

CURRICULUM VITAE

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EDUCATION:

1985-1988 Postdoctoral Fellow, Washington University School of Medicine, St. Louis
Mentor: Dr. John O. Holloszy
1985 Ph.D., Exercise Physiology, University of Texas at Austin.
Dissertation: The Effects of Age and Endurance Training on the Oxidative Metabolism
of Fisher 344 Rats
Mentor: Dr. Roger P. Farrar
1981 M.S., Exercise Physiology, The Florida State University, Tallahassee.
Mentor: Dr. Charles E. Riggs
1979 B.S., Health and Physical Education, University of Georgia, Athens.

PROFESSIONAL EXPERIENCE:

2004-present University of Michigan
Professor, School of Kinesiology,
Research Professor, Institute of Gerontology
2013-present Associate Dean for Research, School of Kinesiology
2009 Interim Dean, School of Kinesiology
2007 Graduate Research Mentor, Program in Biomedical Sciences
2007 Faculty Mentor, Graduate Program in Cellular and Molecular Biology
2008 Professor, Molecular and Integrative Physiology, Medical School
2001-2003 University of Wisconsin-Madison
Department of Kinesiology, Chair
1998-2003 University of Wisconsin-Madison
Professor, Department of Kinesiology
1994-1998 University of Wisconsin-Madison
Associate Professor, Department of Kinesiology
1993-1995 University of Wisconsin-Madison
Biodynamics Laboratory Director (Acting)
1989-1994 University of Wisconsin-Madison
Assistant Professor, Department of Kinesiology
Interdepartmental Graduate Program in Nutritional Sciences, Affiliate
Institute on Aging, Affiliate
1988-1989 Washington University School of Medicine, St. Louis, Missouri
Research Instructor in Medicine, Department of Internal Medicine

GRANTS RECEIVED:

Extramural:

- 2018 National Institutes of Health, R01DK071771-10, "Skeletal Muscle Glucose Uptake: Exercise and Insulin", \$1,577,867, **Principal Investigator**.
- 2013 National Institutes of Health, R01AG010026-20, "Aging, Calorie Restriction, Exercise and Insulin Sensitivity", \$1,214,947, **Principal Investigator**.
- 2012 National Institutes of Health, R01DK071771-06, "Skeletal Muscle Glucose Transport: Exercise and Insulin", Diversity Supplement, \$90,667, **Principal Investigator**.
- 2011 National Institutes of Health, R01DK071771-06, "Skeletal Muscle Glucose Transport: Exercise and Insulin", \$1,404,367, **Principal Investigator**.
- 2011 National Institutes of Health, R01AG010026-19S1, "Aging, Calorie Restriction and Insulin Signaling", Diversity Supplement, \$69,402, **Principal Investigator**.
- 2011 American Heart Association Midwest Affiliate, Pre-doctoral Fellowship (to James MacKrell), "Genetic Modification of AS160 to Identify the Mechanisms for Insulin Resistance in Single Muscle Fibers from Obese Rats", \$52,000, **Sponsor**.
- 2011 National Institutes of Health, K25DK0925578, \$698,645, Metabolic Flux in a Model of Reduced Oxidative Capacity, **Co-Investigator**
- 2010 National Institutes of Health, R01DK071771-04S1, "Skeletal Muscle Glucose Transport: Exercise and Insulin", Supplement, \$52,500, **Principal Investigator**.
- 2009 National Institutes of Health, R01AG010026-17S1, "Aging, Calorie Restriction and Insulin Signaling", Supplement, \$50,500, **Principal Investigator**.
- 2009 National Institutes of Health, P30AG013283-15S2, "Cellular and Molecular Biology of Aging", \$94,446, **Co-Investigator**.
- 2009 National Institutes of Health, P30AG013283, "Cellular and Molecular Biology of Aging", \$3,957,707, **Co-Investigator**.
- 2007 National Institutes of Health, R01AG010026, "Aging, Calorie Restriction and Insulin Signaling", \$1,541,912, **Principal Investigator**.
- 2007 National Institutes of Health, R01AG010026-17S109, "Aging, Calorie Restriction and Insulin Signaling", Supplement, \$76,000, **Principal Investigator**.
- 2006 National Institutes of Health, R01DK071771, "Skeletal Muscle Glucose Transport: Exercise and Insulin" \$1,532,000, **Principal Investigator**.
- 2004 National Institutes of Health, University of Michigan Claude D. Pepper Older Americans Independence Center Pilot Grant (Jeffrey Halter, Principal Investigator), "In Vitro Models for Insulin Sensitivity in Rat Muscle", \$61,200, **Principal Investigator**.
- 2001 National Institutes of Health, R01AG010026, "Aging, Calorie Restriction, and Insulin Signaling", Continuation, \$1,166,250, **Principal Investigator**.
- 1999 National Institutes of Health, "Dietary Restriction and Aging in Rhesus Monkeys", Continuation, \$5,611,100, **Co-Investigator**.
- 1998 National Institutes of Health, R01AG010026, "Aging, Calorie Restriction, and Insulin Signaling", \$558,989, **Principal Investigator**.
- 1998 Ross Products Division, Abbott Laboratories, "Research in Carbohydrate Metabolism", \$19,600, **Principal Investigator**.
- 1998 Ross Products Division, Abbott Laboratories, "Yeast Extract and Glucose Metabolism", \$5400, **Principal Investigator**.
- 1998 National Institutes of Health, "Dietary Restriction, mt DNA Abnormalities and Aging", \$549,739, **Co-Investigator**.
- 1997 Ross Products Division, Abbott Laboratories, "Research in Carbohydrate Metabolism", \$4500, **Principal Investigator**.

