

JEANMARIE RITA BURKE

EDUCATION:

- Ph.D. Human Performance
 Neurobiology Minor
 Indiana University, Bloomington, IN
 Department of Kinesiology
 Advisor: Dr. Gary Kamen
 November, 1991
- M.S. Physical Education, Motor Control Emphasis
 Indiana University, Bloomington, IN
 Department of Kinesiology
 Advisor: Dr. Gary Kamen
 May, 1987
- B.S. Biology
 Iona College
 May, 1983

EXPERIENCE:

Dean of Research and Basic Sciences. New York Chiropractic College, Seneca Falls, NY. 9/06 – Present.

Responsibilities include providing leadership in strategic planning, curriculum development and implementation, recruitment and development of faculty, program and student outcomes assessment, and administration of research activities. Additional responsibilities include budget planning and management and academic scheduling.

Department Head, Research. New York Chiropractic College, Seneca Falls, NY. 9/04 – 8/06

Responsibilities included the administration of research activities at New York Chiropractic College.

Associate Professor. New York Chiropractic College, Seneca Falls, NY. 9/98 – 8/04.

Responsibilities included establishing a program of research in **Physiology of Spinal Manipulation** in collaboration with researchers / clinicians in the chiropractic profession and basic sciences.

Research Interests: Motor Systems Physiology; Spinal Mechanisms of Voluntary Movement Control; and Neuromuscular Adaptations to Exercise and Aging

Research Skills: Surface and Needle Electromyographic Techniques; Transcranial Magnetic Stimulation Techniques; Spinal Reflex Techniques; Techniques for

Neuromechanical Analysis of Human Movement: Kistler Force Platform System, Biodex System, and Isometric Force Recording Systems including the Interpolated Twitch Protocol; National Instruments™ LabView™ Data Acquisition Computer System.

Research Assistant. New York Chiropractic College, Seneca Falls, NY. 8/98 - 8/99.

Responsibilities included computer program development, experimental designs of research projects, statistical analyses of research data, and abstract/grant/manuscript writing. Application of these skills toward facilitating research in the areas of: Chiropractic Care and Gerontology; and Physiology of Spinal Manipulation.

Assistant Professor. University of South Carolina, Columbia, SC. 1991 - May, 1998.

Responsibilities included teaching graduate and undergraduate courses in Motor Control/Learning, establishing a program of research in Motor Control, directing graduate student projects, theses, and dissertations, and advising undergraduate students. Research Interests: Neuromuscular Adaptations to Exercise and Aging; and Spinal Mechanisms of Voluntary Movement Control.

Instructor. University of South Carolina, Columbia, SC. 1990 - 1991.

Responsibilities included teaching undergraduate courses in Motor Learning and advising undergraduate students.

Associate Instructor. Indiana University, Bloomington, IN. 1985 - 1990.

Responsibilities included organization and teaching of:

1. Laboratory classes in Motor Learning (P452).
2. Coaching of Basketball and Softball for Physical Education Majors (P340)

Additional responsibilities included teaching the general activities courses.

Research Assistant. Indiana University, Motor Control Laboratory, Bloomington, IN. 1986 - 1990.

Responsibilities included computer program development, experimental designs of research projects, collection of electromyographic data, and statistical analysis of research data. Computer projects included programming of a high resolution graphics board (Wyse 700) involving a software interface of assembly code with either basic or fortran, A/D applications and digital I/O applications.

Computer Consultant. Amateur Athletic Union Physical Fitness Test Program. 1986 - 1990.

Responsibilities included management of a database containing over 75,000 records of individual youth fitness scores of students between the ages of 6 and 17 years from across the United States. Responsibilities also included the generation of descriptive statistics.

PUBLISHED MANUSCRIPTS:

- Dishman, J.D., Greco, D.S., & Burke, J.R. MOTOR EVOKED POTENTIALS RECORDED FROM LUMBAR ERECTOR SPINAE MUSCLES: A STUDY OF CORTICOSPINAL EXCITABILITY CHANGES ASSOCIATED WITH SPINAL MANIPULATION. Journal of Manipulative and Physiological Therapeutics, In Press (Accepted December, 2007).
- Holtzman, D.A, Petrocco-Napuli, K.L., & Burke, J.R. PROSPECTIVE CASE SERIES ON THE EFFECTS OF LUMBOSACRAL MANIPULATION ON DYSMENORRHEA. Journal of Manipulative and Physiological Therapeutics, In Press (Accepted September, 2007).
- Passmore, S., Burke, J.R., & Lyons, J. OLDER ADULTS DEMONSTRATE REDUCED PERFORMANCE IN A FITTS' TASK INVOLVING CERVICAL SPINAL MOVEMENT. Adapted Physical Activity Quarterly, 24, 352-363, 2007.
- Manini, T.M., Marko, M., VanArnam, T., Cook, S., Fernhall, B., Burke, J., & Ploutz-Snyder L. EFFICACY OF RESISTANCE AND TASK-SPECIFIC EXERCISE IN OLDER ADULTS WHO MODIFY TASKS OF EVERYDAY LIFE. Journal of Gerontology: Medical Sciences, 62A, 616-623, 2007.
- Holtzman, D., & Burke, J. NUTRITIONAL COUNSELING IN THE CHIROPRACTIC PRACTICE: A SURVEY OF NEW YORK PRACTITIONERS. Journal of Chiropractic Medicine, 6, 27-31, 2007.
- Burke J.R., Buchberger D.J., Carey-Loghmani M.T., Dougherty P.E., Greco D.S., & Dishman J.D. A PILOT STUDY COMPARING TWO MANUAL THERAPY INTERVENTIONS FOR CARPAL TUNNEL SYNDROME. Journal of Manipulative and Physiological Therapeutics, 30, 50-61, 2007.
- Burke J.R. EFFECT OF AN ORTHOTIC INTERVENTION ON SENSORIMOTOR INTEGRATION MECHANISMS IN PATIENTS WITH MUSCULOSKELETAL PAIN DISORDERS. Clinical Chiropractic, 9, 59-69, 2006.
- Manini T.M, Clark B.C., Tracy B.L., Burke J., & Ploutz-Snyder L. RESISTANCE AND FUNCTIONAL TRAINING REDUCES KNEE EXTENSOR POSITION FLUCTUATIONS IN FUNCTIONALLY LIMITED OLDER ADULTS. European Journal of Applied Physiology, 95, 436-446, 2005.
- Barr D., Van Dusen L., & Burke J.R. PREVALENCE OF MEDICAL PROBLEMS ASSOCIATED WITH PLAYING THE GREAT HIGHLAND BAGPIPE: SURVEY RESULTS AND COMPARISONS TO OTHER MUSICIANS. Medical Problems of Performing Artists, 20, 163-167, 2005.

