

CURRICULUM VITAE

Name John L. Ivy, Ph.D.
Position Title Chair, Department of Kinesiology and Health Education
Teresa Lozano Long Endowed Chair

Married to Susan Bard Ivy
Children Brian Charles and Elise Michelle

EDUCATION

Old Dominion University	Physical Education	B.S.	January, 1970
University of Maryland	Exercise Physiology	M.A.	January, 1974
University of Maryland	Exercise Physiology	Ph.D.	August, 1976
Washington University School of Medicine	Physiology	PD Fellow	August, 1980

PROFESSIONAL EXPERIENCE

2005-present Chair, Department of Kinesiology and Health Education, College of Education. Teresa Lozano Long Endowed Chair in Kinesiology and Health Education. College of Pharmacy, Division of Pharmacology, University of Texas, Austin, Texas.

1999-2005 Chair, Department of Kinesiology and Health Education, College of Education. Margie Gurley Seay Centennial Professor. College of Pharmacy, Division of Pharmacology, University of Texas, Austin, Texas.

1998-1999 Margie Gurley Seay Centennial Professor, Coordinator of the Exercise Science Program, College of Education, Department of Kinesiology and Health Education, and College of Pharmacy, Division of Pharmacology, University of Texas, Austin, Texas.

1989-1998 Professor, Coordinator of the Exercise Science Program, College of Education, Department of Kinesiology and Health Education, and College of Pharmacy, Division of Pharmacology, University of Texas, Austin, Texas.

1984-1989 Associate Professor, Coordinator of the Exercise Science Laboratories, College of Education, Department of Kinesiology and Health Education, and College of Pharmacy, Division of Pharmacology, University of Texas, Austin, Texas.

1982-1984 Assistant Professor, College of Education, Department of Kinesiology and Health Education, University of Texas, Austin, Texas.

1980-1982 Assistant Professor, College of Health, Department of Physical Education and School of Medicine, Department of Pharmacology, University of South Carolina, Columbia, South Carolina.

1978-1980 Postdoctoral Fellow, Washington University School of Medicine, Department of Preventive Medicine, St. Louis, Missouri.

1977-1978 Research Associate, Human Performance Laboratory, Ball State University, Muncie, Indiana.

1976-1977 Assistant Professor, Biokinetics Research Laboratory, Department of Physical Education, Temple University, Philadelphia, Pennsylvania.

1971-1973 Biology/Physiology Teacher, Kecoughtan High School, Hampton, VA.

HONORS

Member, Phi Epsilon Kappa Fraternity for Physical Education, University of Maryland, 1971.
Graduate Fellowship, University of Maryland, 1970-1971.
National Research Service Award. National Institutes of Health. 1978-1980.
Fellow, American College of Sports Medicine, 1980.
Member, Sigma Xi, The Scientific Research Society, 1981.
Ambassador for the American College of Sports Medicine, 1986-1990.
Judy Spence Frank Endowed Fellowship for Excellence, University of Texas, 1987-1991.
Dean's Fellowship, University of Texas, 1996-1997.
Inclusion Who's Who in America (1995), Who's Who in Medicine and Healthcare (1997) and Who's Who in Education (2003)
Fellow, National Academy of Kinesiology, 1997-
Margie Gurley Seay Centennial Professorship, 1998-2005
Dean's Distinguished Faculty Award in the College of Education, 2000
Honor Award, Texas Chapter American College of Sports Medicine, 2002
Citation Award, American College of Sports Medicine, 2005
Teresa Lozano Long Endowed Chair in Kinesiology and Health Education, 2005-
Fellow, International Society of Sports Nutrition, 2006
Darden College of Education Fellow, Old Dominion University, Norfolk, Virginia, 2007

Keynote Addresses:

Sports, Cardiovascular and Wellness Nutritionists (SCAN) Annual Conference. Houston, Texas, 1988.
International Sports Science Conference. Hong Kong, China, 1999.
Taiwan National Sports Medicine Congress. Taipei, Taiwan, 2002.
Taiwanese Association of Diabetes Educators and Formosa Active Life Association. Taipei, Taiwan, 2004.
The 3rd SCSEPF (Society on Chinese Scholars on Exercise Physiology and Fitness) Annual Conference. Suzhou, China, 2004.
KNSU International Symposium on the Scientific Approach to Improving Athletic Performance. Seoul, Korea, 2005.
Raven Lecture. American College of Sports Medicine, Texas Chapter Annual Meeting, Denton, Texas, 2006.
6th International Conference on Strength Training. Colorado Springs, Colorado, 2008.
2nd Annual CARE Wellness Meeting. General Mills, Minneapolis, Minnesota, 2010.
7th International Conference on Strength Training, Bratislava, Slovakia, 2010.
2012 Wingate Congress of Exercise and Sport Sciences, Netanya, Israel, 2012.
College of Health Sciences 18th Annual Research Day. Theme: Type II Diabetes. University of Wyoming, Laramie, Wyoming, April 2012.

COURSES TAUGHT AT THE UNIVERSITY OF TEXAS

KIN 395 Physiological Responses to Exercise (Team Taught)
KIN 395 Metabolic Responses to Exercise
KIN 395 Applied Exercise Physiology (Team Taught)
KIN 395 Advanced Exercise Physiology I (Team Taught)
KIN 395 Advanced Exercise Physiology II (Team Taught)

KIN 395 Carbohydrate Metabolism and Exercise
KIN 395 Exercise and Preventive Medicine
KIN 395 & 352 Ergogenic Aids in Sports
KIN 352 Diagnosis and Evaluation of Fitness
KIN 382 Laboratory Techniques in Exercise Physiology
KIN 382 Advanced Laboratory Techniques in Exercise Physiology
KIN 325K Physiology of Exercise
KIN 310 Physical Basis of Conditioning

STUDENT AND POST DOCTORAL SUPERVISION

Postdoctoral Fellows

Jorgen Jensen, Shujia Pan

Doctoral Students

William J. Evans (co-supervisor), William M. Sherman, Joseph Brozinick, Garret Etgen, Carol Torgan, Ho-Youl Kang, Benedict Yaspelkis III, Resa Chandler, Chia-Hua Kuo, Arthur Castle, Desmond Hunt, Donovan Fogt, Lisa Ferguson-Stegall, Jeffrey Bernard, Bei Wang, Yi-Hung Liao

Masters Students with Thesis

William Miller, Steven Farrell, Bess Maxwell, Carol Cutler, Andrea Katz, Man-Cheong Lee, Michael Reed, Mark Willems, Miriam Cortez, Benedict Yaspelkis III, Kathy Zawadzki, Eric Banks, Garret Etgen, Peter Anderla, Zhenping Ding, Kristine Grant, Laura Lichtenberg, Mathew Widzer, Jacob Baty, Lynn Cialdella, Lynne Kammer, Paul Morrison, Vanessa Martinez, Daisuke Hara, Erin McCleave, Jungyun Hwang, Maximilian Kleinert, Benjamin Dessard, Phillip Doerner, Marin Healy, Winyi Wang, Ashlee Simpson, James Burns, David Lassiter

PUBLICATIONS

Books

Ivy, J. and R. Portman. **Nutrient Timing**. Basic Health Publications, Inc. North Bergen, NJ. 2004. (ISBN 1-59120-141-1)

Nutrient Timing is to be published in Chinese, Japanese, Korean and Spanish

Ivy, J. and R. Portman. **The Performance Zone**. Basic Health Publications, Inc. North Bergen, NJ. 2004. (ISBN 1-59120-148-9)

Ivy, J. and R. Portman. **Un Plan de Nutrición para Atletas y Deportistas**. Panorama Editorial, Mexico. 2006.

Portman, R. and J. Ivy. **Hardwired for Fitness**. Basic Health Publications, Inc. North Bergen, NJ. 2011 (ISBN 978-1-59120-276-9).

Monographs

Ivy, J. and R. Portman. **Nutrient Timing System**. Basic Health Publications, Inc. North Bergen, NJ. 2004 (ISBN 1-59120-146-2).

Peer Reviewed Research Articles

- Ivy, J.L. Role of insulin during exercise-induced glycogenesis in muscle: Effect on cyclic AMP. **American Journal of Physiology** 233: E509-E513, 1977.
- Palmer, W.K., A.H. Goldfarb and J.L. Ivy. Circadian and estrogenic influences upon tissue glycogen. **Endocrinology** 105: 1254-1261, 1979.
- Ivy, J.L., D.L. Costill, W.J. Fink and R.W. Lower. Influence of caffeine and carbohydrate feedings on endurance performance. **Medicine and Science in Sports** 11: 6-11, 1979.
- Costill, D.L., W.J. Fink, L.H. Getchell, J.L. Ivy and F. Witzman. Lipid metabolism in skeletal muscle of endurance-trained males and females. **Journal of Applied Physiology** 47: 787-791, 1979.
- Costill, D.L., P. Cleary, W.J. Fink, C. Foster, J.L. Ivy, and F. Witzman. Training adaptations in skeletal muscle of juvenile diabetics. **Diabetes** 28: 818-822, 1979.
- Ivy, J.L., D.L. Costill, W.J. Fink and E. Maglischo. Contribution of medium and long chain triglyceride feedings to energy metabolism during work. **International Journal of Sports Medicine** 1: 15-20, 1980.
- Ivy, J.L., D.L. Costill and B.D. Maxwell. Skeletal muscle determinants of maximum aerobic power in man. **European Journal of Applied Physiology** 44: 1-8, 1980.
- Ivy, J.L., R.T. Withers, P.J. Van Handel, D.H. Elger and D.L. Costill. Muscle respiratory capacity and fiber type as determinants of the lactate threshold. **Journal of Applied Physiology** 48: 523-527, 1980.
- Ivy, J.L., R.T. Withers, G. Brose, B.D. Maxwell and D.L. Costill. Isokinetic contractile properties of the quadriceps with relation to fiber type. **European Journal of Applied Physiology** 47: 247-255, 1981.
- Ivy, J.L., D.L. Costill, P.V. Van Handel, D.A. Essig and R.W. Lower. Alteration in the lactate threshold with changes in substrate availability. **International Journal of Sports Medicine** 2: 139-142, 1981.
- Ivy, J.L. and J.O. Holloszy. Persistent increase in glucose uptake by rat skeletal muscle following exercise. **American Journal of Physiology** 241: C200-C203, 1981.
- Evan, W.J. and J.L. Ivy. The effects of testosterone propionate on hind limb immobilized rats. **Journal of Applied Physiology** 52: 1643-1647, 1982.
- Hintz, C.S., M.M.-Y. Chi, R.D. Fell, J.L. Ivy, K.K. Kaiser, C.V. Lowry and O.H. Lowry. Metabolite changes in individual rat muscle fibers during stimulation. **American Journal of Physiology** 242: C218-C228, 1982.
- Fell, R.D., S.E. Terblanche, J.L. Ivy, J.C. Young and J.O. Holloszy. Effect of muscle glycogen content on glucose uptake following exercise. **Journal of Applied Physiology** 52: 434-437, 1982.
- Ivy, J.L., J.M. Miller, W.M. Sherman, D.L. Costill and B.D. Maxwell. The relationship between muscle QO_2 and fatigue during repeated isokinetic contractions. **Journal of Applied Physiology** 53: 470-477, 1982.
- Rennie, M.J., R.D. Fell, J.L. Ivy, and J.O. Holloszy. Adrenaline reactivation of muscle phosphorylase after deactivation during phasic contractile activity. **Bioscience Reports**. 2: 323-331, 1982.
- Ivy, J.L., W.M. Sherman, W. Miller, S. Farrell and B. Frishberg. Glycogen synthesis: Effect of diet and training. In: **Biochemistry of Exercise**, (Ed.) H.G. Knuttgen, J.A. Vogel and J. Poortmans, Human Kinetics Publishers, Inc. Champaign, IL. 1983, pg. 291-296.

