

**James H. Cauraugh**  
Professor and Associate Dean of Research  
College of Health and Human Performance  
Applied Physiology and Kinesiology Department  
University of Florida  
Gainesville, FL 32611-8206

## Address

Home Address	3560 NW 29th Place Gainesville, FL 32605	Office Phone: 352-392-0584, ext. 1308 E-mail: Cauraugh@HHP.UFL.EDU
Home Phone	352-377-0470	Fax: 352-392-0316

## Education

1970-74	B.S., Physical Education, State University of New York at Brockport; Summa Cum Laude graduate; Departmental Scholar; Alumni Scholarship Award; President's Distinguished Scholar
1974-77	M.S., Physical Education: Motor Learning, Pennsylvania State University. Thesis: <i>A Test of the Proprioceptive Input Hypothesis of Anticipatory Timing</i>
1981-84	Ph.D., Movement Science: Motor Learning, Florida State University. Dissertation: <i>Motor Programming: Specification of Movement Parameters</i>

## Employment

1974-75	Graduate Assistant, Basic Instructional Program, Pennsylvania State University
1975-81	Instructor/Assistant Professor and Head Baseball Coach, Pennsylvania State University, McKeesport Campus
1981-84	Graduate Research Assistant, Motor Learning/Control Laboratory, Florida State University
1984-88	Assistant Professor, University of Oklahoma
1988-91	Assistant Professor, Director, Motor Behavior Laboratory, Co-Director, Center for Exercise Science, University of Florida
1991-2002	Associate Professor, Director, Motor Behavior Laboratory, Co-Director, Center for Exercise Science, Doctoral Research Faculty, University of Florida
2003-present	Professor, Applied Physiology and Kinesiology Department, Director, Motor Behavior Lab, Co-Director, Center for Exercise Science, Brain Rehabilitation Research Center, University of Florida
2007-present	Associate Dean of Research, College of Health and Human Performance

**Refereed Publications (80)**

1. **Cauraugh, J.H.**, & Christina, R.W. (1978). Proprioceptive feedback as a mediator in interlimb timing. *Journal of Motor Behavior*, *10*, 239-244.
2. Lucariello, G., Toole, T., & **Cauraugh, J.H.** (1983). Searching short-term memory for linear positioning movements. *Perceptual and Motor Skills*, *57*, 267-274.
3. **Cauraugh, J.H.**, Toole, T., & Lucariello, G. (1984). A test of the iris pigmentation-reactivity hypothesis during letter discrimination. *Journal of Human Movement Studies*, *10*, 239-246.
4. Singer, R.N., & **Cauraugh, J.H.** (1984). Generalization of psychomotor learning strategies to a related psychomotor task. *Journal of Human Learning*, *3*, 215-225.
5. Brown, H.J., Singer, R.N., **Cauraugh, J.H.**, & Lucariello, G. (1985). Cognitive style and learner strategy interaction in the performance of a maze-learning task. *Research Quarterly for Exercise and Sport*, *56*, 10-14.
6. Singer, R.N., & **Cauraugh, J.H.** (1985). The generalizability effect of learning strategies for categories of psychomotor skills. *Quest*, *37*, 103-119.
7. Singer, R.N., **Cauraugh, J.H.**, Lucariello, G., & Brown, H. J. (1985). Achievement in related psychomotor tasks as influenced by the use of learning strategies. *Perceptual and Motor Skills*, *60*, 843-846.
8. Singer, R.N., Grove, J.R., **Cauraugh, J.H.**, & Rudisill, M. (1985). Consequences of attributing failure on a gross motor task to a lack of effort or ineffective strategy. *Perceptual and Motor Skills*, *61*, 299-306.
9. **Cauraugh, J.H.**, & Horrell, J.F. (1989). Advance preparation of discrete finger responses: Nonmotoric evidence. *Acta Psychologica*, *72*, 117-138.
10. **Cauraugh, J.H.**, & Christina, R.W. (1989). Psychomotor decline can be described by discontinuities in response trajectories: Comments on Vrtunski and Patterson (1985). *International Journal of Neuroscience*, *48*, 247-250.
11. **Cauraugh, J.H.**, Gabert, T., & White, J. (1990). Tennis serving velocity and accuracy. *Perceptual and Motor Skills*, *70*, 719-722.
12. **Cauraugh, J.H.** (1990). Speed-accuracy tradeoff during response preparation. *Research Quarterly for Exercise and Sport*, *61*, 331-337.
13. Christina, R.W., **Cauraugh, J.H.**, & Shire, D. (1990). Time needed to change the isometric force production of a response. *Research Quarterly for Exercise and Sport*, *61*, 338-343.
14. **Cauraugh, J.H.** (1991). Speed-accuracy considerations during spatial-precuing tasks: Response to Reeve and Proctor. *Research Quarterly for Exercise and Sport*, *62*, 121-122.
15. Singer, R.N., **Cauraugh, J.H.**, Murphey, M., Chen, D., & Lidor, R. (1991). Attentional training, distractors, and motor performance. *Human Performance*, *4*, 55-69.

16. **Cauraugh, J.H.**, Lidor, R., & Galyon, P. (1991). Verbal knowledge of results: Redundant information in receptor anticipation tasks? *Journal of Human Movement Studies*, *18*, 269-277.
17. Singer, R.N., **Cauraugh, J.H.**, Tennant, L.K., Murphey, M., Chen, D., & Lidor, R. (1991). Attention and distractors: Considerations for enhancing sport performances. *International Journal of Sport Psychology*, *22*, 95-114.
18. **Cauraugh, J.H.**, & Lidor, R. (1992). Experimental design and methodological problems confounded visuo-motor behavior rehearsal effects on basketball shooting accuracy. *Psychology: A Journal of Human Behavior*, *29*, 66-67.
19. Vander Linden, D., **Cauraugh, J.H.**, & Greene, T. (1993). The effect of frequency of kinetic feedback on learning an isometric force production task in nondisabled subjects. *Physical Therapy*, *73*, 79-87.
20. Singer, R.N., Lidor, R., & **Cauraugh, J.H.** (1993). To be aware or not aware? What to think about while learning and performing a motor skill. *The Sport Psychologist*, *7*, 19-30.
21. **Cauraugh, J.H.**, Chen, D., & Singer, R.N. (1993). Graphic versus numeric knowledge of results: Which mode? *Research Quarterly for Exercise and Sport*, *64*, 213-216.
22. **Cauraugh, J.H.**, Chen, D., & Radlo, S. (1993). Effects of traditional and reversed bandwidth knowledge of results on motor learning. *Research Quarterly for Exercise and Sport*, *64*, 413-417.
23. **Cauraugh, J.H.**, Singer, R.N., & Chen, D. (1993). Visual scanning and anticipation of expert and beginner tennis players. In S. Sidonio, J. Alves, V. Ferreira, A. Paula-Brito (Eds.), *An integrated approach to sport psychology: Eighth world congress* (pp. 336-340). Lisbon: International Society of Sport Psychology.
24. Behrman, A., Vander Linden, D., & **Cauraugh, J.H.** (1993). Relative frequency knowledge of results: Older adults learning a force-time modulation task. *Journal of Human Movement Studies*, *23*, 233-250.
25. Singer, R.N., Lidor, R., & **Cauraugh, J.H.** (1994). Focus of attention during motor skill performance. *Journal of Sport Sciences*, *12*, 335-340.
26. Singer, R.N., **Cauraugh, J.H.**, Chen, D., Steinberg, G., Frehlich, S., & Wang, L. (1994). Training mental quickness in beginning and intermediate tennis players. *The Sport Psychologist*, *8*, 305-318.
27. Reeve, T.G., Fischman, M., Christina, R.W., & **Cauraugh, J.H.** (1994). Using one-dimensional task error measures to assess performance on two-dimensional tasks: Comment on "Attentional Control, Distractors, and Motor Performance." *Human Performance*, *7*, 315-319.
28. Bauer, J., **Cauraugh, J.H.**, Kellogg, R., & Behrman, A. (1995). New research tools for biomechanics and motor control sport scientists: Understanding human movement. In J. Varnes, D. Gamble, & M. Horodyski (Eds.), *Thirty-eighth World Congress ICHPER.SD Proceedings* (pp. S19-S21). Gainesville, FL: University of Florida.

29. Singer, R.N., **Cauraugh, J.H.**, Chen, D., Steinberg, G., & Frehlich, S. (1996). Visual search, anticipation, and reactive comparisons between highly skilled and beginning tennis players. *Journal of Applied Sport Psychology, 8*, 9-26.
30. **Cauraugh, J.H.** (1996). Motor learning and control: An interdisciplinary approach. *Journal of Interdisciplinary Research in Physical Education, 1*, 9-16.
31. Short, M.W., & **Cauraugh, J.H.** (1997). Planning macroscopic aspects of manual control: End-state comfort and point-of-change effects. *Acta Psychologica, 96*, 133-147.
32. **Cauraugh, J.H.** (1997). Skill acquisition and modeling: Split-screen analyses. In R. Lidor & M. Bar-Eli (Eds.), *Innovations in sport psychology: Linking theory and practice* (IX World Congress of Sport Psychology) (pp.184-186). Zinman College & Wingate Institute, Israel: International Society of Sport Psychology.
33. Janelle, C, Barba, D., Frehlich, S., Tennant, L.K., & **Cauraugh, J.H.** (1997). Maximizing performance feedback effectiveness through videotape replay and self-controlled learning environment. *Research Quarterly for Exercise and Sport, 68*, 269-279.
34. Behrman, A.L., Teitelbaum, P., & **Cauraugh, J.H.** (1998). Verbal instructional sets to normalize the temporal and spatial gait variables in Parkinson's disease. *Journal of Neurology, Neurosurgery, and Psychiatry, 65*, 580-582.
35. Short, M.W., & **Cauraugh, J.H.** (1999). Precision hypothesis and the end-state comfort effect. *Acta Psychologica, 100*, 243-252.
36. **Cauraugh, J.H.**, Martin, M., & Komer, K. (1999). Modeling surgical expertise for motor skill acquisition. *The American Journal of Surgery, 177*, 331-336.
37. Bauer, J., **Cauraugh, J.H.**, Kellogg, R., & Tillman, M. (1999). Gait analysis of the post-polio individual: Quantitative information for the patient and the clinician. *Orthopaedic Specialists, 23*, 485-490.
38. Bauer, J., **Cauraugh, J.H.**, & Tillman, M. (2000). An insole pressure measurement system: Repeatability of postural data. *Foot and Ankle International, 21*, 221-226.
39. Behrman, A.L., **Cauraugh, J.H.**, & Light, K. (2000). Practice as an intervention to improve speeded motor performance and motor learning in Parkinson's disease. *Journal of Neurological Sciences, 174*, 127-136.
40. **Cauraugh, J.H.**, Light, K., Kim, S., Thigpen, M., & Behrman, A.L. (2000). Chronic motor dysfunction after stroke: Recovering wrist and finger extension by electromyography triggered neuromuscular stimulation. *Stroke, 31*, 1360-1364.
41. Hillman, C., Cuthbert, B., **Cauraugh, J.H.**, Schupp, H., Bradley, M., & Lang, P. (2000). Psychophysiological responses of identified sport fans. *Motivation and Emotion, 24*, 13-28.
42. Bauer, J., Thomas, T., **Cauraugh, J.H.**, Kaminski, T., & Hass, C. (2001). Impact forces and neck muscle activity in heading by collegiate female soccer players. *Journal of Sport Sciences, 19*, 171-179.
43. Tillman, M. & **Cauraugh, J.H.** (2001). Reservations about the effects of patellar taping on patellofemoral incongruence. *The American Journal of Sports Medicine, 29*, 829-830.