Taylor J.A.M, Brahee D.A., Burke J.R., Jarrett-Thelwell F., & Wessely MA. LUMBOSACRAL SPINE MAGNETIC RESONANCE IMAGING: A COMPARISON OF UNIPLANAR SCANS WITH MULTIPLANAR SCANS. Topics in Diagnostic Radiology and Advanced Imaging, 10, 4-12, 2005.

Plezbert J.A. and Burke J.R. EFFECTS OF THE HOMEOPATHIC REMEDY ARNICA ON ATTENUATING SYMPTOMS OF EXERCISE-INDUCED MUSCLE SORENESS. Journal of Chiropractic Medicine, 4, 152-161, 2005.

Dishman, J.D., Dougherty, P.E., & Burke, J.R. EVALUATION OF THE EFFECT OF POSTURAL PERTURBATION ON MOTONEURONAL ACTIVITY FOLLOWING VARIOUS METHODS OF LUMBAR SPINAL MANIPULATION. The Spine Journal, 5, 650-659, 2005.

Burke, J.R., & Bulbulian, R. MODULATION OF THE TIBIAL NERVE H-REFLEX BY MECHANICAL STIMULATION OF AFFERENTS IN THE LUMBAR SPINE. Electromyography and Clinical Neurophysiology, 45, 105-113, 2005.

Taylor, J.A.M., Gavencak, J., Panwar P., & Burke, J.R. KNOWLEDGE AND APPLICATION OF CORRECT CAR SEAT HEAD RESTRAINT USAGE AMONG CHIROPRACTIC COLLEGE INTERNS: A PILOT STUDY. Journal of the Canadian Chiropractic Association, 49, 32-39, 2005.

Grimm, D.R., Cunningham, B., & Burke, J.R. AUTONOMIC NERVOUS SYSTEM FUNCTION AMONG INDIVIDUALS WITH ACUTE MUSCULOSKELETAL INJURY. Journal of Manipulative and Physiological Therapeutics, 28, 44-51, 2005.

Dougherty, P.E., Bajwa, S., Burke, J., & Dishman, J.D. EFFICACY AND SAFETY OF SPINAL MANIPULATION POST-EPIDURAL INJECTION FOR LUMBAR AND CERVICAL RADICULOPATHY: A RETROSPECTIVE CASE SERIES. Journal of Manipulative and Physiological Therapeutics, 27, 449-456, 2004.

Simpson, M.R., Burke, J.R., & Davis, J.M. CUMULATIVE EFFECTS OF INTERMITTENT MAXIMAL CONTRACTIONS ON VOLUNTARY ACTIVATION DEFICITS. International Journal of Neuroscience, 114, 671-692, 2004.

Dishman, J.D., & Burke J.R. SPINAL REFLEX EXCITABILITY CHANGES FOLLOWING CERVICAL AND LUMBAR SPINAL MANIPULATION: A COMPARATIVE STUDY. The Spine Journal, 3, 204-212, 2003.

Judge, L.W., Moreau, C., & Burke, J.R. NEURAL ADAPTATIONS WITH SPORT-SPECIFIC RESISTANCE TRAINING IN HIGHLY SKILLED ATHLETES. Journal of Sports Sciences, 21, 419-427, 2003.