- Borg, T.K., T. Sullivan and J.L. Ivy. Functional arrangement of connective tissue in striated muscle with emphasis on cardiac muscle. **Scanning Electron Microscope**. IV: 1775-1784, 1983.
- Chi, M.M-Y., C.S. Hintz, E.F. Coyle, W.H. Martin III, J.L. Ivy, P.M. Nemeth, J.O. Holloszy, and O.H. Lowry. Effects of detraining on enzymes of energy metabolism in individual human muscle fibers. **American Journal of Physiology** 244: C276-C287, 1983.
- Ivy, J.L., W. Miller, V. Dover, L.A. Goodyear, W.M. Sherman and S. Farrell. Endurance improved by ingestion of a glucose polymer supplement. **Medicine and Science in Sports and Exercise** 15: 466-471, 1983.
- Durstine, J.L., W. Miller, S. Farrell, M. Sherman and J.L. Ivy. Increases in HDL-cholesterol and HDL/LDL cholesterol ratio during prolonged endurance exercise. **Metabolism**. 32: 993-999, 1983.
- Ivy, J.L., J.C. Young, J.A. McLane, R.D. Fell and J.O. Holloszy. Exercise-training and glucose uptake by skeletal muscle in rats. **Journal of Applied Physiology** 55: 1393-1396, 1983.
- Sherman, W.M., L.E. Armstrong, T.F. Murray, F.C. Hagerman, D.L. Costill, R.C. Staron, P. Blom and J.L. Ivy. The effect of a 42.2 K footrace and subsequent rest or exercise on the recovery of neuromuscular power. **Journal of Applied Physiology** 57: 1668-1673, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman and J.L. Ivy. Comparison of serum creatine kinase MB activities post marathon race versus post myocardial infarction. **Clinica Chimica Acta**. 138: 111-118, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman and J. L. Ivy. Creatine kinase isozyme composition in skeletal muscle biopsies obtained from marathon runners. In: **Selected Topics in Clinical Enzymology**, (Ed.) M. Werner and D.M. Goldberg, Walter de Gruyter, New York, 2: 419-427, 1984.
- Miller, W.J., W.M. Sherman and J.L. Ivy. Effect of strength training on glucose tolerance and insulin response. **Medicine and Science in Sports and Exercise** 16: 539-543, 1984.
- Apple, F.S., M.A. Rogers, W.M. Sherman, D.L. Costill, F.C. Hagerman, and J.L. Ivy. Profile of creatine kinase isoenzymes in skeletal muscles of marathon runners. **Clinical Chemistry** 30: 413-416, 1984.
- Miller, W.J., W.M. Sherman, H. Dodd and J.L. Ivy. Influence of dietary carbohydrate on skeletal muscle glucose uptake. **American Journal of Clinical Nutrition** 41: 526-532, 1985.
- Apple, F.S., M.A. Rogers, W.M. Sherman and J.L. Ivy. Creatine kinase MB isoenzyme adaptations in stressed human skeletal muscle. **Journal of Applied Physiology** 59: 149-153, 1985.
- Ivy, J.L., B.A. Frishberg, S.W. Farrell, W.J. Miller and W.M. Sherman. Effects of elevated and exercise-reduced muscle glycogen levels on insulin sensitivity. **Journal of Applied Physiology** 59: 154-159, 1985.
- Sherman, W.M., J.L. Durstine and J.L. Ivy. Marathon running and the effect of subsequent training on serum lipids in trained runners. In: **Exercise Physiology: Current Selected Research**, Vol. II, (Ed.) Charles O. Dotson and James H. Humphreys, AMS Press, Inc. New York, NY. 1986, pg. 63-71.
- Apple, F.S., M.A. Rogers and J.L. Ivy. Creatine kinase MM variants in skeletal muscle and plasma from marathon runners. **Clinical Chemistry** 32: 41-44, 1986.
- Coyle, E.F., A.R. Coggan, M.K. Hemmert and J.L. Ivy. Muscle glycogen utilization during prolonged strenuous exercise when fed carbohydrate. **Journal of Applied Physiology** 61: 165-172, 1986.

- Ivy, J.L., W.M. Sherman, C.L. Cutler and A. Katz. Reduced muscle insulin resistance in the obese Zucker rat by exercise and diet. **American Journal of Physiology** 251: E299-E305, 1986.
- Farrell, S.W. and J.L. Ivy. The relationship between blood lactate, blood pH, and the increase in VE/VO₂. **Journal of Applied Physiology** 62: 1551-1555, 1987.
- Ivy, J.L., M. M-Y. Chi, C.S. Hintz, W.M. Sherman, R.P. Hellendal and O.H. Lowry. Muscle fiber recruitment during exercise of progressive work rate. **American Journal of Physiology** 21: C630-C636, 1987.
- Apple, F.S., M.A. Rogers, D.C. Casal, L. Lewis, J.L. Ivy, and J. W. Lampe. Skeletal muscle creatine kinase MB alterations in women marathon runners. **European Journal of Applied Physiology** 56: 49-52, 1987.
- Lillioja, S., A.A. Young, C.L. Cutler, J.L. Ivy, W.G.H. Abbot, J.K. Zawadzki, L. Christin, H. Yki-Jarvinen, T. Secomb and C. Bogardus. Capillary density in skeletal muscle is a determinant of in vivo "insulin resistance" in man. **Journal of Clinical Investigation** 80: 415-424, 1987.
- Sherman, W.M., A. Katz, C.L. Cutler, W.T. Withers and J.L. Ivy. Glucose transport: locus of muscle insulin resistance in the obese Zucker rat. **American Journal of Physiology** 255:E374-E382, 1988.
- Ivy, J.L., A.L. Katz, W.M. Sherman, C.L. Cutler and E.F. Coyle. Time of carbohydrate ingestion: Effect on rate of glycogen synthesis after exercise. **Journal of Applied Physiology** 64: 1480-1485, 1988.
- Ivy, J.L., M.C. Lee, J.T. Brozinick and M.J. Reed. Muscle glycogen storage following different amounts of carbohydrate ingestion. **Journal of Applied Physiology** 65:2018-2023, 1988.
- Reed, M.J., J.T. Brozinick, Jr., M.C. Lee and J.L. Ivy. Muscle glycogen storage post exercise: effect of mode of carbohydrate administration. **Journal of Applied Physiology** 66: 720-726, 1989.
- Ivy, J.L., J.T. Brozinick, C.E. Torgan and G.M. Kastello. Skeletal muscle glucose transport in obese Zucker rats after exercise training. **Journal of Applied Physiology** 66: 2635-2641, 1989.
- Torgan, C.E., J.T. Brozinick, Jr., G.M. Kastello and J.L. Ivy. Muscle morphological and biochemical adaptations to training in obese Zucker rats. **Journal of Applied Physiology** 67:1807-1813, 1989.
- Torgan, C.E., J.T. Brozinick, Jr., M.E.T. Willems and J.L. Ivy. Substrate utilization during acute exercise in obese Zucker rats. **Journal of Applied Physiology** 69: 1987-1991, 1990.
- Jesek, J.K., N.B. Martin, C.E. Broeder, E.L. Thomas, K.C. Wambsgans, Z. Hofman, J.L. Ivy and J.H. Wilmore. Changes in plasma free fatty acids and glycerol during prolonged exercise in trained and hypertensive individuals taking propranolol and pindolol. **American Journal of Cardiology** 66: 1336-1341, 1990.
- Willems, M.E.T., J.T. Brozinick, Jr., C.E. Torgan, M.Y. Cortez and J.L. Ivy. Muscle glucose uptake of obese Zucker rats trained at two different intensities. **Journal of Applied Physiology** 70: 36-42, 1991.
- Cortez, M.Y., C.E. Torgan, J.T. Brozinick, Jr. and J.L. Ivy. Effects of pyruvate and dihydroxyacetone consumption on the growth and metabolic state of obese Zucker rats. **American Journal of Clinical Nutrition** 53: 847-853, 1991.
- Coyle, E.F., M.T. Hamilton, J.G. Alonso, S.J. Montain and J.L. Ivy. Carbohydrate metabolism during intense exercise when hyperglycemic. **Journal of Applied Physiology** 70: 834-840, 1991.

- Bowles, D.K., C.E. Torgan, S. Ebner, J.P. Kehrer, J.L. Ivy and J.W. Starnes. Effects of acute, submaximal exercise on skeletal muscle vitamin E. **Free Radical Research Communications** 14: 139-143, 1991.
- Cortez, M.Y., C.E. Torgan, J.T. Brozinick, Jr. and J.L. Ivy. Insulin resistance of obese Zucker rats exercise trained at two different intensities. **American Journal of Physiology** 261: E613-E619, 1991.
- Yaspelkis, B.B., III and J.L. Ivy. Effect of carbohydrate supplements and H₂O on exercise metabolism in the heat. **Journal of Applied Physiology** 71: 680-687, 1991.
- Ivy, J.L., J.C. Young, B.W. Craig, W.M. Kohrt and J.O. Holloszy. Aging, exercise and food restriction: Effects on skeletal muscle glucose uptake. **Mechanisms of Ageing and Development** 61: 123-133, 1991.
- Zawadzki, K.M., B.B. Yaspelkis, III and J.L. Ivy. Carbohydrate-protein supplement increases the rate of muscle glycogen storage post exercise. **Journal of Applied Physiology** 72: 1854-1859, 1992.
- Brozinick, J.T., Jr., G.J. Etgen, Jr., B.B. Yaspelkis, III and J.L. Ivy. Contraction-stimulated glucose uptake is normal in insulin resistant muscle of the obese Zucker rat. **Journal of Applied Physiology** 73: 382-387, 1992.
- Rogers, W.R., A.M. Coelho, Jr., K.D. Carey, J.L. Ivy, R. Shade and S.P. Easley. Conditioned exercise method for use with nonhuman primates. **American Journal of Primatology** 27: 215-224, 1992.
- Banks, E.A., J.T. Brozinick, Jr., B.B. Yaspelkis, III, H.Y. Kang and J.L. Ivy. Muscle glucose transport, GLUT-4 content and degree of exercise training in obese Zucker rats. **American Journal of Physiology** 263: E1010-E1015, 1992.
- Kang, Ho-Youl and J.L. Ivy. Muscle GLUT-4 protein content and citrate synthase activity following different exercise intensities. **The Korean Journal of Physical Education** 31: 227-236, 1992.
- Torgan, C.E., J.T. Brozinick, Jr., E.A. Banks, M.Y. Cortez, R.E. Wilcox and J.L. Ivy. Exercise training and clenbuterol reduce the insulin resistance of obese Zucker rats. **American Journal of Physiology** 264: E373-E379, 1993.
- Yaspelkis, B.B., III, G.C. Scroop and J.L. Ivy. Carbohydrate metabolism during exercise in hot and thermoneutral environments. **International Journal of Sports Medicine** 14: 13-19, 1993.
- Etgen, G.J., Jr., J.T. Brozinick, Jr., H.Y. Kang and J.L. Ivy. The effects of exercise training on skeletal muscle glucose uptake and transport. **American Journal of Physiology** 264: C727-C733, 1993.
- Etgen, G.J., Jr., R.P. Farrar and J.L. Ivy. The effect of chronic electrical stimulation on GLUT-4 expression and citrate synthase activity in fast-twitch muscle. **American Journal of Physiology** 264: R816-R819, 1993.
- Brozinick, J.T. Jr., G.J. Etgen, Jr., B.B. Yaspelkis, III, H.Y. Kang, and J.L. Ivy. Effects of exercise training on muscle GLUT-4 protein content and translocation in obese Zucker rats. **American Journal of Physiology** 265: E419-E427, 1993.
- Torgan, C.E., G.J. Etgen, Jr. J.T. Brozinick Jr., R.E. Wilcox and J.L. Ivy. The interaction of aerobic exercise training and clenbuterol: Effects on insulin resistant muscle. **Journal of Applied Physiology** 75: 1471-1476, 1993.
- Yaspelkis, B.B., III, J.G. Patterson, P.A. Anderla, Z. Ding and J.L. Ivy. Carbohydrate supplementation spares muscle glycogen during variable intensity exercise. **Journal of Applied Physiology** 75: 1477-1485, 1993