44. Tillman, M., Smith, K., Bauer, J., **Cauraugh, J.H.**, & Falsetti, A. (2002). Differences in three intercondylar notch geometry indices between males and females: A cadaver study. *The Knee* 9, 41-46.
45. **Cauraugh, J.H.** (2002). Experimental design and statistical decisions tutorial: Comments on longitudinal ideomotor apraxia recovery. *Neuropsychological Rehabilitation*, 12, 75-83.
46. **Cauraugh, J.H.** & Kim, S.B. (2002). Two coupled motor recovery protocols are better than one: Electromyogram-triggered neuromuscular stimulation and bilateral movements. *Stroke*, 33, 1589-1594.
47. Chimento, A.B., Tillman, M., Trimble, M., Bauer, J., **Cauraugh, J.H.**, Kaminski, T., & Hass, C. (2003). Tibiofemoral rotation in landing: The influence of medially and laterally posted orthotics. *Physical Therapy in Sport*, 4, 35-40.
48. **Cauraugh, J.H.**, & Kim, S.B. (2003). Progress toward motor recovery with active neuromuscular stimulation: Muscle activation pattern evidence after a stroke. *Journal of Neurological Sciences*, 207, 25-29.
49. Hass, C.J., Schick, E., Chow, J.W., Tillman, M.D., Brunt, D., & **Cauraugh, J.H.** (2003). Lower extremity biomechanics differ in prepubescent and postpubescent female athletes during stride jump landings. *Journal of Applied Biomechanics*, 19, 139-152.
50. **Cauraugh, J.H.**, & Kim, S.B. (2003). Chronic stroke motor recovery: Duration of active neuromuscular stimulation. *Journal of Neurological Sciences*, 215, 13-19.
51. **Cauraugh, J.H.**, & Kim, S.B. (2003). Stroke motor recovery: Active neuromuscular stimulation and repetitive practice schedules. *Journal of Neurology, Neurosurgery, & Psychiatry*, 74, 1562-66.
52. Yoshida, M., **Cauraugh, J.H.**, & Chow, J. (2004). Specificity of practice, visual information, and intersegmental dynamics in rapid aiming limb movements. *Journal of Motor Behavior*, 36, 281-90.
53. **Cauraugh, J.H.** (2004). Coupled rehabilitation protocols and neural plasticity: Upper extremity improvements in chronic hemiparesis. *Restorative Neurology and Neuroscience*, 22, 337-47. (Invited article for special issue: *Motor System Plasticity, Recovery and Rehabilitation*.)
54. Bolton, D.A.E., **Cauraugh, J.H.**, & Hausenblas, H.A. (2004). Electromyogram-triggered neuromuscular stimulation and stroke motor recovery of arm/hand functions: A meta-analysis. *Journal of the Neurological Sciences*, 223, 121-27.
55. Chow, J.W., Carlton, L.G., **Cauraugh, J.H.**, Duley, A.R., Kim, S.B., & Weldon, C. (2004). Web-based laboratory modules for linear and angular kinematics. Proceedings of the 22<sup>nd</sup> *International Symposium of Biomechanics in Sports*, pp. 374-77.
56. Hass, C., Schick E., Tillman, M., Chow, J., Brunt, D., & **Cauraugh, J.H.** (2005). Knee biomechanics during landings: A comparison of pre- and post-pubescent females. *Medicine & Science in Sports & Exercise*, 37, 100-107.
57. **Cauraugh, J.H.**, Kim, S.B., & Duley, A. (2005). Coupled bilateral movements and active neuromuscular stimulation: Intralimb transfer evidence during bimanual aiming. *Neuroscience Letters*, 382, 39-44.

58. **Cauraugh, J.H.**, & Summers, J.J. (2005). Neural plasticity and bilateral movements: A rehabilitation approach for chronic stroke. *Progress in Neurobiology*, *75*, 309–320.
59. Tillman, M.D., Bauer, J., **Cauraugh, J.H.**, & Trimble, M. (2006). Differences in lower extremity alignment between males and females: Possible predisposing factors for knee injury. *Journal of Sports Medicine and Physical Fitness*, *45*, 355-59.
60. Coombes, S.A., **Cauraugh, J.H.**, & Janelle, C.M. (2006). Emotion and movement: Activation of defensive circuitry alters the magnitude and variability of a sustained muscle contraction. *Neuroscience Letters*, *396*, 192-196.
61. Stewart, K., **Cauraugh, J.H.**, & Summers, J.J. (2006). Bilateral movement training and stroke rehabilitation: A systematic review and meta-analysis. *Journal of Neurological Sciences*, *244*, 89-95.
62. Summers, J.J., Kagerer, F.A., Garry, M.I., Hiraga, C.Y., Loftus, A., & **Cauraugh, J.H.** (2007). Bilateral and unilateral movement training on upper limb function in chronic stroke patients: A TMS study. *Journal of Neurological Sciences*, *252*, 76-82.
63. Wikstrom, E.A. Tillman, M.D., Chmielewski, T.L., **Cauraugh, J.H.**, & Borsa, P.A. (2007). Dynamic postural stability deficits in subjects with self-reported ankle instability. *Medicine and Science in Sports and Exercise*, *39*, 397-402.
64. Coombes, S.A., **Cauraugh, J.H.**, & Janelle, C.M. (2007). Emotional state and initiating cue alter central and peripheral motor processes. *Emotion*, *7*, 275-284.
65. Coombes, S.A., **Cauraugh, J.H.**, & Janelle, C.M. (2007). Emotional valence and arousal differentially modulate motor function. *Psychological Science*, *18*, 938-42.
66. **Cauraugh, J.H.**, Kim, S.B., & Summers, J.J. (2008). Chronic stroke longitudinal motor improvements: Cumulative learning evidence in the upper extremity. *Cerebrovascular Diseases*, *25*, 115-21.
67. Richards, L.G., Stewart, K.C., Woodbury, M.L., Senesac C., & **Cauraugh, J.H.** (2008). Movement dependent stroke recovery: A systematic review and meta-analysis of TMS and fMRI evidence. *Neuropsychologia*, *46*, 3-11.
68. Coombes, S.A., Gamble, K.M., **Cauraugh, J.H.**, & Janelle, C.M. (2008). Emotional states alter force control during a feedback occluded motor task. *Emotion*, *8*, 104-13.
69. Giuffrida, C.G., Cristina, M., & **Cauraugh, J.H.** (2008). Rapid aiming movements by senior adults: Implications for environmental design. *Topics in Geriatric Rehabilitation*, *24*, 253-63.
70. Thigpen, M., **Cauraugh, J.H.**, Creel, G., et al. (2009). Adaptation of postural responses during different standing perturbation conditions in individuals with incomplete spinal cord injury. *Gait and Posture*, *29*, 113-118.
71. **Cauraugh, J.H.**, Coombes, S.A., Lodha, N., Naik, S.K., & Summers, J.J. (2009). Upper extremity improvements in chronic stroke: Coupled bilateral load training. *Restorative Neurology and Neuroscience*, *27*, 17-25.

72. Coombes, S.A., Janelle, C.M., & **Cauraugh, J.H.** (2009). Chronic stroke and aging: The impact of acoustic stimulus intensity on fractionated reaction time. *Neuroscience Letters*, *452*, 151-55.
73. Wikstrom, E.A., Naik, S.K., Lodha, N., & **Cauraugh, J.H.** (2009). Balance capabilities after lateral ankle trauma and intervention: A meta-analysis. *Medicine & Science in Sports & Exercise*, *41*, 1287-95.
74. **Cauraugh, J.H.**, & Summers, J.J. (2009). Invited commentary. Effects of forced use on arm function in the subacute phase after stroke: A randomized, clinical pilot study. *Physical Therapy*, *89*, 539-41.
75. Wikstrom, E.A., Tillman, M.A., Chmielewski, T., **Cauraugh, J.H.**, Naugle, K., & Borsa, P.A. (2009). Self-assessed disability and functional performance in patients with and without ankle instability: A case control study. *Journal of Orthopaedic & Sports Physical Therapy*, *39*, 458-67.
76. Coombes, S.A., Higgins, T., Gamble, K.M., **Cauraugh, J.H.**, & Janelle, C.M. (2009). Attentional control theory: Anxiety, emotion, and motor planning. *Journal of Anxiety Disorders*, *23*, 1072-79.
77. Coombes, S.A., Tandonnet, C., Fujiyama, H., Janelle, C.M., **Cauraugh, J.H.**, & Summers, J.J. (2009). Emotion and motor preparation: A transcranial magnetic stimulation study of corticospinal motor tract excitability. *Cognitive, Affective, and Behavioral Neuroscience*, *9*, 380-88.
78. Wikstrom, E.A., Tillman, M.A., Chmielewski, T., **Cauraugh, J.H.**, Naugle, K., & Borsa, P.A. (in press). Dynamic postural control but not mechanical stability differs among those with and without chronic ankle instability. *Scandinavian Journal of Medicine & Science in Sports*.
79. **Cauraugh, J.H.**, Lodha, N., Naik, S.K., & Summers, J.J. (in press). Bilateral movement training and stroke motor recovery progress: A structured review and meta-analysis. *Human Movement Science*.
80. Wikstrom, E.A., Naik, S.K., Lodha, N., & **Cauraugh, J.H.** (in press). Bilateral balance impairments after lateral ankle trauma: A systematic review and meta-analysis. *Gait and Posture*.

### Refereed Publications: Under Review

1. Coombes, S.A., Lodha, N., Naik, S., Janelle, C.M., & **Cauraugh, J.H.** (under review). Bimanual movement variability: Emotion and motor control.
2. **Cauraugh, J.H.**, Naik, S.K., Hsu, W., Coombes, S.A., & Holt, K.G. (under review). Cerebral palsy children's gait and electrical stimulation: A disablement approach and meta-analysis.

### Invited Book Chapter

1. **Cauraugh, J.H.**, & Janelle, C.M. (2002). Visual search and cue utilization in racket sports. In K. Davids & G. Savelsberg (Eds.). *Interceptive actions in sport* (pp. 64-89). London: Taylor & Francis.

