics: Assessment, Management and Emerging Issues* (pp. 27-36). Nova Science Publishers: Hauppauge, NY.

^Hall E.E., Dennion N.<sup>1</sup>, Griffin M.<sup>1</sup>, **Ketcham C.J.** (2017) Tailoring concussion education for the academic community (chp. 12). In E.E. Hall and C.J. Ketcham (Eds) *Concussions in Athletics: Assessment, Management and Emerging Issues* (pp. 171-182). Nova Science Publishers: Hauppauge, NY.

^**Ketcham C.J.**, Hall E.E., Fitz-Gibbons H., Walkington H. (in press) Co-mentoring in undergraduate research: A faculty development perspective. In M. Vandermaas-Peeler, P.C. Miller and J. Moore (Eds) *Excellence in Mentoring Undergraduate Research*. Council on Undergraduate Research: Washington D.C.

**Ketcham C.J.**, Stelmach G.E. (2006) Control and regulation of movement in Elderly Adults (chp. 4). In W. Zhu and W.J. Chodzko-Zajko (Eds) *Measurement Issues in Aging and Physical Activity*, (pp. 35-47) Human Kinetics: Urbana-Champaign

**Ketcham C.J.**, Stelmach G.E. (2004) Movement control in the older adult (chp. 3). In R.W. Pew and S.B. van Hemel (Eds) *Technology for Adaptive Aging*, (pp. 64-92). National Academies Press: Washington DC.

**Ketcham C.J.**, Stelmach G.E. (2002) Motor Control of Older Adults. In Ekerdt D.J., Applebaum R.A., Holden K.C., Post S.G., Rockwood K., Schulz R., Sprott R.L., and Uhlenberg P. (Eds.) *Encyclopedia of Aging*. New York: Macmillan Reference USA

**Ketcham C.J.**, Stelmach G.E. (2001) Age-Related Declines in Motor Control (chp. 13). In J. Birren and K.W. Schaie *Handbook of Psychology of Aging 5<sup>th</sup> Edition*, (pp. 313-348). Academic Press: San Diego

Dounskaia N.V., **Ketcham C.J.**, Stelmach G.E. (2001) Joint control during hand movements in different directions. In N. Gantchev (Ed.) *From Basic Motor Control to Functional Recovery II* (pp. 185-192), Academic Publishing House: Sofia

### BLOG PUBLICATIONS (not peer-reviewed)

**Ketcham C.J.**, Sienerth K., Fair C. (Oct 2017) Letter from guest editors of Special Issue (6.1) Perspectives in Undergraduate Research Mentoring (PURM): Co-Mentoring, Mentoring Networks and Mentoring Models, <http://blogs.elon.edu/purm/2017/10/26/letter-from-the-guest-editor-purm-6-1/>

**Ketcham C.J.** (Oct. 2017) Inspiring student ownership of capstone <http://www.centerforengagedlearning.org/inspiring-student-ownership-of-capstone/>

Weaver T., **Ketcham C.J.** (Aug. 2017) 'Capstone' experience in higher education.

<http://www.centerforengagedlearning.org/capstone-experience-in-higher-education/>

Vandermaas-Peeler M., **Ketcham C.J.** (Sept. 2015) Mentoring relationships in undergraduate research.

<http://www.centerforengagedlearning.org/mentoring-relationships-in-undergraduate-research/>

### PEER-REVIEWED PRESENTATIONS / PUBLISHED ABSTRACTS

(<sup>1</sup>mentored student)

Kaye S.<sup>1</sup>, Sundman M., Hall E.E., Patel K., **Ketcham C.J.** (2017, November). Baseline neurocognitive performance and symptoms in those with attention deficit disorders and a history of concussions with loss of consciousness. *Society for Neuroscience Abstracts*, 216.02, T12, *Society for Neuroscience Conference*, Washington D.C.

**Ketcham, C.J.**, O'Grady B.N.<sup>1</sup>, Grabowski J.J.<sup>1</sup>, Summers B.E.<sup>1</sup>, Brown L.A.<sup>1</sup>, Patel K., Vallabhajosula S., Hall E.E. (June 2017) Concussion recovery: Gait characteristics in collegiate student-athletes. *Medicine and Science in Sport and Exercise*, 49, 5(Supp.), S556. American College of Sports Medicine. Denver, CO.

Hall, E.E., Krzenski B.A.<sup>1</sup>, Williams E., **Ketcham C.J.** (2017 June) Concussions and vestibular changes: Concussion mechanism and neurocognitive performance. *Medicine and Science in Sport and Exercise*, 49, 5(Supp.), S310. American College of Sports Medicine. Denver, CO.