- 1996 The Quaker Oats Company Student Research Grants, "Influence of Nutritional Intervention on GLUT-4 Plasma Membrane Localization in Muscle" and "Determination of Exercise- Induced Changes in Muscle TNF- α Receptor Levels", \$2000, **Sponsor**.
- 1995 The Quaker Oats Company Student Research Grants, "Effect of Vitamin and Mineral Supplementation on Muscle Glycogen Content during Brief Caloric Restriction" and "The Age-Related Reduction in Glucose Transport during Growth and Development", \$1600, **Sponsor**.
- 1994 National Institutes of Health, "Dietary Restriction and Aging in Rhesus Monkeys", \$4,541,955, **Co-Investigator**.
- 1992 The Quaker Oats Company Student Research Grant, "The Effect of PGE₂ on Insulin Sensitivity in Exercised Skeletal Muscle", \$850, **Sponsor**.
- 1992 National Institutes of Health, R29AG010026, "Age Effects on Exercise-Stimulation of Glucose Transport", \$480,293, **Principal Investigator**.
- 1992 National Institutes of Health, "Glucose Metabolism in the Exercise Trained Heart", \$494,473, **Collaborating Investigator**.
- 1991 Diabetes Education and Research Foundation, "Do Insulin and Contractile Activity Increase Glucose Transport Rate by Stimulating the Movement of Glucose Transporters from Different Intracellular Sites?", \$17,000, **Principal Investigator**.
- 1991 American Federation for Aging Research, "Mechanisms of Altered Glucose Metabolism with Chronic Growth Hormone Treatment in Mature, Middle-aged and Old Rats", \$22,000, **Principal Investigator**.
- 1991 The Quaker Oats Company Student Research Grant, "The Persistent Effect of Exercise on Skeletal Muscle Amino Acid Transport", \$1000, **Sponsor**.
- 1991 American Heart Association, Wisconsin Affiliate, "Regulation of Glucose Transport in Ischemic Diabetic Myocardium", \$30,000, **Collaborating Investigator**.
- 1991 Juvenile Diabetes Foundation, "Does Acute High Dose Insulin and Glucose Therapy Benefit Diabetics with Myocardial Ischemia?", \$50,000, **Collaborating Investigator**.
- 1990 American College of Sports Medicine Foundation, "Aging Effects on Muscle Glucose Transport After Exercise", \$14,533, **Principal Investigator**.