## External Grant Record

### A. Funded Grants (7)

1. Title: *Developing Reaction Time and Movement Time: Quickness Training With Customized Equipment*  
 Singer, R.N. (PI), & Cauraugh, J.H. (Co-PI)  
 Funding Agency: S.T.A.R.T. Technologies, New York, NY  
 Amount awarded: \$24,936  
 Project Dates: 6/1993 – 5/1994  
 Physical fitness benefits of *Reaction Coach* timing device and specific movement patterns were evaluated across groups.  
 Direct Cost = \$ 22,442  
 Indirect Cost = \$ 2,494  
 Total Cost = \$ 24,936
  
2. Title: *Tennis Quickness Analyses and Training*  
 Singer, R.N. (PI), & Cauraugh, J.H. (Co-Investigator)  
 Funding Agency: United States Tennis Association (grant # 37025)  
 Amount awarded: \$37,380  
 Project Dates: 10/1991 – 12/1993  
 Five motor performance tasks (visual tracking and scanning patterns, anticipation time, reaction time, and movement time) were administered to three groups of tennis players (elite, intermediate, and beginners). Three refereed manuscripts reported findings.  
 Direct Cost = \$ 33,642  
 Indirect Cost = \$ 3,738  
 Total Cost = \$ 37,380
  
3. Title: *Stroke Induced Hemiparesis: Rehabilitation Protocols for Motor Recovery*  
 Grant-in-Aid: Cauraugh, J.H., PI  
 Funding Agency: American Heart Association: Florida/Puerto Rico Affiliate  
 Amount Awarded: \$119,978  
 Project Dates: 7/1/2001 - 6/30/2003  
 The primary objective was to determine the immediate efficacy of electromyography-triggered neuromuscular stimulation, bimanual coordination training, and movement practice variability on stroke induced chronic hemiparesis.  
 Direct Cost = \$107,980  
 Indirect Cost = \$ 11,998  
 Total Cost = \$119,978
  
4. Title: *Collaborative Research: Network-based Interactive Laboratory Modules for the Study of Movement Biomechanics, and Coordination and Control*

Chow, J. (PI), Carlton, L. (Co-PI, University of Illinois), & Cauraugh, J. (Co-PI)

Funding Agency: National Science Foundation

Amount Awarded: \$316,875

Project Dates: 7/1/2002 - 6/30/2004

The goal of was to develop a set of laboratory modules for the study of movement biomechanics and coordination using the Digi-Net system.

Specifically, using the features available in the Digi-Net system, laboratory modules created for the learning basic mechanical concepts involved in biomechanics, physics, and motor control.

Direct Cost = \$199,217

Indirect Cost = \$142,594

Total = \$316,875

5. Title: *Chronic Stroke Motor Recovery: Bimanual Coordination Theory*  
 Grant-in-Aid: Cauraugh, J.H., PI  
 Funding Agency: American Heart Association: Florida/Puerto Rico Affiliate  
 Total Amount Awarded: \$120,000  
 Project Dates: 07/01/2004 - 06/30/2006  
 Direct Cost = \$108,000  
 Indirect Cost = \$ 12,000  
 Total Cost = \$120,000
  
6. Title: *Sub-acute Stroke Recovery: Bimanual Coordination Training*  
 R03: Cauraugh, J.H., PI, & Richards, L. Co-Investigator  
 Funding Agency: NIH: NICHD  
 Total Amount Awarded: \$145,500  
 Project Dates: 6/1/2006 - 5/31/2009  
 This proposal is designed to determine the effect of coupled bilateral coordination training on motor capabilities in sub-acute stroke.  
 Direct Cost = \$ 82,275  
 Indirect Cost = \$ 63,225  
 Total Cost = \$145,500
  
7. Title: *Cumulative Motor Improvements in Chronic Stroke: Longitudinal Coupled Bilateral*  
 Grant-in-Aid: Cauraugh, J.H., PI  
 Funding Agency: American Heart Association: Florida/Puerto Rico Affiliate  
 Total Amount Awarded: \$264,000  
 Project Dates: 7/1/2006 - 6/30/2009  
 Role: PI  
 Direct Cost = \$237,600  
 Indirect Cost = \$ 26,400  
 Total Cost = \$264,000

### Grant Funding Summary

Role	Direct Cost	Indirect Cost	Total
PI	\$535,855	\$113,623	\$649,478
Co-PI & Co-Inv.	\$255,301	\$148,826	\$404,127
<b>TOTALS</b>	<b>\$791,156</b>	<b>\$262,449</b>	<b>\$1,053,605</b>

### Internal Grant Record

#### A. Funded Research Grants

1. *The Specification of Hand-Finger and Direction Parameters.* University of Oklahoma Research Council, Junior Faculty Summer Research Fellowship. Amount awarded: \$3,500, January 1985.
2. *Motor Behavior Research Facilities.* University of Oklahoma Research Council. Amount awarded: \$3,940, September 1985.
3. *Response Preparation Research: Auxiliary Equipment.* University of Oklahoma Research Council. Amount awarded: \$939, November 1986.
4. *Travel Grant to Discuss, and Collaborate on Motor Programming Research* with Robert W. Christina at the Pennsylvania State University. University of Oklahoma Research Council. Amount awarded: \$815, June 1987.
5. *Effect of Exercise Induced Arousal on Achievement Motivation and Perceptual Motor Processing.* Co-principal investigators: J.H. Cauraugh & T.E. Gabert. College of Arts and Sciences, University of Oklahoma. Amount awarded: \$6,000, October 1987.
6. *Electromyography and Motor Programming.* Division of Sponsored Research, New Faculty Support Program, University of Florida. Amount awarded: \$6,588, September 1988. Matching funds were obtained from the Exercise and Sport Sciences Department.
7. *Electromyographic and Kinematic Analyses of Motor Programs in Young and Older Adults.* Division of Sponsored Research, Research Development Award, University of Florida. Amount awarded: \$18,717, January 1989.
8. *Spatial Location Contribution for Stimulus-Response Translation.* Division of Sponsored Research, Graduate Research Assistantship Program, University of Florida. Amount awarded: \$4,587, March 1991.
9. *Controlling Force Production.* Division of Sponsored Research, New Faculty Support Program, University of Florida. Amount awarded: \$13,830, June 1991.
10. *Motor Actions, Biofeedback, and Functional Electrical Stimulation: Recovering Arm Movements after a Stroke.* J.H. Cauraugh, PI, K. Light, Co-I, & A. Behrman, Co-I. Opportunity Fund Grant from the Office of Research, Technology, and Graduate Education, Division of Sponsored Research. Amount awarded: \$17,550, August 1997 - December 1998.

## Internal Research Grants: Total = \$76,466

### B. Funded Teaching/Instructional Development Grants

1. *Microcomputer Instructional Activities Laboratory*. Co-principal investigators: J.H. Cauraugh & T.E. Gabert. Associates Instructional Support Funds, College of Arts and Sciences, University of Oklahoma. Amount awarded: \$6,000, October 1987.
2. *Improvement of Audiovisual Aids for Motor Learning*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$260, February 1990.
3. *Motor Learning Laboratory Improvement*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$500, February 1990.
4. *Enhancing Motor Learning Courses*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$300, March 1991.
5. *Motor Learning Course Enhancement*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$498, March 1992.
6. *Research Methods: Audiovisual Aids*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$375, March 1992.
7. *Planning for Movement: New Slides*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$227, April 1993.
8. *Research Methods: Course Modifications*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$499, February 1994.
9. *Technology Improvements for Undergraduate and Graduate Courses*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$500, February 1996.
10. *Teaching Improvements for Motor Learning and Control Courses*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$500, February 1997.
11. *Teaching Improvements for Motor Control and Research Methods*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$500, February 1998.
12. *Improving Motor Learning, Motor Control, and Research Methods Courses*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$500, April 1999.
13. *Innovative Instructional Approach*. College of Health and Human Performance, Instructional Development Award, University of Florida. Amount awarded: \$1,000, December 1999.

## Internal Teaching/Instructional Development Grants: Total = \$11,159

### Professional Service

#### A. Editorial Board Member

*Acta Psychologica, International Journal of Psychonomics*, 1990 – present  
*Journal of Motor Behavior*, 2005 – present  
*Research Quarterly for Exercise and Sport*, 2005 – present

#### B. Ad Hoc Reviewer: Journals

*American Journal of Physical Medicine & Rehabilitation*, 2002 – present  
*Applied Cognitive Psychology*, 2007 – present  
*Archives of Physical Medicine & Rehabilitation*, 2004 – present  
*Cognitive Brain Research*, 2003 – present  
*Clinical Neurophysiology*, 2007 – present  
*Ergonomics, Sport, and Leisure*, 2007 - present  
*Experimental Brain Research*, 2007 - present  
*Human Movement Science*, 1995, 2006 – present  
*Journal of Applied Sport Psychology*, 1994 – 96, 2005  
*Journal of Experimental Psychology: Applied*, 1996, 1997  
*Journal of Experimental Psychology: Human Perception & Performance*, 1988,  
 1990, 1991  
*Journal of Experimental Psychology: Learning, Memory, & Cognition*, 2006 –  
 present  
*Journal of Gerontology: Psychological Sciences*, 1992  
*Journal of Motor Behavior*, 1991, 1993, 1995, 1997 – present  
*Journal of Neurology, Neurosurgery, & Psychiatry*, 2003 – present  
*Journal of Neurophysiology*, 2006 – present  
*Journal of the Neurological Sciences*, 2006 – present  
*Journal of Rehabilitation Medicine*, 2004 – present  
*Journal of Rehabilitation Research and Development*, 2003 – present  
*Journal of Sport & Exercise Psychology*, 2001, 2003 – present  
*Memory and Cognition*, 1987  
*Motor Control*, 2009  
*Neuropsychologia*, 2007 – present  
*Neurorehabilitation and Neural Repair*, 2008 – present  
*Neuroscience Letters*, 2007 – present  
*Perceptual and Motor Skills*, 1990 – 2005  
*Research Quarterly for Exercise and Sport*, 1985 – present  
*Restorative Neurology and Neuroscience*, 2007 – present  
*Stroke*, 2001 – present  
*Women in Sport and Physical Activity Journal*, 1993, 1995, 1997

### C. Invited External Reviewer: Grant Proposals

1. Three year grant proposal submitted by Dr. Daniel Weeks, Lakehead University, Ontario. Title: *Translation Processes and Physical Activity in the Aged*. Invited by the Canadian Fitness and Lifestyle Research Institute, December 1990- January 1991.
2. Four year grant proposal submitted by Dr. Eric Buckolz, University of Western Ontario. Title: *Inhibiting Planned Movements*. Invited by the Natural Sciences and Engineering Research Council of Canada, Ottawa, Canada, December 1994 – January 1995.
3. Four year grant proposal submitted by Dr. Eric Buckolz, University of Western Ontario. Title: *Properties of Inhibitory Processing*. Invited by the Natural Sciences and Engineering Research Council of Canada, Ottawa, Canada, January 1999.
4. Four year grant proposal submitted by Dr. Stephan Swinnen, Katholieke University of Leuven, Belgium. Title: *The Role of Kinesthetic Afferences in the Production of Patterns of Interlimb Coordination: Central and Peripheral Mechanisms*. Invited by Professor Marc Waelkens, Chair, University Research Council Leuven, April 1999.
5. Four year grant proposal submitted by Drs. Martenius Buekers, Werner Helsen, & Stephan Swinnen, Katholieke University of Leuven, Belgium. Title: *The Role of Visual Afferences in Goal-Directed Upper Limb Movements: Control and Learning Issues*. Invited by Professor Marc Waelkens, Chair, University Research Council Leuven. Amount requested: \$489,000. April 2000.
6. Laurie Wishart & Tim Lee. *Learning new bimanual coordination patterns in older adults: Development of principles for movement rehabilitation interventions*. Invited by Canadian Institutes of Health Research. October 2000.
7. Janet Starkes, Digby Elliott, Kathleen Martin, & Neil McCartney. *Optimizing the use of Visual Feedback in the Retraining of Walking in Spinal Cord Injured Individuals*. Social Sciences and Humanities Research Council of Canada. Amount requested: \$820,000. October 2000.
8. Laurie Wishart & Tim Lee. *Learning new bimanual coordination patterns in older adults: Development of principles for movement rehabilitation interventions*. Revised proposal. Canadian Institutes of Health Research. April/May 2001.
9. Three year proposal submitted by Dr. Brian Maraj. Title: *Perceptual and Motor Factors in Stair Negotiation*. Agency: Natural Sciences and Engineering Research Council of Canada. Amount requested: \$79,500. January 11, 2002.
10. American Institute of Biological Sciences: Lied Endowed Basic Science Research Fund for proposals from Kansas University Medical Center Research Institute. Researcher: Dr. Wen Liu. Title: *How are the Tactile and Visual Sensory Inputs Integrated in the Control of Hand Movement?* Reston, VA, December 2004.
11. Michael Smith Foundation for Health Research (MSFHR), British Columbia's premier funding agency. Researcher: Dr. William C. Miller. Title: *Balance Confidence after Stroke*. February 2005.