- O'Grady B.N.<sup>1</sup>, Grabowski J.J.<sup>1</sup>, **Ketcham C.J.**, Vallabhajosula S., Patel K., Hall E.E. (February 2017) Gait characteristics in collegiate student-athletes after sustaining a concussion. *Southeast American College of Sports Medicine Conference, U9* Greenville, SC (nominated for undergraduate research award).
- Krzenski B.A.<sup>1</sup>, **Ketcham C.J.**, Williams E., Hall E.E. (February 2017) Vestibular deficits in concussions: Relationships between concussion mechanism and neurocognitive performance. *Southeast American College of Sports Medicine Conference, P123*. Greenville, SC.
- Lynch D.J.<sup>1</sup>, Gallagher J.B.<sup>1</sup>, McConnell J.M., Hall E.E., Williams E., **Ketcham C.J.** (February 2017) Association of ACL injury in student-athletes with concussion history. *Southeast American College of Sports Medicine Conference, P124*. Greenville, SC.
- Summers B.E.<sup>1</sup>, Hall E.E., Patel K., **Ketcham C.J.** (February 2017) Influence of sleep on neurocognition and visual performance in collegiate student-athletes. *Southeast American College of Sports Medicine Conference, P126*. Greenville, SC.
- Gehrin J.N.<sup>1</sup>, Miller P.C., **Ketcham C.J.** (February 2017) The effects of balance training and resveratrol supplementation on stability. *Southeast American College of Sports Medicine Conference, TP4* Greenville, SC.
- Hupfeld K.E.<sup>1</sup>, **Ketcham C.J.** (2016, November). Effects of transcranial direct current stimulation (tDCS) to the dorsolateral prefrontal cortex (DLPFC) on neurocognitive performance and balance in combat military personnel, *Society for Neuroscience Abstracts, 809.14, KK11, Society for Neuroscience Conference*, San Diego, CA.
- Hall E.E., Warren K.<sup>1</sup>, Standard L.<sup>1</sup>, Hallman R.<sup>1</sup>, Patel K., **Ketcham C.J.** (2016, November). The importance of sleep quality on baseline concussion neurocognitive testing in collegiate student-athletes. *Society for Neuroscience Abstracts, 647.11, MMM19, Society for Neuroscience Conference*, San Diego, CA.
- Ketcham C.J.**, Griffin M.<sup>1</sup>, Patel K., Hall E.E. (2016, November). Elon BrainCARE: Concussion knowledge and education for faculty and staff in a University setting. *Society for Neuroscience Abstracts, 27.03SU, 00011, Society for Neuroscience Conference*, San Diego, CA.
- Hall E.E., Dennion N.<sup>1</sup>, Patel K., **Ketcham C.J.** (2016, November). Elon BrainCARE: Concussion knowledge, attitudes and education for varsity and club student-athletes. *Society for Neuroscience Abstracts, 27.04SU, 00012, Society for Neuroscience Conference*, San Diego, CA.
- Ketcham C.J.**, Patel K., Hall E.E. (2016, October). Implications of attention deficit and hyperactivity disorders on neurocognitive performance and recovery in collegiate student-athletes. *Future, 5<sup>th</sup> International Consensus Conference on Concussion in Sport*. Berlin, Germany.
- Hall E.E., Cochrane G.D.<sup>1</sup>, Sundman M.<sup>1</sup>, Kostek M.C., Patel K., Barnes K.P., **Ketcham C.J.** (2016, October) Genotypes are related to neurocognitive performance but not concussion history in collegiate student-athletes. *5<sup>th</sup> International Consensus Conference on Concussion in Sport*. Berlin, Germany.
- Bradley E., Bata M., Fitz Gibbon H., **Ketcham C.**, Nicholson B.<sup>1</sup>, Pollack M. (July 2016). The structure of mentoring in undergraduate research: Multi-mentor models. *Mentoring Undergraduate Research Conference*, Elon University.
- Vandermaas-Peeler M., Fair C., **Ketcham C.**, Miller P., Peeples T. (July 2016) Supporting faculty development for excellence in mentoring UR. *Undergraduate Research Conference*, Elon University.
- Evans E.S., Hibberd J.C.<sup>1</sup>, Cullen M.E.<sup>1</sup>, Basiliere J.<sup>1</sup>, **Ketcham C.J.**, Murphy D. (June 2016) Examination of Clinical and Laboratory Measures of Static and Dynamic Balance in Breast Cancer Survivors. *Medicine and Science in Sport and Exercise, 48, 5(Supp.)*, S107. American College of Sports Medicine. Boston, MA.
- Brown L.A.<sup>1</sup>, Hall E.E., **Ketcham C.J.**, Patel K., Buckley T.A., Howell D.R., Vallabhajosula S. (June 2016) Effect of dual-task on turning characteristics while walking among collegiate athletes. *Medicine and Science in Sport and Exercise, 48, 5(Supp.)*, S318. American College of Sports Medicine. Boston, MA.
- Hupfeld K.E.<sup>1</sup>, **Ketcham C.J.**, Schneider H.D. (June 2016) Transcranial direct current stimulation (tDCS) to broca's area: Persisting effects on non-verbal motor behaviors. *Medicine and Science in Sport and Exercise, 48, 5(Supp.)*, S632. American College of Sports Medicine. Boston, MA.
- Hibberd, J.<sup>1</sup>, Cullen, M.<sup>1</sup>, Basiliere, J.<sup>1</sup>, **Ketcham, C.**, Murphy, D., Evans, E. (2016, February). Examination of differences in clinical balance measures and perceived fear of falling in breast cancer survivors. *Southeast American College of Sports Medicine Conference*. Greenville, SC.
- Warren, K.<sup>1</sup>, Standard, L.<sup>1</sup>, Hallman, R.<sup>1</sup>, Lynch, D.<sup>1</sup>, **Ketcham, C.**, Hall, E., Patel, K. (2016, February). The importance of sleep in concussion baseline neurocognitive testing in collegiate student-athletes. *Southeast American College of Sports Medicine Conference*. Greenville, SC.



- Beck, J.<sup>1</sup>, Douglass, P.<sup>1</sup>, Folger, S., Bixby, W., **Ketcham, C.**, Hall E., Patel, K. (2016, February). Somatosensory processing and neurocognitive performance during recovery from concussion. *Southeast American College of Sports Medicine Conference*. Greenville, SC.
- Hupfeld, K.E.<sup>1</sup>, **Ketcham, C.J.**, Schneider, H.D. (2015, October). Behavioral effects of transcranial direct current stimulation to the supplementary motor area during motor tasks. *Society for Neuroscience Abstracts* 342.01, X18. *Society for Neuroscience Conference*, Chicago, IL.
- Bixby, W.R., Hall, E.E., **Ketcham, C.J.**, Patel, K., & Barnes, K.P. (2015, May). Examination of electrical brain activity in student-athletes with and without a previous mTBI. *Medicine and Science in Sport and Exercise*, 47, 5(Supp.), S267. American College of Sports Medicine. San Diego, CA.
- Buckley, T.A., Vallabhajosula, S., Oldham, J., Munkasy, B.A., Evans, K.M., Krazeise, D.A., **Ketcham, C.J.**, & Hall, E.E. (2015, May). Evidence of a conservative gait strategy in athletes with a history of concussions. *Medicine and Science in Sport and Exercise*, 47, 5(Supp.), S273. American College of Sports Medicine. San Diego, CA.
- Ketcham, C.J.**, Soler-Sala, K.G.<sup>1</sup>, Cottle, J.<sup>1</sup>, Cochrane, G.<sup>1</sup>, Hall, E.E., & Williams, E. (2015, May). Attention deficit disorders and history of concussions: Neurocognitive function in athletes across sport. *Medicine and Science in Sport and Exercise*, 47, 5(Supp.), S454. American College of Sports Medicine. San Diego, CA.
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- Ketcham C.J.**, Dounskaia N., Stelmach G.E. (2003, November) Pattern of oculomotor control varies depending on the complexity of coordination in multijoint drawing movements. *Society for Neuroscience Abstracts*, 29, 597.5. *Society for Neuroscience Conference*, New Orleans, LA.
- Ketcham C.J.**, Dounskaia N., Stelmach G.E. (2003, July) The pattern of oculomotor control across speeds in continuous multijoint drawing movements. *6<sup>th</sup> IBRO World Congress of Neuroscience Abstracts*, 2232. Prague, Czech Republic.
- Dounskaia N., **Ketcham C.J.**, Stelmach G.E. (2003, July) Disruptions in control of multijoint movements in Parkinson's disease support the leading joint hypothesis. *6<sup>th</sup> IBRO World Congress of Neuroscience Abstracts*, 1201. Prague, Czech Republic.
- Dounskaia N.V., **Ketcham C.J.**, Stelmach G.E. (2003, June) Biomechanical structure of the arm predicts kinematic invariants of hand movements. In: *Proceedings of the LASTED International Conference*: 141-146. Rhodes, Greece.
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- Dounskaia N., **Ketcham C.J.**, Stelmach G.E. (2001, November) Differential complexity of elbow-shoulder coordination patterns. *Society for Neuroscience Abstracts*, 27, 941.2. *Society for Neuroscience Conference*, San Diego, CA.
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- Stelmach G.E., **Ketcham C.J.**, Dounskaia N.V. (2001, August) The influence of biomechanical properties in the control of multijoint drawing movements. International Graphonomics Society, Nijmegen, Netherlands.
- Ketcham C.J.**, Kennard C., Hodgson T.L., Stelmach G.E. (2001, June) Bradykinesia in Parkinson's disease: A kinematic analysis of limb and eye movements. *Journal of Neurological Sciences* 187(1), S180. *XVII World Congress of Neurology*, London UK.
- Ketcham C.J.**, Hodgson T.L., Kennard C., Stelmach G.E. (2001, March) Spatial working memory is selectively impaired in early Parkinson's disease. *Cognitive Neuroscience Society Abstracts*, 89C, 86. *Cognitive Neuroscience Conference*, New York, NY.
- Ketcham C.J.**, Dounskaia N.V., Stelmach G.E. (2001, March) Biomechanical constraints imposed on multijoint coordination lead to trajectory distortion as a function of speed. *Spring Brain Conference Abstracts*, P4, A18. *12<sup>th</sup> Annual Spring Brain Conference*, Sedona, AZ.
- Ketcham C.J.**, Dounskaia N.V., Leis B., Stelmach G.E. (2000, November) Interactive Torques Contribute to Multijoint Coordination Impairments in Parkinsonian Patients. *Society for Neuroscience Abstracts*, 26, 163. *Society for Neuroscience Conference*, New Orleans, LA.
- Dounskaia N.V., **Ketcham C.J.**, Stelmach G.E. (2000, November) Neural Control Exploits Biomechanical Structure of the Arm. *Society for Neuroscience Abstracts*, 26, 1719. *Society for Neuroscience Conference*, New Orleans, LA
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- Crews D., Stelmach G.E., Lochbaum M., Lutz R., Cheetham P., **Ketcham C.J.** (1997, June) Putting: Age, skill, and variability. *WSOG Conference*. Scotland.