- Bulbulian, R., Burke, J., & Dishman, J.D. SPINAL REFLEX EXCITABILITY CHANGES AFTER LUMBAR SPINE PASSIVE FLEXION MOBILIZATION. Journal of Manipulative and Physiological Therapeutics, 25, 526-532, 2002.
- Dishman, J.D., Cunningham, B.M., & Burke J.R. REGIONAL AND NON-REGIONAL EFFECTS OF SPINAL MANIPULATION ON MOTONEURONAL EXCITABILITY. Journal of Manipulative and Physiological Therapeutics, 25, 318-325, 2002.
- Welsh, R.S., Davis, J.M., Burke, J.R., & Williams, H.G. CARBOHYDRATES AND PHYSICAL/MENTAL PERFORMANCE DURING INTERMITTENT EXERCISE TO FATIGUE. Medicine and Science in Sports and Exercise, 34, 723-731, 2002.
- Whelan, T.L., Dishman, J.D., Burke, J., Levine, S., & Sciotti, V. THE EFFECT OF CHIROPRACTIC MANIPULATION ON SALIVARY CORTISOL LEVELS. Journal of Manipulative and Physiological Therapeutics, 25, 149-153, 2002.
- Dishman, J.D., Ball, K.A., & Burke, J.R. CENTRAL MOTOR EXCITABILITY CHANGES FOLLOWING SPINAL MANIPULATION: A TRANSCRANIAL MAGNETIC STIMULATION STUDY. Journal of Manipulative and Physiological Therapeutics, 25, 1-9, 2002.
- Brahee, D., Osborne, C.A., Burke, J.R., Kettner, N., Rehmel, D., & Gajeski, B. THE PREVALENCE OF OSTEOLYSIS OF THE DISTAL CLAVICLE IN RECREATIONAL WEIGHT LIFTERS. Journal of Sports Chiropractic and Rehabilitation, 15, 71-79, 2001.
- Kaufmann, T.M., Burke, J.R., Davis, J.M., & Durstine, J.L. EXERCISE-INDUCED NEUROMUSCULAR DYSFUNCTION UNDER REFLEX CONDITIONS. European Journal of Applied Physiology, 84, 510-520, 2001.
- Leong, B., Kamen, G., Patten, C., & Burke, J.R. MAXIMAL MOTOR UNIT DISCHARGE RATES IN THE QUADRICEPS MUSCLES OF OLDER WEIGHT LIFTERS. Medicine and Science in Sports and Exercise, 31, 1638-1644, 1999.
- Ferguson, M.A., Alderson, N.L., Trost, S.G., Essig, D.A., Burke, J.R., & Durstine, J.L. EFFECTS OF FOUR DIFFERENT SINGLE EXERCISE SESSIONS ON LIPIDS, LIPOPROTEINS, AND LIPOPROTEIN LIPASE. Journal of Applied Physiology, 85, 1169-1174, 1998.
- Huh, J., Williams, H.G., & Burke, J.R. DEVELOPMENT OF BILATERAL MOTOR CONTROL IN CHILDREN WITH DEVELOPMENTAL COORDINATION DISORDERS. Developmental Medicine and Child Neurology, 40, 474-484, 1998.
- Trost, S.G., Ward, D.S., Watson, P.D., Morehead, S., Riner, W., & Burke, J.R. VALIDITY OF THE COMPUTER SCIENCE AND APPLICATIONS (CSA) ACTIVITY MONITOR IN CHILDREN. Medicine and Science in Sports and Exercise, 30, 629-633, 1998.

- Williams, H.G., Burke, J.R., McClenaghan, B.A., & Hirth, V. BALANCE CONTROL: MECHANISMS OF ADAPTATION TO SENSORY-MOTOR INTEGRATION TRAINING IN THE ELDERLY. In Dr. Gerhard Huber (Ed.). *Healthy Aging, Activity, and Sports - Proceedings from the Fourth International Congress on Physical Activity, Aging and Sports, Heidelberg, Germany* (pp 118-130). Gamburg, Germany: Health Promotion Publications, 1997.
- Burke, J.R. COMPARISON OF TIBIAL H-REFLEXES RECORDED FROM VARIOUS TRICEPS SURAE MUSCLE SITES IN THE LEFT AND RIGHT LEGS. *Electromyography and Clinical Neurophysiology*, 37, 277-286, 1997.
- Spiegel, K., Stratton, J., Burke, J.R., Glendinning, D.S., & Enoka, R.M. INFLUENCE OF AGE ON THE ASSESSMENT OF MOTOR UNIT ACTIVATION THRESHOLD IN A HUMAN HAND MUSCLE. *Experimental Physiology*, 81, 805-819, 1996.
- Burke, J.R., Schutten, M.C. Koceja, D.M., & Kamen, G. AGE DEPENDENT EFFECTS OF MUSCLE VIBRATION AND THE JENDRASSIK MANEUVER ON THE PATELLAR TENDON REFLEX RESPONSE. *Archives of Physical Medicine and Rehabilitation*, 77, 600-604, 1996.
- Burke, J.R., & Kamen, G. CHANGES IN SPINAL REFLEXES PRECEDING A VOLUNTARY MOVEMENT IN YOUNG AND OLD ADULTS. *Journal of Gerontology: Medical Sciences*, 51A, M17-M22, 1996.
- Burke, J.R., & Kamen, G. IMPAIRMENTS OF RESPONSE PREPARATION IN THE ELDERLY. *International Journal of Neuroscience*, 81, 177- 192, 1995.
- Williams, H. G., & Burke, J. R. CONDITIONED PATELLAR TENDON REFLEX FUNCTION IN CHILDREN WITH AND WITHOUT DEVELOPMENTAL COORDINATION DISORDERS. *Adapted Physical Activity Quarterly*, 12, 250-261, 1995.
- Burke, J.R., Koceja, D.M., & Kamen, G. THE RELATIONSHIP BETWEEN BODY HEIGHT EXTREMES AND THE CONDITIONED PATELLAR TENDON REFLEX RESPONSE. *International Journal of Neuroscience*, 72, 45-58, 1993.
- Koceja, D.M., Burke, J.R., & Kamen, G. ORGANIZATION OF SEGMENTAL REFLEXES IN TRAINED DANCERS. *International Journal of Sports Medicine*, 12, 285-290, 1991.
- Koceja, D.M., Kamen, G., & Burke, J.R. QUADRICEPS EXCITABILITY IS ENHANCED BY A CONDITIONING TAP TO THE ACHILLES TENDON. *Electromyography and Clinical Neurophysiology*, 30, 415 - 421, 1990.
- Burke, J.R., Kamen, G., & Koceja, D.M. LONG-LATENCY ENHANCEMENT OF QUADRICEPS EXCITABILITY FROM STIMULATION OF SKIN AFFERENTS IN YOUNG AND OLD ADULTS. *Journal of Gerontology: Medical Sciences*, 44(5), M158 - M163, 1989.