12. American Institute of Biological Sciences, proposals from Kansas University Medical Center Research Institute. Researcher: Dr. Douglas Wright. Title: Role of Myelinated Cutaneous Axons in Diabetes-Induced Proprioceptive and Balance Deficits. Reston, VA, February 2007.
13. Grant proposal submitted by Drs. Stephan Swinnen and Nicole Wenderoth, Katholieke University of Leuven, Belgium. Title: *Dynamics of age-related compensatory neural recruitment processes during motor coordination*. Invited by Paul De Boeck, Professor, Vice-President for Research, University Research Council Leuven, February/March 2007.
14. NIH: Musculoskeletal Rehabilitation Sciences (MRS) Study Section. Invited by Dr. Jo Pelham, Scientific Review Administrator. Assigned seven proposals. Bethesda, MD, July 11 -13, 2007.
15. American Association for the Advancement of Science review of Clinical research proposals for Kansas Medical Center Research Institute. Invited by Dr. Mark Milutinovich, Senior Program Associate, Research Competitiveness Program. Assigned one proposal. November – December 2007.
16. NIH: Musculoskeletal Rehabilitation Sciences (MRS) Study Section. Invited by Dr. Jo Pelham, Scientific Review Administrator. Assigned eight proposals. Bethesda, MD, February 14-15, 2008.
17. NIH: Musculoskeletal Rehabilitation Sciences (MRS) Study Section. Invited by Dr. Jo Pelham, Scientific Review Administrator. Assigned one proposal. Bethesda, MD, July 11, 2008.
18. NIH: Musculoskeletal Rehabilitation Sciences (MRS) Study Section. Invited by Dr. Jo Pelham, Scientific Review Administrator. Assigned eight proposals. Alexandria, VA, October 16-17, 2008.
19. American Association for the Advancement of Science review of Clinical research proposals for Kansas Medical Center Research Institute. Invited by Dr. Mark Milutinovich, Senior Program Associate, Research Competitiveness Program. Assigned one proposal. November – December 2008.
20. Netherlands Organization for Science Research; Innovational Research Incentive Scheme. High-density surface electromyography for non-invasive sensing of neuromuscular control. Invited by Dr. Monique la Grand. January – February 2009.
21. NIH: Musculoskeletal Rehabilitation Sciences (MRS) Study Section. Invited by Dr. Jo Pelham, Scientific Review Administrator. Assigned eight proposals. Alexandria, VA, June 4-5, 2009.
22. NIH: Challenge Grants Panel. Invited by Dr. Rajvi Kumar, Scientific Review Administrator. Assigned six proposals. June 26, 2009

#### D. Invited External Reviewer: Promotion and Tenure Candidates

1. Promotion to associate professor and tenure: Daniel Weeks. Lakehead University, Thunder Bay, Ontario, Canada. October 1992.

2. Tenure: Daniel Weeks. Simon Fraser University, Burnaby, British Columbia, Canada. October 1994.
3. Reader promotion: David Collins. Manchester Metropolitan University, Alsager, England, November 1994. Lew Hardy, Director.
4. Promotion to associate professor and tenure: Laurie Wishart (Swanson). McMaster University, School of Rehabilitation Science, Hamilton, Ontario, Canada. June 1999.
5. Promotion to associate professor and tenure: Shannon Ringenbach. Arizona State University, Department of Kinesiology. August 2003.
6. Promotion to professor: Daniel Weeks. Simon Fraser University, British Columbia, Canada, Psychology Department. September 2003.
7. Promotion to associate professor and tenure: Daniel Russell. Pennsylvania State Berks-Lehigh Valley College, Department of Kinesiology. August 2005.
8. Promotion to associate professor and tenure: Matthew Heath. Indiana University, Department of Kinesiology. August 2005.
9. Promotion to professor: Semyon Slobounov. The Pennsylvania State University, College of Human Development, Department of Kinesiology. September 2006.
10. Promotion to associate professor: Sandra McCombe-Waller. University of Maryland-Baltimore, Department of Physical Therapy and Rehabilitation Science, School of Medicine. October 2008.
11. Promotion to professor: Robert Sainburg. The Pennsylvania State University, College of Human Development, Department of Kinesiology. September 2009.

#### E. Invited External Reviewer: Candidates for Distinguished Awards

1. NASPSPA Early Career Distinguished Scholar, Daniel Weeks, Simon Fraser University, Burnaby, British Columbia, Canada. November 1995. Requested by Stephen Wallace, President, North American Society for the Psychology of Sport and Physical Activity.
2. NASPSPA Early Career Distinguished Scholar, Richard van Emmerick, University of Massachusetts, March 1996. Requested by Stephen Wallace, President, North American Society for the Psychology of Sport and Physical Activity.
3. Presidential Professor nomination, Trent Gabert. University of Oklahoma. December 1995. Requested by Laurette Talyor, Department Chair, OU.
4. NASPSPA Early Career Distinguished Scholar, Heather Hausenblas, University of Florida, January 2004. Requested by Mark Fischman, President, North American Society for the Psychology of Sport and Physical Activity.
5. SUNY at Brockport, Distinguished Alumni Award and Gerry D'Agostino Memorial Lecture, September 2006. Requested by Kenneth King, LeMoyne College.

#### F. Invited External Examiner: Theses and Dissertations

1. Lakehead University, master's thesis external examiner, *The Effects of Visual Perspective, Ball Position, and Distance on the Accuracy of a Putted Ball in Golf*.

Invited by Daniel Weeks, Thesis Committee Chair. Thunder Bay, Ontario, Canada, November 1991.

2. Lakehead University, master's thesis external examiner, *Generalizability of the Guidance Hypothesis to a Brief Acquisition Phase*. Invited by Daniel Weeks, Thesis Committee Chair. Thunder Bay, Ontario, Canada, March 1992.
3. University of Montreal, dissertation external reviewer for T. Brisson, *Knowledge of Performance in Motor Learning*. Invited by Claude Alain, Director. Montreal, Quebec, November 8-10, 1995.
4. Lakehead University, master's thesis external examiner, *Manipulating the Saliency of Stimulus and Response Features in the Spatial Precuing Task*. Invited by Graduate Studies Coordinator, Lakehead University, Ontario, Canada, November 1998.
5. External Examiner: Dissertation. Invited by Dr. Ann Rose, Dean *pro tem*, Faculty of Graduate Studies, University of British Columbia, Vancouver, BC Canada. Anthony Carlsen, Ph. D. defense, January 2008.

#### G. Book Reviewer

1. *The Psychology of Motor Behavior: Development, Control, Learning, and Performance* by L. D. Zaichkowsky & C. Z. Fuchs (Eds.), 1986. Reviewed for the Journal of Sport & Exercise Psychology, 10, 357-359, 1988.
2. *Perspectives on the Coordination of Movement* by Stephen A. Wallace (Ed.), 1989. Reviewed for *Acta Psychologica*, 79, 283-286, 1992.
3. *Kinesiology: On the Move. An Introduction to the Science of Human Movement* by Stephen A. Wallace, in press. Reviewed for Allyn & Bacon Publishers, April 1996.
4. *The Dynamics of Skill: A Multidisciplinary Life-Span Approach* by Philip Tomporowski. Reviewed for Gordon and Breach Science Publishers, January 1999.

#### H. Reviewer: Book Chapters

1. *Handbook of Research on Sport Psychology*, (1993). R.N. Singer, M. Murphey, & L. K. Tennant, (Eds.). New York: Macmillan. A project of the International Society of Sport Psychology.
2. Visual Search Strategy in Sport, (1998). M. Williams, K. Davids, & J. Williams. *Motor Learning and Sport Psychology: Current Research Status*. London: Spon.
3. *Motor Learning*, (1998). Mohnsen, B. (Ed.). *Comprehensive Physical Education: What Every Student Needs to Know*. Washington, DC: AAHPERD.

#### I. Book Proposal Reviewer

1. *Acquisition and Performance of Sports Skills*, Terry McMorris. Wiley Publishing, January 2002.
2. *Notational Analysis in Sport*, Mike Hughes and Ian Franks. Routledge Publishing, April 2002.

## Invited Speaker: National and International Conferences (27)

1. **Cauraugh, J.H.** (1987, April). *Cognitive Aspects of Movement and Skill Development*. Invited by the program chair (Luiese Lynch, R.P.T.) of the Oklahoma Physical Therapists. Keynote presentation at the Annual State Convention, Williams Center, Tulsa, OK.
2. **Cauraugh, J.H.** (1987, April). *Kinesiology of the Back*. Invited by William H. Hall, M.D., DCME of Mercy Hospital. Presentation was part of the Ninth Annual Symposium for Physicians titled *Low Back Pain - A Survey of Causes and Treatments*, Mercy Hospital, Oklahoma City, OK.
3. **Cauraugh, J.H.** (1989, April). *Cognitive Strategies of Exercise Adherence*. Symposium participant, invited by Dr. Trent Gabert, symposium organizer, *Psychological Aspects of Exercise*. NASPE pre-conference meetings, American Alliance for Health, Physical Education, Recreation, and Dance, Boston, MA.
4. **Cauraugh, J.H.**, Singer, R.N., & Chen, D. (1993, June). *Visual scanning and selective attention: Elite versus novice tennis players*. Invited participant in symposium entitled *Attentional and Cognitive Considerations in Dynamic Situations*. North American Society for the Psychology of Sport and Physical Activity, Brainerd, MN.
5. **Cauraugh, J.H.**, Singer, R. N., & Chen, D. (1993, June). *Visual scanning pattern of expert and beginner tennis players: Selective attention considerations*. Organized, chaired, and participated in symposium titled *Decision Making in Sports: Startle Response, Visual Search, and Knowledge Structure*. Eighth World Congress: International Society of Sport Psychology, Lisbon, Portugal.
6. **Cauraugh, J.H.** (1993, October). *Motor Control of the Hands During Surgery: Split-Screen Analysis, Visual Modeling, and Auditory Elaboration*. Invited by Dr. Marcel Martin, Director of Surgical Critical Care and Trauma, Department of Surgery, to participate in Grand Round titled *Practical Surgical Education*. University of Florida, Health Science Center/Jacksonville, FL.
7. **Cauraugh, J.H.** (1994, April). *Gait Biomechanics: Method and Analyses*. Invited by Jeff Parks, Physical Therapy Coordinator, College of Health, University of North Florida, Jacksonville, FL.
8. **Cauraugh, J.H.** (1994, April). *Measuring performance in motor behavior: An historical perspective of error scores*. Invited participant in symposium titled *Quantifying Human Motor Performance: Use of Error Scores in Motor Behavior Research*. American Alliance for Health, Physical Education, Recreation, and Dance, Denver, CO.
9. **Cauraugh, J.H.** (1994, April). *Skill Acquisition of Force Modulation and Controlling Hand Movements*. Invited by Jeff Parks, Physical Therapy Coordinator, College of Health, University of North Florida, Jacksonville, FL.
10. **Cauraugh, J.H.** (1994, June). *Visual search patterns of sport performers*. Organized, chaired, and participated in symposium titled *Visual search patterns of sport performers: Current status and future directions*. North American Society for the Psychology of Sport and Physical Activity, Clearwater, FL.