- Etgen, G.J., Jr., A.R. Memon, G.A. Thompson and J.L. Ivy. Insulin- and contraction-stimulated translocation of GTP-binding proteins and GLUT4 protein in skeletal muscle. **Journal of Biological Chemistry** 268: 20164-20169, 1993.
- Ivy, J.L., M.Y. Cortez, R.M. Chandler, H.K. Byrne and R.H. Miller. Effects of pyruvate on the metabolism and insulin resistance of obese Zucker rats. **American Journal of Clinical Nutrition** 59: 331-337, 1994.
- Chandler, R.M., H.K. Byrne, J.G. Patterson and J.L. Ivy. Dietary supplements affect the anabolic hormones after high resistance exercise. **Journal of Applied Physiology** 76: 839-845, 1994.
- Brozinick, J.T., Jr., G.J. Etgen, Jr., B.B. Yaspelkis, III and J.L. Ivy. The effects of muscle contraction and insulin on glucose transporter translocation in rat skeletal muscle. **Biochemical Journal** 297: 539-545, 1994.
- Brozinick, J.T., Jr., G.J. Etgen, Jr., B.B. Yaspelkis, III and J.L. Ivy. Glucose uptake and GLUT-4 protein distribution in skeletal muscle of the obese Zucker rat. **American Journal of Physiology** 267: R236-R243, 1994.
- Yaspelkis, B.B., III, P.A. Anderla, J.G. Patterson and J.L. Ivy. Ventilation parallels plasma potassium during incremental and continuous variable intensity exercise. **International Journal of Sports Medicine** 15: 460-465, 1994.
- Ivy, J.L., A.M. Coelho, Jr., S.P. Easley, K.D. Carey, W.R. Rogers and R.E. Shade. Training adaptations of baboons to light and moderate treadmill exercise. **Journal of Medical Primatology**. 23: 442-449, 1995.
- Torgan, C.E., G.J. Etgen, Jr., H.Y. Kang and J.L. Ivy. Fiber type-specific effects of clenbuterol and exercise training on insulin-resistant muscle. **Journal of Applied Physiology** 79: 163-167, 1995.
- Brozinick, J.T., B.B. Yaspelkis, III, C.M. Wilson, K.E. Grant, S.W. Cushman, E.M. Gibbs and J.L. Ivy. Glucose transport and GLUT4 protein distribution in skeletal muscle of GLUT4 transgenic mice. **Biochemical Journal** 313: 133-140, 1996.
- Moller, D.E., P.-Y. Chang, J.S. Flier, B.B. Yaspelkis, III and J.L. Ivy. Transgenic mice with muscle-specific insulin resistance develop increased adiposity, impaired glucose tolerance, and dyslipidemia. **Endocrinology** 137: 2397-2405, 1996.
- P.-Y. Chang, J. Jensen, R.L. Printz, D.K. Granner, J.L. Ivy and D.E. Moller. Overexpression of hexokinase II in transgenic mice: evidence that increased glucose phosphorylation augments muscle glucose uptake. **Journal of Biological Chemistry** 271: 14834-14839, 1996.
- Etgen, G.J. Jr., C.M. Wilson, J. Jensen, S.W. Cushman and J.L. Ivy. Glucose transport and cell surface GLUT4 protein in skeletal muscle of the obese Zucker rat. **American Journal of Physiology** 271: E294-E301, 1996.
- Kuo, C.-H., Z. Ding and J.L. Ivy. Interaction of exercise training and clenbuterol on GLUT4 protein in muscle of obese Zucker rats. **American Journal of Physiology** 271: E847-E854, 1996.
- Yaspelkis, B.B., A.L. Castle, R.P. Farrar and J.L. Ivy. Contraction-induced intracellular signals and their relationship to muscle GLUT4 concentration. **American Journal of Physiology** 272: E118-E125, 1997.
- Jensen, J., R. Aslesen, J.L. Ivy and O. Brørs. Role of glycogen concentration and adrenaline on glucose uptake in rat epitrochlearis muscle. **American Journal of Physiology** 272: E649-E655, 1997.
- Etgen, G.J. Jr., J. Jensen, C.M. Wilson, D.G. Hunt, S.W. Cushman and J.L. Ivy. Exercise training reverses insulin resistance in muscle by enhanced recruitment of GLUT4 to the cell surface. **American Journal of Physiology** 272: E864-E869, 1997.

- Grant, K.E., R.M. Chandler and J.L. Ivy. Chromium and exercise training: effect on overweight women. **Medicine and Science in Sports and Exercise** 29: 992-998, 1997.
- Castle, A.L., C.-H. Kuo and J.L. Ivy. Amylin influences insulin-stimulated glucose metabolism by two independent mechanisms. **American Journal of Physiology** 274: E6-E12, 1998.
- Yaspelkis, B.B. III, A.L. Castle, R.P. Farrar and J.L. Ivy. Effect of chronic electrical stimulation and β -GPA diet on muscle GLUT4 protein concentration. **Acta Physiologica Scandinavica**. 163: 251-260, 1998.
- Castle, A.L., C.-H. Kuo, D-H. Han and J.L. Ivy. Amylin mediated inhibition of insulin stimulated glucose transport in skeletal muscle. **American Journal of Physiology** 275: E531-E536, 1998.
- Yaspelkis, B.B. III, A.L. Castle, A. Ding and J.L. Ivy. Attenuating the decline in ATP arrests the exercise training-induced increases in muscle GLUT4 protein and citrate synthase activity. **Acta Physiologica Scandinavica** 165: 71-80, 1999.
- Kuo, C.-H., K.S. Browning and J.L. Ivy. Regulation of GLUT4 protein expression and glycogen storage after prolonged exercise. **Acta Physiologica Scandinavica** 165: 193-202, 1999.
- Goalstone, M.L., K. Wall, J.W. Leitner, T. Kurowski, N. Ruderman, S.J. Pan, J.L. Ivy, D.E. Moller and B. Draznin. Increased amounts of farnesylated p21 Ras in tissues of hyperinsulinemic animals. **Diabetologia** 42: 310-316, 1999.
- Yaspelkis, B.B. III and J.L. Ivy. The effect of a carbohydrate-arginine supplement on post-exercise carbohydrate metabolism. **International Journal of Sports Nutrition** 9: 241-250, 1999.
- Kuo, C.-H., D.G. Hunt, Z. Ding and J.L. Ivy. Effect of carbohydrate supplementation on post-exercise GLUT4 protein expression in skeletal muscle. **Journal of Applied Physiology** 87: 2290-2295, 1999.
- Osman, A.A., J. Hancock, D.G. Hunt, J.L. Ivy and L.J. Mandarino. Exercise training increases MAP Kinase pathway activity in skeletal muscle of insulin resistant Zucker fatty rats. **Journal of Applied Physiology** 90: 454-460, 2001.
- Pan, S.J., J. Hancock, Z. Ding, D. Fogt, M. Lee and J.L. Ivy. Effects of clenbuterol on insulin resistance in conscious obese Zucker rats. **American Journal of Physiology** 280: E554-E561, 2001.
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- McCleave, E.L., L. Ferguson-Stegall, Z. Ding, P. Doerner, B. Wang, L. Kammer and J.L. Ivy. Effect of a low carbohydrate-moderate protein supplement on endurance performance in female athletes. **International Journal of Exercise Science** <http://digitalcommons.wku.edu/ijesab/vol2/iss2/20/>.
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- Kuo, C-H., K-N. Chen, I-M. Tsai, M-C. Chen and J.L. Ivy. Hot spa immersion causes increased stress hormone in athletes with low baseline DHEA-S. **Medicine and Science in Sport and Exercise** 42: S194, 2010.
- Lee, W-C., S-C. Yang, C-F. Ho, D-L. Wang, J.L. Ivy. Effect of ambient oxygen status on muscle glycogen, AMPK, CAMKII and GLUT4 protein expression during post-exercise recovery period. **Medicine and Science in Sport and Exercise** 42: S229, 2010.
- Lee, W-C., S-C. Yang, C-F. Ho, C.L. Wang, J.L. Ivy, and C-H. Kuo. The effects of hypoxia training on muscle oxygen saturation. **Medicine and Science in Sport and Exercise** 43: S626, 2011.
- McCleave, E.L., L. Ferguson-Stegall, Z. Ding, P.G. Doerner, III, Y. Liu, L. Kammer, B. Wang, W. Wang, J. Hwang, and J.L. Ivy. Effects of aerobic training and nutritional supplementation on body composition, immune cells, and inflammatory markers. **Medicine and Science in Sport and Exercise** 43: S303, 2011.
- Ferguson-Stegall, L., E.L. McCleave, Z. Ding, P.G. Doerner, III, Y. Liu, B. Wang, B.M. Dessard, M. Kleinart, M. Healy, D.G. Lassiter, and J.L. Ivy. **Medicine and Science in Sport and Exercise** 43: S403, 2011.
- Liao, Y-H., M. Kleinert, W. Wang and J.L. Ivy. An amino acid mixture enhances insulin-stimulated glucose uptake in isolated rat epitrochlearis muscle. **Medicine and Science in Sport and Exercise** 43: S407, 2011.

- Wang, B., L. Kammer, Z. Ding, D.G. Lassiter, J. Hwang, P.G. Doerner, A.D. Simpson, M. Kleinert, E.L. McCleave, Y-H. Liao, W. Wang, and J.L. Ivy. Amino acid mixture acutely improves the glucose tolerance of healthy overweight adults. **Medicine and Science in Sport and Exercise** 43: S407, 2011.
- Wang, B., Z. Ding, W. Wang, J. Hwang, Y-H. Liao, and J.L. Ivy. Effect of an amino acid beverage on exercise recovery and subsequent anaerobic exercise performance. **Medicine and Science in Sport and Exercise** 44: S293, 2012.
- Wang, W., Y-H. Liao, M. Hsieh, J. Lee, Z. Ding, and J.L. Ivy. Effectiveness of protein, leucine and β -hydroxy- β -methylbutyrate on signaling proteins involved in protein synthesis and degradation. **Medicine and Science in Sport and Exercise** 44: S298, 2012.
- Lassiter, D.G., L. Kammer, Z. Ding, J. Burns, H. Kim, J. Lee, and J.L. Ivy. Even if plasma caffeine is initially elevated energy drink consumption improves cycling performance. **Medicine and Science in Sport and Exercise** 44: S529, 2012.