### INVITED PRESENTATIONS

- Ketcham C.J.**, Hupfeld K.E.<sup>1</sup> 'Motor Matters in Autism Spectrum Disorders'. *Durham Orange Chatham North Carolina Association for the Education of Young Children*, April 2016, Durham, NC
- Ketcham C.J.**, Hall E.E. 'Elon BrainCARE', April 2014, Elon BrainCARE Symposium, Elon University.
- Ketcham C.J.** Motor Matters: The role movement plays in the developing child. *Faculty Research and Development Research Presentations*, August 21, 2014. Elon University.
- Ketcham C.J.** Motor Matters: The role movement plays in the developing child. *Department of Clinical Speech, Duke University*, March 2014.
- Ketcham C.J.** Connect the dots: Motor behavior research as a window into the brain. *Frontiers in Neuroscience: Mind, Body, BRAIN Symposium, SURF*, April 28, 2009
- Ketcham C.J.** Motor behavior research. *Elon Neuroscience Workshop*, October 24, 2008, Elon University.
- Ketcham C.J.** Control of arm movements in older adults, Elon University, April 23, 2007.
- Ketcham C.J.** Research methods: practical considerations in special populations research, Elon University, April 23, 2007.
- Ketcham C.J.** Organization, control, and coordination of arm movements in older adults. Department of Rehabilitation and Movement Science, University of Vermont, April 5, 2007.
- Ketcham C.J.** Movement control and coordination in older adults. Department of Psychology, Texas A&M University, November 7, 2005.
- Ketcham C.J.**, Dounskaia N., Stelmach G.E. Age-related differences in the control of multijoint movements. CEHD Research Symposium, Texas A&M University, College Station, February 18, 2005.
- Ketcham C.J.**, Dounskaia N., Stelmach G.E. The pattern of oculomotor control as the influence of interactive torques increases in multijoint drawing movements. *Motor Control Symposium: Trends and Perspectives*, Tempe, May 20, 2004.
- Dounskaia N., **Ketcham C.J.**, Stelmach G.E. Arm geometry predicts bell-shaped velocity profile. *Motor Control Symposium: Trends and Perspectives*, Tempe, May 20, 2004.
- Lee G., Dounskaia N., **Ketcham C.J.**, Stelmach G.E. Age-related adaptive strategies of joint movement control during line drawing task. *Motor Control Symposium: Trends and Perspectives*, Tempe, May 21, 2004.
- Hodgson T.L., **Ketcham C.J.**, Molyva D., Sumner P., Kennard C. Impaired memory-motor transformations in Parkinson's disease. *Experimental Psychology Society, University of Exeter, UK*, April 10, 2003.
- Stelmach G.E., **Ketcham C.J.** Movement control in older adults. National Research Council's National Academies of Sciences 'Adaptive Aging: From Technology to Gerontology', Washington D.C. January 23, 2003
- Ketcham C.J.** The influence of interactive torques in the control and coordination of continuous multijoint drawing movements. Texas A&M University, January 11, 2003
- Stelmach G.E., **Ketcham C.J.**, Dounskaia N.V., Wang J. Selective Impairments in Parkinson's disease. University of Michigan, February 21, 2002
- Ketcham C.J.** Complexity of Movement in Individuals with Parkinson's disease. Sun City West, October 16, 2001
- Stelmach G.E., **Ketcham C.J.** Aging and Golf: Sensorimotor declines that influence movement coordination and control. *Future of Golfers Conference*, Tempe, Arizona, March 14, 2001

Alberts J.L., **Ketcham C.J.**, Adler C.H, Stelmach G.E. Predictive Force Control Impairments in Parkinson's disease Patients. Flinn Biomedical Enrichment Symposium, Tucson, Dec 11,1998.

## CONFERENCE ORGANIZATION

**Capstone Experiences Planning Forum (August 2017), Center for Engaged Learning**, Co-Organizer, Elon University, Elon, NC

**4<sup>th</sup> Annual Elon BrainCARE Symposium (April, 2017)**, Co-Director, Elon University, Elon, NC

**3<sup>rd</sup> Annual Elon BrainCARE Symposium (February, 2016)**, Co-Director, Elon University, Elon, NC.

**2<sup>nd</sup> Annual Elon BrainCARE Symposium (May, 2015)**, Co-Director, Elon University, Elon, NC.

**1<sup>st</sup> Annual Elon BrainCARE Symposium (April, 2014)**, Co-director/Presenter, Elon University, Elon, NC

**Neuroscience Workshop (Oct, 2008)**, Coordinator and Presenter, Elon University, Elon, NC.

**Motor Control Symposium (May, 2004)**, Lead to Organizing Committee, Arizona State Univ., Tempe AZ

**International Graphonomics Society Conference (2003)**, Organizing Committee and Program Committee, Scottsdale AZ.

## RESEARCH IN THE NEWS

Spectrum News (June 21, 2017) Elon University Participating in Concussion Management Study Funded by the NFL <http://www.twcnews.com/nc/triad/top-videos/2017/06/21/elon-university-participating-in-concussion-management-study-funded-by-the-nfl.html>.

Furfaro, H (February 27, 2017). For Children Who Have Suffered Strokes, a Promising New Therapy Emerges, Wall Street Journal. Reprint in tdcs.com <http://www.tdcs.com/for-children-who-have-suffered-strokes-a-promising-new-therapy-emerges-wall-street-journal-subscription/>

Reynolds, G. (December 1, 2010) Why Wii Fit Is Best for Grandparents. New York Times health column. <http://well.blogs.nytimes.com/2010/12/01/phys-ed-why-wii-fit-is-best-for-grandparents/>

Ayres, K. (December 4, 2010) 'Exer-gaming' helps senior drop pounds. *WBOC 16 News*, Salisbury, MD. <http://www.wboc.com/Global/story.asp?S=13613676>

*Doctor Radio: Invited to interview on Sirius/XM Doctor Radio Healthy Aging Show.* December 13, 2010 5:30-6pm. Again for a different show October, 2011.