11. **Cauraugh, J.H.** (1995, January). *Gait Analysis, Motor Control, and Biomechanics: Why Do Parkinson's Patients Walk Better When They Swing Their Arms?* Invited by Jeff Parks, Physical Therapy Coordinator, College of Health, University of North Florida, Jacksonville, FL.
12. **Cauraugh, J.H.**, Bauer, J., Teitelbaum, P., Kellogg, R., & Behrman, A. L. (1995, July). *Explaining coordination: Are biomechanics and motor control a panacea?* Organized, chaired, and participated in symposium titled *Biomechanics and Motor Control*. International Council for Health, Physical Education, Recreation, Sport, and Dance, 38th World Congress, Gainesville, FL.
13. **Cauraugh, J.H.** (1996, July). *Minimizing Driving Restrictions for the Elderly*. Invited participant in a symposium titled *Aerobics, Exercise Programs, and Fitness: A Comparison of German and American Cultures*. Dr. Herbert Hartmann, University of Darmstadt, Germany.
14. **Cauraugh, J.H.** (1997, July). *Skill Acquisition and Modeling: Split-Screen Analyses*. Invited symposium participant at the IX World Congress of Sport Psychology, *Innovations in sport psychology: Linking theory and practice*. Zinman College & Wingate Institute, Israel.
15. **Cauraugh, J.H.** (1998, February). *What do Medical Residents Think About During Surgery? Verbal Report Analysis*. Protocol Analysis Symposium participant. Invited by Anders Ericsson, Professor & Endowed Chair, Psychology Department, Florida State University, Tallahassee, FL.
16. **Cauraugh, J.H.** (1998, March). *Memory Applications for Motor Learning*. Invited by Dr. Marilyn Colby, Professor, Physical Education and Sport Department, State University of New York at Brockport, Brockport, NY.
17. **Cauraugh, J.H.** (1998, March 28-31). Gerry D'Agostino Memorial Lecture for Research, State University of New York at Brockport. Invited by Dr. Merrill J. Melnick, Committee Chair. Criteria for the award included scholarly and research achievements. Acceptance presentation: *Motor Learning and Control Applications for the 21<sup>st</sup> Century*.
18. **Cauraugh, J.H.** (1998, July). *Motor Control of Hands while Performing an Inguinal Hernia*. Invited by Marcel Martin, MD, Associate Professor, Chief Surgical and Intensive Care Unit, Medical School, University of Sherbrooke, Sherbrooke, Quebec, Canada.
19. **Cauraugh, J.H.** (2002, January). *Chronic Hemiparesis: New Evidence for Motor Recovery*. Eighteenth Annual Frontiers of Cardiology. Invited by Dr. William Squires, Chair, Organizing Committee. Winter Park, CO.
20. **Cauraugh, J.H.** (2002, May). *Chronic Hemiparesis of the Upper Extremity: Accumulating Evidence for Motor Recovery Progress*. Invited by Bruce Robinson, MD, Director of Continuing Medical Education, Sarasota Memorial Hospital, Grand Rounds.
21. **Cauraugh, J.H.** (2003, January). *Accumulating Evidence for Motor Recovery Progress 12 Months Post Stroke*. Nineteenth Annual Frontiers of Cardiology Conference, Winter Park, CO.

22. **Cauraugh, J.H.** (2003, June). *Motor Recovery of the Wrist and Fingers with Coupled Protocols: Bimanual Coordination Training and Active Neuromuscular Stimulation*. Invited participant in *Stroke Symposium: An Interdisciplinary Approach to Recovery*. North American Society for the Psychology of Sport and Physical Activity, Savannah, GA.
23. **Cauraugh, J.H.** (2004, May). *Coupled Protocols: Bilateral Movements and Active Stimulation*. First Annual Rehabilitation Research Day. Invited by Dr. Pam Duncan. Sponsored by the University of Florida, the Brooks Center for Rehabilitation Studies, and the Department of Veterans Affairs, Gainesville, FL.
24. **Cauraugh, J.H.** (2004, September). *Reacquiring Voluntary Motor Control Post Stroke: Coupled Protocols and Bimanual Coordination Theory*. Invited participant in symposium titled: *Bimanual Training after Stroke: Three Applications of Theory to Practice*. Organizer, Dr. Stephen Page, University of Cincinnati, Medical School. American Congress of Rehabilitation Medicine and American Society of Neurorehabilitation: Joint Conference. Evidence-Based Rehabilitation: Linking Science Practice and Policy. Ponte Vedra, FL.
25. **Cauraugh, J.H.** (2005, February). Considerations in the Practice Schedule of Electrical Stimulation. Invited participant in symposium titled: *Advances in Electrical Stimulation for Stroke Recovery*. Organizer, Dr. Stephen Page, University of Cincinnati, Medical School. International Stroke Conference. New Orleans.
26. **Cauraugh, J.H.** (2008, June). *Neural Plasticity and Stroke Recovery: Motor Learning Applications*. Invited Senior Lecturer for Motor Learning and Control, North American Society for the Psychology of Sport and Physical Activity, Annual Conference, Niagara Falls, Ontario, Canada.
27. **Cauraugh, J.H.** (2009, January). *Chronic and Subacute Stroke Motor Recovery: Coupled Bilateral Protocols and Neural Plasticity Evidence*. Invited Lecturer for Ninth Motor Control and Human Skills Conference, Hobart, Tasmania, Australia.

#### **National and International Research Presentations (42)**

1. **Cauraugh, J.H.**, & Christina, R.W. (1977, May). *A test of the proprioceptive input hypothesis of anticipatory timing*. North American Society for the Psychology of Sport and Physical Activity, Ithaca, NY.
2. **Cauraugh, J.H.**, Toole, T., & Lucariello, G. (1982, June). *Attentional demands during phases of self-paced movements*. North American Society for the Psychology of Sport and Physical Activity, College Park, MD.
3. **Cauraugh, J.H.**, & Singer, R.N. (1983, May). *The effect of learning strategies on achievement in primary and related psychomotor tasks*. North American Society for the Psychology of Sport and Physical Activity, East Lansing, MI.
4. **Cauraugh, J.H.**, & Toole, T. (1984, July). *Fractionated reaction time during response preparation in a letter discrimination task*. North American Society for the Psychology of Sport and Physical Activity, Eugene, OR.

5. **Cauraugh, J.H.**, Singer, R.N., Grove, J. R., & Rudisill, M. (1984, July). *Consequences of effort and strategy attributions for failure on a gross motor task*. North American Society for the Psychology of Sport and Physical Activity, Eugene, OR.
6. **Cauraugh, J.H.** (1984, October). *The specification order of hand-finger and direction parameters: Fixed order evidence*. Canadian Society for Psychomotor Learning and Sport Psychology, Kingston, Ontario, Canada.
7. **Cauraugh, J.H.** (1985, April). *Response preparation and the specification process: Variable order versus fixed order*. American Alliance for Health, Physical Education, Recreation, and Dance, Atlanta, GA.
8. **Cauraugh, J.H.** (1985, May). *Response preparation and the manipulation of precues based on letter discriminations*. North American Society for the Psychology of Sport and Physical Activity, Biloxi, MS.
9. **Cauraugh, J.H.** (1985, October). *Advanced preparation of adjacent and crossed fingers*. Canadian Society for Psychomotor Learning and Sport Psychology, Montreal, Quebec.
10. **Cauraugh, J.H.** (1986, June). *Knowledge of results and response preparation of discrete finger movements*. North American Society for the Psychology of Sport and Physical Activity, Scottsdale, AZ.
11. **Cauraugh, J.H.** (1986, October). *Response preparation as a function of the salient-features coding principle*. Canadian Society for Psychomotor Learning and Sport Psychology, Ottawa, Ontario.
12. **Cauraugh, J.H.**, & Evans, A.R. (1987, April). *Exercise induced arousal and perceptual-motor processing*. American Alliance for Health, Physical Education, Recreation, and Dance, Las Vegas, NV.
13. **Cauraugh, J.H.** (1987, June). *Response preparation of the index and middle fingers reexamined*. North American Society for the Psychology of Sport and Physical Activity, Vancouver, British Columbia, Canada.
14. **Cauraugh, J.H.**, White, J.S., & Gabert, T.E. (1987, June). *Speed versus accuracy in a tennis serving task*. North American Society for the Psychology of Sport and Physical Activity, Vancouver, British Columbia, Canada.
15. **Cauraugh, J.H.**, & Evans, A.R. (1988, April). *Further tests of exercise induced arousal and perceptual-motor processing*. American Alliance for Health, Physical Education, Recreation, and Dance, Kansas City, MO.
16. **Cauraugh, J.H.**, Denker, J., & Gabert, T.E. (1988, June). *Spatial compatibility changes and a generalized motor program*. North American Society for the Psychology of Sport and Physical Activity, Knoxville, TN.
17. **Cauraugh, J.H.** (1989, April). *Cognitive strategies of exercise adherence*. Invited participant in symposium titled *Psychological Aspects of Exercise*, NASPE preconference meetings, American Alliance for Health, Physical Education, Recreation, and Dance, Boston, MA.
18. **Cauraugh, J.H.**, & Galyon, P. (1989, April). *Anticipatory timing and verbal knowledge of results: A transfer design experiment*. American Alliance for Health, Physical Education, Recreation, and Dance, Boston, MA.