GRANT WRITING:

- Burke, J.R. (2007). Project Position: Co-Investigator. *EFFECTS OF ISAGENIX™ CLEANSE FOR LIFE ON CELLULAR ENERGY, NEURAL FUNCTION, GASTROINTESTINAL HEALTH AND ANTHROPOMETRIC MEASUREMENTS*. Awarded to Dr. Mary Balliett, Principal Investigator. Co-Investigator: Dr. Oscar Rasmussen. Funding Period: October 1, 2007 to March 31, 2008. Funded Amount: \$52,582.00 (Total of Direct and 30% Indirect Costs).
- Burke, J.R. (2007). Project Position: Research Administrator. *F-SCAN SYSTEM: INFRASTRUCTURE SUPPORT DONATION*. In collaboration with Office for Institutional Advancement requested funds to upgrade the Biomechanics Research Laboratory by purchasing the F-SCAN System, which is a bipedal plantar pressure and force measurement system. Originally submitted to Emerson Foundation, Auburn, NY - May 2006 (UNFUNDED); Submitted February 2007 to Parker Foundation, Ithaca, NY (UNFUNDED).
- Burke, J.R. (2006). Project Position: Co-Investigator. *AURICULAR ACUPUNCTURE IN THE MANAGEMENT OF TEEN OVERWEIGHT*. Principal Investigator: O.J.Sahler. In collaboration with University of Rochester (J. Roy and P. Steward), Utica College (M.J. Gelsomino) and NYCC (L. Bloom, K. Ergil and M. Murphy). Submitted to NCCAM – R21 Mechanism. UNFUNDED.
- Burke, J.R. (2005). Project Position: Program Manager. *Effects of Foot Levelers on Correction of Musculoskeletal Pain Conditions and Injury Prevention in Collegiate Athlete (An additional subproject of the Seed Money Grant entitled "Neuromuscular Concepts Underlying the Benefits of Orthotics")*. Awarded to New York Chiropractic College. Clinical Investigators: Drs. Catherine Bruckner, Jason Napuli, and Lillian Ford. Funded by Foot Levelers, Inc. Funding Period: August 1, 2005 to June 30, 2006. Funded Amount: \$3,000.00 (plus Donation of 100 orthotics).
- Burke, J.R. (2005). Project Position: Research Administrator. *RESEARCH INFRASTRUCTURE SUPPORT GRANT*. In collaboration with Office for Institutional Advancement requested funds to upgrade the research laboratories. Funded by Foot Levelers, Inc. Funded Amount: \$105,000.00.
- Burke, J.R. (2004). Project Position: Principal Investigator. *NEUROMUSCULAR CONCEPTS UNDERLYING THE BENEFITS OF ORTHOTICS*. The research proposal outlines a series of eighth experiments to be conducted between May 1, 2004 and September 30, 2006. Funded by Foot Levelers, Inc. Funded Amount: \$34,850.00.

- Burke, J.R. (2004). Project Position: Faculty Mentor / Collaborator. THE EFFECT OF A MECHANICAL FORCE, MANUALLY ASSISTED (MFMA) THRUST ON DECREASING MUSCLE TONE IN PATIENTS WITH SPASTICITY. Awarded to Kimberly S. Brown, Student Principal Investigator and Dr. Donald Dishman, Primary Faculty Mentor. Funded by Association of Chiropractic Colleges in conjunction with Education Investment Company - ACC Scholarship Program. Funding Period: May 1, 2004 to April 30, 2005. Funded Amount: \$35,000.00.
- Burke, J.R. (2003). Project Position: Program Manager. CONSERVATIVE MANAGEMENT OF CARPAL TUNNEL SYNDROME WITH THE GRASTON TECHNIQUE. Awarded to New York Chiropractic College. Collaborators: Dr. Dale Buchberger (Graston Technique Clinician); Dr. Donald Dishman (Clinical Neurophysiologist); and Dr. Paul Dougherty (Chiropractic Clinician). Funded by TherapyCare Resources, Inc. Funding Period: October 1, 2003 to September 30, 2004. Funded Amount: \$76,619.00.
- Burke, J.R. (2003). Project Position: Faculty Mentor / Collaborator. THE EFFECT OF MECHANICAL FORCE, MANUALLY ASSISTED SPINAL MANIPULATIVE THERAPY ON ALPHA MOTONEURON POOL AS ASSESSED BY HOFFMANN REFLEX METHODOLOGY. Awarded to Kimberly S. Brown, Student Principal Investigator and Dr. Donald Dishman, Primary Faculty Mentor. Funded by Association of Chiropractic Colleges in conjunction with Education Investment Company - ACC Scholarship Program. Funding Period: January 1, 2003 to December 31, 2003. Funded Amount: \$12,500.00.
- Burke, J.R. (2002). Project Position: Co-Investigator. SPINAL MANIPULATAION AND MOTOR SYSTEMS PHYSIOLOGY. Awarded to Dr. Donald Dishman, Principal Investigator. Funded by Consortial Center for Chiropractic Research- administered from NIH R21 grant awarded to Dr. William Meeker. Funding Period: January 1, 2002 to May 31, 2003, Funded Amount: \$80,000.00 (Total of Direct and 20% Indirect Costs).
- Burke, J.R. (2001). Project Position: Co-Investigator. SEGMENTAL EFFECTS OF SPINAL MANIPULATIVE THERAPY ON MOTONEURON ACTIVITY. Awarded to Dr. Donald Dishman, Principal Investigator. Funded by Foundation for Chiropractic Education and Research. Funding Period: October 1, 2001 to September, 30, 2002, Funded Amount: \$68,340.00. (Original Submission, October 1, 1999, Revised Submission, October 1, 2000).
- Burke, J.R. (May, 1999). Project Position: Co-Investigator. CHIROPRACTIC GERONTOLOGY RESEARCH PROGRAM. Submitted to Dr. Scholl Foundation by Dr. Kevin A. Ball, Principal Investigator, UNFUNDED.