INVITED PRESENTATIONS

National and International

- Limiting factors of endurance: A brief review. Symposium, Limiting factors of endurance performance. American Alliance for Health, Physical Education, Recreation and Dance, National Convention. New Orleans, Louisiana, March 1979.
- Effect of glucose polymers on submaximal long-term exercise and psychomotor performance. Conference, Application of Nutrient Utilization During Exercise. Tarpon, Florida, February 1982.
- Effect of amphetamines on physical performance. Symposium, Improving Athletic Performance: How Effective are Ergogenic Aids? American College of Sports Medicine, National Convention. Minneapolis, Minnesota, May 1982.
- The effects of diet and exercise on skeletal muscle insulin sensitivity. Clinical Research Section, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, NIH. Phoenix, Arizona, February 1984.
- Principles of weight training: Implications in conditioning and rehabilitation. Cybex Conference. Orlando, Florida, May 1985.
- Adaptation of muscle to aerobic and anaerobic exercise. Cybex Conference. Orlando, Florida, May 1985.
- Analysis of three types of isotonic loading, velocity and progressive ranging. Cybex Conference. Las Vegas, Nevada, October 1985.
- Adaptation of muscle, soft tissue and joint to exercise training. Cybex Conference. Las Vegas, Nevada, October 1985.
- Exercise training increases skeletal muscle glucose transport in the obese rat. Endocrinology and Metabolism Unit, Vermont College of Medicine, Burlington, Vermont, January 1985.
- Muscle glycogen repletion following exercise. Symposium, Carbohydrate Feeding During and Following Exercise. American College of Sports Medicine, National Convention. Indianapolis, Indiana, May 1986.
- Evaluation of a high fat-protein diet (Nutritional Sustainment Module) on endurance capacity during exercise of different intensities. The Committee on Military Nutrition Research of the Food and Nutrition Board, Institute of Medicine, National Academy of Science, Washington, D.C. February 1987.

Recommendations and suggestions for the prevention of injury during endurance athletic events. Conference, Medical Coverage of Endurance Athletic Events. New Orleans, Louisiana, April 1987.

Carbohydrate metabolism pre-, during and post-exercise. Sports and Cardiovascular Nutritionists Symposium. The American Dietetic Association. Houston, Texas, April 1988.

The locus of muscle insulin resistance in the obese Zucker rat. Department of Medicine, Division of Cardiology and Positron Diagnostic and Research Center, University of Texas Medical School at Houston, Houston, Texas, January 1988.

Glucose metabolism in insulin resistance muscle: effect of exercise. Symposium, Regulation of Muscle Glucose Metabolism: Acute and Chronic Effects of Exercise. American College of Sports Medicine, National Convention. Dallas, Texas, May 1988.

Energy recovery in training and racing. Maximizing Athletic Performance: A Medical Seminar on Applications in Cycling and Endurance Training. United States Cycling Federation. Spokane, Washington, July 1988.

Post-event nutrition. Conference, The Theory and Practice of Athletic Nutrition: Bridging the Gap. Monterey, California, December 1988.

Effect of exercise on muscle metabolism and insulin resistance of the obese Zucker rat. Medical Division, Ross Laboratories, Columbus, Ohio, April 1988.

Carbohydrate supplements during and immediately following exercise. Workshop: Use of Carbohydrate-Electrolyte Solutions by Field Soldiers. The Committee on Military Nutrition Research of the Food and Nutrition Board, Institute of Medicine, National Academy of Science, Washington, D.C., February 1989.

Rapid muscle glycogen storage and recovery post exercise. United States Triathlon Series, Exceed Clinic. Houston, Texas, July 1989.

Carbohydrate supplementation during and immediately post exercise. Symposium: Nutrition and Athletic Performance. American College of Nutrition. Norfolk, Virginia, September 1989.

Muscle glycogen resynthesis after exercise. National Track Coaches Association. Austin, Texas, January 1990.

Effects of carbohydrate supplementation during and immediately post-exercise on glycogen utilization, repletion and performance. Symposium, Effects of Energy and Protein Intake on Metabolic Responses to Exercise. The American Society for Clinical Nutrition, Inc. Washington, D.C., May 1990.

Hindlimb perfusion studies on insulin-resistant muscle. Symposium, The Regulation of Glucose Transport in Skeletal Muscle. Federation of American Societies for Experimental Biology/American Physiological Society Annual Meeting. Atlanta, Georgia, April 1991.

Resynthesis of muscle glycogen after exercise. Satellite Symposium: Diabetes Mellitus and Exercise. 14th International Diabetes Federation Congress. Burlington, Vermont, July 1991.

Carbohydrate supplementation before, during and after exercise. Shaklee U.S.A., Inc. San Francisco, California, April 1991.

Exercise and complications of diabetes. Symposium: Practical Aspects of Exercise Therapy for Diabetes. American Diabetes Association, Annual Meeting. San Antonio, Texas, June 1992.

Carbohydrate supplementation during and after exercise. NCAA Track Coaches Association. Austin, Texas, June 1992.

How much should you drink in the wilderness: Does it make a difference? Wilderness Medical Society, 8th Annual Scientific Meeting. Keystone, Colorado, September 1992.

Potential food components that influence physical performance: An overview of ergogenic aids. Workshop: Potential Performance Enhancing Food Components for Operational Rations. The Committee on Military Nutrition Research of the Food and Nutrition Board, Institute of Medicine, National Academy of Sciences. Washington, D.C., November 1992.

Physical activity in insulin resistant states. Workshop: Physical Activity and Obesity. National Task Force on Prevention and Treatment of Obesity, National Institutes of Diabetes and Digestive and Kidney Diseases. Washington, D.C., December 1992.

Nutritional supplementation for recovery and prolonged aerobic performance. Scientific Advisory Board Meeting, Shaklee U.S. Inc. San Francisco, California, February 1993.

Effects of exercise training on the muscle insulin resistance of the obese Zucker rat. Pfizer Pharmaceuticals, Inc., Groton, Connecticut, April 1994.

The effect of exercise training on insulin-stimulated glucose uptake in rat skeletal muscle. Biochemistry of Exercise, Ninth International Conference. Aberdeen, Scotland, July 1994.

Exercise training and skeletal muscle GLUT4 expression in the obese Zucker rat. Department of Physiology and Molecular Biology, Vanderbilt University, Nashville, Tennessee February 1995.

Interaction of exercise training and clenbuterol on glucose uptake and GLUT-4 protein in insulin-resistant muscle. Symposium: Regulation of Glucose Transport by Exercise, Stress and Growth Factors. Federation of American Societies for Experimental Biology/American Physiological Society Annual Meeting. Atlanta, Georgia, April 1995.

Regulation of muscle glycogen storage after exercise. The Norwegian University of Sport and Physical Education. Oslo, Norway, May 1995.

Carbohydrate and lipid metabolism in exercise. Symposium: Fuel Flux in Exercise. American Diabetes Association, Annual Meeting. Atlanta, Georgia, June 1995.

Dietary carbohydrate in sports performance. Meeting on, Nutrition and Sports Performance. Bristol-Myers Squibb Company. Cape Cod, Massachusetts, July 1995.

Carbohydrate supplements and muscle glycogen storage post exercise. Chungbuk National University, Chungbuk, South Korea, October 1995.

The role of exercise in the prevention and treatment of NIDDM. '95 KNUPE International Symposium. Korean National College of Physical Education. Seoul, South Korea, October 1995.

Glycogen resynthesis after exercise: effects of carbohydrate intake. International Conference on Dehydration, Rehydration and Exercise in the Heat. Nottingham, England, November 1995.

Skeletal muscle fiber type specific effects of amylin on insulin-stimulated glucose uptake and transport. Pfizer, Inc., Groton, Connecticut, September 1996.

Exercise training and regulation of glucose uptake in insulin resistant muscle. Symposium: Regulation of Glucose Utilization by Working Muscle. APS Intersociety Meeting on The Integrative Biology of Exercise, Vancouver, Canada, October 1996.

Carbohydrate supplementation and muscle glycogen synthesis after exercise. Mead Johnson & Company, Evansville, Indiana, November 1996.

Exercise training reverses the muscle insulin resistance of the obese Zucker rat: Role of increased GLUT4 expression. Department of Physiology and Biophysics, University of Southern California School of Medicine, Los Angeles, California, January 1997.

Recovery processes after exercise: Glucose transporters in skeletal muscle. Acta Physiologica Scandinavica Symposium. Gudbrandsdalen, Norway, February 1997.

Exercise reverses insulin resistance in muscle of the obese Zucker rat. Institute of Occupational Health, Oslo, Norway, March 1997.

Effects of pyruvate supplementation on metabolism and aerobic endurance capacity. Pacific Health Laboratories, Inc. Meeting. Colorado Springs, Colorado, May 1997.

Insulin resistance, GLUT4 and exercise. Symposium, Skeletal Muscle Glucose Transporters (GLUT4) in Health and Disease. American College of Sports Medicine Annual Meeting. Denver, Colorado, May 1997.

Biochemical and molecular biology. Symposium: Physical Activity and NIDDM. 16th International Diabetes Federation Congress, Helsinki, Finland, July 1997.

Effect of exercise training on impaired glucose tolerance in non-insulin dependent diabetic patients. International Symposium on Nutrition and Hydration in Sports. Rosario, Argentina, September 1997.

Regulation of muscle glycogen synthesis after exercise. Carbohydrates and diet prescriptions. International Symposium on Nutrition and Hydration in Sports. Rosario, Argentina, September 1997.

Effect of exercise on insulin resistant muscle and GLUT4 expression. Yale University School of Medicine, New Haven, Connecticut, October 1997.

Regulation of GLUT4 expression after exercise and its effects on glycogen synthesis. John B. Pierce Laboratories, Inc. Yale University, New Haven, Connecticut, November 1997.

Opportunities and challenges of human nutrition, foods and exercise in the 21st century. Department of Human Nutrition, Foods and Exercise, Virginia Technological Institute, Blacksburg, Virginia, May 1998.

Caffeine and carbohydrate supplementation for physical performance. Workshop: Caffeine Formulation for Sustainment of Mental Task Performance in Military Operations. The Committee on Military Nutrition Research of the Food and Nutrition Board, Institute of Medicine, National Academy of Science, Washington, D.C., February 1999

Rapid resynthesis of muscle glycogen after exercise. Keynote Address. International Sports Science Conference: Kinesiology and Physical Education in the 21st Century – From Theory to Practice. Hong Kong, China, September 1999.

The effect of pyruvate supplementation on metabolism and physical performance. Canadian Society of Exercise Physiology Annual Meeting. Toronto, Canada, October 1999.

Role of GLUT4 expression and muscle glycogen synthesis. Department of Cell Biology, University of Toronto Medical School. Toronto, Canada, October 1999.

Decreasing fat - thermogenics (ephedrine, caffeine and combinations) pyruvate, chromium, carnitine, hydroxycitrate. International Life Sciences Institute. St. Petersburg, FL, January 2000.

Exercise training, GLUT-4 translocation and glucose transport. Symposium, Physiology and Biochemistry of Exercise in Insulin-Resistant States. American Diabetes Association Annual Meeting. San Antonio, Texas, June 2000.

Exercise training and muscle insulin resistance in the fatty Zucker (fa/fa) rat. Pennington Institute, Baton Rouge, Louisiana, September 2000.

Exercise training and type 2 diabetes. University of Pittsburgh School of Medicine. Pittsburgh, Pennsylvania, March 2001.