Intramural:

- 2017 The University of Michigan Proteomics Resource Facility Pilot Project Program, "Identification of Novel Insulin-regulated Phosphoproteins in Skeletal Muscle of Calorie Restricted Rats", \$3,804, **Principal Investigator**.
- 2015 The University of Michigan MCubed 2.0, "Metabolic phenotyping of human single skeletal muscle fibers", \$16,667, **Co-Principal Investigator**.
- 2003 The University of Wisconsin-Madison Foundation Virginia Horne Henry Fund, "Effects of Gender on Post-Exercise Insulin Sensitivity in Skeletal Muscle", \$17,569, **Principal Investigator**.
- 2002 The University of Wisconsin-Madison Foundation Virginia Horne Henry Fund, "Effects of Pregnancy on Glucose Transport Activation by Muscle Contraction", \$19,599, **Principal Investigator**.
- 2001 The University of Wisconsin-Madison Foundation Virginia Horne Henry Fund, "Levels of Physical Activity and Physical Fitness in Women Survivors of Breast Cancer", \$31,252, **Co-Principal Investigator**.
- 1999 The University of Wisconsin-Madison Foundation Virginia Horne Henry Fund, "Influence of Strength Exercise on Insulin Sensitivity and Secretion in Post-Menopausal Women", \$18,284, **Co-Principal Investigator**.
- 1995 The University of Wisconsin-Madison Graduate School Grant-in-Aid, "Investigation of the Role of Plasma TNF- α in Obesity and Insulin Resistance in Rhesus Monkeys", \$17,816, **Principal Investigator**.

- 1991 The University of Wisconsin-Madison Graduate School Grant-in-Aid, "Investigation into the Mechanism of Enhanced Insulin-Stimulation of Muscle Glucose Transport after Contractile Activity", \$22,267, **Principal Investigator**.
- 1990 The University of Wisconsin-Madison Graduate School Biomedical Research Support Grant, "Measurement of Muscle Membrane Glucose Transporter Content", \$15,000, **Principal Investigator**.
- 1990 The University of Wisconsin-Madison Graduate School Grant-in-Aid, "Skeletal Muscle Glucose Transport Rate and Membrane Glucose Transporter Content in Young Adult and Old Rats", \$15,000, **Principal Investigator**.

AWARDS:

- 2017 13th Annual Piro P. Foa Endowed Lecturership, Department of Physiology, Wayne State University, Detroit, Michigan
- 2014 School of Kinesiology Research Excellence Award, University of Michigan
- 2014 Department of Kinesiology and Health Education Hall of Honor Inductee, University of Texas at Austin
- 2012 American College of Sports Medicine Citation Award
- 2010 Texas Chapter of the American College of Sports Medicine (TACSM) Annual Meeting Keynote Speaker (Raven Lecture)
- 2005 Southeastern Regional Chapter of the American College of Sports Medicine (SEACSM), Invited Lecture Tour Speaker
- 2005 National Academy of Kinesiology Fellow
- 2003 Research Fellowship, Japan Society for the Promotion of Science, Nara, Japan
- 2002 Wenner-Gren Center Visiting Scientist, Karolinska Institute, Stockholm, Sweden
- 1998 American College of Sports Medicine Fellow
- 1987 Invited Participant in the Summer Aging Institute Sponsored by the National Institute on Aging Baltimore, Maryland
- 1987 National Research Service Award, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health
- 1983 Professional Development Award, University of Texas at Austin
- 1982-1985 University of Texas Fellowship, University of Texas at Austin
- 1979 Magna Cum Laude Graduate, University of Georgia, Athens
- 1979 Phi Kappa Phi, National Honor Fraternity
- 1975 Incoming Freshman Award, University of Georgia, Athens.
- 1975 Valedictorian, Liberty High School, Liberty, South Carolina.