Burke, J.R. (March, 1999). Project Position: Co-Investigator. CHIROPRACTIC GERONTOLOGY RESEARCH PROGRAM. Submitted to Consortial Center for Chiropractic Research by Dr. Ronald Bulbulian, Principal Investigator, UNFUNDED.

Burke, J.R. NEURAL ADAPTATIONS TO RESISTANCE TRAINING IN OLDER FEMALES. (January, 1996). Submitted to the American College of Sports Medicine, Indianapolis, IN. UNFUNDED.

Burke, J.R. MOVEMENT PRECISION AND MOTOR UNIT BEHAVIOR IN THE ELDERLY AS A FUNCTION OF PHYSICAL ACTIVITY. (January, 1995). Submitted to the American Federation of Aging Research, New York, NY. UNFUNDED.

Burke, J.R. PHYSICAL ACTIVITY, AGING, AND SPINAL INHIBITORY PATHWAYS. (June, 1994). Submitted to National Institute of Health, First Award Program. UNFUNDED.

Burke, J.R. MOTOR UNIT BEHAVIOR IN THE ELDERLY. (February, 1994). Submitted to the Manning Foundation, University of South Carolina, School of Public Health. UNFUNDED.

Burke, J.R. INFLUENCE OF ELECTROSTIMULATION ON REACTION TIME AND MOTONEURON EXCITABILITY IN AGED ADULTS. (January, 1992). Submitted to American Federation of Aging Research, New York, NY. UNFUNDED

Burke, J.R. INTEGRITY OF INTERNEURONAL PATHWAYS DURING DIFFERENT PERIODS OF MOTOR DEVELOPMENT. (1991). Funded by the University of South Carolina Research and Productive Scholarship Fund, \$3,000.00.

Burke, J.R. CHANGES IN SPINAL CORD EXCITABILITY PRECEDING A VOLUNTARY MOVEMENT IN YOUNG AND OLD ADULTS. (1990). Dissertation Proposal. Funded by the Indiana University Graduate School. \$600.00.

RESEARCH PRESENTATIONS:

Burke, J.R. & Papuga, M.O. (2008). EFFECTS OF AN ORTHOTIC INTERVENTION ON RUNNING ECONOMY. Association of Chiropractic Colleges / Research Agenda Conference.

Judge, L.W., & Burke, J.R. (2007). PERIODIZATION OF TRAINING IN THROWERS: UNDERLYING CHANGES IN NEUROMUSCULAR PERFORMANCE. National Strength and Conditioning Association, National Conference.

Burke, J. R. (2006). ADAPTATIONS TO THE NEUROMUSCULAR CONTROL SYSTEM FOLLOWING SPINAL MANIPULATION. Invited Session: Sensory Input to Motor Output: Biomechanics of Spinal Manipulation. Association of Chiropractic Colleges / Research Agenda Conference.

- Burke, J.R. & Papuga, M.O. (2006). MOTOR LEARNING AND DROP JUMP TECHNIQUES: EFFECTS OF ORTHOTIC INTERVENTION ON NEUROMUSCULAR ADAPTATIONS AND PERFORMANCE GAINS. Association of Chiropractic Colleges / Research Agenda Conference.
- Cunningham, B.M., Burke, J.R., & Grimm, D. (2006). THE EFFECTS OF UPPER THORACIC SPINAL MANIPULATION ON AUTONOMIC MODULATION OF CARDIOVASCULAR FUNCTION IN ASYMPTOMATIC SUBJECTS DURING A COLD PRESSOR TEST. Association of Chiropractic Colleges / Research Agenda Conference.
- Burke, J.R. (2005). USE OF A MECHANICAL DEVICE TO DESCRIBE FORCES AND TORQUES ASSOCIATED WITH HIGH VELOCITY, LOW AMPLITUDE SPINAL ADJUSTING. Presented to NBEC: Technique Committee Workshop, Greeley, CO, August 27, 2005.
- Van Dusen, L., Barr, D., & Burke, J. R. (2005). MEDICAL PROBLEMS OF FLUTISTS: ARE WE MAKING PROGRESS? Presented at: The 23rd Annual Symposium on Medical Problems of Musicians and Dancers, Aspen, CO, June 24, 2005.
- Passmore, S.R., Burke, J.R., & Lyons, J. (2005). CERVICAL SPINE MOVEMENT COMPARISON OF OLDER AND YOUNGER POPULATIONS USING FITTS' TASK. North American Society for the Psychology of Sport and Physical Activity Annual Meeting.
- Brown, K.S., Dishman, J.D., Dougherty, P.E., & Burke, J.R. (2005). THE EFFECT OF MECHANICAL FORCE, MANUALLY ASSISTED (MFMA) SPINAL MANIPULATIVE THERAPY ON MUSCLE TONE IN A SPASTIC HYPERTONIC MODEL. The 2005 World Federation of Chiropractic 8th Biennial Congress.
- Dishman, J.D., Greco, D.S., & Burke, J.R. (2005). MOTOR EVOKED POTENTIALS RECORDED FROM LUMBAR ERECTOR SPINAE MUSCLES: A STUDY OF CORTICOSPINAL EXCITABILITY CHANGES ASSOCIATED WITH SPINAL MANIPULATION. The 2005 World Federation of Chiropractic 8th Biennial Congress. **[Special Platform Session]**
- Burke, J.R. (2005). METHODOLOGY TO DESCRIBE THE REGULATION OF SENSORY FEEDBACK MECHANISMS. Research Agenda Conference in Conjunction with the Association of Chiropractic Colleges Annual Meeting.
- Grimm D.R., Cunningham B. & Burke J.R. (2004). THE EFFECTS OF SPINAL MANIPULATION ON CONTROL OF PERIPHERAL AND CARDIOVASCULAR AUTONOMIC FUNCTION DURING COLD PRESSOR RESPONSE. First Joint Meeting of the European Federation of Autonomic Societies and American Autonomic Society held in Amsterdam, The Netherlands, October, 20-23.