Nelson, K. (December 10, 2010) 'Elon professor: Wii perfect fit for older adults'. *Fox New 8, Burlington – Alamance County.* <http://burlington.myfox8.com/content/elon-professor-wii-perfect-fit-older-adults>

Steakly, L. (December 1, 2010) 'Would an active video game make a good gift for grandpa?' *Ethiopian News & Opinion Journal.* <http://www.ethiopianreview.com/health/201001/?p=148753>

## GRANTS

### FUNDED (\* External Award)

\*CAA Innovative/Collaborative Grant Program (Co-PI; Weaver and Hall) *"Innovative Strategies for High Impact Practices: Access, Success, and the CAA Student-Athlete"*, \$20,000/year, 2017

Faculty Co-Mentor - SURE Grant (Sara Corning), *"Effect of sport on children with special needs, their families, and volunteers"*\$3000 for student and \$1500, 2017

Faculty Mentor - SURE Grant (Kira Oberle), *"Dual-task function during cerebellar tDC"*\$3000 for student and \$1500, 2017

Faculty Co-Mentor - SURE Grant (Ian Heaton), *"Examination of the Availability and Effectiveness of Social Support Systems Following a Concussion in Student-Athletes"*\$3000 for student and \$1500, 2017

Principal Investigator - FR&D 2017 Summer Fellowship, *"Deepen Elon BrainCARE: Mental Health in our Collegiate Student/ Student-Athlete Population"* \$8000, 2015, \$1700 additional funds

\*Mind Matters – NCAA Grant (Consultant with Eric Hall)

PI Wyrick/Milroy UNCG), 3 years

\*Role of Rehabilitation in Concussion Management: A Randomized Controlled Trial (PI: Mihalik, J.; Collegiate Site co-PI with Eric Hall) Clinicaltrials.gov, Bethesda (MD): National Library of Medicine (US). Identifier NCT02988596 (Site award - 3 years, \$46,000)

Co- Principal Investigator (C.J. Ketcham, E.E. Hall, C. Fair) - Fund for Excellence in the Arts and Sciences, Elon University, *"Expanding Elon Brain CARE: Adding Mental Health"* \$3500, 2016-17

Faculty Co-Mentor – Lumen Scholar (Sara Corning), *"Striking down barriers, striking out the 'fix' mentality: Impact of sport on children with special needs and their support team"* \$15,000, 2016

- Faculty Co-Mentor - SURE Grant (Briana O'Grady), "How Does the Severity and Frequency of Impacts Vary Among Different Positions and Age Groups in Youth Ice Hockey" \$3000 for student and \$1500 co-mentor, 2016
- Faculty Co-Mentor - SURE Grant (Jeanine Grabowski), "Frequency and magnitude of head impact forces during football drill across age and position." \$3000 for student and \$1500 co-mentor, 2016
- Faculty Co-Mentor - SURE Grant (Jen Gehrin) "The effect of resveratrol supplementation on balance and gait in a health population" \$3000 for student and \$1500 co-mentor, 2016
- Principal Investigator - FR&D Summer Fellowship, "Motor planning and language development in children with Autism Spectrum Disorder: Transcranial Direct Current Stimulation intervention" \$8000, 2015, \$2700 additional
- Co-Principal Investigator (C.J. Ketcham, M. Vandermas-Peeler, C. Fair) – Mentoring Development Grant, "Communities of practice in undergraduate research" \$1000, 2015-16.
- Faculty Mentor - SURE Grant (Kathleen Hupfeld), "Transcranial direct current stimulation: Behavioral and neurophysiological effects on motor planning and motor learning in children with Autism Spectrum Disorders." \$3000 for student and mentor, 2015
- Faculty Co-Mentor - SURE Grant (Lauren Brown), "Balance: Elon BrainCARE" \$3000 for student and \$1500 co-mentor, 2015
- Faculty Mentor - SURE Grant (Molly Burgoyne), "Role of Heightened Sensory Tools on Classroom Performance for Students with Learning Differences" \$3000 for student and mentor, 2014
- Faculty Mentor - SURE Grant (Lauren Packard), "An Investigation of the Mirror Neuron System in Expert and Novice Individuals" \$3000 for student and mentor, 2014
- Faculty Mentor - Lumen Scholar (Kathleen Hupfeld), "Transcranial Direct Current Stimulation: Behavioral and Neurophysiological Effects on Motor Planning and Motor Learning in Children with Autism Spectrum Disorder" \$15,000, 2014
- Co-Principal Investigator (C.J. Ketcham, E.E. Hall, G. Cochrane<sup>1</sup>, J. Cottle<sup>1</sup>, K. Messerschmidt<sup>1</sup>, K. Harvey<sup>1</sup>) - Fund for Excellence in the Arts and Sciences, Elon University, "Elon BrainCARE Annual Symposium on Concussions: Educating the Elon, Burlington and Alamance County Community about the Impact of Concussions in Student-Athletes" \$4000, 2014-15
- Co-Principal Investigator (C.J. Ketcham, E.E. Hall) – Mentoring Development Grant, "Society for Neuroscience, a mentored experience" \$1000, 2013-14.
- Principal Investigator - FR&D Sabbatical, "Coordination and control in autism spectrum disorders and concussions: deepening networks, developing new expertise", spring 2014
- Co-Principal Investigator (E.E. Hall, C.J. Ketcham, C. Crenshaw, K. Patel, G. Cochrane<sup>1</sup>, J. Cottle<sup>1</sup>, J. Halligan<sup>1</sup>) - Fund for Excellence in the Arts and Sciences, "Elon BrainCARE: Educating the Elon, Burlington and Alamance County Community about the Impact of Concussions" \$2000, 2013-14
- Faculty Mentor - Lumen Scholar (Molly Burgoyne), "Rocking Chairs, Yoga Balls, and Fidget Toys: Role of Heightened Sensory Tools on Classroom Performance for Students with Learning Differences" \$15,000, 2013
- Principal Investigator - FR&D Summer Fellowship, "Postural control and history of concussions: variability of center of pressure data in collegiate and high school athletes", \$8000, 2013
- Principal Investigator - FR&D Summer Fellowship, "Tying up loose ends: Reanalyzing, combining and submitting for publication two bodies of research", \$8000, 2012
- Faculty Mentor - SURE Grant (Jessica Simermeyer), "Fine and Gross Motor Ability in Children on the Autism Spectrum, Including the Role of Motor Planning, Task Complexity, and Posture" \$3000 for student and mentor, 2012
- Faculty Co-Mentor - SURE Grant (Shannon Diehl), "It's Your Life, Live It" \$3000 for student and \$1500 for mentor, 2012
- Faculty Co-Mentor - SURE Grant (Paul Riuli), "Muscular Responses to an Acute Bout of Whole Body Vibration" \$3000 for student, 2011
- Faculty Mentor - SURE Grant (Freda Thompson), "Hippotherapy in Children with Developmental Delays" \$3000 for student and mentor, 2011
- Co-Investigator (C.J. Ketcham, E.E. Hall, W. Bixby) - ATACC Grant, Elon University, "Assessment of cognitive and motor processing speed in the classroom and laboratory" \$4800, 2011
- Faculty Mentor - SURE Grant (Krysten Malcolm), "Core Muscle Activity, Kinetics, and Kinematics of Dancers" \$3000 for student and mentor, 2010
- Principal Investigator - FR&D Summer Fellowship, "Development of Fine Motor Skills in 2-5yr olds" \$8000, Additional Research Funding \$1500; 2010