19. **Cauraugh, J.H.**, Chen, D., & Goodwin, G. (1991, April). *Spatial precuing and fractionated reaction time*. American Alliance for Health, Physical Education, Recreation, and Dance, San Francisco, CA.
20. **Cauraugh, J.H.**, Chen, D., Graves, J., Pollock, M.L., & Leggett, S. (1991, April). *Response preparation and older adults*. American Alliance for Health, Physical Education, Recreation, and Dance, San Francisco, CA.
21. **Cauraugh, J.H.**, Singer, R.N., & Lidor, R. (1991, June). *Learning strategies and automaticity in skilled performance*. North American Society for the Psychology of Sport and Physical Activity, Asilomar, CA.
22. **Cauraugh, J.H.**, Chen, D., & Singer, R.N. (1992, April). *Learning a sequential timing task: Graphic KR versus numeric KR*. American Alliance for Health, Physical Education, Recreation, and Dance, Indianapolis, IN.
23. **Cauraugh, J.H.**, Chen, D. & Radlo, S. (1992, April). *Bandwidth and relative frequency KR effects on a movement time goal*. American Alliance for Health, Physical Education, Recreation, and Dance, Indianapolis, IN.
24. **Cauraugh, J.H.**, Singer, R.N., & Chen, D. (1993, June). *Visual scanning and selective attention: Elite versus novice tennis players*. Invited participant in symposium entitled *Attentional and Cognitive Considerations in Dynamic Situations*. North American Society for the Psychology of Sport and Physical Activity, Brainerd, MN.
25. **Cauraugh, J.H.**, Singer, R. N., & Chen, D. (1993, June). *Visual scanning pattern of expert and beginner tennis players: Selective attention considerations*. Organized, chaired, and participated in symposium titled *Decision Making in Sports: Startle Response, Visual Search, and Knowledge Structure*. Eighth World Congress: International Society of Sport Psychology, Lisbon, Portugal.
26. **Cauraugh, J.H.** (1994, April). *Measuring performance in motor behavior: An historical perspective of error scores*. Invited participant in symposium titled *Quantifying Human Motor Performance: Use of Error Scores in Motor Behavior Research*. American Alliance for Health, Physical Education, Recreation, and Dance, Denver, CO.
27. **Cauraugh, J.H.** (1994, June). *Overview: Visual search patterns of sport performers*. Organized, chaired, and participated in symposium titled *Visual search patterns of sport performers: Current status and future directions*. North American Society for the Psychology of Sport & Physical Activity, Clearwater, FL.
28. **Cauraugh, J.H.**, Behrman, A.L., Kellogg, R., & Lane, J. (1995, June). *Planar aspects of bimanual aiming: Coordination Timing Changes*. North American Society for the Psychology of Sport and Physical Activity, Asilomar, CA.
29. **Cauraugh, J.H.**, Bauer, J., Teitelbaum, P., Kellogg, R., & Behrman, A.L. (1995, July). *Explaining coordination: Are biomechanics and motor control a panacea?* Organized, chaired, and participated in symposium titled *Biomechanics and Motor Control*. International Council for Health, Physical Education, Recreation, Sport, and Dance, 38th World Congress, Gainesville, FL.
30. **Cauraugh, J.H.** (1997, July). *Skill acquisition and modeling: Split-screen analyses*. Invited symposium participant at the IX World Congress of Sport

- Psychology, *Innovations in sport psychology: Linking theory and practice*. Zinman College & Wingate Institute, Israel.
31. **Cauraugh, J.H.** (1998, June). Organized, chaired, and participated in symposium titled: *What do we know about motor control from studying people with movement dysfunction?* North American Society for the Psychology of Sport and Physical Activity, St. Charles, IL.
  32. **Cauraugh, J.H.**, & Kellogg, R. (1998, June). *Individuals who have had polio present a clean test of sensorimotor integration theory*. North American Society for the Psychology of Sport and Physical Activity, St. Charles, IL.
  33. **Cauraugh, J.H.**, Kim, S.B., & Thigpen, M. (1999, June). *Volitional control of the wrist extensors in individuals with chronic stroke*. North American Society for the Psychology of Sport and Physical Activity, Clearwater, FL.
  34. **Cauraugh, J.H.**, Kim, S.B., Thigpen, M., & Behrman, A. (2000, June). *Recovering force capability in a hemiplegic wrist*. North American Society for the Psychology of Sport and Physical Activity, San Diego, CA.
  35. **Cauraugh, J.H.** & Kim, S.B. (2001, April). *Bimanual coordination and motor recovery*. Experimental Biology, Orlando, FL.
  36. **Cauraugh, J.H.**, & Kim, S.B. (2001, June). *Stroke motor recovery: EMG triggered stimulation and bimanual synergies*. North American Society for the Psychology of Sport and Physical Activity, St. Louis, MO.
  37. **Cauraugh, J.H.**, & Kim, S.B. (2002, October). *Stroke motor recovery: Duration of active neuromuscular stimulation*. American Heart Association's 4<sup>th</sup> Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke, Washington, DC.
  38. **Cauraugh, J.H.**, Kim, S.B., & Duley, A. (2004, June). *Motor recovery progress during chronic stroke: Hand aiming improvements*. North American Society for the Psychology of Sport and Physical Activity, Vancouver, Canada.
  39. **Cauraugh, J.H.**, McManus, L.A., Stewart, K.C., & Kim, S.B. (2005, June). *Kinematic analysis of the Box and Block Test*. North American Society for the Psychology of Sport and Physical Activity, St. Petersburg, FL.
  40. **Cauraugh, J.H.**, Kim, S.B., & Summers, J.J. (2006, June). *Long-term Cumulative Motor Improvements in Chronic Stroke*. North American Society for the Psychology of Sport and Physical Activity, Denver, CO.
  41. **Cauraugh, J.H.**, Coombes, S.A., & Summers, J.J. (2007, June). *Stroke Motor Recovery Evidence: Bilateral Coordination Training with an Extra Load on the Unimpaired Hand*. North American Society for the Psychology of Sport and Physical Activity, San Diego, CA.
  42. **Cauraugh, J.H.**, Coombes, S.A., Lodha, N., Naik, S.K., & Summers, J.J. (2008, May). *Neural Evidence Favors Chronic Stroke Motor Improvements: Coupled Bimanual Protocols and Increased Resistive Mass*. Neural Control of Movement, 18<sup>th</sup> Annual Meeting, Naples, FL.

## Research Reviewed by News Media: Video, Newspaper, and Internet (23)

1. **CNN, *Science and Technology***. A reporter interviewed R.N. Singer & J.H. Cauraugh for a video news piece titled *Evaluating and Enhancing Tennis Performances: Using Technology to Detect Visual Gaze Cues*. Story was shown February 21-27, 1994, (2 min, 50 sec).
2. **Reuters Health News**. A Reuters' reporter called me on June 8<sup>th</sup> to ask questions about my recently published *Stroke* article. The news hard copy was titled *Electrical Stimulation Hastens Recovery in Stroke Patients with Motor Dysfunction*. The story was released on the Reuters wire service on June 12, 2000.
3. **Associated Press article** written by Melanie Ross, Senior Medical Writer, University of Florida Health Science Center, Office of Public Information. She interviewed me on June 21<sup>st</sup> and the article (title: *UF Researchers Find Painless Electrical Stimulus Helps Restore Hand Movement for Stroke Patients*) was released to the AP wire on June 26, 2000.
4. **News Film story** on neuromuscular stimulation and recovering hand movements by Rossana Passaniti, Medical Reporter (film), University of Florida Health Science Center, Office of Public Information. Ms. Passaniti interviewed me on-camera on June 22<sup>nd</sup> and the news film news was released to stations on June 26, 2000.
5. **Science Daily Magazine** (link to the latest research news) adapted the hard copy of the June 26<sup>th</sup> press release and posted it on their homepage June 27, 2000.
6. **UniSci Daily University Science News** adapted hard copy of the press release (June 26, 2000) for an article on *Electrical Current Helps Stroke Victims Move Muscles* and posted it on the front page of their homepage June 27<sup>th</sup>.
7. **Public Radio** interview with Marcella, news reporter, on stroke motor recovery, June 27<sup>th</sup> and it played the next two mornings (Gainesville, 89.1 FM).
8. **The Friday Evening Post: Newsletter of the UF Health Science Center article** written by Melanie Ross, Senior Medical Writer, UF Health Science Center, Office of Public Information. Revised article from June 26<sup>th</sup> AP release for an article titled *Painless Electrical Stimulus Helps Restore Hand Movement, Researchers Find*. This news story was published in the Newsletter of the Health Science Center on July 7, 2000.
9. **Orlando ABC affiliate film story (Channel 9 News)**. Brenda Goodman, Medical Reporter, conducted an on-camera interview on June 30, 2000 and it played the second week of July 2000.
10. **Discoveries and Breakthroughs Inside Science** (Broadcast News Service, Hartford, Connecticut) conducted an on-camera interview with me on July 21<sup>st</sup> and released the film to major television markets in September 2000.
11. **Los Angeles Times Science File story**. Kendall Powell, Science Writer, interviewed me for two hours on July 14<sup>th</sup> for an article titled *New Techniques Stimulate Stroke Recovery*. The article was published in the *Science File* section

- of the *Los Angeles Times* on August 3, 2000. In addition, the story was posted on their Web page.
12. **Office.com interview.** Health Writer, Fred Wright, Jr., interviewed me on August 15<sup>th</sup> for an article titled *Experimental Techniques Could Revolutionize Stroke Therapy*. The article was posted on Office.com with Yahoo! Small Business on September 21, 2000.
  13. **Frankfurter Allgemeine Zeitung** (newspaper) article on electro-stimulation for stroke patients published in October. Five e-mails messages from Germany arrived the week of October 23<sup>rd</sup>, and two telephone calls from Switzerland were received from doctors of stroke patients.
  14. **Ivanhoe Broadcast News Medical Breakthroughs**, Winter Park, FL. Liz Rosenblum, Assignment Editor, conducted an on-camera interview with me on September 14<sup>th</sup>. The *Stroke Stimulation* film story (1 min.: 32 sec. long) was released to network affiliates in 145 markets on October 26, 2000, and re-released in December 2000.
  15. **New York Medical College: Medical Herald (Newsletter)**. Published summary of my Stroke article in November 2000. Title of summary report was *Stroke Victims Progress by Electrical Currents*.
  16. **Medstar Source film.** Television crew from Allentown, PA. Interviewed by Janet Vasil, Medical Reporter, on-camera November 7<sup>th</sup>. The *Stroke Stimulator* film story (#47- 00) had two segments, one 25 seconds long and the other 1 min.: 33 sec. long. The segments were released to 250 world wide network affiliates on November 22, 2000.
  17. **Stroke Journal News Release.** Bridgette McNeill, Communications Manager and News Media Relations of the American Heart Association interviewed me (May 15, 2002) and wrote a news release for a feature article on *Coupled Motor Recovery Protocols: Two are Better than One* that will be published in *Stroke*, June 7, 2002.
  18. **Stroke Journal of the American Heart Association.** Tim Elsner, Coordinator of Video News Releases phoned to arrange for a visit from a film crew. May 15, 2002.
  19. **Claude Beller, Hurd Studios.** Film crew contracted by the American Heart Association to produce a video news release on my research titled *Motor Recovery after a Stroke*. Interview and filming were completed on May 20, 2002. Piece was released to the major networks (NBC and CBS) on June 6, 2002.
  20. **American Heart Association, Florida/Puerto Rico Affiliate.** Jennifer Costello, Communications Director telephoned for interview access by media and patient contacts.
  21. **Channel 28, WFTS, Tampa Bay.** Medical reporter interviewed a patient in Sarasota and produced a 1 min. 52 sec. video titled *University of Florida's Stroke Study*. Shown on the 5:00 PM news.
  22. **UF News and Public Affairs.** Quinten Iman, video news director, interviewed me and filmed a stroke subject performing the protocols. Released to ABC affiliates on June 7, 2002.

23. *UniSci, Daily University Science News*. Posted review story on the Web titled *Combining Stroke Therapies Treats Lasting Paralysis*. June 2002.