Exercise training and muscle insulin resistance of the obese Zucker rat. University of Pittsburgh School of Medicine. Pittsburgh, Pennsylvania, March 2001.

Exercise training and type 2 diabetes. Yale University School of Medicine. New Haven, Connecticut, April 2001.

Exercise training and regulation of muscle glucose transport. Yale University School of Medicine. New Haven, Connecticut, April 2001.

The latest in recovery nutrition for athletes. Sports, Cardiovascular and Wellness Nutritionists (SCAN) Annual Conference. Washington, DC, April 2001.

Dietary strategies to promote glycogen synthesis after exercise. First International Scientific Congress on Nutrition & Athletic Performance. Edmonton, Alberta, Canada, August 2001.

Exercise, muscle insulin resistance and GLUT 4 expression. Department of Kinesiology and Health Education Seminar Series, University of Colorado, Boulder, Colorado, April 2002.

Effect of exercise training on glucose transport in insulin resistant muscle. Washington University Applied Physiology Reunion. St. Louis, Missouri, June 2002.

Exercise training and type 2 diabetes. Keynote Address. Taiwan National Sports Medicine Congress. Taipei, Taiwan, November 2002.

Exercise and the elderly. Taiwan National Sports Medicine Congress. Taipei, Taiwan November 2002.

Recovery from prolonged aerobic exercise. National College of Physical Education and Sports. Taipei, Taiwan November 2002.

Carbohydrate and protein for rapid recovery from exhaustive exercise. Symposium: Nutritional Strategies for Military Crew. Operation and Performance Considerations. Aerospace Medicine Association Annual Scientific Meeting. San Antonio, Texas, May 2003.

Improvements in insulin resistance with exercise training: Is increase in GLUT4 expression the answer? Symposium, Preventing Insulin Resistance Through Exercise: A Cellular Approach. American College of Sports Medicine, National Convention. San Francisco, California, May 2003.

Overview of carbohydrates and performance. Wheaties Fitness Summit. Bell Institute of Health and Nutrition, General Mills, Inc., Minneapolis, Minnesota, July 2003.

Enhancing recovery from exercise with carbohydrate –protein supplementation. 2003 Daegu Universiade Conference. World University Games. Yeungnam University, Gyeongsan, South Korea, August 2003.

The importance of an increase in GLUT4 protein concentration with exercise training. Kyungpook National University, Daegu, South Korea, August 2003.

Exercise recovery nutrition. USA Swimming Sports Medicine Conference. San Diego, California, September 2003.

Powering muscles: Coaching nutrition for winning basketball. Women's Basketball Coaching Association Annual Meeting. New Orleans, Louisiana, April 2004.

Regulation of Muscle Glycogen Repletion and Tissue Repair, International Society of Sports Nutrition Annual Conference. Las Vegas, Nevada, June 2004.

Exercise and the Metabolic Syndrome. Keynote Address. Taiwanese Association of Diabetes Educators and Formosa Active Life Association. Taipei, Taiwan. July 2004.

Muscle insulin resistance amended with exercise training: What we have learned from the obese Zucker rat. Taiwan Medical Association. Taipei, Taiwan. July 2004.

Timing and optimization of dietary supplements for recovery and performance. 2004 International Forum on Sports Nutrition and Food. China Sports and Nutrition and Food Society. Beijing, China, July 2004.

Recovery from exercise: the importance of nutrient timing and composition. Benedictine University, Peter Healey Seminar, Lisle, Illinois, September 2004.

Timing and optimization of dietary supplements for exercise recovery and performance. Keynote Address. The 3rd SCSEPF (Society on Chinese Scholars on Exercise Physiology and Fitness) Annual Conference. Suzhou, China, October 2004.

Timing and optimization of dietary supplements for exercise recovery and performance. Hong Kong Baptist University, Hong Kong, China, November 2004.

Exercise and insulin resistance, what we have learned from animal models. Keynote Address. Symposium: Exercise training effects on insulin resistance and Type 2 diabetes. American College of Sports Medicine Annual Meeting, Nashville, Tennessee, June 2005.

The importance of protein in a sports recovery drink. San-Ei Gen F.F.I., Inc. Osaka, Japan, September 2005.

Effect of carbohydrate/protein supplements on recovery from exercise. Fatigue and Recovery Symposium. Japanese Society of Food Chemistry/FFI Journal Editorial Committee. Osaka, Japan, September 2005.

Timing and optimization of nutrient intake for exercise recovery and performance. 2005 KNSU International Symposium on the Scientific Approach to Improving Athletic Performance, Keynote Address. Seoul, South Korea, October 2005.

Nutrient timing for improved recovery: the importance of protein and carbohydrate. Konkuk University. October 2005.

Nutrient timing and the recovery from exercise. Pre-Olympic Scientific Meeting, Sponsored by DSM, Turin, Italy, February, 2006.

The role of carbohydrate and protein on post-exercise recovery. International Society of Sports Nutrition Annual Conference. Las Vegas, Nevada, June 2006.

What should a sports drink consist of? International Society of Sports Nutrition Annual Conference. Las Vegas, Nevada, June 2006.

Exercise Physiology: A brief history and recommendations regarding content requirements for the kinesiology major. American Academy of Kinesiology and Physical Education Annual Meeting. Tucson, Arizona, September 2006.

Dietary strategy to promote glycogen synthesis after exercise. International Congress of Sciences Applied to Sport. Mexican Olympic Sports Centre. Mexico City, Mexico, November 2006.

The effect of carbohydrate-protein supplementation on exercise performance and recovery. International Congress of Sciences Applied to Sport. Mexican Olympic Sports Centre. Mexico City, Mexico, November 2006.

Effects of recovery beverages on glucose restoration and endurance exercise performance. Technological Institute of Higher Studies of Monterrey. Mexico City, Mexico, November 2006.

Effect of Carbohydrate/Protein Supplements and the Timing of Its Ingestion on Recovery from Exercise. Sports, Cardiovascular and Wellness Nutritionists (SCAN) Annual Conference. Austin, Texas, April 2007.

Appropriate post endurance exercise nutrient intervention activates signaling pathways that control glycogen storage and protein synthesis. International Society of Sports Nutrition Annual Conference. Las Vegas, Nevada, June 2007.

Effect of carbohydrate/protein supplements on exercise performance and recovery. 10th International Congress on Amino Acids and Protein. Kallithea-Chalkidiki, Greece, August, 2007.

Nutritional supplementation to improve exercise performance and recovery. 2nd Voedings- & Gezondheidscongres, Amsterdam, The Netherlands, November 2007.

The role of protein in post exercise metabolism and recovery. University of Limerick, Limerick, Ireland, May 2008.

The effectiveness of caffeine as an ergogenic aid. International Society of Sports Nutrition Annual Conference. Las Vegas, Nevada, June 2008.

Potential for protein ingestion during aerobic-based exercise to improve performance and facilitate skeletal muscle recovery. Gatorade Sport Science Institute Annual Meeting. Huntington Beach, California, July 2008.

Nutrient timing: controls of post exercise metabolism and recovery. Chon-Nam University, Gwangju, South Korea, July 2008.

Nutrient timing: controls of post exercise metabolism and recovery. Chungnam National University, Daejeon, South Korea, July 2008.

Nutrient timing: its effect on recovery from exercise and glucose tolerance. Seoul National University. Seoul, South Korea, July 2008.

Training session feedings to enhance muscle adaptation: Importance of timing and nutritional selection. 6th International Conference on Strength Training. Colorado Springs, Colorado, October 2008.

Timing and optimization of dietary supplements for exercise recovery, performance and training adaptation. American College of Nutrition Annual Conference, Orlando, Florida, October 2009.

Hardwired for fitness. 2nd Annual CARE meeting. General Mills, Minneapolis, Minnesota, January, 2010.

Departmental productivity, accountability, assessment and disclosure: A guide to flourishing even during economic hard times. American Academy Association Leadership Workshop. American Academy of Kinesiology. Dallas, Texas, January 2010.

Nutrition for muscle and performance. 2010 Health & Fitness Summit Program. American College of Sports Medicine. Austin, Texas, April 2010.

Nutrient timing and recovery. Collegiate Sports Dietitians 2010 Symposium. Gulf Breeze, Florida, May 2010.

Dietary strategies to promote muscle glycogen replenishment. Performance Nutrition Symposium. National Strength and Conditioning Association. Columbus, Ohio, October 2010.

The effect of carbohydrate/protein supplementation on training adaptation. Keynote Address. 7th International Conference on Strength Training, Bratislava, Slovakia, October 2010.

The athlete's 24-hour meal plan. Sports, Cardiovascular and Wellness Nutritionists (SCAN) Annual Conference. Chicago, Illinois, March 2011.

CHO/PRO Supplementation on Exercise Performance and Recovery. Norwegian School of Sport Sciences. Oslo, Norway, May 2011.

The Effect of Amino Acids on Blood Glucose and Muscle Glucose Uptake. Norwegian School of Sport Sciences. Oslo, Norway, May 2011.

Synergistic actions of carbohydrate and protein supplementation for exercise recovery. National Strength and Conditioning Association, Columbus, Ohio, August 2011.

CHO/PRO supplementation improves exercise performance and recovery. 2011 International Whey Conference Speakers. Chicago, Illinois, September 2011.

Impact of Nutrient Timing: Practical Implications. EAS Academy Nutrition Summit, Dallas, Texas, October 2011.

The effect of carbohydrate and protein supplementation on exercise performance, recovery and training adaptation. 2012 Wingate Congress of Exercise and Sport Sciences, Netanya, Israel, March, 2012.

The effect of exercise and nutrition on blood glucose control and insulin action. College of Health Sciences 18th Annual Research Day. Theme: Type II Diabetes. University of Wyoming, Laramie, Wyoming, April 2012.

Nutrient timing throughout the day. EAS/NSCA Nutrition Summit. Athletes' Performance at Field House, Frisco, Texas, September 2012.

The role of nutrition in adaptation to exercise: The importance of the pre and post exercise supplement. EAS/NSCA Nutrition Summit. Seattle, Washington, October 2012.

Nutrient timing throughout the day. EAS/NSCA Nutrition Summit. Los Angeles, California, October 2012.

Regional

Control of body composition and weight by exercise. Weight Control Symposium. Sponsored by the Dairy Council of America and Health Department of Temple University. April 1977.

Physiological and biochemical alterations in the elite athlete. Conference, Sports Medicine-Sports Psychology; Advancing the Potential of the North American Athlete. Albert Einstein Medical Center, Philadelphia, Pennsylvania, February 1977.

The ergogenic effects of glucose and caffeine. Central States Chapter of the American College of Sports Medicine, Annual Meeting. Springfield, Missouri, September 1979.

Factors affecting glucose uptake and insulin sensitivity in well trained individuals. Conference, Exercise Rehabilitation for Special Population. University of South Carolina, Columbia, South Carolina, October 1982.

Muscle glycogen resynthesis after exercise. Central States Chapter of the American College of Sports Medicine, Annual Meeting. Muncie, Indiana, October 1990.

Diabetes and exercise training. Greater New York Regional Chapter of the American College of Sports Medicine, Annual Meeting. New York, New York, November 1990.

Diabetes complications and exercise programs. Greater New York Regional Chapter of the American College of Sports Medicine, Annual Meeting. New York, New York, November 1990.

Regulation of muscle glycogen synthesis after exercise: role of GLUT4 expression. Southeastern Chapter of the American College of Sports Medicine, Annual Meeting. Norfolk, Virginia, February 1999.