- Principal Investigator - CATL Teaching & Learning Grant, “*Balancing Act: Incorporating Measures of Motor Development and Control into Experiential Learning Laboratories and Projects*” \$2,392.00, 2010
- Co- Principal Investigator (C. Ketcham (lead writer), E. Hall, A. Overman, K. Matera, S. Duvall) - Fund for Excellence in the Arts and Sciences, “*Deepening Neuroscience: Training students to become colleagues*” \$3000, 2009-10
- Co-Principal Investigator (C.J. Ketcham, J. Davis) - Dean funding, College of Education, “*Network the high-speed video camera and EMG hardware.*” \$1500, 2009
- Principal Investigator - ATACC Grant, “*HUMAN Software*” \$1700, 2008
- Co- Principal Investigator (E. Hall, A. Overman, R. Vick, M Gendle) - Fund for Excellence in the Arts and Sciences, “*Cogito Elon sum: A Proposed Interdisciplinary Approach to Neuroscience at Elon University*” \$5000, 2008-09
- Principal Investigator - ATACC Grant, “*OriginLab in Undergraduate Research*” \$1000, 2007
- Principal Investigator - VPR Developmental Grant, Texas A&M University, “*Planning and Organization of Multijoint Movements in Parkinson’s Disease Patients*” \$30,000, 5/05-7/06
- Participant - VPR/Departmental/College Award for participation in 15-week Grant Writing Course with Dr. David Morrison, Texas A&M University, \$2100, 2004-2005
- Principal Investigator / Replacement Student - NASA Graduate Student Researchers Program Award” Replacement student 1999, “*The Role of Vestibular Information in Eye-Head-Hand Coordination*”.
- Faculty Research Associate / Graduate Research Assistant (resigned in Jan 2004) - NIH-NINDS R01, PI – George E. Stelmach, “*Movement Organization Deficits in Parkinson’s Disease*” \$1.5 mil, 10/00-9/05
- Faculty Research Associate / Graduate Research Associate (resigned in Jan 2004) - NIH-NINDS R01, PI – George E. Stelmach, “*Bradykinesia in Parkinson’s Disease Patients*” \$1.4 mil, 3/01 – 2/06
- Faculty Research Associate (resigned in Jan 2004) - NIH-NIA R01 Grant, PI – George E. Stelmach, “*Altered Submovement Structure in the Elderly*” \$1.15 mil, 10/03 – 9/08

## EXTERNAL GRANTS SUBMITTED

- NIH – NINDS (2016; resubmitted June 2017): R01 ‘Unresolved Post-Concussion Balance Deficits and Subsequent Musculoskeletal Injury’ PI: Thomas Buckley (Univ. of Delaware), **Ketcham, C.J.** (Co-Investigator)
- NIH (2015): 2 R15 NS070744-02 ‘Identification of Persistent Impairments in Postural Control Following Concussion’. PI: Barry Munkasy (Georgia Southern), **Ketcham C.J.** (Co-Investigator).
- Hall E.E., **Ketcham C.J.** (2011) Access and Barriers to Experiential Learning and Career Development Opportunities for Elon University (Division I) Student-Athletes. *Knights Commission on Intercollegiate Athletics*, \$25,000
- Hall E.E., **Ketcham C.J.** (2013) Elon BrainCARE Post-Career Study: A longitudinal assessment of genetics and concussion history on performance and quality of life in student-athletes. *NCAA Research Proposals*, \$300,740

## TEACHING

### UNDERGRADUATE COURSES

#### Elon University

- Introduction to Exercise Science (100 level) 2010, 2011
- First-year Transitions Course (100 level) 2008, 2009, 2011, 2013, 2014, 2015
- Contemporary Issues in Wellness (Core Curriculum 100 level) 2007, 2008, 2009
- Global Experience (General Studies Core Curriculum 100 level) 2009, 2010, 2011
- Exercise Science Research Methods (200 level) 2008, 2009, 2013
- Structural and Functional Kinesiology (200 level) 2009, 2010, 2011, 2012
- NeuroMotor Control (200 level) 2012, 2013, 2014, 2015, 2016 , 2018
- Practicum (200 level) 2009, 2010, 2011, 2012, 2013, 2016
- Growing Up Outside (200 level co-taught Honors Course) 2018
- Newton Meets Baryshnikov (300 level, interdisciplinary) 2008
- Growing Up: Coordinating Complex Systems (General Studies 300 level) 2009, 2011
- Motor Learning Theory (300 level) 2007
- Biomechanics (300 level) 2011, 2012 (lab), 2013 (lab)



Motor Control and Special Populations (300 level) 2017  
 Undergraduate Supervised Research (400 level) 2009 – 2017  
 Internship (400 level) 2016, 2017  
 Honors Research (400 level) 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017  
 Lumen Research (400 level) 2013, 2014, 2015, 2016, 2017  
 Chronic and Acute Diseases (400 level) 2007  
 Senior Seminar (Major Capstone 400 level) 2010, 2011, 2012, 2015, 2017  
 Neuroscience Seminar (Minor Capstone 400 level) – 2012, 2016, 2017

### Texas A&M University

Analysis of Movement/Exercise Biomechanics (400 level) – 2004 - 2007  
 Research in Exercise Physiology and Motor Behavior: Writing Intensive (400 level) - 2007  
 Undergraduate Supervised Research (400 level) – 2005 – 2007

### Arizona State University

Activities Courses (100 & 200 level) – 1997-1999  
 Introduction to Kinesiology (200 level, Guest Lecture) –1999 – 2002)  
 Motor Control and Aging (400 level) – 2000, 2002

## GRADUATE COURSES

### Texas A&M University

Disabling Conditions & Other Health Impairments: Motor Control (600 level) – 2004; 2005  
 Neurophysiological Basis of Movement (600 level) – 2005  
 Motor Behavior Seminar (600 level) – 2005  
 Graduate Supervised Independent Research (600 level) – 2005 – 2007

## UNDERGRADUATE RESEARCH MENTORING <sup>(1)Honors Fellow, <sup>(2)Elon College Fellow,</sup></sup>

<sup>(3)Exercise Science Senior Seminar Substitution Project, <sup>(4)Co-mentored with significant contribution, <sup>(5)Lumen Scholar,</sup></sup>  
<sup>(6)Independent Major). All students present at a minimum at the institutional undergraduate research conference. Those with presentations  
 at regional, national and international conferences are listed in scholarly presentations. Only students that worked with me over 2 semesters  
 minimum are listed.</sup></sup>