### **National Committees: Positions and Responsibilities**

1. Member, Research Consortium, Program Evaluation Committee. Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, Kansas City, MO, April 1988.
2. Moderator, research session at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Knoxville, TN, June 1988.
3. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1989 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1988-89.
4. Moderator, research session at the University of Florida-Florida State University First Annual Research Symposium. Tallahassee, FL, March 1989.
5. Recorder, Symposium on *Psychological Aspects of Exercise*. NASPE preconference meetings, American Alliance for Health, Physical Education, Recreation, and Dance, Boston, MA, April 1989.
6. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1990 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1989-90.
7. Member, Research Consortium, Research Writing Awards Committee, 1989-90.
8. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1991 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1990-91.
9. Member, Research Consortium, Research Writing Awards Committee, 1990-91.
10. Moderator, Research Consortium Free Communication Session (Lectures): Motor Learning/Control. Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, San Francisco, CA, April 1991.
11. Representative, Research Consortium, Research Writing Awards Committee at the McCloy Lecture Breakfast and present the 1991 award. Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, San Francisco, CA, April 1991.
12. Moderator, Motor Learning Free Communication Session (Lectures). Annual Conference of the North American Society for the Psychology of Sport and Physical Activity, Asilomar, CA, June 1991.
13. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1992 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1991-92.
14. Moderator, invited research presentation at the University of Florida-Florida State University Fourth Annual Research Symposium. Gainesville, FL, April 1992.

15. Chair, Research Writing Awards Committee, Research Consortium. Establish guidelines and coordinate the selection of the article in the 1991 *ROES* that is written in the highest quality, September 1991 - April 1992.
16. Representative, Research Consortium, Research Writing Awards Committee at the McCloy Lecture Breakfast and present the award. Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, Indianapolis, IN, April 1992.
17. Member, Research Consortium, Research Writing Awards Committee, 1992-93.
18. Site Coordinator and Host, Annual Conference of the North American Society for the Psychology of Sport and Physical Activity, Clearwater Beach, FL, 1993-94.
19. Moderator, Motor Learning Free Communication (Lectures) Session. Annual Conference of the Canadian Society for Psychomotor Learning and Sport Psychology, Montreal, Canada, October 1993.
20. Moderator, Human Kinetics Lecture, Robert D'Amico, Philosophy of Science. Annual Conference of the North American Society for the Psychology of Sport and Physical Activity, Clearwater Beach, FL, June 1994.
21. Member, Review Panel for Conference Procedures. North American Society for the Psychology of Sport and Physical Activity, June 1994-June 1995.
22. Member, Program Planning and Review Committee, Motor Learning/Control. North American Society for the Psychology of Sport and Physical Activity, July 1994-June 1995.
23. Chair, Biomechanics Organizing Committee, 1995 ICPHERD Conference, 1994-95.
24. Publications Director, North American Society for the Psychology of Sport and Physical Activity, 1995-97.
25. Member, Awards Selections Committee, North American Society for the Psychology of Sport and Physical Activity, 1994-96. (Evaluated Early Career Award and Distinguished Scholar Award.)
26. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1997 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1996-97.
27. Member, Research Consortium, Credentials Committee, 1996-97.
28. Reviewer, National Association for Sport and Physical Education, motor learning reviewer for the *Basic Stuff Series*, 1996-97.
29. Member, Research Consortium, Membership Review Committee, 1996-97.
30. Member, Officers' Nomination Committee, North American Society for the Psychology of Sport and Physical Activity, 1996-97.
31. Publications Director, North American Society for the Psychology of Sport and Physical Activity, 1997-99.
32. Reviewer, Research Consortium, Motor Learning/Control papers submitted for the 1998 Annual Convention of the American Alliance of Health, Physical Education, Recreation, and Dance, 1997-98.
33. Member, Officers' Nomination Committee, North American Society for the Psychology of Sport and Physical Activity, 1998-99.

34. Site Coordinator and Host, Annual Conference of the North American Society for the Psychology of Sport and Physical Activity, Clearwater Beach, FL, 1997-99.
35. Moderator, research presentation session at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, San Diego, CA, June 2000.
36. Moderator, research presentation session at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Baltimore, MD, June 2002.
37. Member, Motor Learning and Control Program Committee for 2003 Annual Meeting, North American Society for the Psychology of Sport and Physical Activity, 2002-2003.
38. Moderator, keynote speaker, Jeff Summers, Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, Georgia, June 2003.
39. Motor Learning and Control Invited Symposium Organizer: *Stroke Symposium: An Interdisciplinary Approach to Recovery*. Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, Georgia, June 2003.
40. Moderator, research presentation session at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, Denver, CO, June 2006.
41. Moderator, research presentation session at the Annual Meeting of the North American Society for the Psychology of Sport and Physical Activity, San Diego, CA, June 2007.

### **Awards and Honors**

1. Alumni Scholarship, State University of New York at Brockport. Criteria for the award included scholarship excellence. Amount awarded: \$200.00, 1973-74.
2. President's Distinguished Scholar, State University of New York at Brockport. Criteria for the award included scholarship excellence. March 1974.
3. Departmental Scholar, State University of New York at Brockport. Criteria for the award included scholarship excellence. April 1974.
4. Summa Cum Laude Graduate, State University of New York at Brockport. Criteria for the award included scholarship excellence. May 1974.
5. Fractionated Reaction Time during Response Preparation in a Letter Discrimination Task, student research award paper presented at the Olympic Scientific Congress, North American Society for the Psychology of Sport and Physical Activity, Eugene, OR. Amount awarded: \$200.00, July 1984.
6. Associates Distinguished Lecturer, College of Arts and Sciences, University of Oklahoma. Criteria for the award included excellence in teaching, scholarship, and service. Amount awarded: \$1,000.00, 1985-86.

7. Associates Distinguished Lecturer, College of Arts and Sciences, University of Oklahoma. Criteria for the award included excellence in teaching, scholarship, and service. Amount awarded: \$3,940.00, 1987-88.
8. Teacher-of-the-Year, Department of Exercise and Sport Sciences, University of Florida. Criteria for the award included excellence in teaching as evaluated by students and colleagues. Amount awarded: \$2,500.00, April 1990.
9. Who's Who in American Education, 1994-95.
10. Teacher-of-the-Year, Department of Exercise and Sport Sciences, University of Florida. Criteria for the award included excellence in teaching as evaluated by students and colleagues. Amount awarded: \$2,000.00, February 1996.
11. Teacher Improvement Program Award, College of Health & Human Performance, University of Florida. Criteria for the award included three years of superior teaching performance as evaluated by students, colleagues, College TIP Committee, and President's Office. Amount awarded: \$5,000.00, December 1996.
12. Distinguished Alumnus, The Gerry D'Agostino Memorial Lecture for Research, State University of New York at Brockport. Criteria for the award included scholarly and research achievements. Acceptance presentation: *Motor Learning and Control Applications for the 21<sup>st</sup> Century*. March 28-31, 1998.
13. Anderson/College of Liberal Arts and Sciences Scholar Faculty Outstanding Teacher. Designated by student award winners from the CLAS, University of Florida. September 1998.
14. Distinguished Alumni Professor, 2005 – 2007 Nominee. University of Florida, February 2005.
15. Fellow, American Academy of Kinesiology and Physical Education, September 2007.
16. Senior Lecturer for Motor Learning and Control, North American Society for the Psychology of Sport and Physical Activity, Annual Conference, Niagara Falls, Ontario, CA, June 2008.

## **Professional Societies**

### Fellow

Research Consortium Fellow, American Alliance of Health, Physical Education, Recreation, and Dance, April 1988-98

American Academy of Kinesiology and Physical Education, June 2007

### Member

North American Society for the Psychology of Sport and Physical Activity, 1975-present

American Alliance of Health, Physical Education, Recreation, and Dance, 1976-1981, 1985-98

Canadian Society for Psychomotor Learning and Sport Psychology, 1984-97

International Society for Sport Psychology, 1990-93, 1997-2001

Florida Association of Health, Physical Education, Recreation, & Dance, 1989-94

Chairperson, Research Section of the Florida Association of Health, Physical Education, Recreation, and Dance, 1991-92  
 New York Academy of Science, 1994-97  
 National Stroke Association, 1995-present  
 Neural Control of Movement, 2008 – present

### Post-Doctoral Fellows

Sangbum Kim, 2002 – 2005, stroke motor recovery researcher  
 Stephen Coombes, 2006 – 2008, stroke motor recovery and emotion researcher

### Doctoral Committees

#### Co-Chair

Motor Behavior, Ronnie Lidor, *Learning Strategies and Achieving Skilled Performance*, 1988-91 (Co-Chair: R.N. Singer)  
 Motor Behavior, Dapeng Chen, *Practice Effects on Timing Characteristics of Sequential Motor Skills*, 1988-92 (Co-Chair: R.N. Singer)  
 Motor Control/Physical Therapy, Mary Thigpen, *Automatic Postural Responses in Individuals with Incomplete Spinal Cord Injury*, 1996-2001 (Co-Chair: A.L. Behrman)  
 Motor Control/Physical Therapy, Sheryl Flynn, *Activity-Dependent Neuroplasticity Following Contusion Spinal Cord Injury in the Adult Rat*, 1997-2001 (Co-Chair: A.L. Behrman)

#### Chair

Motor Behavior, Andrea Behrman, *Analysis of the Movement Initiation Problem in Parkinson's Disease: Practice as an Intervention*, 1991-95  
 Motor Behavior, Robert Kellogg, *Altered Ia Sensory Fiber Mediated Responses in Individuals who Have Had Polio*, 1993-96  
 Motor Behavior, Doug Barba, *Informational and Controlling Self-initiated Feedback and the Mediating Effects of Anxiety: A Test of Cognitive Evaluation Theory*, 1993-98  
 Biomechanics/Motor Control, Mark Tillman, *Gender Differences and Predisposition toward a Mechanism of Anterior Cruciate Ligament Injury: A Biomechanical and Anthropological Approach*, 1995-99  
 Motor Learning/Control, Martin Short, *Specificity and Variability of Practice in a Rapid Aiming Task*, 1994-2000  
 Motor Learning/Control, Sang-bum Kim, *Timing Control of One-Handed Catching: Ball Accelerating by Gravity*, 1996-2002  
 Motor Behavior, John Lane, *Regression Analysis of Psychophysiological Stress, Cumulative Trauma Disorder Symptoms, and Cognitive Performance*, 1996-2004  
 Motor Control, Neha Loda, 2007 – present

Member

Psychophysiology, Mark Greenwald, *Psychophysiological Basis for Emotional Responses*, 1989-92, Chair: Peter J. Lang.

Motor Behavior, Jin Gu Kim, 1990-94

Motor Behavior, Gregg Steinberg, 1992-96

Motor Behavior, Shane Frehlich, 1993-97

Motor Behavior, Christopher Janelle, 1993-97

Motor Behavior, Steven Radlo, 1993-97

Motor Behavior, Nicholas Murray, 1996-2000

Motor Behavior, Derek de la Pena, 1997-2001

Motor Behavior, Aaron Duley, 2002 - 2005

Motor Behavior Stephen Coombes, 2003 - 2006

Motor Behavior, Derek Mann, 2004 – 2007

Motor Behavior, Melanie Mouseau, 2005 – 2007

**Pre-doctoral Grants: Scholarships and Fellowships**

Six Ph.D. candidates under my direction have been awarded doctoral scholarships or fellowships. The amount awarded: \$159,906. The two agencies that awarded the funds were the Physical Therapy Foundation (4) and the American Heart Association (AHA: 2). The AHA only allows doctoral proposal submissions from faculty sponsors who are currently funded.