PROFESSIONAL AFFILIATIONS:

- American College of Sports Medicine, Fellow
- American Diabetes Association
- American Physiological Society
- National Academy of Kinesiology, Fellow

PROFESSIONAL SERVICE:

National Service:

Editorial Responsibilities for Professional Journals:

- *Journal of Applied Physiology* (Associate Editor, 1999-2001)
- *Exercise and Sports Sciences Reviews* (Associate Editor, 2000-2011)
- *Journal of Gerontology: Biological Sciences* (Editorial Review Board, 1998-1999)
- *American Journal of Physiology: Endocrinology and Metabolism* (Editorial Board, 2007-2018)
- *Journal of Applied Physiology* (Editorial Board, 2007-2018)

Invited Reviewer for Professional Journals:

- *Age*
- *American Journal of Physiology: Cell Physiology*
- *American Journal of Physiology: Endocrinology and Metabolism*
- *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*
- *American Journal of Physiology: Lung Cellular and Molecular Physiology*
- *BBA - Molecular Basis of Disease*
- *Biochemical Society Transactions*
- *CardioRenal Medicine*
- *Cell Metabolism*
- *Diabetes*
- *Diabetes/Metabolism Research and Reviews*
- *Diabetes, Obesity and Metabolism*
- *Diabetic Medicine*
- *Diabetologia*
- *Essays in Biochemistry*
- *Experimental Diabetes Research*
- *Experimental Gerontology*
- *Experimental Physiology*
- *Exercise and Sport Sciences Reviews*
- *FASEB Journal*
- *FEBS Journal*
- *FEBS Letters*
- *Hormones and Behavior*
- *The International Journal of Biochemistry & Cell Biology*
- *International Journal of Obesity*
- *International Journal of Sports Medicine*
- *Journal of the American College of Nutrition*
- *Journal of Applied Physiology*
- *Journal of Biological Chemistry*
- *Journal of Cachexia, Sarcopenia and Muscle*
- *Journal of Endocrinology*
- *The Journals of Gerontology: Biological and Medical Sciences*
- *Journal of Lipid Research*
- *Journal of Nutrition*
- *Journal of Physical Activity and Health*
- *The Journal of Physiology*
- *The Journal of Physiological Sciences*
- *Life Sciences*
- *Mechanisms of Ageing and Development*
- *Medicine and Science in Sports and Exercise*
- *Metabolism: Clinical and Experimental*
- *Molecular and Cellular Biochemistry*
- *Molecular and Cellular Endocrinology*
- *Nature Communications*
- *Nature Reviews Endocrinology*
- *Nutrition and Diabetes*

- *Obesity*
- *Obesity Research*
- *Physiological Genomics*
- *Physiological Reports*
- *Physiological Reviews*
- *PLoS ONE*
- *Proceedings of National Academy of Sciences, U.S.A.*
- *Scientific Reports*

Committees and Invited Reviews:

- Abstract Reviewer for American College of Sports Medicine National Meeting, 1990, 1994 and 1996.
- Department of Veterans Affairs Merit Review Research Application Reviewer, 1992 and 1998.
- *Exercise Physiology: Theory and Application to Fitness and Performance* by S.K. Powers and E.T. Howley, Wm. C. Brown Publishers, Reviewer, 1993 and 1995.
- American Heart Association, Minnesota Affiliate Grant-in-Aid Reviewer, 1994.
- American Heart Association-Wisconsin Peer Review Committee, 1995.
- University of Michigan Geriatrics Center, Institute of Gerontology and Michigan Alzheimer's Disease Research Center Pilot Feasibility Grant Program, External Reviewer, 1996, 1999, and 2003.
- National Institutes of Health Special Emphasis Panel on Geriatrics & Rehabilitation Medicine, Ad Hoc Reviewer, 1997.
- National Institutes of Health (Fellowship/AREA Special Emphasis Panel on Geriatrics & Rehabilitation Medicine), Member, 1998.
- National Institutes of Health (Oral Biology and Medicine Study Section), Ad Hoc Reviewer, 1998.
- Experimental Biology Meeting, Abstract Reviewer, 1998.
- American College of Sports Medicine Research Review Committee, 1999-2001.
- National Institutes of Health (Respiratory and Applied Physiology Study Section), Temporary Member, 1999, 2000 and 2001.
- National Institutes of Health (Geriatrics and Rehabilitation Medicine Study Section), Temporary Member, 2000.
- Washington University in St. Louis School of Medicine Diabetes Research Training Center Pilot and Feasibility Grant Reviewer, 2000.
- Opponent for Ph.D. Dissertation Defense of Xiao Mei Song, Department of Surgical Sciences, Section for Clinical Physiology, Karolinska Institute, Stockholm, Sweden, 2000.
- National Institutes of Health (Respiratory and Applied Physiology Study Section, Skeletal Muscle Biology Special Emphasis Panel), Regular Member, 2001-2005 and 2006-2010.
- Reviewer of Abstracts for American Diabetes Association Meeting, 2003, 2004.
- Research Career Development Core Award for National Institute on Aging sponsored University of Michigan Older American Independence Center, External Reviewer, 2003.
- University of Texas Health Science Center in San Antonio, Nathan Shock Center of Excellence in Basic Biology of Aging, Aging Research and Education Center Pilot Grant Reviewer, 2003.
- National Institutes of Health (Musculoskeletal, Oral and Skin Sciences: Integrated Review Group Special Emphasis Panel), Ad hoc Reviewer, 2004.
- National Science Foundation, Ad hoc Reviewer, 2005.
- American Diabetes Association Scientific Sessions Ad Hoc Subcommittee on Exercise, Member, 2005 and 2006.
- Alberta Heritage Foundation for Medical Research Scholar Award, Ad hoc Reviewer, 2005.
- American Diabetes Association Scientific Sessions, Integrated Physiology-Muscle Section, Abstract Reviewer, 2006.
- Diabetes UK, Ad hoc Research Grant Reviewer, 2006, 2014.

- American Physiological Society's Porter Physiology Development Committee, 2007-2009.
- University of Utah Center on Aging Pilot Grant Program, Ad hoc Reviewer, 2007.
- National Institutes of Health Special Emphasis Panel (Exercise, Insulin Action and Muscle Metabolism), Ad hoc Reviewer, 2007.
- American Diabetes Association Annual Meeting, Abstract Reviewer, 2007.
- The Wellcome Trust UK Grant Review, Ad hoc Reviewer, 2008.
- National Institutes of Health Special Emphasis Panel, Ad hoc Reviewer, 2009.
- Diabetes UK Research Grant, Ad hoc Reviewer, 2009.
- Boston Area Diabetes Endocrinology Research Center Pilot and Feasibility Grant, Ad hoc Reviewer, 2009.
- Opponent for Ph.D. Dissertation Defense, Jonas Thue Treebak, Copenhagen University (Exercise and Sport Science), Copenhagen, Denmark, 2009.
- American Diabetes Association's Research Grant Review Committee, Reviewer, 2012-2014.
- National Institutes of Health Transformative Research Award, Ad hoc Reviewer, 2014.
- UK-Diabetes Grant, Ad hoc Reviewer, 2014
- National Institutes of Health Special Emphasis Panel Grant Review, Reviewer and Vice-Chair, 2014.
- American Diabetes Association Scientific Sessions Abstracts Reviewer, 2014
- American Diabetes Association Scientific Sessions Late-breaking Abstracts Reviewer, 2015
- National Institutes of Health Skeletal Muscle and Exercise Physiology Study Section, Ad hoc Reviewer, 2015
- Israel Science Foundation Grant, Ad hoc Reviewer, 2015
- Joslin Diabetes Research Center Pilot and Feasibility Grant Reviewer, 2015
- American Diabetes Association Scientific Sessions Exercise Subcommittee Member, 2015
- American Diabetes Association Scientific Sessions Oral Session Chair, 2015
- American Diabetes Association Scientific Sessions Abstracts Reviewer, 2016
- American Diabetes Association Scientific Sessions Late-breaking Abstracts Reviewer, 2016
- National Institutes of Health Special Emphasis Panel Grant Review, Reviewer, 2016
- American Diabetes Association Scientific Sessions Exercise Subcommittee Member, 2016
- Joslin Diabetes Research Center Pilot and Feasibility Grant Reviewer, 2016
- National Institutes of Health Skeletal Muscle and Exercise Physiology Study Section, Ad hoc Reviewer, 2017
- National Institutes of Health Special Emphasis Panel ZDK1 GRB-J O4 (NIDDK Program Projects Review), Ad hoc Reviewer, 2017
- German Research Foundation, Ad hoc Grant Reviewer, 2017
- American Diabetes Association Abstract Reviewer, 2018

