

*Curriculum Vita*

***Anthony C. Hackney, Ph.D.***  
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**EDUCATION**

<i>Bachelors of Arts:</i>	Health & Kinesiology	Berea College, Berea, Kentucky 1979
<i>Master of Arts:</i>	Exercise Physiology	School of Exercise & Sport Sciences Kent State University, Kent, Ohio 1981
<i>Doctorate of Philosophy:</i>	Exercise Physiology (major) Nutritional Biochemistry (minor)	Program of the School of Exercise, Leisure & Sport and Biomedical Science Curriculum, 1986
<i>Graduate Certificate:</i>	Public Health	Institute of Public Health, School of Public Health University of North Carolina, Chapel Hill, NC, 2003
<i>Doctorate of Science: (Honoris Causa)</i>	Physiology-Sports Science	Lithuanian Academy of Physical Culture Government of the Republic of Lithuania, Ministry of Education & Sport, 2008

**POST-DOCTORAL EXPERIENCES**

*Visiting Professor:*

Visiting Professorship appointment, Tartu University, Tartu, Estonia, 2007. Lectured in the Faculties of Exercise & Sport Science and Allied Health on current research trends and topics in exercise endocrinology.

*Global Health Initiative Fellow - Fogarty International Center (NIH-UNC-CH):*

Fellow – Institute of Public Health, Department of Human Nutrition, Medical College, Jagiellonian University, Krakow, Poland, 2006. Award to teach undergraduate and graduate students in the physiology of obesity and nutritional implications.

*Fulbright Scholar – Global Public Health-Nutrition:*

Fulbright Senior Specialist Scholar Recipient – Public Health, Institute of Public Health, Department of Human Nutrition, Medical College, Jagiellonian University, Krakow, Poland, 2003-2004. Award to teach undergraduate and graduate students in exercise physiology - nutrition.

*Visiting Professor:*

Visiting Professorship appointment, Pristina University, Pristina, Kosovo, 2002. Part of a United Nations education team aiding in the re-development of the university courses following the 1999-2000 NATO conflict in Kosovo.

*Fulbright Scholar – Medical Sciences:*

Fulbright Scholarship Recipient - Lithuania National Institute of Physical Culture, Kaunas, Lithuania, 1997-98. Award to teach undergraduate and graduate level human physiology and endocrinology classes and conducted research in factors affecting human performance.

*Research Associate:*

Dept. of Anesthesiology, Duke University, Durham, NC, 1990-91. Developed and conducted research into the cellular processes associated with the development of exercise inflammation of skeletal muscle tissues.

*Research Fellow:*

Space Biomedical Research Institute, NASA-Johnson Space Ctr., Houston, TX, 1989. Studied the human endocrine and metabolic adaptations to chronic microgravity exposure and the impact of exercise training upon these responses.

*Research Fellow:*

Department of Work & Environmental Physiology; Naval Health Research Center, Department of the U.S. Navy, San Diego, CA, 1987-88. Studied the human endocrine-metabolic adaptations to chronic cold-hypoxemia exposure in military personnel.

**FACULTY APPOINTMENTS**

*Full Professor - Exercise Physiology:*

University of North Carolina, Chapel Hill, NC, Department of Exercise & Sport Science, College of Arts & Sciences, appointed faculty 1989 (tenured 1992)

*Full Professor - Nutrition (joint appointment):*

University of North Carolina, Chapel Hill, NC, Department of Nutrition, Schools of Medicine & Public Health, appointed tenured faculty in 1992

*Full Professor – Cell-Molecular Physiology (adjunct appointment):*

University of North Carolina, Chapel Hill, NC, Department of Cell and Molecular Physiology, School of Medicine, appointed as tenured faculty in 1995

*Full Professor – Allied Health (adjunct appointment):*

University of North Carolina, Chapel Hill, NC, Department of Allied Health (Division of Physical Therapy), School of Medicine, appointed as tenured faculty in 2006

**SERVICE APPOINTMENTS**

*Assistant Chairman – Department of Exercise & Sport Science:*

University of North Carolina, 2005-present. Serve in an administrative role to aid in the function of departmental budget and faculty allocations.

*Director Applied Physiology Laboratory:*

Department of Exercise & Sport Science, University of North Carolina, 1998-present. Direct and administer staff in one of the three principal research laboratories in the department.

*Director Exercise & Metabolism Laboratory:*

NIH General Clinical Research Center - UNC Hospitals, UNC-CH, 1991- 1995. Direct the Exercise & Metabolism laboratory at a National Institute of Health General Clinical Research Unit in the UNC Hospitals and School of Medicine.

**PROFESSIONAL AFFILIATIONS**

The Physiological Society (Cambridge, UK)  
American College of Sports Medicine (ACSM)  
Southeast American College of Sports Medicine (SEACSM)  
First Nation Graduate Students - Indian Circle  
National Certified Phlebotomy Technician (NCPT#2408-1205-301)

**HONORS AND AWARDS**

Honorary Doctorate of Science, Government of the Republic of Lithuania – 2008  
"1793" Society, University of North Carolina – 2008  
Whitehead Medical Society Basic Science Course Award (Medical Physiology Instructors) – 2005-06  
Who's Who in Health Science (Nutrition) – 2003  
Excellence in Teaching Award (UNC-CH Departmental) – 1998, 2000  
Excellence in Teaching Award (UNC-CH University, nominee) – 1999, 2001, 2002  
Board of Governor's Excellence in Teaching Award (UNC-CH, nominee) – 1997, 1998, 1999  
Sigma Xi Scientific Honor Society - Ambassador to Poland – 1996  
Who's Who of American Men & Women of Sciences – 1995

Visiting Scholar - Polish Institute of Sport, Ministry of Education – 1994  
IBM Research Fellowship – 1991  
Fellow in the American College of Sports Medicine – 1990  
Sigma Xi Scientific Honor Society member – 1990  
American Society of Engineering Education - Research Fellow – 1988, 89  
Kent State University Dissertation Research Award –1986  
Who's Who - Students American University and Colleges – 1985  
Kent State University Graduate Student Research Award – 1984  
Named "Outstanding Young Men of America" – 1981  
*Cum laude* graduate - Berea College – 1979  
Recipient "Athletic-Academic Achievement Award", Berea College – 1978-79  
Recipient "Wyatt Scholar-Athlete of the Year Award", Berea College – 1979  
Collegiate All-Conference, Cross-country – 1977-78  
Honorable Mention Collegiate All-American NAIA Track – 1979  
Mortar Board, Berea College – 1978  
National Honor Society, Bethel-Tate High School –1973-74

### **REFEREED RESEARCH PUBLICATIONS**

Rubin DA, RJ Butler, B Beckman & **AC Hackney**. Footwear and running cardio-respiratory responses. *International Journal of Sports Medicine*. In press 2009.

Duke JW, MB Behr, KS Ondrak, & **AC Hackney**. Day-to-day variability of the lactate to rating of perceived exertion ratio. *Physical Education & Sport*. In press 2009.

**Hackney AC** & C Battaglini. The role of hormones in the adaptation to exercise: plasticity of the neuroendocrine system. *Acta Academiae Olympicae Estoniae*. In press 2009.

**Hackney AC**. Effects of endurance exercise on the reproductive system of men: the "exercise-hypogonadal male condition". *Journal of Endocrinological Investigation*. In press 2009.

Rubin DA, RG McMurray, JS Harrell, DE Thorpe, & **AC Hackney**. Vigorous physical activity and cytokines in adolescents. *European Journal of Applied Physiology*. In press 2009.

Hill EE, E Zack, C Battaglini, M Viru, A Viru & **AC Hackney**. Exercise and circulating cortisol levels: the intensity threshold effect. *Journal of Endocrinological Investigation*. In press 2009.

Rubin DA, RG McMurray, JS Harrell, **AC Hackney**, DE Thorpe, & AM Haqq. The association between insulin resistance and cytokines in adolescents: the role of weight status and exercise. *Metabolism*. In press 2009.

Rubin DA, RG McMurray, AM Andrea, **AC Hackney**, & JS Harrell. Do surrogates of adiposity relate to cytokines in adolescents? *Journal of Investigative Medicine*. In press 2009.