### Elon University

- |  |   |  |
|--|---|--|
| 1. Katie Volkerding ('07-'09) <sup>1</sup>     | 22. Jordan Cottle ('12-'15) <sup>4</sup>        | 43. Kira Oberle ('15-) <sup>2,4</sup>              |
| 2. Katie Bigarel ('08-'09)                     | 23. Haley Hawkins (12-'14) <sup>1,3</sup>       | 44. Sarah Kaye (intern '16) <sup>4</sup>           |
| 3. Isabelle Matejovsky ('09-'10)               | 24. Kelsey Evans ('12-'14) <sup>3,4</sup>       | 45. John Gallagher ('16-17) <sup>4</sup>           |
| 4. Kaitlin Bogart ('09-'10)                    | 25. Molly Burgoyne ('13-'15) <sup>2,5</sup>     | 46. Daniel Lynch ('16-17) <sup>4</sup>             |
| 5. Bridget Kelly ('09-'11)                     | 26. Kathleen Hupfeld ('13-'16) <sup>1,3,5</sup> | 47. Sara Corning ('16- ) <sup>1,4,5</sup>          |
| 6. Krysten Malcolm ('09- '11) <sup>1</sup>     | 27. Emily Messerschmidt ('13-'15) <sup>4</sup>  | 48. Bryce Kryzenski ('16- 17) <sup>4</sup>         |
| 7. Sarah Foushee ('09-'10)                     | 28. Kayla Harvey ('13-'16) <sup>2,4</sup>       | 49. Corinne Kenny ('16-) <sup>4</sup>              |
| 8. Julie Taylor ('10-'11)                      | 29. Lauren Packard ('13-'15) <sup>6</sup>       | 50. Emily Keller ('16-) <sup>2</sup>               |
| 9. Freda Thompson ('10 – '12)                  | 30. Kara Soler-Sala ('14-'15)                   | 51. Ian Heaton ('16-) <sup>4</sup>                 |
| 10. Bridget Cashen ('10-'11)                   | 31. Logan Standard ('15-'16) <sup>4</sup>       | 52. Brigid Brennan ('17-) <sup>4</sup>             |
| 11. Lindsey Wolson ('10-'12)                   | 32. Rachel Hallman ('15- ) <sup>4</sup>         | 53. Taylor Guth (intern '17-) <sup>4</sup>         |
| 12. Courtney Graham ('10-'11)                  | 33. Kelsey Warren ('15-'16) <sup>4</sup>        | 54. Andrew Perciaccante (intern '17-) <sup>4</sup> |
| 13. Andrea Gross ('11-'12) <sup>2,4</sup>      | 34. Julianne Beck ('15-'16) <sup>4</sup>        | 55. Chris Riegner ('17-) <sup>4</sup>              |
| 14. Kelly Brand ('11-'12) <sup>2,4</sup>       | 35. Megan Griffin ('15-'16) <sup>4</sup>        | 56. Caroline Kelly ('17-) <sup>4</sup>             |
| 15. Paul Riuli ('11-'12) <sup>4</sup>          | 36. Lauren Brown ('15-17) <sup>4</sup>          | 57. Hope Koene ('17-) <sup>1</sup>                 |
| 16. George Wentz ('11-'12) <sup>4</sup>        | 37. Jeanine Grabowski ('15-17) <sup>4</sup>     | 58. Katie Arbogast ('17-) <sup>4</sup>             |
| 17. Jessica Simermeyer ('11-'13) <sup>3</sup>  | 38. Nicole Dennion ('15-16) <sup>4</sup>        | 59. Ashley Moats ('17- ) <sup>4</sup>              |
| 18. Rachel Anderson ('11-'12)                  | 39. Brighton Summers ('16-17) <sup>4</sup>      | 60. Sarah McCain ('17-) <sup>4</sup>               |
| 19. Shannon Diehl ('11-'13) <sup>3,4</sup>     | 40. Briana O'Grady ('15- 17) <sup>4</sup>       | 61. Francesca Music ('17-) <sup>4</sup>            |
| 20. Graham Cochrane ('12-'15) <sup>2,4,6</sup> | 41. Jennifer Gerhin ('15-17) <sup>4</sup>       |  |
| 21. Jack Halligan ('12-'14) <sup>4</sup>       | 42. Bridget Krohl ('15- ) <sup>4</sup>          |  |

### Texas A&M University

- |                              |                                    |                           |
|------------------------------|------------------------------------|---------------------------|
| 1. Sofia Costa ('05)         | 7. Abby Dudensing ('05-'07)        | 13. Lesel Selensky ('06)  |
| 2. Courtney Golden ('05)     | 8. Christopher Pritchard ('05-'06) | 14. Natasha Becka ('06)   |
| 3. Cortney Jarvis ('05)      | 9. Allison Daly ('05)              | 15. Jenny Spearman ('06)  |
| 4. Donaciano Munoz Jr. ('05) | 10. Leah Bates ('05)               | 16. Keith Kahil ('07)     |
| 5. Kayla Felderhoff ('05)    | 11. Jennifer Abshier ('05)         | 17. Terry Dike ('07)      |
| 6. Seth Spurgers ('05)       | 12. Jennifer Long ('06)            | 18. Braedan Haragan ('07) |

## UNDERGRADUATE RESEARCH STUDENT HONORS

### Elon University

1. Lauren Brown – 2016 Trey Walker Scholar; 2015-16 Provost Scholar; 2016-17 Phillips-Perry Black Excellence Award – Undergraduate Research; 2016-17 Dean Ehlers Leadership Award
2. Jeanine Grabowski – 2017 SEACSM nominee student paper award; Rawls Undergraduate Research Scholar 2017-17
3. Briana O’Grady – 2016-17 Provost Scholar; 2017 SEACSM nominee student paper award; Rawls Undergraduate Research Scholar 2017-17
4. Brighton Summers – Rawls Undergraduate Research Scholar 2016-17
5. Sara Corning – Lumen Scholar 2016
6. Nicole Dennion ’16 - National Association of Academic Advisors for Athletics (N4A) Wilma Rudolph Student-Athlete Achievement Award
7. Kara Soler-Sala – 2<sup>nd</sup> place award for student paper/presentation at SEACSM 2015, Phi Beta Kappa
8. Lauren Packard – Glen Raven Scholar 2014-15
9. Kathleen Hupfeld – Lumen Scholar 2014; Trey Halker Award 2015; NSF Graduate Research Fellowship; Major of the Year in Exercise Science 2016; Phi Kappa Phi Marcus L. Urnann Fellowship, Phi Beta Kappa, Phi Kappa Phi; 2015-16 Provost Scholar
10. Molly Burgoyne – Lumen Scholar 2013; Selected for Hot Topics in Neuroscience media coverage SFN; Trey Halker rising senior award 2014; Major of the Year in Exercise Science 2015, Phi Beta Kappa, Phi Kappa Phi
11. Haley Hawkins – Glen Raven Scholar 2013-14
12. Kelsey Evans – Glen Raven Scholar 2012-13; SoCon Post Graduate Scholarship 2013; Major of the Year 2013
13. Shannon Diehl – Trey Halker rising senior award 2012; Major of the Year 2013; Phi Kappa Phi
14. Haley Hawkins – GSK women in science award, 2012; Honors Student 2014
15. Freda Thompson – Nominated for top 7 interview for Ward Family Learning in Action Award, Elon University; Major of the Year 2010
16. Krysten Malcolm - 2011 SEACSM nominee student paper award;; Honors Student 2012
17. Bridget Kelly (IADMS 2010) – President’s Award for Poster Excellence (Highest Overall Score); RAWLS (Saecker) Scholar 2011
18. Sarah Foushee – Phi Beta Kappa, Phi Kappa Phi
19. Katie Volkerding –RAWLS Scholar 2009

### Texas A&M University

1. Abby Dudensing (2007) – Kinesiology Undergraduate of the Year
2. Abby Dudensing (2004 – 2007) – Undergraduate Research Scholar, ‘Multijoint two-segment aiming in young adults: Influence of movement amplitude and direction’
3. Abby Dudensing (2006) – Read Scholar; Texas Rural Electric Woman’s Association Scholar

### Arizona State University

1. Janet Staples (2002-2003) – Fulbright Scholar, Honor’s Thesis Co-Supervisor, ‘Adaptation to Sensorimotor Distortions in Older Adults’