- Brown, KS, Dishman JD, & Burke JR. (2004). THE EFFECT OF MECHANICAL FORCE, MANUALLY ASSISTED (MFMA) SPINAL MANIPULATIVE THERAPY ON THE ALPHA MOTONEURON POOL AS ASSESSED BY HOFFMANN REFLEX METHODOLOGY. Research Agenda Conference in Conjunction with the Association of Chiropractic Colleges Annual Meeting.
- Dishman, J.D., Ball, K.A., Cowley, M.& Burke, J.R. (2003). MOTOR EVOKED POTENTIALS RECORDED FROM THE FLEXOR CARPI RADIALIS MUSCLE EMPLOYING OPTOELECTRONICALLY-GUIDED COIL PLACEMENT. The 50th Anniversary Scientific Meeting of the American Academy of Electrodiagnostic Medicine, in conjunction with the International Transcranial Magnetic Stimulation Society.
- Dishman, J.D., Cowley, M., Ball, K.A., & Burke, J.R. (2003). DIFFERENTIAL EFFECTS OF CERVICAL AND LUMBAR SPINAL MANIPULATION ON CORTICOSPINAL EXCITABILITY AS ASSESSED BY TRANSCRANIAL MAGNETIC STIMULATION TECHNIQUES. Proceedings of the World Federation of Chiropractic 7th Biennial Congress.
- Dishman, J.D., Cowley, M., Ball, K.A., & Burke, J.R. (2003). EFFECTS OF CERVICAL SPINAL MANIPULATION ON CORTICOSPINAL AND MOTONEURON POOL EXCITABILITY EMPLOYING CORTICAL AND PERIPHERAL NERVE STIMULATION TECHNIQUES. Invited Symposium Presentation for the Research Agenda Conference in Conjunction with the Association of Chiropractic Colleges Annual Meeting.
- Grimm, D.R., Cunningham, B.M., Weir, J.P., & Burke, J.R. (2003). EFFECTS OF SPINAL MANIPULATION ON AUTONOMIC FUNCTION IN HEALTHY CONTROLS. Association of Chiropractic Colleges Annual Meeting.
- Grimm, D.R., Kennard, R., Weir, J.P., & Burke, J.R. (2002). ALTERATIONS IN AUTONOMIC AND CARDIOVASCULAR FUNCTION AMONG INDIVIDUALS WITH ACUTE NEUROMUSCULAR INJURY. Thirteenth International Symposium on the Autonomic Nervous System.
- Dishman, J.D., Dougherty, P.E., & Burke, J.R. (2002). EFFECTS OF SPINAL MANIPULATION, MOBILIZATION, AND SHAM PROCEDURES ON MOTONEURON EXCITABILITY. International Conference on Spinal Manipulation.
- Dishman, J.D., Ball, K.A., & Burke, J.R. (2001). CENTRAL MOTOR EXCITABILITY CHANGES FOLLOWING SPINAL MANIPULATION: A TRANSCRANIAL MAGNETIC STIMULATION STUDY. Proceedings of the World Federation of Chiropractic 6th Biennial Congress.