Viru M, **AC Hackney**, T Janson, K Karelson, & A Viru. Characterization of the cortisol response to incremental exercise in physically active young men. *Act Physiologica (Hung)*. In press 2009.

**Hackney AC**, C Battaglini & ES Evans. Cortisol, stress and adaptation during exercise training. *Education, Physical Training & Sport (Biomedical Science)*. 3(70), 34-41, 2008.

Pilch, W, Z Sygula, M Torii & **AC Hackney**. The influence of hyperthermia exposure in sauna on thermal adaptations and selection endocrine responses in women. *Medicine Sportiva*. 12(3), 103-108, 2008.

**Hackney AC**, A Viru. Research methodology: issues with endocrinological measurements in exercise science and sport medicine. *Journal of Athletic Training*. In press 2008.

Brownlee KK, **AC Hackney**. Steroid hormone responses to intensive prolonged endurance exercise in women. *Acta Kinesiologica (University Tartu)*. 12: 6-9, 2007.

- Cancela P, Ohanian C, Cuitino E, **Hackney AC**. Creatine supplementation does not affect clinical health markers in soccer players. *British Journal of Sports Medicine*. 2007 (available online Aug 23).
- Duke JW, Rubin DA, Daly W, **Hackney AC**. Influence of prolonged exercise on the 24-hour free testosterone-cortisol ratio hormonal profile. *Medicina Sportiva*. 11(2): 48-50, 2007.
- Hackney AC**, C Battaglini. The overtraining syndrome: neuroendocrine imbalances in athletes. *Brazilian Journal of Biomechanics*. 1(2): 34-44, 2007.
- Battaglini C, Bottaro M, Dennehy C, Rae L, Shields E, Kirk D, **Hackney AC**. The effects of an individualized exercise intervention on body composition in breast cancer patients undergoing treatment. *Sao Paulo Medical Journal*. 125(1): 22-28, 2007.
- Viru A, Viru M, Karelson K, Janson T, Siim K, Fischer K, **Hackney AC**. Adrenergic effects on adrenocortical cortisol response to incremental exercise to exhaustion. *European Journal of Applied Physiology*. 100(2):241-245, 2007.
- Battaglini C, Bottaro M, Dennehy C, Barfoot D, Shields E, Kirk D, **Hackney AC**. The effect of resistance training on muscular strength and fatigue levels in breast cancer patients. *Revista Brasil Medicina Esporte*. 12(3) 139-144, 2006.
- Hackney AC**. Stress and the neuroendocrine system: the role of exercise as a stressor and modifier of stress. *Expert Reviews in Endocrinology & Metabolism*. 1(6): 783-792, 2006.
- Hackney AC**, DA Rubin. El sistema neuroendocrino y el estres de ejercicio: una breve revision. *Medicina del Ejercicio*. 21(1-2), 23-34, 2006.
- Hackney, AC**. Exercise as a stressor to the neuroendocrine system. *Medicina*. 42(10): 788-797, 2006.
- Hackney AC**, E Zack. Physiological day-to-day variability of select hormones at rest in exercise-trained men. *Journal of Endocrinological Investigation*. 29(6):RC9-RC12, 2006.
- Brownlee KK, M Viru, A Viru, MB Behr & **AC Hackney**. Exercise and the relationship between circulating cortisol and testosterone concentrations in men. *Physical Education and Sport*. 50: 30-33, 2006.
- Moore AW, S Timmerman, KK Brownlee, DA Rubin & **AC Hackney**. Strenuous, fatiguing exercise: relationship of cortisol to circulating thyroid hormones. *International Journal of Endocrinology & Metabolism*. 1: 18-24, 2005.
- Hackney AC & ZC Hackney**. The exercise-hypogonadal male condition and endurance exercise training. *Current Trends in Endocrinology*. 1: 101-106, 2005
- Hackney, AC**. Testosterone and human performance: influence of the color red. *European Journal of Applied Physiology*. 2006, 96(3):330-3.
- Hackney AC**, Moore AW, Brownlee KK. Testosterone and endurance exercise: development of the "exercise-hypogonadal male condition". *Acta Physiologica Hung*. 2005;92(2):121-37.
- Daly W & **AC Hackney**. Is exercise cortisol response of endurance athletes similar to levels of Cushing's Syndrome? *Biology of Sport*. 22(3), 209-214, 2005.
- Rubin DA, McMurray RG, **Hackney AC**, Harrell JS. The relationship between leptin, metabolic hormones, exercise and body composition in adolescents. *Journal of Pediatric Endocrinology & Metabolism*. 2005, 18(11):1073-81.
- McMurray RG & **AC Hackney**. Interactions of metabolic hormones, adipose tissue and exercise. *Sports Medicine*. 35(5): 393-412, 2005.
- Daly W, CA Seegers, DA Rubin, JD Dobridge & **AC Hackney**. Relationship between stress hormones and testosterone with prolonged endurance exercise. *European Journal Applied Physiology*. 93: 375-380, 2005.

- Brownlee KK, AW Moore & **AC Hackney**. Relationship between circulating cortisol and testosterone: influence of physical exercise. *Journal of Sports Science & Medicine*. 4: 76-83, 2005.
- Daly W, C Seegers, S Timmerman & **AC Hackney**. Peak cortisol response to exhausting exercise: effects of blood sampling schedule. *Medicina Sportiva*. 8(1), 17-20, 2004.
- Dobridge JD & **AC Hackney**. The effect of estrogen on indices of skeletal muscle tissue damage after eccentric exercise in postmenopausal women. *Human Physiology*. 30(4): 462-466, 2004.
- Hackney AC**, McMurray RG, Judelson DA, Harrell JS. Relationship between caloric intake, body composition, and physical activity to leptin, thyroid hormones, and cortisol in adolescents. *Japanese Journal of Physiology*. 53(6):475-9, 2003.
- Gulledge A, C Nelson, **AC Hackney** & JT Coyne. Dietary macronutrient and caloric intake during prolonged exposure to a high altitude – cold environment. *Polish Journal of Sports Medicine*. 19(5): 173-180, 2003.
- Hackney AC**, Szczepanowska E, & Viru AM. Basal testicular testosterone production in endurance-trained men is suppressed. *European Journal Applied Physiology*. 89(2):198-201, 2003.
- Baylor LS, & **AC Hackney**. Resting thyroid and leptin hormone changes in women following intense, prolonged exercise training. *European Journal of Applied Physiology*. 88(4-5):480-4, 2003.
- Stupnicki R, J Malczewska, K Milde, & **AC Hackney**. Day-to-day variability of the transferrin receptor-ferritin index. *British Journal of Sports Medicine*. 37:268-270, 2003.
- Simsch C, W Lormes, KG Petersen, S Baur, Y Liu, **AC Hackney**, M Lehmann, JM Steinacker. Training intensity influences leptin and thyroid hormones in highly trained rowers. *International Journal of Sports Medicine*. 23(6):422-7, 2002.
- Williams CD, Dobridge JD, Meyer WR, **AC Hackney**. Effects of route of estrogen administration and exercise on hormonal levels in postmenopausal women. *Fertility and Sterility*. 77(6): 1118-1124, 2002.
- Bessinger RC, RG McMurray, **AC Hackney**. Substrate utilization and hormonal responses to moderate intensity exercise during pregnancy and postpartum. *American Journal of Obstetrics & Gynecology*. 186(4):757-764, 2002.
- Obminski Z, Stupnicki R, Lerczak K, Starczewska-Czapowska J, Olszewska-Lelonkiewicz M, **AC Hackney**. Cortisol and testosterone responses to training and competition stress in ice-dance skaters - a case study. *South African Journal of Sports Medicine*. 9: 23–25, 2002.
- Hackney AC**, K Polzien K Dutrow. Relationship of basal endogenous testosterone levels to lean body mass in young to middle-aged physically active and athletic men. *Kinesiology* 33 (2): 123-128, 2001.
- Matuszkiewicz, A, JJ Kaczor, W Ratkowski, J Popingis & **AC Hackney**. Ineffective training, free-radical formation and low protein diet in Polish Sportsmen. *Polish Journal of Sports Medicine (Medycyna Sportowa)*. 17(13) Suppl. S21, 2001.
- Obminski, Z, R Stupnicki, J Dobridge & **AC Hackney**. Blood lactate response to maximal exercise in women: influence of sex steroid hormone levels. *Endocrinologia* 6(3): 86-90, 2001.
- Viru A, **AC Hackney**, E Valja, K Karelson, T Janson & M Viru. Influence of prolonged continuous exercise on hormonal responses to subsequent intensive exercise. *European Journal of Applied Physiology*. 85: 578-585, 2001.
- Carter A, J Dobridge & **AC Hackney**. Influence of estrogen on markers of muscle tissue damage following eccentric exercise. *Human Physiology*. 27 (5), 626-630, 2001.
- Hackney, AC**. Endurance exercise training and reproductive dysfunction in men: alterations in the hypothalamic-pituitary-testicular axis. *Current Pharmaceutical Design*. 7: 261-273, 2001.