## GRADUATE MENTORING

### Texas A&M University

#### Committee Chair

1. Tiffany Rodriguez (Sept 2004 – 2007) Doctoral Student, Chair
2. Renee Carter (Sept 2005 – 2007) Masters Student, Chair
3. Kirk Zihlman (Jan 2004 – change to MS March 2005), Doctoral Student, Chair

#### Committee Member

1. Tiffany Rodriguez (2009), PhD, Kinesiology
2. Joohyun Rhee (2007), PhD, Kinesiology

3. Noah Smith (2007), MS, Computer Science
4. Huei-Fang Yang (2007, PhD, Computer Science
5. Alicia Favreau (2006), MS, Educational Psychology
6. Amanda Stavinoha (2006), MS, Educational Psychology
7. Jennifer Wimberly (2006), MS, Educational Psychology
8. Heather Wilde (2004) PhD, Kinesiology, 'Proportional and non-proportional transfer of movement sequences'
9. Kirk Zihlman (2005) MS, Kinesiology, 'Is physical practice necessary for parallel development of implicit and explicit sequence knowledge? Evidence from observational learning'
10. Alberto Cordova (2005) MS, Kinesiology, Non-thesis

## GRADUATE ADVISEE HONORS

Tiffany Rodriguez: Motor Control Summer School Fellowship. Penn State University.

Tiffany Rodriguez: March 2007, 2<sup>nd</sup> place oral presentation. Texas A&M University Student Research Week

Tiffany Rodriguez: November 2006, 1<sup>st</sup> Place Graduate Life Sciences Award Winner. Texas A&M University, Pathways Research Symposium

Tiffany Rodriguez: March 2006, Interdisciplinary Research Recognition Award Winner. Texas A&M University Student Research Week

Tiffany Rodriguez: March 2006, 4<sup>th</sup> place oral presentation, Texas A&M University Student Research Week

Renee Carter: March 2006, 4<sup>th</sup> place poster presentation, Texas A&M University Student Research Week

Tiffany Rodriguez: Spring 2006, Texas State Academic Scholarship.

Tiffany Rodriguez: 2005 – 2008, Diversity Fellowship Award. Texas A&M University. This is a 3-year \$75,000 award to pursue a doctoral degree under my direction.

Kirk Zihlman: 2005, Educational Research Exchange. College of Education Overall Research-Based Award.

"Reciprocal aiming movements are impaired in Stroke patients when accuracy is constrained: Ipsilateral contributions to deficits experienced following a lesion", \$500.

## PROFESSIONAL SERVICE

### NATIONAL/INTERNATIONAL

Ad Hoc Reviewer: *Experimental Brain Research, Psychology and Aging; Research Quarterly for Exercise and Sport; Motor Control; Journal of Sports Sciences; Neuropsychology; Journal of Gerontology; Human Movement Sciences; Behavioral Brain Research; Journal of Motor Behavior; Journal of Exercise and Sport Psychology; Acta Psychologica; Journal of Cross-Cultural Gerontology*

Co-editor special issue of PURM: Mentoring Models, Co-Mentoring, Mentoring Networks (2017)

Book Reviewer: *Pearson – Child Development Text (2008, 2009, 2010)*

Program Committee, International Graphonomics Society Conference, Salerno, Italy (2005)

Organizing Committee, Motor Control Symposium, Tempe AZ (2004)

Organizing Committee, Program Committee International Graphonomics Society Conference, Scottsdale AZ (2003)

### COLLEGE/UNIVERSITY

#### Elon University

Co-Chair, Student Wellness and Well-Being Workgroup

Long-Range Planning Committee, 2016 – present

Graduate Council, 2016 – present (chair 2017-18)

Chair, Associate Dean Search Committee, Elon College, 2016

Speech Language Pathology Feasibility Committee, 2015

Peace Corps Prep Global Health Track Development Committee, 2015

Elon College Faculty Awards Committee, 2015

Year of Service, Elon Alamance Health Partners Faculty, 2014 - 2016

Anatomy Donor Feasibility Committee, 2014

Senior Faculty Research Fellow Selection Committee, 2013-14, 2014 -15, 2015-16 (chair)

Scholarship Document Committee, 2013

Assistant Director of Career Services for Arts and Sciences Search Committee, 2013  
 Director Health Professions, 2012 – 2015  
 Promotions and Tenure, 2012- 13, 2013-14  
 Physician Assistant Admissions interviews, 2011 – present  
 University Appeals Board, 2011 - 13  
 Danieley Neighborhood Council, 2011 - 2013  
 Math and Science Division Curriculum Committee, 2011 - 2012  
 Anatomy Course Revision Committee, 2011 - 2012  
 Member, Program Director for Elon Physician Assistant Program Search Committee, 2010 – 2011  
 Member, Clinical Coordinator, Director of Curriculum, and Faculty Search Committees for Elon  
     Physician Assistant Program, 2011 – 2012  
 Interdisciplinary Committee on Course-Based Alcohol Education, 2010 - 2011  
 Pre-Health Advisory Committee Member, 2010 – present (Chair 2012-15)  
 Voices of Discovery Committee, 2010 – 2013  
 Concerned Faculty and Staff Co-Curricular Advising Program Mentor, 2010 – 2011  
 Neuroscience Program Advisory Committee, 2009 – present  
 Honors Program Advisory Committee, 2009 – 2011  
 Task Force on Service (Lead of Subcommittee on defining rank responsibilities), 2009 – 2011  
 Engaged Learning Session Leader – 2009, 2010, 2011  
 Elon 101 Instructor, 2008, 2009, 2011, 2012, 2014  
 Alamance Regional Medical Center IRB – Elon Representative, 2008 - 2014  
 Shared Governance Task Force (Chair of Subcommittee on Task Forces and Service), 2008 - 2010  
 Member, Assistant Professor Search, Biology, 2009 – 2010 (2 searches)  
 SURE Presentations Moderator – 2010  
 SURF Presentations Moderator – 2010  
 Honors Presentations in Progress Moderator – 2008, 2010  
 Coordinator and Presenter: Neuroscience Workshop, 2008

### **Texas A&M University**

Texas A&M University Honors Council (2006 – 2007)  
 Member of the Women's Faculty Network Executive Steering Committee (2006 – 2007)  
 Expanding Your Horizons – Workshop Presenter, 'Brain Explorers', Introducing neuroscience to 6<sup>th</sup>  
     grade girls. (2005)  
 Aggie Women in Leadership Program Mentor (2005-present)  
 Faculty of Neuroscience, Student presentation judge (2005)  
 Educational Research Exchange, Oral presentation faculty judge (2005; 2006)  
 Student Research Week, Faculty Judge, Texas A&M University (2004 – 2007)  
 International Education Fee Scholarship Faculty Reviewer (2005)  
 Regents Scholar Mentor (2004-2007)

### **Arizona State University**

ASASU Graduate Research Support Program Peer Review Committee (2002-2003)  
 Laboratory Tours, 'Discovery of the Mind', Special guest visitors (1998-2004)  
 Coordinated and Organized 'Brain Day Seminar 2000', w/ Dr. Stelmach and Dr. Santello  
 Graduate Student Advisory Board (2000-2001)  
 Departmental Graduate Representative (2001-2004)

## **DEPARTMENTAL**

### **Elon University**

Department Chair, June 2014 - Present  
 Faculty Development Committee – 5-year plan  
 Developed Exercise Science Accomplishment Sheet  
 Chair, Assistant Professor Search, Exercise Science, 2010 – 2011  
 Fellows weekend class demo – 2011