- Dishman, J.D., Cunningham, B.M., & Burke, J.R. (2000). SEGMENTAL EFFECTS OF SPINAL MANIPULATION ON THE HUMAN MOTOR SYSTEM. Proceedings of the International Conference on Spinal Manipulation.
- Burke, J.R. (2000). THE INFLUENCE OF BALANCE TRAINING ON THE AGED POSTURAL CONTROL SYSTEM. Association of Chiropractic Colleges Annual Meeting.
- Burke, J.R. (2000). PERIODIZATION OF TRAINING IN THROWERS: UNDERLYING CHANGES IN NEUROMUSCULAR PERFORMANCE. Invited Speaker: USTA Coaches Education, Level III: The Shot Put and Discus. November 10-12, 2000. Lake Placid, New York.
- Carmichael, M., Davis, J., Burke, J.R., & Brannon, W. (1999). CENTRAL FATIGUE FOLLOWING INTERMITTENT SUBMAXIMAL VOLUNTARY CONTRACTIONS. Society for Neuroscience Annual Meeting.
- Bulbulian, R., Burke, J., Kovach, M., & Ploutz-Snyder, R. (1999). THE EFFECT OF HETERONYMOUS MUSCLE STRETCHING ON MOTONEURON EXCITABILITY. American College of Sports Medicine Annual Meeting, June 1999.
- Bulbulian, R., Kovach, M., & Burke, J. (1999). SUPPRESSION OF IA AFFERENT FEEDBACK FOLLOWING STATIC AND DYNAMIC STRETCHING OF HETERONYMOUS MUSCLE GROUPS. Fifth World Federation of Chiropractic Congress & Conference.
- Bulbulian, R., Dishman, J.D., Burke, J. (1999). NEUROREFLEX MODULATION OF THE LUMBAR SPINE IN FLEXION DISTRACTION. Fifth World Federation of Chiropractic Congress & Conference.
- Knight, C.A., Kamen, G., & Burke, J.R. (1998). INCREASED MOTOR UNIT ACTIVATION IN YOUNG AND OLDER ADULTS FOLLOWING RESISTANCE EXERCISE TRAINING. American College of Sports Medicine Annual Meeting.
- Burke, J.R. (1998). UNDERSTANDING THE SPINAL BASIS OF VOLUNTARY MOVEMENT CONTROL. Symposium at the American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting. (Symposium: Kamen, G., Li, L., Burke, J.R., & Koceja, D.M. Electromyographic Analysis of Motor Coordination).
- Burke, J.R., & Hirth, V.A. (1997). STRENGTH TRAINING EFFECTS ON RECIPROCAL INHIBITION AND NEURAL ACTIVATION OF THE SOLEUS MUSCLE IN THE ELDERLY. Society for Neuroscience Annual Meeting.
- Burke, J.R. (1997). TRANSCRANIAL MAGNETIC STIMULATION IN EXERCISE SCIENCE. Teaching Physiology Conference, University of South Carolina, School of Medicine.

- Burke, J.R., Williams, H.G., Boynton, R., Company, B., & Mensack, C. (1997). RELATIONSHIP BETWEEN POSTURAL MODULATION OF THE SOLEUS MUSCLE AND ONE FOOT BALANCE IN THE ELDERLY. 1997 International Conference on Aging and Physical Activity.
- Burke, J.R. & Williams, H.G. (1997). THE CONDITIONED ACHILLES TENDON REFLEX IN OLDER ADULTS. North American Society for Psychology of Sport and Physical Activity Annual Meeting.
- Burke, J.R., Judge, L. & Moreau, C. (1997). A STRENGTH-POWER PROGRAM IMPROVES CENTRAL ACTIVATION OF THE QUADRICEPS MUSCLE. American College of Sports Medicine Annual Meeting.
- Judge, L., Burke, J.R., & Moreau, C. (1997). NEUROMUSCULAR ADAPTATIONS TO THE PERIODIZATION OF PRESEASON TRAINING IN COLLEGIATE FIELD EVENTS ATHLETES. National Strength and Conditioning Association Annual Meeting.
- Ferguson, M.A., Alderson, N.L., Trost, S.G., Burke, J.R., Essig, D.A., Davis, P.G., & Durstine, J.L. (1997). EFFECTS OF FOUR DIFFERENT EXERCISE SESSIONS ON PLASMA LIPOPROTEIN LIPASE ACTIVITY. American College of Sports Medicine Annual Meeting.
- Williams, H.G., Burke, J.R., McClenaghan, B.A., & Hirth, V. (1996). BALANCE CONTROL: MECHANISMS OF ADAPTATION TO SENSORY-MOTOR INTEGRATION TRAINING IN THE ELDERLY. Fourth International Congress on Physical Activity, Aging and Sports, Heidelberg, Germany.
- Simpson, M.R., Burke, J.R., Davis, J.M., & Jackson, D.A. (1996). RELATIONSHIP BETWEEN PERIPHERAL FATIGUE AND THE INHIBITION OF NEURAL ACTIVATION. American College of Sports Medicine Annual Meeting.
- Ferguson, M.A., Alderson, N.L., Trost, S.G., Burke, J.R., Essig, D.A., Davis, P.G., & Durstine, J.L. (1996). DELAYED EFFECTS OF EXERCISE SESSIONS OF DIFFERENT ENERGY EXPENDITURE ON HDL-CHOLESTEROL. American College of Sports Medicine Annual Meeting.
- Patton, C., Burke, J.R., Kamen, G., & Rowland, D. (1995). AGE AND PRACTICE EFFECTS OF MOTOR UNIT DISCHARGE RATE VARIABILITY. Society for Neuroscience Annual Meeting.
- Burke, J.R. (1995). FATIGUE AND THE CONDITIONED PATELLAR TENDON REFLEX RESPONSE. American College of Sports Medicine Annual Meeting.