- Hackney, AC**, J Dobridge & LS Wilson. The overtraining syndrome in athletes: hypothesis as to development and steps to treatment. *Medicina Sportiva*. 4(1): E15-E28, 2000.
- Hackney, AC**, D Muoio, & W Meyer. The effect of sex steroid hormones on substrate oxidation during prolonged submaximal exercise in women. *Japanese Journal of Physiology*. 50, 499-504, 2000.
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- O'Grady, M, **AC Hackney**, K. Steinberg & K Schneider. Diclofenac sodium reduces exercise induced injury in human skeletal muscle. *Medicine and Science in Sport and Exercise*. 32(7): 1191-1196, 2000.
- Hackney, AC**. The effect of exercise on the endocrine system. *Proceedings of the National Athletic Trainers Association*. 173-175, 2000.
- Hackney, AC**, A Lionikas, & AG Styers. Overtraining syndrome: endocrinological, neuromuscular and cardiovascular findings in athletes. *Acta Academiae Olympicae Estoniae*. 7:134-146, 1999.
- Hackney, AC**. Influence of oestrogen on muscle glycogen utilization during exercise. *Acta Physiologica Scandinavica*. 167(3), 273-274, 1999.
- Szczepanowska, E, T Rychlewski, D Wielinski & **AC Hackney**. Sex and glucostatic hormone levels in sportswomen after maximal exercise. *Ugdymas-Kuno Kultura-Sportas (Biomedicinos Mokslai)*. 3 (32): 55-59, 1999.
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- Hackney, AC** & A Viru. Twenty-four cortisol response to multiple daily exercise sessions of moderate and high intensity. *Clinical Physiology*. 19: 178-182, 1999.
- Hackney, AC**, AG Styers. Recovery of the endocrine system following exercise. *Medicina Sportiva*. 3: 177-189, 1999.
- McDuffie J, Fiedorek FT, **Hackney AC**. Assessment of leptin and the beta(3)-adrenergic receptor in obesity and binge eating. *FASEB J*. 12: (4) A552-A552 Part 1 Suppl., 1998
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- Hackney, AC**, CL Fahrner, TP Gulledge. Basal reproductive hormonal profiles are altered in endurance trained men. *Journal of Sports Medicine & Physical Fitness*. 38: 138-141, 1998.
- McMurray, RG, W Bramham, & **AC Hackney**. Catecholamine responses of pregnant women to walking and aerobic dance. *Biology of Sport*. 15(1): 25-32, 1998.
- Fahrner, CL & **AC Hackney**. Effects of exercise on the binding affinity of sex-hormone binding globulin for testosterone. *International Journal of Sports Medicine*. 19(1):12-15, 1998.
- Hackney, AC**. Sports nutrition: vitamins and trace elements. *The Journal of Nutritional Biochemistry* 8 (8): 487-487, 1997.
- Hubner-Wozniak, E, R Stupnicki, & **AC Hackney**. Changes in plasma creatine kinase activity and urea concentration monitored daily during training of elite wrestlers. *Sports Medicine, Training & Rehabilitation*. 7(3/4): 207-214, 1997.

Chappell S & **AC Hackney**. Association between menstrual cycle phase, physical activity level and dietary macro-nutrient intake. *Biology of Sport*. 14(4): 251-258, 1997.

**Hackney, AC**, CL Fahrner & R Stupnicki. Reproductive hormonal responses to maximal exercise in endurance trained men with low testosterone levels. *Clinical & Experimental Endocrinology & Diabetes*. 105: 291-295, 1997.

Wenz M, JZ Berend, N Lynch, S Chapell, & **AC Hackney**. Substrate oxidation at rest and during exercise: effects of menstrual cycle phase and diet composition. *Journal of Physiology & Pharmacology*. 48(4): 852-860, 1997.

Obminiski, R, A Golec, R Stupnicki & **AC Hackney**. Effects of acceleration stress on salivary cortisol and plasma cortisol and testosterone levels in cadet pilots. *Journal of Physiology & Pharmacology*. 48 (2): 193-200, 1997.

Gonzalez, P, **AC Hackney**, S Jones, D Strayhorn, E Hoffman, G Hughes, E Jacobs & EP Orringer. A phase I/II study of polymerized bovine hemoglobin in adult patients with sickle cell anemia disease not in crisis at the time of the study. *Journal of Investigative Medicine*. 45: 258-264, 1997.

**Hackney AC**, W Heizer, TP Gulledge, S Jones, D Strayhorn, M Busby, E Hoffman & EP Orringer. Effects of hydroxy-urea administration on body weight, composition and exercise capacity in sickle cell anemia patients. *Clinical Science*. 92(5): 481-486, 1997.

Miller, B, **AC Hackney**, MJ DeSouza. The effect of endurance training on hormone and semen profiles in marathon runners: comments. *Fertility & Sterility*. 3: 585-587, 1997.

Obminiski, R, A Golec, R Stupnicki & **AC Hackney**. Salivary cortisol responses to hypobaric-hypoxia in aircraft pilots. *Aviation, Space, Environmental Medicine*. 68(3): 183-186, 1997.

**Hackney, AC** & E Weston-Kelly. The impact of endurance training on the basal testosterone concentrations of men: a brief review. *Medicina Sportiva: Bohemica & Slovaca*. 5(4): 121-124, 1996.

**Hackney, AC** & RJ Ness. Hormonal profiles and nitrogen balance during intensive aerobic-anaerobic training: effects of a dietary protein supplement. *Acta Kinesanthropologica*. 32(1): 31-41, 1996.

Gulledge, TP & **AC Hackney**. Reproducibility of low testosterone concentrations in endurance trained men. *European Journal of Applied Physiology*. 73: 582-583, 1996.

Pearman, SN & **AC Hackney**. Development of a 90 second cycle ergometer test to assess anaerobic ability. *Sports Medicine, Training & Rehabilitation*. 6: 279-286, 1996.

**Hackney, AC**. Testosterone, the hypothalamo-pituitary-testicular axis and endurance exercise training: a review. *Biology of Sport*. 13(2): 85-98, 1996.

**Hackney, AC**. The male reproductive system and endurance exercise. *Medicine and Science in Sports and Exercise*. 28(2): 180-189, 1996.

McMurray, RG, **AC Hackney**, K Guion & V Katz. Metabolic and hormonal responses to low-impact aerobic dance during pregnancy. *Medicine and Science in Sports and Exercise*. 28 (1): 41-46, 1996.

Geisler, PA, **AC Hackney**, RG McMurray & BA Ainsworth. Changes in tissue degradation markers and subjective reports of pain resulting from eccentric muscle contractions. *Biology of Sport*. 13(1): 13-20, 1996.

Busby, MG, BG Schliebe, & **AC Hackney**. Satiety level does not affect reporting of caloric intake as assessed by a food frequency questionnaire. *Journal of the American Dietetic Association*. 96:66-67, 1996.

Johnston, KD & **AC Hackney**. Relationship between blood testosterone concentrations and body composition in physically active men. *Medicina Sportiva: Bohemica & Slovaca*. 4(3): 65-67, 1996.