**Master's of Science: Thesis Committees**Chair

Biomechanics, Fritz Huber, *A Cinematographic Analysis of the Comaneci Dismount off the Uneven Parallel Bars*, 1984-85

Motor Learning, Jodi Denker, *Organization and Duration of Motor Programs*, 1986-88

Motor Learning, Steven Radlo, *Response Preparation and Symbolic Precuing: Motoric or Nonmotoric Evidence*, 1990-93

Biomechanics, Thomas Thomas, *An Electromyography Analysis of Soccer Heading by Women*, 1995-97

Sport Psychology, Charles Hillman, *Motivated Psychological Responses as a Function of Sport Spectatorship*, 1996-97

Biomechanics, Andrea Chiumento, *Medial Collateral Ligament Injuries: Posting Modifications on Q-angles*, 1995-98

Motor Learning/Control, Ryan Flett, *Consolidation and Interference in Computations of Internal Models for Discrete Closed Skills*, 1999-2001

Motor Learning/Control, Masashi Yoshida, *Specificity of Practice and Intersegmental Dynamics in Rapid Aiming Limb Movements*, 1999-2001

Motor Learning/Control, David Bolton, *EMG-Triggered Stimulation and Bilateral Movements: Short and Long-term Efficacy of Coupled Motor Recovery Protocols*, 2001-2003

Motor Control, Lindsay A. McManus, *Using EMG Spectral Analysis as a Quantitative Measure of Motor Unit Recruitment to Evaluate Stroke Motor Recovery*, 2004 – 2006

Motor Learning/Control, Joseph Beavers, 2005 – present

### Member

Motor Behavior, Donna E. Hatfield, 1987.  
 Exercise Physiology, Angela R. Evans, 1988.  
 Physical Therapy, Gloria Miller, 1993-94  
 Exercise Physiology, Louise Fletcher, 1993-96  
 Exercise Physiology, Melissa Winters, 1994-present  
 Physical Therapy, Mono Valaraund, 1995-96  
 Physical Therapy, Mary Thigpen, 1995-97  
 Exercise Psychology, Jennifer Landis, 1995-97  
 Physical Therapy, Sheryl Flynn, 1996-97  
 Exercise Psychology, Jeffrey Pasley, 1996-99  
 Sport Psychology, Nicole Glaros, 1997-99  
 Sport Psychology, Rebecca Ellis, 1997-99  
 Physical Therapy, Jung Kim, 1997-2000  
 Exercise Physiology, Anders Anderson, 1998-2000  
 Exercise Physiology, Rachel Cutler, 1998-2000  
 Motor Learning, Ryan Sullivan, 1999-2000  
 Motor Learning, Aaron Duley, 1999-2001  
 Motor Learning, Chris Mesagno, 1999-2001  
 Biomechanics, Elizabeth Schick, 1999-2001  
 Biomechanics, Lynn Pattishall, 1999-present  
 Motor Learning, Stephen Coombes, 2000-2002  
 Sport Psychology, Melanie Mouseau, 2002-2005  
 Exercise Psychology, Jennifer Wiley, 2002-2005  
 Exercise Psychology, Sara Hughey, 2002-2006  
 Exercise Psychology, Anna Campbell, 2006-2009

### Chair, Non-Thesis Option: UF

Motor Behavior, Michael Umans, 1993-95  
 Motor Behavior, Luohu Gu, 1993-95  
 Motor Learning, Natalie Boutin, 1994-96  
 Biomechanics, Cory Cater, 1995-97  
 Human Performance, Mason Cathey, 2005-2006  
 Human Performance, Kate Lyden, 2005-2007

Human Performance, Nick Schiralli, 2006-2008

Member, Non-Thesis Option: UF

Motor Behavior, Lixin Liu, 1993-95  
 Exercise Physiology, James Islam, 1994-96  
 Exercise Physiology, Eric Thorn, 1995-96  
 Exercise Physiology, Benjamin Rowell, 1995-97  
 Sport Management, Dolores Newcomb, 1996-97  
 Sport Management, Melissa Aggertt, 1996-97  
 Applied Exercise Physiology, Sean Gagnon, 1996-97  
 Applied Exercise Physiology, Jennifer Zoby, 1996-97  
 Sport Management, Jason Kelso, 1996-97  
 Applied Exercise Physiology, Eddie Smith, 1998-99  
 Exercise Therapies, Elizabeth Kaufman, 1998-99

**Senior Honor Thesis**

Co-chair

Patricia Moreno, Neuroscience, *Gait and Parkinson's Disease*, 1993-94 (Co-Chair P. Teitelbaum)

Colleen Hanlon, Neuroscience, *Fitts' Law*, 2000-2001 (Co-Chair P. Teitelbaum)

Member

Kelli Hodges, Exercise and Sport Sciences, 1995-96

Cari Hentges, Exercise and Sport Sciences, 1997

**Undergraduate Volunteers: Motor Behavior Laboratory and Stroke Research**

Since September 2000, 20 pre-med undergraduates have volunteered for projects in my Motor Behavior Laboratory. Each of these high-achieving students helped on my stroke motor recovery research, learning how to apply electrodes while administering active neuromuscular stimulation. Stroke patients would come to the lab and practice movements with their hemiparetic arm, and students would oversee the motor recovery protocols. These motivated students are a valuable part of training because the sessions are 60 – 90 minutes long, and an individual in the chronic phase of recovery can become distracted without assistance. Twelve of these students either are currently in medical schools (e.g., Emory University, University of Florida, and New York University) or graduated.

**University Committees**

A. Pennsylvania State University: McKeesport Campus

Plant Planning, member 1978-80

Commonwealth Campus Physical Fitness Testing, coordinator, 1979  
 Commonwealth Campus Baseball Athletic Committee, member, 1979-80, chair,  
 1980-81  
 Commonwealth Campus Baseball Tournament, coordinator and host, 1980  
 Library, member, 1980-81

### B. University of Oklahoma

Library, chair, 1984-85  
 Faculty Liaison for soccer and gymnastics activity classes, 1984-88  
 Graduate Faculty, 1984-88  
 Graduate, member, 1985-86, chairman, 1986-88  
 University Graduate Council, January 1986-July 1987  
 University Graduate Council, Courses and Program Changes, January 1986-87  
 Graduate Liaison, 1986-88  
 Committee 'A', College of Arts and Sciences, 1987-88  
 Honors Coordinator, 1987-88

### C. University of Florida

Department, Affirmative Action, 1988-90  
 College, Computer, chair, 1989-90, 1991-92, member, 1988-89  
 Department, Curriculum, 1988-89  
 Graduate Motor Behavior, co-chair, 1988-91, chair, 1991-92, 1994-96  
 Department, Research, 1989-90  
 Department, Restricted Graduate Faculty, 1988-91  
 Department, Appeals, chair, 1990-91, member, 1989-90  
 Department, Search/Screen Committee, Physical Education position, chair, 1990  
 Department, Student Faculty Liaison/Scholarship, chair, 1990-91  
 Department, Graduate Student Research Recognition Award, chair, 1990-93,  
 Search and Screen Committee for Exercise Physiology position, member, 1991  
 Department, Teacher-of-the-Year Selection Committee, chair, 1991  
 College, Appeals, 1991-92  
 Department, Social, chair, 1991-92  
 Motor Behavior Program, chair, 1991-present  
 Department, Doctoral Research Faculty, 1991-present  
 Department, Faculty Evaluation, 1991-92  
 Department, Teacher-of-the-Year Selection Committee, member 1992  
 College, Research, chair, 1992-93  
 Department, Petitions, chair, 1992-93  
 University, Institutional Review Board (IRB-02), 1992-98  
 University, Institutional Review Board (IRB-02), alternate 1998-present  
 Interview member, Physical Therapy motor control position, 1993  
 Department, Doctoral Research Faculty Protocol Consideration, chair, 1993

Graduate Motor Behavior, chair, 1993-94  
Department, Petitions, 1993-94  
Search and Screen Committee for Biomechanics position, chair, 1993-94  
College, Stanley Lecture Committee, 1993-94, 1995-96  
College, Teaching Improvement Program Review Committee, 1993-94  
Department, Grade Appeals, 1994-95  
Department, Faculty Evaluation, chair, 1994-95  
Undergraduate Specializations, Graduate School Preparation, 1994-96  
Department, Graduate Conditional Admission and Petitions, 1994-96  
College, Petitions, 1994-95  
Search/Screen Committee, Exercise/Sport Psychology position, chair, 1994-95  
Search and Screen Committee for Exercise Physiology position, 1994-95  
Search and Screen Committee for Laboratory Technician position, 1994-95  
College, Compression Salary Model Committee, 1995  
Department, International, chair, 1995-96  
College, Research, chair, 1995-96  
Department, Petitions, chair, 1996-97  
University, Minority Mentor Program, 1996-97  
College, Homepage, 1996-98  
Department, Teacher-of-the-Year Selection Committee, chair, 1997  
College, Proposal Incentive Review Committee, 1997-present  
Department, Grade Petitions, chair, 1997-98  
Search/Screen Committee, Exercise/Sport Psychology position, chair, 1997-98  
Department, Academic Scholarship, 1998-99  
Faculty Evaluation, member, 1998-99  
College, Research, member, 1997-99  
College, Young Scholar Program, member, 1999, 2000  
Search and Screen Committee for Biomechanics position, member, 1999-2000  
College, Stanley Lecture Committee, chair, 1999-2000  
Center for Exercise Science Advisory Committee, 1999-present  
Search and Screen Committee for Biomechanics position, member, 2000  
Department, Grade Appeals, member, 2000-2001  
Department, Doctoral Fellowships Committee, chair, 2001-2002  
Department, Advisory Council, member, 2002-2003  
Department, Progress Review Committee, chair, 2002-2003  
Search and Screen Committee for Advisor position, chair, 2003  
College, Faculty Behavior, Review Special Committees, member, 2003  
Department, Assistant Chair, January – August 2003  
Department, Faculty Merit Evaluation, chair, 2003-2004  
Department, Promotion and Tenure Committee, chair, 2003-2004  
Center for Exercise Science Publicity Brochure Committee, 2003-2004  
College, Stanley Lecture Committee, 2003-2004  
College, Promotion and Tenure Committee, 2003-2004  
University, Institutional Review Board (IRB-02), alternate, 2003-2004

Department, Golf for Business and Life Program, Coordinator, 2003-present  
Department, Search Committee, full professor position, chair, 2004-2005  
Department, Promotion and Tenure Committee, chair, 2004-2005  
Department, Faculty Evaluation, 2004-2005  
College, Academic Personnel Board, 2004-2005  
College, Research Opportunity Fund Review Committee, 2004-2005  
University, Institutional Review Board (IRB-02), alternate 2004-2006  
Department, Academic Personnel Board, member, 2004-2005  
College, Research Opportunity Fund Review Panel, member 2004-2005  
Department, Exercise Physiology Search, chair, 2005-2006  
Department, Promotion and Tenure Committee, member, 2005-2006  
College, A.C. Moore Sport and Fitness Placement Committee, member, 2006  
College, Applied Physiology & Kinesiology Chair Search, member, 2006-2007  
College, Council of PIs, member, 2006  
College, Promotion and Tenure Committee, member, 2006 – 2007  
Department, Faculty Merit Evaluation Committee, chair, 2006-2007  
College, Council of PIs, chair, 2007, 2008  
University, DSR, Review Panel, Opportunity Fund Proposals, member, 2007  
University, CTSA grant, Planning Committee, member, 2007-2008  
Department, Faculty Merit Evaluation Committee, member, 2007-2008  
College, Administrative Committee, 2007-2009  
College, Council, 2007-2009  
Biobehavioral Science Search Committee, chair, 2008-2009  
CTSI Steering and Planning Committee, 2008-2009

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Updated: September 16, 2009