- Alvarez, V.M., Ward, D.S., Trost, H., Williams, H.G., Burke, J.R., & Pate, R.R. (1995). PHYSICAL ACTIVITY AND PHYSICAL FITNESS IN BOYS AND GIRLS FROM URBAN ELEMENTARY SCHOOL. Southeastern American College of Sports Medicine Regional Meeting.
- Jackson, D.A., Ashton, J.E., Pate, R.R., Burke, J.R., & Durstine, J. L. (1994). HIGH INTENSITY TAPERING IMPROVES PHYSIOLOGIC DETERMINANTS OF PERFORMANCE IN DISTANCE RUNNERS. Southeastern American College of Sports Medicine Regional Meeting.
- Spiegel, K., Stratton, J., Burke, J.R., Glendinning, D.S., & Enoka, R.M. (1994). INFLUENCE OF AGE ON THE ASSESSMENT OF MOTOR UNIT ACTIVATION THRESHOLD IN A HUMAN HAND MUSCLE. Society for Neuroscience Annual Meeting.
- Burke, J.R. (1993). EFFECTS OF MONOSYNAPTIC REFLEX EXCITABILITY ON RESPONSE PREPARATION FOR SIMPLE AND CHOICE REACTION TIME TASKS. Society for Neuroscience Annual Meeting.
- Burke, J.R., Hayes, T., & Lamb, K. (1993). EFFECTS OF MUSCLE MORPHOLOGY ON THE TIBIAL NERVE H-REFLEX. American College of Sports Medicine Annual Meeting.
- Burke, J.R., Schutten, M.C., Koceja, D.M., & Kamen, G. (1993). EFFECTS OF JENDRASSIK FACILITATION IN YOUNG AND OLD ADULTS. American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting.
- Burke, J.R., & Kamen, G. (1992). AGE-RELATED CHANGES IN THE EXCITABILITY OF THE RESPONDING AND NON-RESPONDING MOTONEURON POOLS PRIOR TO MOVEMENT ONSET. Society for Neuroscience Annual Meeting.
- Burke, J.R., & Kamen, G. (1992). ACHILLES TENDON REFLEX FACILITATION PRECEDING A VOLUNTARY MOVEMENT IN YOUNG AND OLD ADULTS. American College of Sports Medicine Annual Meeting.
- Burke, J.R., & Kamen, G. (1991). MOTOR PREPARATION IN YOUNG AND OLD ADULTS. Society for Neuroscience Annual Meeting.
- Koceja, D.M., & Burke, J.R. (1991). DIRECTIONS OF FUTURE RESEARCH: INVESTIGATING CHANGES IN MOTOR PROCESSING DURING VOLUNTARY MOVEMENT. American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting.
- Schutten, M.C., Romack, J., Burke, J.R., & Morris, H.H. (1991). SENSORIMOTOR INTEGRATION OF SIMPLE AND CHOICE REACTION TIME TASKS USING THE PSYCHOLOGICAL REFRACTORY PERIOD PARADIGM. American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting.

- Burke, J.R. & Morris, H.H. (1989). THE RELATIONSHIP BETWEEN SENSORY AND MOTOR PROCESSING TIMES FOR VOLUNTARY MOVEMENTS. North American Society for Psychology of Sport and Physical Activity Annual Meeting.
- Schutten, M.C., Burke, J.R., & Morris, H.H. (1990). SENSORIMOTOR INTEGRATION OF A COMPLEX TASK IN THE PSYCHOLOGICAL REFRACTORY PERIOD PARADIGM. North American Society for Psychology of Sport and Physical Activity Annual Meeting
- Koceja, D.M., Burke, J.R., & Kamen, G. (1988). PATELLAR TENDON REFLEX CHARACTERISTICS ARE ENHANCED BY A CONDITIONING ACHILLES TENDON REFLEX. Society for Neuroscience Annual Meeting.
- Koceja, D.M., Burke, J.R., & Kamen, G. (1988). CONDITIONED ACHILLES TENDON REFLEX CHARACTERISTICS IN DANCERS. American College of Sports Medicine Annual Meeting.
- Burke, J.R., Lonardi, E.M., Koceja, D.M. & Kamen, G. (1988). AGE DEPENDENT VARIATIONS OF THE PATELLAR TENDON REFLEX RESPONSE TO MUSCLE VIBRATION. Physical Therapy Annual Meeting.
- Burke, J.R., Koceja, D.M., Lonardi, E.M., & Kamen, G. (1987). CUTANEOUS STIMULATION PRODUCES A LONG-LATENCY SPINAL FACILITATION IN THE ELDERLY. American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting.
- Morris, H.H., & Burke, J.R. (1987). THE DETERMINATION OF THE ATTENTION SWITCHING TIME IN THE PSYCHOLOGICAL REFRACTORY PERIOD PARADIGM. American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting.
- Burke, J.R., Lonardi, E.M., Koceja, D.M., & Kamen, G. (1986). EFFECTS OF IPSILATERAL AND CONTRALATERAL ELECTROCUTANEOUS STIMULATION ON THE PATELLAR TENDON REFLEX. Society for Neuroscience Annual Meeting.

AWARDS & OTHER RESEARCH TRAINING:

New York Chiropractic College, 2007 Faculty Award: Excellence in Research and Scholarly Activity.

New York Chiropractic College, 2003 Faculty Award: Excellence in Research and Scholarly Activity.

World Federation of Chiropractic, 2001: “Scott Haldeman, D.C., M.D., Ph.D. Award”

Co-Investigator on – *First prize – international original research paper competition* – “Central Motor Excitability Changes Following Spinal Manipulation: a transcranial magnetic stimulation study” awarded to Dr. Donald Dishman, Principal Investigator.

American College of Sports Medicine 1993 Visiting Scholar Award

Studied Motor Unit Behavior in the Elderly under the supervision of Dr. Roger Enoka at the University of Arizona, June 1, 1993 - July 31, 1993.

Research Assistant

Studied Motor Unit Behavior in the Elderly under the supervision of Dr. Gary Kamen at Boston University, June 1, 1994 - June 30, 1994.

PROFESSIONAL AFFILIATIONS:

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

SOCIETY FOR NEUROSCIENCE