McMurray, RG, TK Eubanks, & **AC Hackney**. Nocturnal hormonal responses to weight training exercise. *European Journal of Applied Physiology*. 72: 121-126, 1995.

- Hackney, AC**, MC Premo, & RG McMurray. Influence of aerobic versus anaerobic exercise on the relationship between reproductive hormones in men. *Journal of Sports Sciences*. 13(4): 305-311, 1995.
- Hackney, AC**. The muscle biopsy: a procedural overview. *Ceskoslovenska Fyziologie*. 44: 145-146, 1995.
- Brownley, K, RG McMurray & **AC Hackney**. Effect of music on the physiological and affective responses to treadmill running in trained and untrained males. *International Journal of Psychophysiology*. 19: 193-201, 1995.
- Hackney, AC**, JT Coyne, R Pozos, S Feith & J Seale. Validity of urine - blood hydration measurements to assess total body water changes during mountaineering in the sub-Arctic. *Arctic Medical Research*. 54: 69-77, 1995.
- Shaw, E, S Feith, CT Coyne, B Bales, R Pozos, & **AC Hackney**. Effects of high altitude exposure in the sub-arctic on the body composition of U.S. Marines. *Israel Journal of Sports Medicine*. 2: 173-178, 1995.
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- Hackney, AC**, JA Hodgdon, R Hesslink & K Trygg. Thyroid hormone responses to military winter activities in the Arctic Region. *Arctic Medical Research*. 54: 82-90, 1995.
- McMurray, RG, VL Katz, M Poe, & **AC Hackney**. Maternal cardiovascular response to low-impact aerobic dance. *American Journal of Perinatology*. 12:282-285, 1995.
- Hackney, AC**, S Feith, R Pozos & J Seale. Effects of high altitude and cold exposure on resting thyroid hormone concentrations. *Aviation, Space & Environmental Medicine*. 66: 325-329, 1995.
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- McCracken, M, BA Ainsworth & **AC Hackney**. Effect of the menstrual cycle on blood lactate responses to exercise. *European Journal of Applied Physiology*. 69: 174-175, 1994.
- Hackney, AC** & T Gulledge. Thyroid responses during an 8 hour period following aerobic and anaerobic exercise. *Physiological Research*. 43: 1-5, 1994.
- Miller, RC, WJ Watson, **AC Hackney**, & JW Seed. Acute maternal and fetal cardiovascular effects of caffeine ingestion. *American Journal of Perinatology*. 11(2): 132-136, 1994.
- Hackney, AC**, M McCracken, BA Ainsworth. Substrate metabolism responses to submaximal exercise in the mid-follicular and mid-luteal phase of the menstrual cycle. *International Journal of Sports Nutrition*. 4: 299-308, 1994.
- Hackney, AC**, J Berend, M Brammeier, N Jones, & SC Holliman. Effects of the menstrual cycle and diet on the physiological responses to exercise. *Clinical Chronicles*. 4: 1-2, 1993.
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- Hackney, AC**, VL Katz, W Watson, MM Gall & RG McMurray. Alpha-fetoprotein, cortisol, and prolactin responses to maximal exercise during exercise. *Scandinavian Journal Medicine & Science in Sports*. 3:41-44, 1992.



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Vickers, R, R Hilbert, JA Hodgdon, RL Hesslink & **AC Hackney**. Replication and extension of measurement models for Mankin Test, Sternberg Memory Test, and Pattern Recognition Test. *Naval Medical Research and Development Command - Technical Report 92-13*. NHRC, 1-25, 1992.

Dolny, DG, **AC Hackney** & EL Van Zanteen. Short-term effect of anabolic steroids and testosterone administration on serum lipoproteins, sex hormones and body composition. *Biology of Sport*. 9(1): 25-32, 1992.

**Hackney, AC**, & JA Hodgdon. Norwegian military field exercises in the Arctic: endocrine and metabolic responses. *Arctic Medical Research*. 50 (Suppl. 6): 132-136, 1991.

Hodgdon, JA, R Hesslink, **AC Hackney**, RR Vickers, & R Hilbert. Norwegian military field exercises in the Arctic: effects on cognitive and physical performance. *Arctic Medical Research*. 50 (Suppl. 6): 137-14, 1991.

McMurray, RG, **AC Hackney**, V Katz, W Watson, & MM Gall. Pregnancy induced changes in the maximal physiological responses during swimming. *Journal of Applied Physiology*. 71: 1454-1459, 1991.

**Hackney, AC**. Hormonal changes at rest in overtrained endurance athletes. *Biology of Sport*. 8(2): 49-56, 1991.

**Hackney, AC**, CS Curley, & BJ Nicklas. Physiological responses to submaximal exercise at the mid-follicular ovulatory and mid-luteal phases of the menstrual cycle. *Scandinavian Journal Medicine & Science in Sports*. 1: 94-98, 1991.

**Hackney, AC**, JM Shaw, JA Hodgdon, JT Coyne, & DL Kelleher. Cold exposure during military operations: Effects on anaerobic performance. *Journal of Applied Physiology*. 71(1): 125-130, 1991.

Watson, W, VL Katz, **AC Hackney**, MM Gall, & RG McMurray. Fetal responses to maximal swimming and cycling exercise during pregnancy. *Obstetrics Gynecology*. 77: 382-386, 1991.

**Hackney, AC**. Effects of the menstrual cycle on resting muscle glycogen. *Hormone and Metabolic Research*. 12: 664, 1990.

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**Hackney, AC**, SI Pearman & JM Nowacki. Physiological profiles of overtrained athletes: a review. *Journal of Applied Sports Psychology*. 2: 21-33, 1990.

**Hackney, AC**. Endurance training and testosterone levels. *Sports Medicine Digest*. IV: 9, 1990.

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### **PUBLISHED ABSTRACTS**

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### **GRANTS AND RESEARCH FUNDING**

Principle investigator: Research Grant - Funding Agency: UNC Institute on Aging \$7,000. Cytokine response in cancer patients undergoing chemo-therapies and physical exercise. 2007-2008 (Funded).

Co-investigator: Research Grant - Funding Agency: NIH \$11,504,000. "Prevention of Type II diabetes in youth and adolescents – STOPPT2D Project". Dr. J Harrell, PI. 2002-2007 (Funded).

Co-investigator: Research Grant - Funding Agency: Dept. of Defense. \$1,233,000. "Soft tissue damage in US Navy special forces during operational maneuvers". Dr. J Hodgdon, PI. 2000-2005 (Funded).

Award Recipient: Education grant – Funding Agency: United Nations & European Union . \$4,300. "Physiology education in the Allied Health fields – Pristina, Kosovo". 2003 (Funded).

Co-investigator: Research Grant - Funding Agency: NIH Pilot Grant. \$10,000. "Influence of exercise on depression in low income mothers". Dr. L Beeper, PI. 2001-2002 (Funded).

Co-investigator: Research Grant - Funding Agency: Tap Pharmaceuticals Inc. and UNC School of Medicine GCRC. \$32,000. "Estrogen uptake in post-menopausal women who exercise". 1999-2000 (Funded).

Award Recipient: Research/Teaching Grant - Funding Agency: Fulbright Commission - U.S. Information Agency. \$30,250. "Exercise physiology and endocrinology - advanced perspectives". 1997-98 (Funded).

Co-investigator: Research Grant – Funding Agency: UNC School of Medicine. \$5,000. "Estrogen and the beta-endorphin response to exercise in women". 1997-98 (Funded).

Principle Investigator: Research Grant - Funding Agency: UNC Institute of Nutrition. \$4,500. "Testosterone and the relationship to markers of bone turnover". 1997-98 (Funded).

Award Recipient: Lutpon Teaching Grant Award - Funding Agency UNC College of Arts & Sciences. \$5,000. "Teaching and development of a undergraduate human physiology for the allied health". 1997 (Funded).

Fellowship: International Travel Fellowship - Funding Agency American Physiology Society. \$1,000. "Lectureship award to present at the International Physiological Society meeting in Russia". 1997 (Funded).