Spring Orientation / Open House, 2007 – present  
 Fall Exercise Science Get Together Organizer, 2008  
 Chair, Academic Challenge Committee, 2007  
 Search Committee Continuing Track Faculty, Health and Human Performance, 2007

### **Texas A&M University**

A-1 Service Committee, 2006  
 Invited Speaker, PEK, 2005  
 Laboratory Tours, Freshman Learning Communities, 2005  
 Departmental Representative Freshman Convocation, 2004  
 Invited Speaker, Aggie Alliance, 2004  
 Motor Behavior Seminar Organizer, 2005

### **Arizona State University**

Member of Search Committee – Engineering Associate, 2002  
 Seminar Coordinator Motor Control, 1999 – 2004  
 Student Member of a Search Committee – Muscle Physiologist, 2001  
 Ph.D. Seminar Committee, 2000 – 2001  
 Ph.D. Handbook Committee, 2000  
 Laboratory Representative, 1999 – 2004  
 Laboratory Coordinator, 1999 – 2004  
 Motor control WebPages designer and manager, 1999 - 2004  
 Flinn Seminar Coordinator - Set up seminars for visiting lectures, 1999 – 2001

### **COMMUNITY**

**Ketcham C.J.** ‘Motor Matters’, *Parents Weekend Mini Course, Elon University, October 2017*  
**Ketcham C.J.** ‘Motor Matters: Movement and Learning in the Classroom’, *Training for all teachers – Grady Brown Elementary, September 2017*  
**Ketcham C.J.**, Butler-Storsved L. ‘Motor Matters: K-5 Teachers’, *STEM workshops for Alamance Burlington School District Teachers, August 2017*  
**Ketcham C.J.**, Hupfeld K.E.<sup>1</sup> ‘Motor Matters in Autism Spectrum Disorders’. *Training for Durham Orange Chatham North Carolina Association for the Education of Young Children, April 2016,*  
**Ketcham CJ**, Burgoyne M.<sup>1</sup> ‘Yoga balls as classroom seating’, Hillsborough Elementary School, January 2015.  
**Ketcham CJ** ‘Motor Matters’, in service for Orange County (scheduled, delayed due to principal change).  
**Ketcham C.J.** Motor Matters: The role movement plays in the developing child. *Training for Department of Clinical Speech, Duke University, March 2014.*  
**Ketcham CJ** ‘Balance: What is involved, How to improve’ Presented to the Oaks Community Parkinson’s Disease Support Group, April 7, 2011  
 Mebane Running Club – Member and New Runners Coach, 2009 – 2013  
 Presented on topics including: Mechanics of Running, Injury Prevention  
 Research Design/Analysis Consultant and Member, Mebane Women’s Club, Healthy Alamance, Healthy Mebane Initiative, 2010  
 Exercise Science Representative, Aging Academy, Elon University Outreach 2009  
**Ketcham CJ** ‘Motor Control and Aging’ Presented to residents of Lunac Oaks, December 13, 2005  
**Ketcham CJ** ‘Motor Control and Parkinson’s Disease’ Presented to the St. Joseph’s Rehabilitation Parkinson’s activity class, September 20, 2005  
**Ketcham CJ** ‘Motor Control and Stroke’ Presented to the St. Joseph’s Rehabilitation Stroke Club, June 10, 2004  
**Ketcham CJ** ‘Motor Control and Aging’ Presented to Grand Court Residents, July 6, 2004, to Crestview residents July 16, 2004  
**Ketcham CJ** ‘Multijoint Coordination in Parkinson’s Disease’ Presented to Sun City Parkinson’s Disease Foundation Chapter, Spring 2002, 2003  
 Motor Control Representative – Arizona Parkinson’s Disease Foundation (2000-2004)

Motor Control Fundraiser – both to raise money and educate the greater community about current research conducted on Motor Control and Parkinson’s disease. (1999-2004)

## PROFESSIONAL AFFILIATIONS

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2012 – present	American College of Sports Medicine (ACSM)
2011 – present	South East American College of Sports Medicine (SEACSM)
2009 – present	Council on Undergraduate Research
1998 – present	Society for Neuroscience
2012 – 2016	National Association of Advisors for Health Professions
2005 – 2012	North American Society for Psychology of Sport and Physical Activity (NASPSPA)
2004 – 2007	TAMU Society for Neuroscience
2002 – 2010	Neural Control of Movement Society
2004 – 2007	TAMU Faculty Women’s Association
2004 – 2007	TAMU Women in Science and Engineering
2004	Phi Epsilon Kappa, Gamma Beta
2001 – 2012	International Graphonomics Society
2000 – 2001	Student member Society for Cognitive Neuroscience
2000 – 2001	Preparing Future Faculty Fellow
1997 – 2001	Flinn Foundation Neuroscience Research and Training program
1997 – 2003	Interdisciplinary Training in the Neurobiology of Motor Control

## PROFESSIONAL DEVELOPMENT

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2017	Honors Teaching Workshop, 3-day course development, Elon University
2017	Academic Leader as Coach: Skills for Transformational Conversations, Susan Robison, Elon University
2014 – 2016	Center for Engaged Learning Research Seminar on Mentoring Undergraduate Research, Elon University
2016	Teaching in STEM – book club, CATL
2014	ADL Training
2014	National Health Professions Conference, San Francisco, CA.
2013	PKAL Regional Meeting
2013	PKAL Summer Leadership Institute for STEM, Baca, Colorado
2013	North Carolina Health Professions Conference
2013	AMCAS 2014 Advisor Application Training
2012	Regional Health Professions Conference
2012	ADVANCE, N.C. AT&T State University
2010	MovAlyzeR Software Training, Neuroscript LLC, Tempe, AZ
2010 – 2011	Interdisciplinary Committee on Course-Based Alcohol Education
Fall 2010	Linked GST/MTH course program
2010 – 2012	Global Experience Lunch Series
2010	CATL Rubric Development (one-on-one mentoring in improving standards of grading student work)
2009	DEEP Diversity Training
2009	Summer Online Course Development Workshop Series
2009	Sustainability Faculty Scholar
2009	EEG Workshop
2008	Leadership Minor Workshop
2008, 2009	Elon 101 Workshop
2008 – 2012	Global Workshops
2008 – 2009	Summer Online Design Course, Elon University



2008 Innovation in Instruction Conference, Elon University  
2008 New Course Design, CATL, Elon University  
2007 – 2008 New Faculty Orientation Series, Elon University  
2008 Reading Group, First Year on the Tenure Track, Elon University  
2007 Teaching Strategies Conference, Elon University  
Spring 2005 Audited Dr. Asworth's (former commissioner of Higher Education, Texas)  
'Entrepreneurship in the Public Service: The Uses of Discretion, Initiative and  
Creativity'  
Spring 2005 Grant Writing Workshop (semester long), VPR, Texas A&M University  
Fall 2004 Grant Writing Seminar, VPR, Texas A&M University  
Spring 2004/05 NSF CAREER award workshop, VPR, Texas A&M University  
2004 – 2007 Faculty Development Series, Dean of Faculties, Texas A&M University  
2000 – 2001 Preparing Future Faculty Fellow, Arizona State University  
2001 Fundamentals and Signal Processing, Matlab Workshop, Phoenix, AZ