Insulin signaling and exercise training. Southeast American College of Sport Medicine Basic Research Presentation. Atlanta, Georgia, January 2004.

Nutrient timing. ISSN Symposium: Training and Nutrition for Strength Power Athletes. Baylor University, Waco, Texas, December 2005.

Regulation of muscle glycogen storage, an important process for the regulation of blood glucose. Raven Lecture, American College of Sports Medicine, Texas Chapter, February 2006.

Nutrient time and selection: Important considerations for exercise recovery and training adaptation. Southwest American College of Sport Medicine, Annual Meeting. San Diego, California, November 2006.

State

Importance of physical activity for the diabetic. South Carolina Alliance for Health, Physical Education and Recreation, Annual Meeting. Myrtle Beach, South Carolina, March 1982.

Glucose as an ergogenic aid. Sigma Xi Lecture Series. Texas Women's University, Denton, Texas, March 1983.

Exercise and diet: Effect on blood lipids. American Heart Association, Texas Affiliate, Austin, Texas, January 1984.

Nutrition and exercise performance. Certification Workshop. Aerobics and Fitness Association of America. Austin, Texas, June 1984.

Fluid and carbohydrate supplementation for the endurance athlete. Tall Pines Dietetic Association. Houston, Texas, October 1984.

Blood lactate threshold: What determines it? Annual Meeting of the Texas Chapter of the American College of Sports Medicine. Austin, Texas, November 1986.

Perfused hindlimb of the rat: Study of carbohydrate metabolism. Workshop: Annual Meeting of the Texas Chapter of the American College of Sports Medicine. Austin, Texas, November 1986.

The effect of exercise on the muscle insulin resistance of the obese Zucker rat. Department of Physical Education, University of Maryland, College Park, Maryland, May 1987.

Exercise and the prevention of type II diabetes. Annual Meeting of the Texas Chapter of the American College of Sports Medicine. Houston, Texas, November 1988.

Substrate utilization by obese Zucker rats during submaximal exercise. Department of Health and Physical Education, Ohio State University, Columbus, Ohio, January 1990.

Exercise training reduces the muscle insulin resistance of the obese Zucker rat. US Department of Agriculture/Human Nutrition Research Center on Aging, Tufts University, Boston Massachusetts, June 1991.

American College of Sports Medicine Tour of Texas, April 1992.

Regulation of muscle glycogen storage after exercise. Departments of Biology and Physical Education, Texas Lutheran College, Seguin, Texas.

Regulation of muscle glycogen storage after exercise. Department of Health and Kinesiology, Texas A & M University, College Station, Texas.

Regulation of muscle glycogen storage after exercise. Department of Physical Therapy, Texas Women's University in Houston.

Effect of exercise training on the muscle insulin resistance of the obese Zucker rat. Department of Physiology, University of Texas Health Center, Tyler, Texas.

Regulation of muscle glycogen storage after exercise. Department of Physical Education, University of Texas, Arlington, Texas.

Effect of exercise training on the muscle insulin resistance of the obese Zucker rat. Department of Physiology, Texas College of Osteopathic Medicine, Fort Worth, Texas.

Effect of exercise training on the muscle insulin resistance of the obese Zucker rat. Department of Physical Education and Medical School, Texas Tech University, Lubbock, Texas.

Exercise - Can it prevent or improve diabetes? Diabetes and Blindness Symposium. Texas Commission for the Blind. Austin, Texas, January 1994.

Carbohydrate regulation during exercise. University of Texas Health Science Center. San Antonio, Texas, April 1994.

Carbohydrate supplementation and muscle glycogen resynthesis post exercise. Exercise Science Department, Arizona State University, Tempe, Arizona, November 1994.

Exercise training and the regulation of muscle glucose uptake. Diabetes Symposium. Texas Medical Association Annual meeting. Dallas, Texas, May 1995.

Physical activity, exercise and carbohydrate metabolism. Annual Meeting of the Texas Chapter of the American College of Sports Medicine. Seguin, Texas, February 1997.

Regulation of GLUT4 expression and glycogen storage by carbohydrate supplementation following exercise. Department of Nutrition. Texas A&M University, College Station, Texas, March 1999.

Exercise and type I diabetes. American Diabetes Association, Texas Chapter. Camp Bluebonnet, Georgetown, Texas, July 1999.

Exercise and diabetes. Update on Diabetes for the Year 2000. Valley Regional Medical Center. Brownsville, Texas November 2000.

Exercise and type 2 diabetes. Twenty-Eighth Annual Texas Human Nutrition Conference, Texas A&M University, College Station, Texas, February 2001.

Nutritional considerations for rapid recovery from prolonged, aerobic exercise. Annual Meeting of the Texas Chapter of the American College of Sports Medicine. Fort Worth, Texas, February 2001.

Exercise and type 2 diabetes. Medical School Seminar Series. University of Texas Health Science Center, Houston, Texas, January 2002.

Exercise and type 2 diabetes. Southeast Texas Association of Diabetes Educators. Houston, Texas, October 2002.

Exercise recovery: What are the nutritional considerations? Keynote Address. Biology and Kinesiology Senior Seminar Symposium. Texas Lutheran University, Seguin, Texas, March 2003.

Timing and optimization of nutrient intake for exercise recovery and performance. 32nd Texas Human Nutrition Conference, Going for the Gold: Optimal Nutrition for Sports and Exercise Performance. Texas A&M University, College Station, February 2005.

The effect of exercise training on insulin resistance. Department of Pharmacology and Neuroscience, Texas Tech University Health Science Center, November 2005.

Exercise training and insulin signaling in the obese Zucker rat. Department of Integrative Physiology, University of North Texas Health Science Center, Fort Worth, Texas, December 2005.

Exercise, a matter of life and death. Chervon Corporation, Houston, Texas, December 2005.

Glucose transport, GLUT4 and intracellular signaling after exercise training in the obese Zucker rat. The University of Texas Medical Branch @ Galveston, Galveston, Texas January 2006.

Nutritional supplementation and its timing for rapid recovery from exercise. Texas A&M International University, Laredo, Texas April 2008.

Exercise Training and Insulin Resistance: What We Have Learned From Animal Models. School of Public Health, Brownsville, Texas March 2009.

Local

Effect of physical training on glucose tolerance and insulin sensitivity. Seminar Series. University of South Carolina Medical School. Columbia, South Carolina, November 1981.

Controlling glucose tolerance with diet and exercise. Lecture Series, Department of Physical and Health Education, The University of Texas. Austin, Texas, January 1982.

Relationship of muscle glycogen concentration and muscle insulin sensitivity. Seminar Series. Department of Nutrition. The University of Texas. Austin, Texas, February 1983.

Nutrition and exercise. Austin Dietetic Association, St. David's Hospital. Austin, Texas, May 1983.

Exercise and diabetes. Grand Rounds, Internal Medicine Education Program. Brackenridge Hospital, Austin, Texas, December 1985.

Aging, Diabetes and Exercise. University of Texas, Austin, Texas, March 1991.

Effect of exercise on glucose transport and GLUT4 expression in the skeletal muscle of the obese Zucker rat. College of Pharmacy, Division of Pharmacology. University of Texas, Austin, Texas, September 1995.

The effect of chronic muscle contraction on insulin-stimulated glucose transport in insulin resistant muscle. Department of Nutrition. University of Texas, Austin, Texas, December 1997.

Ergogenic aids in sports. LAMP. Austin, Texas, October, 1999.

Your responsibilities as a graduate of the University of Texas. Commencement Address, College of Education, Fall Convocation. Austin, Texas, December 2000.

Exercise and type 2 diabetes. LAMP. Austin, Texas, February 2001.

Muscle insulin resistance: effect of exercise training. Lynn McCraw Lecture Series. Department of Kinesiology and Health Education, University of Texas, Austin Texas, April 2001.

Recovery from prolonged aerobic exercise. Austin Running Club. Austin, Texas October 2001.

Supplements for weight loss. Counseling and Mental Health Center - University Health Services, University of Texas, Austin, Texas, February 2002.

Exercise recovery nutrition. Red McCombs School of Business. University of Texas, Austin, Texas, April 2003.

Nutrient timing and recovery from exhaustive exercise. Tejas Club. University of Texas, Austin, Texas, September 2004.

FES cycling for spinal cord injury patients: possible benefits. Health South. Austin, Texas, January 2006.

Exercise: It is a matter of life or death. Heads Up: Teacher Summer Science Institute Program. University of Texas, Austin, Texas, July 2007.

Effect of timing and types of macronutrient section during and post exercise. Department of Health and Kinesiology, Texas A&M University, College Station, Texas, October 2007.

Exercise performance and recovery drinks. Cooper Clinic, Dallas, Texas, October 2007.

Reducing muscle insulin resistance. Carbohydrate/protein supplementation post exercise increases muscle glycogen storage. What do they have in common? Department of Exercise Science, Sports, Physical Education, and Recreation, Old Dominion University, Norfolk, Virginia, November 2007.

The use of a carbohydrate/protein supplement during and post exercise. Longhorn Aquatics. University of Texas, Austin, Texas, March 2008.

The effect of amino acids on carbohydrate metabolism. Department of Nutritional Sciences. University of Texas, Austin, Texas, April 2008.

Nutrition and Its Timing for Rapid Exercise Recovery. Texas Exes, University of Texas, Austin, Texas, June 2008.

Supplementation for rapid post exercise recovery. University of Texas Business School MBA program. University of Texas, Austin, Texas, August 2008.

PureSport, sport drinks for champions. Colloquium: My Research as Commercialization, The IC² Institute, University of Texas, Austin, Texas, September 2008.

The effect of an amino acid supplement on glucose tolerance and insulin resistance. Ross Laboratories, Columbus, Ohio, April 2010.

Regulation of muscle glucose uptake by an amino acid mixture. Lynn McCraw Lecture Series. Department of Kinesiology and Health Education, University of Texas, Austin Texas, April 2011.

Impact of Nutrient Timing: Practical Implications. Episcopal Trinity School, Austin Texas, October 2011.

The Effect of Nutrient Timing on Exercise Recovery and Training Adaptation. Nutrition Seminar Series, Department of Nutritional Sciences, University of Texas, Austin, Texas, September, 2012.