Co-trainer/co-investigator. Education Grant - Funding Agency: National Institute of Health, Washington, DC. \$282,292. "Training grant for doctoral students in the nutritional sciences". 1992-96 (Funded).

Principle investigator: Research-Scholarly Grant - Funding Agency: UNC College of Arts & Sciences. \$900. "Basal testosterone concentrations in endurance trained men - analysis and reviews". 1995-96 (Funded).

Principle Investigator: Research Grant - Funding Agency: UNC Institute of Nutrition. \$3,000. "Binge eating: physiological and psychological characteristics of obese and non-obese binge eaters". 1995-96 (Funded).

Co-investigator. Research Grant - Funding Agency: Institute of Nutrition, Dept. of Nutrition - UNC-CH. \$10,000. "Obese and non-obese binge eaters: Physiological and psychological characteristics". 1995-96 (Funded).

Co-investigator. Research Grant - Funding Agency: Cato Research Ltd./Upjohn Phram. Inc. \$163,975. "Effect of HBOC-201 in sickle cell patients not in crisis". 1994-95 (Funded).

Co-investigator. Research Grant - Funding Agency: National Inst. Health. \$2,200,200. "Multi-center study of Hydroxy-urea in patients with Sicke Cell Anemia". Ancillary study, co-principle investigator. \$87,500. "Exercise capacity of sickle cell patient on hydroxy-urea". 1992-95. (Funded).

Co-investigator. Research Grant – Funding Agency: Dept. of Defense. \$55,000. "Effects of carbon monoxide exposure on the cardiac response to controlled exercise over a range of 0-20% carboxyhemoglobin". 1992-1995. (Funded).

Principle Investigator: Research Grant - Funding Agency: UNC University Research Council. \$1,000. "Effects of the menstrual cycle on the physiological responses to exercise". 1994-95 (Funded).

Principle Investigator: Research Grant - Funding Agency: UNC Institute of Nutrition. \$2,000. Effects of pregnancy on the protein dietary requirements of exercising women. 1993-94 (Funded).



Co-investigator. Research Grant - Funding Agency: Research Triangle Institute. \$115,911. "Effects of carbon dioxide during controlled exercise". 1992-93. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy Medical Research and Development Command. \$4,655. "Stress responses in military personnel during high altitude exposure in the Arctic". 1993. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy Medical Research and Development Command. \$13,600. "Hormonal stress reactivity in military personnel during basic training". 1993. (Funded).

Principle Investigator. Research Grant - Funding Agency: University Research Council UNC. \$2,500. "Effects on Arctic cold exposure on the thyroid hormone responses in humans". 1991. (Funded).

Principle Investigator. Research Grant - Funding Agency: Institute of Nutrition. \$3,000. "Effects of the menstrual cycle on metabolisms at rest and during exercise". 1991. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy Medical Research and Development Command. \$35,755. "Stress responses in military personnel during Arctic field operations". 1991. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy Medical Research and Development Command. \$13,728. "Stress reactivity in military personnel during intensive physical strain". 1990-91. (Funded).

Principle Investigator. Research Grant - Funding Agency: IBM Faculty Development award (UNC-CH). \$3,000. "Menstrual cycle hormonal influences on metabolism". 1990. (Funded).

Principle Investigator. Publication Grant - Funding Agency: University Research Council award (UNC-CH). \$700. "Menstrual cycle and muscle glycogen metabolism". 1990. (Funded).

Research Associate. Research Grant - Funding Agency: Proctor & Gamble, Cincinnati, OH. \$10,000. "Nutritional practices of humans during intensive resistance training programs". 1990. (Funded - Stedman Nutritional Research Center, Duke University).

Co-investigator. Research Grant - Funding Agency: Naval Health Research Center, San Diego, CA. \$10,000. "Denali: Effects of extreme cold-hypoxia on human performance". 1990. (Funded).

Co-investigator. Research Grant - Funding Agency: Ciba-Geigy, Newark, NJ. \$130,000. "Use of Diclofenac to reduce muscle inflammation and delayed-onset muscle soreness". 1989-90. (Funded - Duke University Dept. of Anesthesiology).

Principle Investigator. Research Grant - Funding Agency: National Inst. Health UNC Biomedical Research Support Grant. \$3,400. "Stress responses in U.S. Marines during military operations". 1989-90. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy Medical Research and Development Command. \$65,037. "Stress responses in military personnel during field operations in cold and moderate altitude". 1989-91. (Funded).

Principle Investigator. Research Fellowship - Funding Agency: NASA and Texas A & M Research Foundation. \$10,000. "Overtraining and long term exposure to space flight". 1989. (Funded).

Principle Investigator. Research Grant - Funding Agency: UNC University Research Council UNC. \$2,615. "Effects on exercise intensity on protein catabolism". 1989. (Funded).

Principle Investigator (Jointly). Research Grant - Funding Agency: National Inst. Health UNC Biomedical Research Support Grant. \$14,500. "Psycho-physiological profiles of athletes". 1988-89. (Funded).

Principle Investigator. Research Grant - Funding Agency: U.S. Navy. Medical Research and Development Command. \$30,000. "Assessment of Cold Weather Performance". 1989. (Funded).

Principle Investigator. Research Fellow - Funding Agency: U.S. Navy Medical Research and Development Command and American Society of Engineering Education. \$10,000. "Cold Weather Performance Decrement". 1988. (Funded).

Principal Investigator. Research Grant - Funding Agency: National Inst. Health UNC Biomedical Research Support Grant. \$15,000. "Biochemical Analyses of Stress Reactivity Markers". 1988- 1989. (Funded).

Principal Investigator. Research Grant - Funding Agency: National Inst. Health ISU Developmental Funds. \$2,700. "Circadian Hormonal Release and Exercise". 1988. (Funded).

Principal Investigator. Research Contract - Funding Agency: Cambridge Diagnostics. \$600. "Comparison of human insulin assays". 1987-1988. (Funded).

Co-investigator. Research Grant - Funding Agency: Campbells Research Inst. \$15,200. "Effects of pectin ingestion upon the glucose and insulin responses to exercise". 1987-1988. (Funded).

Principal Investigator. Research Grant - Funding Agency: National Inst. Health. \$350,000. "Exercise and the hypothalamic-gonadal axis in males". 1987. (Approved, funding unavailable).

Principal Investigator. Research Grant - Funding Agency: ISU Achievement Foundation. \$1,800. "Training and the hypothalamic- pituitary-gonadal axis". 1987. (Funded).

Principal Investigator. Research Grant - Funding Agency: Adade Lab. Inc., Diagnostic Products Corp., and Sigma Xi Society. \$4,270. "Menstrual cycle effects on the exercise performance". 1987. (Funded).

Principal Investigator. Research Grant - Funding Agency: Iowa American Heart Assoc., \$8,750. "Effects of hypogonadism on the serum lipids of endurance trained males." 1986. (Approved, funding unavailable).

Principal Investigator. Research Grant - Funding Agency: Diagnostic Products Corp. and Travenol-Genentech Diagnostics Corp., \$7,500. "Hormonal profiles of endurance athletes." 1985-86. (Funded).

## **PROFESSIONAL PRESENTATIONS**

Symposium Speaker: Ciencias del Deporte y del Ejercicio Conference, IUACJ Montevideo, Uruguay, 2008. Sports Nutrition and Performance: Protein, CHO, Fluids, and Overtraining in Athletes and Exercisers (Invited series of 4 lectures).

Symposium Speaker: Women in Sports Conference, IUACJ Montevideo, Uruguay, 2008. Metabolic influences of estrogen on metabolism and performance in women. (Invited lecture).

Research Seminar, Dept. of Kinesiology, California State University-Fullerton, 2008. Influence of estrogen on muscle metabolism. (Invited lecture).

Lecture, Dept. of Kinesiology, California State University-Fullerton, 2008. Cardiovascular adjustments with exercise. (Invited teaching lecture).

Seminar, Institute on Aging, University of North Carolina, 2007. Cancer cachexia and physical exercise. (Invited seminar).

Public Lecture, Instituto Universitario ACJ, Montievideo, Uruguay, 2007. Obesity, nutrition and physical activity. (Invited public lecture).