Invited Lectures:

- "Effects of Exercise and Hypoxia on Skeletal Muscle Glucose Transport", Department of Cell Biology, University of Toronto, Toronto, Ontario, Canada, 1989.
- "Stimulation of Muscle Glucose Transport by Exercise, Hypoxia, and Insulin", Department of Kinesiology, University of Texas, Austin, Texas, 1989.
- "Influence of Exercise on Skeletal Muscle Glucose Transport", Department of Exercise and Sport Sciences, Tucson, Arizona, 1989.
- "Exercise Effects on Muscle Glucose Transport", Exercise Physiology Laboratory, Ohio State University, Columbus, Ohio, 1989.
- "Effects of Exercise on Skeletal Muscle Glucose Transport", Center for Exercise Science and Cardiovascular Research, Northeastern Illinois University, Chicago, Illinois, 1989.
- "Adaptability of Skeletal Muscle during the Aging Process", Department of Kinesiology, University of Texas, Austin, Texas, 1992.

- "Effects of Growth Hormone Supplementation on Skeletal Muscle Glucose Transport in Young, Middle-aged, and Old Rats", American Federation for Aging Research Grantee Conference, Briarcliff, New York, 1992.
- "Adaptations of Muscle Glucose Transport to Dietary and Exercise Interventions across the Lifespan", Department of Kinesiology, Louisiana State University, Baton Rouge, Louisiana, 1993.
- "Skeletal Muscle Glucose Transport", Institute of Pharmacology, Syntex Discovery Research, Palo Alto, California, 1993.
- "Exercise and Aging: A Molecular Approach, Substrate Availability and Utilization", American College of Sports Medicine Meeting, Seattle, Washington, 1993.
- "Aging and Skeletal Muscle", National Institutes of Health Workshop on Dietary Restriction in Non-human Primates, Devils Head, Wisconsin, 1993.
- "Interaction among Age, Diet and Exercise in the Regulation of Skeletal Muscle Glucose Transport", Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, Louisiana, 1994.
- "Influence of Growth Hormone Supplementation on Skeletal Muscle Glucose Transport of Adult and Old Rats", Joslin Diabetes Center, Boston, Massachusetts, 1994.
- "What Insights into Age-related Changes in Human Skeletal Muscle Can Be Derived from Animal Models?", NIH Workshop on Sarcopenia, Warrenton, Virginia, 1994.
- "Energy Metabolism and Fuel Utilization in Endurance Sports", Sports Nutrition Conference, Caracas, Venezuela, 1995.
- "Influence of Caloric Restriction on Skeletal Muscle Glucose Transport", Experimental Diabetes, Metabolism, and Nutrition Section, National Institutes of Health, Bethesda, Maryland, 1996.
- "Effect of Hypoxia on Glucose Transport in Isolated Muscle", American College of Sports Medicine Meeting, Cincinnati, Ohio, 1996.
- "Mechanisms Underlying the Calorie Restriction-Induced Increase in Insulin Sensitivity", University of Texas Health Science Center at San Antonio, Department of Physiology, San Antonio, Texas, 1997.
- "Influence of Physical Activity on Sarcopenia: An Age-related Loss of Skeletal Muscle Mass and Function", The Gerontological Society of America Meeting, Cincinnati, Ohio, 1997.
- "Nutritional Influences on Skeletal Muscle Insulin Signal Transduction", American College of Sports Medicine Meeting, Orlando, Florida, 1998.
- "Insights Gained by Studying the Effects of Exercise and Diet on Insulin Action", Parke-Davis Pharmaceutical Research, Ann Arbor, Michigan, 1998.
- "Skeletal Muscle Glucose Transport: Influence of Exercise, Nutrition, and Aging", Department of Kinesiology, University of Colorado, Boulder, Colorado, 1998.
- Regulation of Skeletal Muscle Glucose Transport: Effects of Calorie Restriction, Department of Chemistry and Biochemistry, University of South Carolina, Columbia, South Carolina, 2000.
- "Does Age Alter Skeletal Muscle Adaptability to the Physiologic Stress of Exercise or Caloric Restriction?", American Aging Association Meeting, Boston, Massachusetts, 2000.
- "Exercise and Aging: Skeletal Muscle Insulin Signaling and Action", Integrative Biology of Exercise Meeting Sponsored by the American Physiological Society, Portland, Maine, 2000.
- "Reduced Calorie Intake: Influence on Insulin Sensitivity and Insulin Signaling", Department of Surgical Sciences, Section for Clinical Physiology, Karolinska Institute, Stockholm, Sweden, 2000.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction", From Basic Biology to Clinical Care: New Research Directions for Understanding Diabetes in Older Age, A Scientific Conference Sponsored by: National Institute of Diabetes & Digestive & Kidney Disease, National Institute on Aging, and Diabetes Mellitus Interagency Coordinating Committee, Bethesda, Maryland, 2001.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction", IGF-1 and Insulin Pathways as Modulators of Longevity and Late-Life Disease Symposium, The Nathan Shock