MEDIA PRESENTATIONS AND APPEARANCES

- Home exercise equipment and alternatives. **Central Texas**. KTBC TV Channel 7 (CBS), Austin, Texas. December 1986.
- Mail order and home exercise equipment, what not to buy. **Good Morning Austin**. KVUE TV Channel 24 (ABC), Austin, Texas. January 1987.
- The facts about anabolic steroids and human growth hormone. **Austin Answers**. KTBC TV Channel 7 (CBS), Austin, Texas. March 1987.
- Synthetic human growth hormone: its use and abuse. **Good Morning Austin**. KVUE TV Channel 24 (ABC), Austin, Texas. April 1987.
- Anabolic steroids in sports. **Sports Talk**. KLBJ AM, Austin, Texas. June 1987.
- Anabolic steroids and human growth hormone for body building. **Sports Issues**. KVET AM, Austin, Texas. May 1987.
- Physical fitness and conditioning. **Access**. KLU FM, Austin, Texas. August 1997.
- Nutrient Timing. **Backstage Live**. KFIZ FM Fond du Lac, Wisconsin. April 2004.
- Nutrient Timing. **The Carl and Don Show**. 1490 AM Watts, Burlington, Iowa. April 2004.
- Nutrient Timing. **The Breakfast Club**. 92.1 Watts, Freeport, Illinois. May 2004.
- Nutrient Timing. **Total Health with Coach K**. 1510 AM, Overland Park, Kansas, May 2004.
- Nutrient Timing. **Castle Valley FYI**. AM 750, Price, Utah, May 2004.
- Exercise, steroids and sports. **The Rude Awakening**. WCNN Radio, Atlanta, Georgia, May 2004
- Nutrient Timing. **Health Talk**. WGHB, Greenville, North Carolina, May 2004.
- Nutrient Timing. **Doctor on Call**. 620 Watts, Pittsburgh, Pennsylvania, May 2004.
- Nutrient Timing. **Insight**. SDLB 1450 AM, Marshfield, Wisconsin, June 2004.
- The Performance Zone. **Troy Neff Show**. WCWA-AM Toledo, Ohio, July 2004.
- The Performance Zone. **Daybreak USA**. USA Network National, July 2004.
- The Performance Zone. **Lisa and Tom in the Morning**. KBST-FM Midland, Texas, July 2004.
- The Performance Zone. **Troy Neff Show**. KCMN-AM Colorado Springs, Colorado, July 2004.
- The Performance Zone. **Franki Boyer Show**. National Syndicated, July 2004.
- The Performance Zone. **K-Rock Magazine**. WXRK-FM, New York, New York, July 2004.
- The Performance Zone. **Daybreak**. KRSN-AM KLIK-AM St. Louis, Missouri, July 2004.
- The Performance Zone. **WIBC Sports Talk**. WIBC-AM, Indianapolis, Indiana, July 2004.
- The Performance Zone. **Kool Close Up**. KXKL-FM, Denver, Colorado, August 2004.
- Nutrient Timing. **Body Talk**. KTIP-FM, Porterville, California, September 2004.
- Next Generation of Wheaties. **Fox Business News**. Indianapolis, IN. July 2009.
- What is the latest in athletic nutrition. WLPR-FM, Chicago. Illinois, January 2010.
- What is the latest in athletic nutrition. My Family Life Now. Internet. January 2010.
- What is the latest in athletic nutrition. CBS, MBS, WBEX, Columbus, Ohio, January 2010.
- What is the latest in athletic nutrition. WNTQ, Syracuse, New York, January 2010.
- What is the latest in athletic nutrition. CNN, CBS, WFLN, Fort Meyers, Florida, January 2010.
- What is the latest in athletic nutrition. Westwood One, KCMN, Colorado Springs, Colorado, January 2010.
- What is the latest in athletic nutrition. ABC, ESPN, WFIN, Toledo, Ohio, January 2010.
- What is the latest in athletic nutrition. ABC, KMA, Omaha, Nebraska, January 2010.
- What is the latest in athletic nutrition. WREH, regional FLORDIA, January 2010.
- What is the latest in athletic nutrition. Minnesota News, Minneapolis, Minnesota, January 2010.

What is the latest in athletic nutrition. USA Radio Network WYYZ, Atlanta, Georgia, January 2010.

What is the latest in athletic nutrition. KDFO, Bakersfield, California, January 2010.

What is the latest in athletic nutrition. WDIS Boston, Massachusetts, January 2010.

What is the latest in athletic nutrition. Radio Daily News, January 2010.

What is the latest in athletic nutrition. NPR, WLPR, Chicago, Illinois, January 2010.

What is the latest in athletic nutrition. Health Radio, National, January 2010.

Chocolate milk as a recovery drink. The Morning Show. FOX, Austin, TX 2011.

Webisodes: Wheaties webisodes. www.wheaties.com - started March 2009.

PROFESSIONAL ORGANIZATIONS AND ACTIVITIES

National Organizations

American College of Sports Medicine. 1977-.

Board of Trustees, Representative for Basic and Applied Science 1986-1989

Ambassador for the American College of Sports Medicine 1986-1990

Research Review Committee 1991-1995.

Chair, Research Sessions at National Meetings

Cardiac Glycogen Metabolism, Miami, Florida, 1981.

Cardiac Function, Montreal, Canada, 1983.

Lactate Metabolism and Exercise, San Diego, California, 1984.

Glucose Transport, Nashville, Tennessee, 1985.

Carbohydrate Metabolism I, Salt Lake City, Utah, 1990

Carbohydrate Metabolism IV, Salt Lake City, Utah, 1990.

Regulation of Carbohydrate Metabolism I, Dallas, Texas, 1992.

Carbohydrate Metabolism I, Seattle, Washington, 1993.

Carbohydrate Metabolism II, Indianapolis, Indiana, 1994.

Dietary Supplements, Denver, Colorado, 1997.

Reviewer of Abstracts submitted for presentation at the National Meeting

Muscle Metabolism Section, Montreal, Canada 1983.

Endocrinology Section, Nashville, Tennessee, 1985.

Carbohydrate Metabolism Section, Dallas, Texas 1988

Chair for review of abstracts submitted for presentation at the National Meeting

Muscle Metabolism Section, San Diego, California, 1984.

Endocrinology Section, Indianapolis, Indiana, 1986.

Endocrinology Section, Las Vegas, Nevada, 1987.

Carbohydrate Metabolism Section, Baltimore, Maryland, 1989.

Carbohydrate Metabolism Section, Salt Lake City, Utah, 1990.

Carbohydrate Metabolism Section, Orlando, Florida, 1991.

Organized and Chaired Symposium. Diabetes and Exercise I: Regulation of muscle glucose

Metabolism: Acute and Chronic Effects of Exercise. Dallas, Texas, 1988.

American Physiological Society, 1984-.

Organized (with David Wasserman) and Chaired Symposium: Regulation of Glucose Utilization by Working Muscle. APS Intersociety Meeting on The Integrative Biology of Exercise, Vancouver, Canada, October 1996.

American Diabetes Association, 1988-2000.

Member of the Nutrition Sciences and Metabolism Council, 1988-90

Member of the Exercise Council, 1988-

Secretary, 1991-1993.

Program Chair, 1993

Reviewer of Abstracts submitted for presentation at the National Meeting

Exercise section, Las Vegas, Nevada, June 1993.

Exercise section, New Orleans, Louisiana, June 1994.

Exercise section, San Diego, California, June 1998

Organized and Chaired Symposium. Role of Exercise and Physical Activity in the Prevention of Type II Diabetes. San Antonio, Texas, June 1992.

Organized and Chaired Symposium. Exercise Through the Ages. New Orleans, Louisiana, June 1994.

Member of the Physicians On-Line Task Force, Texas Affiliate, 1994-1997

American Alliance for Health, Physical Education, Recreation and Dance. 1975-2005.

Sigma Xi, The Scientific Research Society, 1981-2012

American Institute of Nutrition, 1994-1999

The American Society for Clinical Nutrition, Inc., 1994-1999

American Academy of Kinesiology, 1997-

Nomination committee 2001-

International Society of Sports Nutrition, 2004-2012

Advisory Board 2005-2009

Regional Organizations

Midwest Chapter of American College of Sports Medicine, 1977-1979.

Southeast Chapter of American College of Sports Medicine, 1980-1982.

Texas Chapter of American College of Sports Medicine, 1982-

Executive Director 1986-91

Board of Trustees 1985-86

Board of Trustees 1992-95

State Organizations

South Carolina Alliance for Health, Physical Education, Recreation and Dance, 1980-1982

South Carolina Academy of Science, 1980-1982.

Texas Alliance for Physical Education, Recreation and Dance, 2000-

Other Activities

Member of Ross Laboratories' National Speaker's Bureau for Exercise and Nutrition, 1983-90
Consultant for the NIH/Clinical Diabetes and Nutrition Section, Phoenix, AZ, 1985-87
Advisory Board (Performance Team), Women's Athletic Department of the University of Texas, 1988-
Consultant for the United States Army, Committee on Military Nutrition Research, 1987-88.
Consultant for Sports and Cardiovascular Nutritionists (SCAN), 1989-92
Outside Member of the Long Range Planning Committee, 1989-90.
Consultant for Shaklee U.S. Inc., 1988-96
Formulated and arranged the Shaklee Scientific Advisory Board Meeting, The Role of Nutrition in Enhancing Athletic Performance and Optimizing Recovery. San Francisco, California, February 1993.
Advisory Board for the Q Health Club 1994-96
Consultant for United States Olympic Committee, Dietary Guidelines Task Force, 1994
Supplementation Task Force (Guidelines for Nutrition) U.S Army. November, 1993.
Consultant for Coca Cola, Inc. 1995-1996
Member, Committee on Military Nutrition and Research Review Panel; National Academy of Sciences 1995-2000
Consultant for United States Olympic Committee, Dietary Guidelines Task Force, 1998
Consultant for Pacific Health Laboratories, Inc. 1998-2007
Helped develop EnduroXR4 and Accelerade
Consultant for Systems GO, Inc. 2001-2002
Consultant for Cargill, Inc. 2001-2003
Consultant for Minute Maid, Inc. 2002-2003
Consultant for Kraft Food 2002-2003
Discussant for International Olympic Committee, Consensus Conference on Sports Nutrition, Lausanne, Switzerland, June, 2003.
Consultant for General Mills, Inc. 2003-2004, 2008-
Developed the Wheaties Fuel cereal and fuel bars
Participated in webisodes with professional athletes to promote the cereal
Scientific Advisory Board, Experimental and Applied Sciences, Inc. (EAS) 2005-2007; 2011-
Chair, Scientific Advisory Board
Consultant for Life Time Fitness 2005-2006
Developed Life Time Fitness vitamins and other products
Program Reviewer, Kinesiology Department, Arizona State University, Tempe, Arizona
November, 2005.
Consultant for DSM, The Netherlands 2005-06
Consultant for PPD, Austin, TX 2007-08
Consultant and expert witness for Kenyon & Kenyon LLP, New York, NY 2007-08
Founder of Human Performance Laboratories
Developed PureSport Workout and Recovery drinks
Program Reviewer, Department of Exercise Sport Sciences, University of Utah, Salt Lake City, Utah, January 2011.
Board of Advisors, Department of Sports Science and Physical Education, The Chinese University of Hong Kong, 2010-
Grant reviewer

March of Dimes 1990-92
National Institutes of Health, ad hoc reviewer for Clinical Sciences Study Section 1992
Texas Heart Association 1992-95
American College of Sports Medicine 1993-94
National Institutes of Health, ad hoc reviewer for Applied Physiology Study Section 1996,
1997
Chair and reviewer, National Institutes of Health, Biological & Physiological Sciences,
Special Emphasis Panel 1998
National Institutes of Health, Special Study Section, 2002
M.J. Murdock Charitable Trust, 2005

Journal Responsibilities

Section Editor (Physiology): **Research Quarterly for Exercise and Sport** 1988-91
Editorial Board: **Medicine and Science in Sports and Exercise** 1987-2001, **American Journal of Physiology, Endocrinology and Metabolism** 1993-2001, **Journal of Optimal Nutrition** 1993-97, **Diabetes '88** 1987-88, **Diabetes Forecast** 1989-91, **International Journal of Sports Nutrition and Exercise Metabolism** 1995-, **Journal of Exercise Science and Fitness** 2005-, **Journal of the International Society of Sports Nutrition** 2005-, **Journal of Strength and Conditioning Research** 2006-, **Journal of the American College of Nutrition** 2009-

Reviewer for (currently or previously)

Journal of Applied Physiology, American Journal of Physiology, Medicine and Science in Sports and Exercise, International Journal of Sports Medicine and Exercise Metabolism, Research Quarterly, American Journal of Clinical Nutrition, Diabetes, Journal of Clinical Investigation, International Journal of Sports Nutrition, Journal of Physiology, Metabolism

RESEARCH GRANTS AND CONTRACTS

Faculty Senate Grant-in-Aid, Temple University. Physiological and biochemical changes in elite oarsmen during and following the competitive season. \$1,285.00 10/76-8/77.
National Research Service Award. Intracellular glucose disposal: A source of glucose transport regulation. Covered salary plus \$5,000.00/yr. 5/79-9/80.
Biomedical Research Grant, University of South Carolina. Glycogen concentration: Effect on glucose tolerance. \$4,900.00 10/80-8/81.
Research and Productive Scholarship Grant, University of South Carolina. Development of a muscle perfusion system for the study of insulin binding. \$3,700.00 12/80-8/81.
Ross Laboratories Grant. The effect of a glucose polymer on endurance and psychomotor performance. \$7,000.00 1/81-12/81.
South Carolina Heart Association. Synergistic effect of diet and exercise on glucose tolerance. \$9,500.00 7/82-6/83.
Biomedical Research Grant, University of South Carolina. Effect of diet on skeletal muscle insulin sensitivity. \$7,500.00 3/81-2/82.
University Research Institute Grant, The University of Texas. Diet: Its effect on glucose tolerance and skeletal muscle insulin sensitivity. \$6,000.00 12/82-8/83.
Ross Laboratories Grant (with E.F. Coyle and R.P. Farrar). Muscle glycogen sparing effect of Polycose feedings during prolonged intense exercise. \$11,000.00 11/82-9/83.