Seminar, Instituto Universitario ACJ, Montievideo, Uruguay, 2007. Nutritionalh aid to human performance. (Invited seminar).

Tutorial Lecture, Southeast American College of Sports Medicine, 2007. Hormonal regulation of lipid metabolism: implications with obesity. (Invited address).

International Congress on Sports Medicine, Krakow Poland, 2006. Stress and the neuroendocrine system - influence of exercise. (Invited keynote address).

Seminar, Medical College, Jagiellonian University, Krakow Poland, 2006. The neuroendocrine role in obesity. (Invited presentation).

American College of Sports Medicine, Denver, CO, 2006. Adrenergic influences on the hormonal responses to exercise. (Free communication).

Winter Olympic Symposium and Conference, Turin Italy, 2006. Exercise and the neuroendocrine responses of adults and children. (Invited keynote address).

Uruguay College of Physical Education, Montevideo Uruguay, 2005. Exercise training and adaptation - the dangers of overtraining. (invited lecture).

Uruguay Diabetes Association, Montevideo Uruguay, 2005. Obesity: the role of exercise in management and prevention (Keynote speaker).

Uruguay Training Center, Punta de Lesta Uruguay, 2005. Sports training and the Overtraining Syndrome. (Keynote address).

National ACSM meeting. Indianapolis, IN 2004. Stress and the neuroendocrine system: exercise training influences. (Keynote address - symposium).

International Conference on Public Health in Eastern Europe, Krakow Poland, 2003. Public health issues in the USA and curriculum in higher education. (Invited free communication).

International Conference on Performance Incompetence, Ulm, Germany, 2001. Thyroid hormones, exercise stress and training. (Invited symposium).

National ACSM meeting. Indianapolis, IN, 2000. Endocrinology in human exercise studies: uses, concerns, and limitations. (Invited symposium).

National ACSM meeting. Indianapolis, IN, 2000. Use of New aspects of the endocrinology of the high performance athlete - Leptin and the thyroidal axis. (Tutorial lecture).

National Athletic Trainers Association meeting. Nashville, TN, 2000. The effect of exercise on the endocrine system. (Invited symposium).

Polish Society of Sports Medicine, Poznan, Poland, 1999. Theories to the development of overtraining in elite athletes. (Keynote speaker).

Institute of Exercise Biology, Tartu, Estonia, 1998. The hypothalamic-pituitary-gonadal axis and exercise. (Invited seminar).

Faculty of Exercise Science, Tartu, Estonia, 1998. Regeneration and the neuro-endocrine system. (Invited seminar).

Institute of Physical Education, Kaunas, Lithuania, 1998. Statistical techniques for use in human experimental research. (Invited seminar).

Dept. of Physiology-Biochemistry, Institute of Physical Education, Kaunas, Lithuania, 1998. Hormonal response following a bout of acute, stressful exercise. (Invited seminar).

Institute of Sport, Warsaw, Poland, 1998. Hormonal responses during short and long-term recovery from exercise training. (Invited seminar).

Polish National Conference on Sports Medicine, Krynica, Poland. The neuro-endocrine system and the recovery from exercise training. (Keynote speaker).

Academy of Physical Education, Krakow, Poland, 1998. Future research directions in exercise endocrinology. (Invited lecture).

Dept. of Physiology-Biochemistry, Institute of Physical Education, Kaunas, Lithuania, 1998. Testosterone response to exercise training. (Invited seminar).

Workshop on Fatigue, Training & Overtraining in Athletes, Ulm, Germany, 1997. Neuro-endocrine system and regeneration. (Keynote speaker).

Purdue University, Layette, IN, USA, 1997. Metabolic implications of hypothalamic-pituitary-gonadal axis changes with exercise training. (Invited seminar).

Arizona State University, Tempe, AZ, USA, 1997. Metabolic implications of testosterone and estradiol with respect to exercise training. (Invited seminar).

Workshop of Overtraining in Athletes, Ulm, Germany, 1996. Endocrine responses to Overtraining - Discussion Respondent. (Invited seminar).

Institute of Sport, Warsaw, Poland, 1996. Hormonal adaptations to exercise training. (Invited lecture).

Southeast American College of Sports Medicine meeting. Chattanooga, TN, USA, 1996. The male reproductive system and exercise training. (Invited tutorial lecture).

University Exeter, Dept. of Sport Sciences Seminar, Exeter, United Kingdom, 1996. Influences of exercise on the hormonal system in men (Invited lecture).

Oregon State University, Dept. of Exercise Science Seminar, Corvallis, OR, 1995. Reproductive hormone responses to exercise and exercise training in men (Invited seminar).

American Society of Hematology meeting, Seattle, WA, 1995. Effects of hydroxurea on the body weight, body composition, and exercise performance of patients with sickle cell anemia.

Southeast American College of Sports Medicine meeting. Lexington, KY, USA, 1995. Effects of weight loss aids on lipid metabolism. (Invited symposia).

American College of Sports Medicine national meeting. Indianapolis, IN, USA, 1994. Effects of exercise on the male reproductive system. (Invited clinical lecture).

Charles University, Exercise Seminar, Prague, Czech Republic, 1994. Exercise and the hypothalamic-pituitary-gonadal axis (Invited seminar).

Institute of Sport, Seminar, Warsaw, Poland, 1994. The hypothalamic-pituitary-testicular axis and exercise. (Invited lecture).

Academy of Physical Education, Seminar, Poznan, Poland, 1994. The hypothalamic-pituitary-ovarian axis and energy substrate production. (Invited lecture).

Polish Society of Biochemistry Meeting, Seminar, Gdansk, Poland, 1994. The male reproductive system and endurance exercise. (Invited lecture).

National American College of Sports Medicine meeting. Indianapolis, IN, USA, 1994. Thyroid hormone responses to high altitude-cold exposure during mountaineering in the sub-Arctic.

Czech Society of Sports Medicine International Congress. Nymburk, Czech Republic, 1994. Mountaineering: Hydration indices assessing total body water changes.

University of North Carolina - Dept. of Nutrition 1994. Chapel Hill, NC. Effects of estrogens on carbohydrate - lipid metabolism. (Invited Seminar).

The Institute of Nutrition - UNC-CH Research Symposium, 1993, Chapel Hill, NC. Effect of menstrual cycle phase on the blood lactate responses to exercise.

Dept. of Digestive Disease, UNC Hospitals & School of Medicine, 1993. Chapel Hill, NC. Effects of exercise on protein metabolism. (Invited Seminar).

Arizona State University - Exercise Science Institute 1993. Tempe, AZ. Effects of exercise on the hypothalamic-pituitary-gonadal axis in males. (Invited Seminar).

Dept. of Cognitive-Psychophysiology (Naval Health Research Center) 1993. San Diego, CA. Endocrine stress reactivity in males in response to physical activity. (Invited Seminar).

UNC Medical School - Department of Biochemistry 1992. Chapel Hill, NC. Nutritional Biochemistry: Exercise and carbohydrate - protein metabolism (Invited Lecture).

The Institute of Nutrition - UNC-CH Research Symposium, 1992. Effect of menstrual cycle phase on the glucose-insulin relationship at rest and exercise.

National APS 1992. Colorado Springs, CO. Effects of sleep deprivation and physical activity on thyroid hormones during military maneuvers in the Arctic.

National ACSM 1992. Dallas, TX. Relationship of testosterone and luteinizing hormone: effects of aerobic vs anaerobic exercise.

UNC Medical School - Department of Physiology 1992. Chapel Hill, NC. Anabolic steroids: Clinical correlations (Invited Lecture).

SEACSM 1992. Alburn, AL. Thyroid hormones changes during military field operations in the Arctic.

Mountain Allied Health Education Center - Sports Nutrition Symposium 1991. Asheville, NC. Protein Needs of the Athlete (Invited Symposia).

Proceedings of the 8th International Biochemistry of Exercise Meeting 1991. Nagoya, Japan. Influence of the menstrual cycle on glucose-insulin and muscle glycogen responses to endurance exercise.