Center for the Biology of Aging and Claude Pepper Older American Independence Center, University of Michigan, Ann Arbor, Michigan, 2001.

- “Aging and Exercise: Influence on Insulin Signaling and Action”, International Congress of Physiological Societies, Christchurch, New Zealand, 2001.
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction”, Department of Physiology, University of Arizona, Tucson, Arizona, 2001.
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction”, Department of Endocrinology and Diabetology, Karolinska Hospital, Stockholm, Sweden, 2002.
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction”, Washington University School of Medicine, St. Louis, Missouri, 2002.
- “Insulin Signaling and Action: Effects of Age, Exercise, and Caloric Restriction”, University of Illinois at Urbana-Champaign, Urbana, Illinois, 2002.
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Exercise, and Caloric Restriction”, University of Michigan, Ann Arbor, Michigan, 2002.
- “Insulin Signaling and Action in Skeletal Muscle: Influence of Caloric Restriction”, Washington University School of Medicine, St. Louis, Missouri, 2003.
- “Insulin Signaling and Action in Skeletal Muscle: Influence of Caloric Restriction”, Calorie Restriction Society Conference, Madison, Wisconsin, 2003.
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Exercise and Calorie Restriction”, NIH of Japan, Tokyo, Japan, 2003
- “Overview of Signaling Pathways for Glucose Transport in Skeletal Muscle”, Osaka Technical University, Osaka, Japan, 2003
- “Overview of Signaling Pathways for Glucose Transport in Skeletal Muscle”, Nara University of Education, Nara, Japan, 2003
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Calorie Restriction or Exercise”, 2nd Annual Nathan W. Shock Symposium, sponsored by the National Institute on Aging, Towson, Maryland, 2004
- “Skeletal Muscle Metabolism: Effects of Exercise, Aging, and Calorie Restriction”, University of Texas-Austin Department of Kinesiology, Austin, Texas, 2004
- “Insulin Signaling and Action in Skeletal Muscle: Effects of Calorie Restriction”, Department of Nutrition, Case Western Reserve University, Cleveland, Ohio, 2005.
- “Mechanisms for Altered Insulin Signaling and Action with Exercise or Calorie Restriction”, SEACSM Lecture Tour, Department of Exercise Science, University of South Carolina, Columbia, South Carolina, 2005.
- “Mechanisms for Altered Insulin Signaling and Action with Exercise or Calorie Restriction”, SEACSM Lecture Tour, Department of Kinesiology and Division of Endocrinology and Metabolism, Endocrinology Seminar Series, University of Virginia, Charlottesville, Virginia, 2005.
- “Mechanisms for Altered Insulin Signaling and Action with Exercise or Calorie Restriction”, SEACSM Lecture Tour, Department of Exercise Science, East Carolina University, Greenville, North Carolina, 2005.
- “Can Exercise Prevent the Predicted Diabetes Disaster?”, SEACSM Lecture Tour, Department of Health, Leisure & Exercise Science, Appalachian State University, Boone, North Carolina, 2005.
- “Can Exercise Prevent the Predicted Diabetes Disaster?”, SEACSM Lecture Tour, Department of Exercise and Sport Science, University of North Carolina-Greensboro, Greensboro, North Carolina, 2005.
- “Effects of Exercise, Contractile Activity and Insulin on AS160 Phosphorylation in Skeletal Muscle”, Exercise, Insulin Sensitivity and Diabetes – What is New? International Symposium, Copenhagen Muscle Research Center, Copenhagen, Denmark, 2006.