American Heart Association, Texas Affiliate. Control of glucose tolerance and lipids by diet and exercise. \$30,000.00 7/83-6/84.

Ross Laboratories Grant. Time of carbohydrate ingestion: Effect on rate of glycogen synthesis following exercise. \$12,650.00 9/83-8/84.

Biomedical Research Support Grant, The University of Texas. Development of a muscle perfusion system for the study of skeletal muscle glucose transport. \$4,143.00 10/83-3/84.

Summer Research Award, The University of Texas. Alterations in enzyme activity by diet and exercise: Effect on skeletal muscle glucose disposal. Covered summer salary 6/84-9/84.

American Heart Association, Texas Affiliate. Exercise training-induced hypolipemia: Role of insulin. \$25,000.00 7/84-6/85.

Cybex/Eagle Performance Systems. Muscle activity during concentric and eccentric contractions. \$7,800.00 8/84-5/85.

Ross Laboratories Grant (with E.F. Coyle). Muscle glycogen sparing with a carbohydrate supplement. \$2,800.00 9/84-9/85.

United States Olympic Committee. Amount of glucose supplement following cycling: Effect on rate of glycogen synthesis. \$16,700.00 4/86-4/87.

National Institutes of Health, Heart and Lung. Exercise, Stress and Atherosclerosis. \$49,723.00 9/85-9/88.

Ross Laboratories Grant. Carbohydrate composition following exercise: Effect on glycogen resynthesis. \$20,000.00 5/85-6/87.

Sandoz Research Institute (with J.H. Wilmore and E.F. Coyle). The maintenance of cardiac output at rest and during low level exercise while under beta-adrenergic blockade: Pindolol vs. Propranolol. \$70,243.00 9/86-9/87.

Biomedical Research Grant, University of Texas. Increased glucose transport in insulin-resistant muscle following exercise. \$9,916.00 9/87-4/88.

American Heart Association, Texas Affiliate. Increased glucose transport in insulin-resistant muscle. \$27,489.00 7/1/88-6/30/89.

Ross Laboratories Grant. The effect of carbohydrate supplements on muscle glycogen storage post exercise. \$4,852.48 6/1/88-5/31/89.

Ross Laboratories Grant. The effect of trioses on the metabolism of the Zucker rat. \$10,000.00 2/1/89-1/31/90.

Ross Laboratories Grant. Increase in muscle glycogen storage post exercise. \$21,000.00 7/1/89-6/30/90.

National Institutes of Health, Heart and Lung. Exercise, stress and hypertension. (with Anthony M. Coelho, Jr.) \$1,100,000.00 9/1/89-8/30/94.

American Heart Association, Texas Affiliate. Increased glucose transport in insulin resistant muscle. \$23,000.00 6/1/89-5/31/90.

Shaklee U.S., Inc. Grant Muscle glycogen storage post exercise following carbohydrate-protein supplementation. \$28,734.00 6/1/90-5/31/91.

Ross Laboratories Grant. Muscle glycogen storage post exercise following arginine-carbohydrate supplementation. \$24,387.00 7/1/90-6/30/91.

Ross Laboratories Grant. Effect of pyruvate analogs on the metabolism of the obese Zucker rat. \$25,052.00 10/1/90-9/30/91.

Shaklee U.S., Inc. Grant The effect of a carbohydrate-protein supplement on anabolic hormone production following an acute bout of high resistance exercise. \$25,243.90 6/1/91-5/31/92.

Shaklee U.S., Inc. Grant The effects of liquid and solid carbohydrate supplements on endurance during exercise of varying intensity. \$45,000.00 12/1/91-11/30/92.

Shaklee U.S., Inc. Grant The effects of weightlifting exercise and nutritional supplementation on muscle development. \$73,531.00 1/1/93-12/30/93.

Ross Laboratories Grant. The interaction of pyruvic acid and exercise training on the metabolism of the obese Zucker rat. \$25,000.00 12/1/92-11/30/93.

Ross Laboratories Grant. The effects of pyruvate on muscle GLUT-4 protein and mRNA concentration. \$20,000.00 11/1/93-10/31/94.

Shaklee U.S., Inc. Grant. The effects of chromium supplementation and exercise training on weight reduction in overweight women. \$34,000.00 8/1/94-7/31/95.

Pfizer Grant. The effects of amylin on muscle glucose transport. \$30,000.00 12/1/94-11/30/95.

Project QUEST. Multimedia Analytical Histochemistry. Received Power Mac and Printer. 8/1/95.

Recepton, Inc. Effects of a MCH class I-derived peptide on insulin-stimulated skeletal muscle glucose uptake. \$20,000.00 2/1/95-1/31/96.

Worldwide Creative Services Grant. Muscle glycogen storage post exercise following different amounts of a carbohydrate supplement. \$54,784.00 5/25/95-5/24/96.

Ross Products. Effect of dietary inositols on the glucose tolerance of the obese Zucker rat. \$25,300 10/1/95-9/30/96.

Pfizer Grant. The effects of amylin on muscle glucose transport and metabolism. \$34,000.00 10/1/95-9/30/96.

Coca Cola Company. The effects of carbohydrate concentration on muscle glycogen storage after exercise. \$46,685 11/1/95-10/30/96.

American Diabetes Association. Glucose transport and cell surface GLUT4 protein in insulin resistant skeletal muscle. \$189,000 7/1/96-6/30/99.

Recepton. The effect of a synthetic peptide on insulin action. \$35,000 1/1/97-12/31/98.

Pfizer, Inc. The role of amylin in skeletal muscle carbohydrate metabolism. \$41,000 5/1/97-4/30/98.

Pacific Health Laboratories, Inc. The effect of a carbohydrate-protein supplement on muscle glycogen synthesis post exercise. \$20,000 7/1/99-6/30/00.

Pacific Health Laboratories, Inc. The effect of a carbohydrate-protein supplement on muscle damage during eccentric exercise. \$20,000 9/1/99-8/30/00.

NIH-DHHS. Ginseng's effects on mRNA profiles in a diabetes-2 model. \$175,000. 9/29/99 to 9/28/01.

Pacific Health Laboratories, Inc. The effect of a carbohydrate-protein supplement on aerobic endurance. \$20,000. 9/1/00-8/30/01.

Cargill, Inc. Comparison of a trehalose or glucose supplement on glycemic index and exercise metabolism. \$25,287. 7/1/01-6/30/02.

Pacific Health Laboratories, Inc. Comparison of a carbohydrate or carbohydrate-protein supplement on metabolic and hormonal responses during prolonged aerobic exercise, separated by recovery. \$20,000. 12/01/01-11/30/02.

Cargill, Inc. Comparison of trehalose and other nutrient supplements on the glycemic index and insulin response. \$11,200. 1/15/02-12/31/02.

Cargill, Inc. Trehalose versus glucose as a pre-exercise supplement and its effects on exercise performance. \$27,408. 8/1/02-7/31/03

Pacific Health Laboratories, Inc. Effect of carbohydrate-protein supplementation post exercise on activation of protein translation. \$40,000. 8/1/03-7/31/04.

General Mills. Effect of Wheaties plus milk on muscle glycogen storage post exercise (pilot study). \$10,000. 6/1/2004-9/30/2004.

Lone Star Paralysis Foundation. Effect of FES-Leg Cycle Ergometer Training on Body Composition and Metabolic Risk Factors Associated with Spinal Cord Injury. \$100,000. 10/1/2005-9/30/2007 (with Lisa Griffin).

General Mills. Effect of Wheaties plus milk on muscle glycogen storage and insulin signaling post exercise. \$35,000. 12/1/2005-6/30/2007.

Pacific Health Laboratories, Inc. Effect of different ratios of carbohydrate/protein supplementation on endurance performance. \$25,000. 8/1/2006-7/31/07.

Abbott Laboratories. The Effect of an Amino Acid Supplement on Glucose Tolerance and Insulin Resistance. \$138,000. 1/1/07-12/31/09.

Red Bull BmbH, Austria. The Effect of Caffeine Plus Carbohydrate on Cycling Performance During a One-Hour Time Trial. \$51,231. 3/1/07-2/28/08.

Genuine Health, Toronto, Canada. Effects of Nutraceutical Compounds on Weight Loss in Active and Inactive Overweight Adults. \$50,000. 9/1/07-8/30/08.

National Dairy Council. The Effect of Chocolate Milk on Exercise Recovery and Training Adaptation. \$139,524. 11/1/07-12/31/09.

Human Performance Laboratories, Austin, TX. Effects of a low carbohydrate-moderate protein beverage on endurance performance. \$50,582. 6/1/2008-5/31/2009.

Abbott Laboratories. Effect of an Amino Acid Supplement on Glucose Tolerance in Healthy Overweight Adults. \$87,000. 7/1/09-6/30/10.

DSM. The Effect of Hydroxytyrosol on Muscle Oxidative Capacity and Physical Performance. \$560,000. 1/1/10-12/31/10.

Abbott Laboratories. Effect of HMB with Protein on Aged Rat Muscle Protein Synthesis and Degradation. \$213,441. 1/1/2011-12/31/2011.

Solomon, Ward, Seidenwurm and Smith, LLP. Effects of a PED on Physical Performance During a 35 km Time Trial. \$169,068. 1/1/11-12/31/11.

Kyowa Hakko Bio Co., LTD. Effects of Sustamine™ on Cycling Time Trial Performance Following Prolonged Cycling. \$133,051. 1/6/2012-5/31/2013.

Kyowa Hakko Bio Co., LTD. Effect of Sustamine™ Plus Protein on Cell Signaling Proteins Controlling Muscle Protein Synthesis and Degradation in the Rat – Comparison with whey protein. \$86,741. 10/1/2012-9/30/2013.

Neogenes. Effect of Neo40™, with Caffeine on Cycling Time Trial Performance. \$24,965. 7/1/2012-6/24/2013.