National ACSM 1991. Orlando, FL. Hormonal markers of maternal- fetal stress reactivity to maximal exercise: comparison of exercise mode.

Dept. Nutrition, Food & Movement Science 1991. Florida State Univ., Tallahassee Florida. The hypothalamic-pituitary-gonadal axis and physical exercise: metabolic implications (Invited Colloquium).

UNC School of Public Health - Sports Nutrition Conference 1991. Chapel Hill, NC. Protein Needs of the Athlete (Invited Symposia).

Sport Psychology Departmental Seminar - UNC-CH 1991. Chapel Hill, NC. Environmental influences on the psychophysiological responses to prolonged physical strain (Invited Seminar).

UNC Medical School - Department of Physiology 1991. Chapel Hill, NC. Anabolic steroids: Clinical correlations (Invited Lecture).

Naval Medical Research Institute 1991. Bethesda, MD. Aerobic and anaerobic performance during cold weather military training (Invited Symposia).

International Nordic Conference on Cold 1991. Tromso, Norway. Endocrine-metabolic response to cold exposure in military personnel.

British Association of Sport and Medicine 1990. Barnstaple, UK. Physiological adaptations and responses of athletes to overtraining (Invited Keynote Address).

NC-AHPERD State Conference 1990. Greensboro, NC. Physiological profiles of the overtrained athlete (Invited Symposia).

National ACSM 1990. Salt Lake City, UT. Female sex hormone influences on physiological responses to submaximal exercise.

UNC Medical School - Department of Physiology 1990. Chapel Hill, NC. Anabolic steroids: Clinical correlations (Invited Lecture).

University of Alberta - Dept. of Sports Studies 1990. Edmonton, Alberta. Hypothalamic-pituitary-gonadal axis function in trained individuals (Invited Seminar).

International Cold Symposium 1990. Minden NV. Physiological responses to cold weather field operations in U.S. Marines (Invited Symposia).

UNC - Department of Naval Sciences 1990. Chapel Hill, NC. Physiological responses to military operations in the cold at moderate altitude (Invited Lecture).

UNC - Department of Exercise Science 1990. Chapel Hill, NC. Physiological performance changes associated with cold and moderate altitude exposure (Invited Symposia).

American Physiological Society 1989. Rochester, MN. Military operations at moderate altitude: effects on total body water.

American Physiological Society 1989. Rochester, MN. Sustain military operations at moderate altitude: effects on anaerobic and aerobic performance.

Johnson Space Center - NASA 1989. Houston, TX. Psycho- physiology of microgravity (Invited Symposia).

East Carolina University 1989. Greenville, NC. Muscle biopsies: Procedures and methodology (Invited Lecture).

Johnson Space Center - NASA 1989. Houston, TX. Physiological profiles of overtrained individuals (Invited Symposia).

ACSM 1989. Baltimore, MD. Effects of exercise on the nocturnal release of select hormones.

USMC Cold Weather Medicine Seminar 1989. Pickel Meadow, CA. Physiological changes in U.S. Marines during cold operations (Invited Seminar).

North Carolina AAHPERD 1988. Greensboro, NC. Comparison of reproductive hormonal profiles in athletic and non-athletic males.

AAASP 1988. Nausha, NH. Physiological profiles of overtrained athletes (Invited Symposia).

IAS 1988. Ames, IA. Effects of intensive training on prolactin responses to submaximal exercise in males.

International Biochemistry of Exercise Conference 1988. London, ONT. The effects of combined aerobic-anaerobic training on post exercise nitrogen excretion.

ISU Dept. PE & LS 1987. Ames, IA. Methodological aspects of radioimmunoassays (Invited Seminar).

CASS 1987. Calgary, AL. Comparison of reproductive hormonal profile at rest and during exercise in endurance trained and untrained males.

ACSM 1987. Las Vegas, NV. Hypothalamic-pituitary-testicular function of endurance trained and untrained males.

American Society of Andrology 1987. Denver, CO. Effects of chronic endurance exercise training on male reproductive hormonal profiles.

KSU Applied Physiology Lab. 1986. Kent, OH. Hypothalamic- pituitary-testicular function in endurance trained males (Invited Seminar).

Northern Illinois University - P.E. & Exerc. Science Seminar 1986. Dekalb, IL. Does exercise effect the hypothalamic-pituitary-gonadal axis in males? (Invited Seminar).

Appalachian State University - P.E. & Exerc. Science Seminar 1986. Boone, NC. Use of estimated residual volume in body density by under water weighing (Invited Seminar).

National ACSM. Indianapolis, IN. The effects of wrestling training on reproductive hormones.

AAHPERD 1986. Cincinnati, OH. Estimating residual volume of male athletes for body density.

CASS 1985. Quebec City, Quebec. Blood and urine profile changes in wrestlers with weight cutting.

CASS 1984. Moncton, N.B. Factor analysis validation of parameters used in pulmonary function classification models.

ACSM 1984. San Diego, CA. Cross-validation of residual volume prediction equations used in body composition estimation of pulmonary dysfunction patients.

CASS 1983. Waterloo, ONT. Interrelationship of isometric, isokinetic, and isotonic leg extensor strength in young adult females.

CASS 1983. Waterloo, ONT. Normative pre-employment isokinetic strength standards in manual laborers.

### **TEACHING - UNIVERSITY LEVEL CLASSES**

Medical Physiology; Steroid Hormones Segment of Endocrinology Unit - UNC-CH, first year medical students, required course. 1990-present.

Nutrition Research – Readings – UNC-CH, undergraduate and graduate laboratory based course taught to and Public Health students. 2000-present.

Human Movement Science – Physiology – UNC-CH, graduate physiology class taught to graduate Allied Health degree students. 1999-present.

Human Physiology - UNC-CH, undergraduate course, general science requirement of university. 1988-present. This is a semester long class dealing with systems physiology in humans. I have taught this course 15 times.

Sports Nutrition – UNC-CH, undergraduate and graduate level of this course taught to Exercise Science and Public Health students. 2000-present.

Human Anatomy - UNC-CH, undergraduate course, general science requirement of university. 1990-1994. This is a semester long class dealing with gross anatomy. I have taught this course 4 times.

Medical Biochemistry; Nutritional Biochemistry Segment - UNC-CH, first year medical students, required course. 1990-1995.

Physiology of Exercise (lecture & laboratory) - UNC-CH, graduate course, required of Exercise Physiology specialization students. 1989-present.

Assessment of Physiological Function in Exercise - UNC-CH, graduate course, required of Exercise Physiology specialization students. 1989-present.

Exercise Biochemistry Laboratory Techniques - UNC-CH, graduate course, elective for specialization students. 1990.

Medical Aspects of Sports - IOWA STATE UNIVERSITY (ISU), graduate course, required of specialization students. 1986-1987.

Exercise Physiology - ISU, undergraduate course, required of specialization students. 1986-1987.

Endocrinology & Exercise: Laboratory – ISU, graduate course, elective for specialization students. 1986-1987.

Human Anatomy - KENT STATE UNIVERSITY (KSU), undergraduate course, required of specialization students. 1985

Medical Physiology I & II: Laboratory - KSU, medical student and graduate course, required. 1985-1986.

### **PROFESSIONAL JOURNAL SERVICE**

Editorial Board: Journal - *Brazilian Journal of Biomechanics*. 2007-present.

Editorial Board: Journal - *Acta Kinesologica - Tartu*. 2007-present.

Editorial Board: Journal – *European Journal of Applied Physiology*. 2002-2007.

Editorial-Advisory Board: Journal – *Kinesiology*. 2001-present.

Editorial Board: Journal – *Medycyna Sportowa*. 2001-2005.

Editorial Board: Journal – *Studies in Physical Culture & Tourism*. 2001-present.

Editorial Board: Journal – *Physical Training, Sport & Education*. 1998-present.

Editorial Board: Journal – *Medicina Sportiva*. 1997-present.

Editorial Board: Journal – *International Journal of Sports Nutrition & Exercise Metabolism*. 1993-present.

Editor Board: Journal – *Biology of Sport*. 1992-present.

Journal Reviewer – *Public Health Nutrition, Journal of Nutritional Biochemistry, Journal of Applied Physiology, Journal of Clinical Endocrinology & Metabolism, European Journal of Applied Physiology*.

### **MISCELLANEOUS PROFESSIONAL SERVICE**

External Reviewer: UNC-CH School of Nursing, Research Support Center. External Grant Review - Children's Health and Fitness proposals. 1997.

Study Group Member: U.S. Army Research and Materials Command. External Grant Review - Committee on Osteoporosis research in Military Women. 1996.

Study Group Member: U.S. Army Research and Materials Command. External Grant Review - Committee on Defense Women's Health Research. 1996.

Study Group Member: U.S. Army Research and Materials Command. Internal Grant Review - Committee on Defense Women's Health Research. 1995.

Committee Member/Advisor: National Academy of Sciences, Institute of Medicine - Food & Nutrition Board, Committee on Defense Women's Health Research. 1995.

Chairman Sub-Committee on Environmental Physiology: National Academy of Sciences, Institute of Medicine - Food & Nutrition Board, Committee on Defense Women's Health Research. 1995.



Speakers Bureau of the American College of Sports Medicine for "Strategic Initiative on Women, Sport, and Physical Activity". 1995-present.

Member - Scientific Board of Directors: UNC Institute of Nutrition, Scientific Grant Review Committee, 1995-present.

Member - Scientific Grant Review Committee: UNC Institute of Nutrition, 1995-present.

Member - Fellowship Review Committee: UNC Institute of Nutrition, 1995-present.

Speakers Bureau of the UNC Institute of Nutrition for "Human Nutrition and Exercise". 1995-present.

External Reviewer: U.S. Department of Agriculture, Agricultural Research Services - Beltsville Human Nutrition Research Center, 1991-92.

### **UNIVERSITY COMMITTEES & SERVICE**

UNC-CH Doctoral Program in Human Movement Science – Chairman of Admissions Committee, Dept. of Allied Health & Dept. of Exercise & Sport Science; Direct admissions process and administer departmental staff dealing with admissions. 1998-2002.

UNC-CH College of Arts & Science – Science Committee Member; Advise the Dean of the College of Arts & Sciences as to the major areas of science research education in the future, 1998-2000.

UNC-CH Graduate Coordinator of Exercise Physiology Specialization - Director; Department of Exercise & Sport Science personnel who are responsible for the selection of graduate students admitted to the Exercise Physiology program, 1995 - 1998.

UNC-CH Human Subjects Review Committee - Chairman; Department of Exercise & Sport Science, 1995 - present.

UNC-CH Departmental Curriculum Committee - Member; Department of Exercise & Sport Science, 1994 - 1995.

UNC-CH General Clinical Research Center Committee - Member; School of Medicine committee responsible for the review and approval of all human based research conducted at the school of medicine and the hospital, 1992 - 1995.

UNC-CH Departmental Search Committee - Chairman; Department of P.E., Exercise & Sport Science search for Exercise Physiologist, 1991 - 1992.

UNC-CH Human Subjects Review Committee - Member; Academic Affairs IRB Committee, College of Arts & Science, 1992 - 1992.

UNC-CH Human Subjects Review Committee - Chairman; Department of P.E., Exercise & Sport Science, 1988 - 1992.

UNC-CH Graduate Admissions Committee - Member; Department of P.E., Exercise & Sport Science committee responsible for the selection of graduate students admitted to the program, 1988 - present.

UNC-CH Departmental Mission Statement Committee - Member; Department of P.E., Exercise & Sport Science committee responsible for drawing up the 5 and 10 year plan of the unit, 1990 - 91.

UNC-CH Departmental Master's Degree Consolidation Committee - Member; Department of P.E., Exercise & Sport Science committee responsible for evaluating the Master's degree areas of focus, 1991 - present.

UNC-CH Faculty Council - Delegate-at-large; faculty government council. 1989 - 90.

ISU Graduate Admissions Committee - Member; Department of Physical Education committee responsible for selection of graduate students admitted to the program, 1987.

ISU Departmental Mission Statement Committee - Member; Department of Physical Education committee responsible for drawing up the 5 year plan of the unit, 1987.

## **GRADUATE STUDENT ADVISEMENT**

- Nicklas, BJ. Effects of the menstrual cycle on exercise substrate, performance, and muscle glycogen. Master's thesis, ISU, 1987.
- Curley, CS. Effects of the menstrual cycle on the physiological responses to submaximal exercise. Master's thesis, ISU, 1988.
- Lockhart, W. The effects of intensity of exercise on protein metabolism. Master's thesis, UNC, 1990.
- Gall, M. Maternal and fetal responses to maximal exercise during swimming and cycling. Master's thesis, UNC, 1990.
- Geisler, PR. Tissue degradation markers and subjective reports of pain from eccentric muscular contractions. Master's thesis, UNC, 1990.
- Pearman, SI. Ninety second cycle ergometer tests for assessing anaerobic glycolytic power. Master's thesis, UNC, 1990.
- Scholtz, M. Can cycling benefit runners? effects of supplementing running with cycling. Master thesis, UNC, 1990.
- McCracken, M. The effects of the menstrual cycle on exercise performance. Master thesis, UNC, 1990.
- Floyd, E. Testosterone and cortisol changes in military personnel during exposure to cold and moderate altitude. Masters thesis, UNC, 1992.
- Premo, M.C. Effects of aerobic and anaerobic exercise on the inter-relationship of male reproductive hormones. Masters thesis, 1992.
- Johnson, K. Testosterone and body composition in men. Masters thesis, UNC, 1992.
- Brammeier, M. Influence of the menstrual cycle on substrate responses to exercise. Masters thesis, UNC, 1992.
- Berend, J. Influence of the menstrual cycle on lactate responses to exercise. Masters thesis, UNC, 1992.
- Holliman, S.C. Effects of physical activity and menstrual cycle phase on macronutrient intake. Masters thesis, 1994.
- Moe, F. Physiological symptoms of acute mountain sickness during a mountaineering expedition. Masters thesis, UNC, 1995.
- Gulledge, T. Reproducibility of low testosterone levels in endurance trained men. Masters thesis, UNC, 1995.
- Logerstedt, D. Validity of the TEEM 100 portable indirect calorimetry system. Masters thesis, 1995.
- Hanish, A. Dietary changes during a mountaineering expedition. Masters thesis, UNC, 1995.
- Fahrner, C. Effects of moderate intensity exercise on testosterone and sex-hormone binding globulin in men. Masters thesis. UNC, 1996.
- McDuffie, J. Hormonal and metabolic characteristics of obese and non-obese binge eater. Doctoral dissertation (co-advisor), UNC, 1997.
- Umsheid, J. Effect of aerobic and anaerobic exercise on thyroid hormone concentrations in men. Masters Thesis, UNC, 1997.
- Kelly, E. Effect of aerobic and anaerobic exercise on sex-hormone binding globulin in men. Masters Thesis, UNC, 1997.
- Styers, A. Influence on estrogen upon muscle tissue damage following eccentric exercise. Masters Thesis. UNC, 1999.

- Wilson, L. Effect of exercise training on thyroid hormones in women athletes. Masters Thesis. UNC, 2000.
- Dobrigde, J. Influence on estrogen upon muscle tissue damage following eccentric exercise in post-menopausal women. Masters Thesis. UNC, 2001.
- Seegers, C. The central fatigue hypothesis and the Hypothalamic-pituitary-adrenal axis. Masters Thesis. UNC, 2001.
- Daly, W. Association of stress hormones to the testosterone response to exercise. Masters Thesis. UNC, 2002.
- Brownlee, K. influence of exerciser on circulating androgen levels in women. Masters Thesis. UNC, 2004.
- Moore, AW. Validity of hormonal markers of training intensity in racing cyclist. Masters Thesis. UNC, 2004.
- Hill, E. Influence of exercise intensity on the cortisol response to exercise. Masters Thesis. UNC, 2005.
- Zack, E. Influence of exercise intensity on the TNF- $\alpha$  response to exercise. Master's Thesis, UNC, 2006.