- “AS160 – A Link between Insulin and Contraction in Skeletal Muscle?” ACSM Conference on Integrative Physiology of Exercise, Indianapolis, Indiana, 2006.
- “Effects of Exercise or Calorie Restriction on Skeletal Muscle Insulin Sensitivity and Action”, Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI, 2006.
- “Do Insulin and Contraction Stimulated Signaling Converge at AS160 in Skeletal Muscle?”, Department of Integrative Physiology, University of Colorado, Boulder, CO, 2007.
- “Why is Skeletal Muscle Glucose Uptake Important for Health?”, Nara University of Education, Nara, Japan, 2007.
- “Do Insulin and Contraction Stimulated Signaling Converge at AS160 in Skeletal Muscle?”, Kyoto University, Kyoto, Japan, 2007.
- “Evidence that AS160 is at the Crossroads of Signaling by Exercise and Insulin”, American College of Sports Medicine Meeting, Indianapolis, IN, 2008.
- “New Insights into Exercise Effects on Skeletal Muscle Glucose Transport: Roles of AS160”, Korean Alliance for Health, Physical Education, Recreation and Dance Meeting, Seoul, Korea, 2008.
- “Regulation of AS160, TBC1D1 and Glucose Transport by Insulin, Exercise and Contractile Activity”, Center for Exercise Science, University of Florida, Gainesville, FL, 2008.
- “Effects of In Vivo Exercise and In Vitro Contractions on Insulin-stimulated Glucose Transport”, Copenhagen University, Copenhagen, Denmark, 2009.
- “Mechanisms for Increased Insulin-independent and Insulin-Dependent Glucose Transport after Exercise”, Department of Physiology and Developmental Biology, Brigham Young University, Provo, UT, 2009.
- “Exercise, Insulin Sensitivity and Glucose Homeostasis”, Texas ACSM Meeting, Houston, TX, 2010
- “Glucose Transporter Proteins with Acute and Chronic Exercise,” American College of Sports Medicine Meeting, Baltimore, MD, 2010.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Muscle Health Awareness Day Program, York University, Toronto, Canada, 2012.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Department of Human Health and Nutritional Sciences, University of Guelph, Guelph, Canada, 2012.
- “The TBC1D1 and TBC1D4 Story”, European Association for the Study of Diabetes, Barcelona, Spain, 2013.
- “Mechanisms for Effects of Diet and Exercise on Skeletal Muscle Glucose Uptake in Rats”, Department of Pharmaceutical Sciences, Wayne State University, Detroit, MI, 2013.
- “Relationships between Exercise and Energy in Muscle”, National Institutes of Health Staff Training in Extramural Programs Forum (Move: Physical Activity Benefits Everyone), Bethesda, MD, 2014.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Department of Pathobiology, Cleveland Clinic, Cleveland, OH, 2015.
- “Novel, Single Muscle Fiber Analysis Reveals Exercise Effects on Glucose Uptake”, American Diabetes Association 76th Scientific Sessions, New Orleans, LA, 2016.
- “Improving Skeletal Muscle Insulin Sensitivity during Old Age”, 17th Annual Rachmiel Levine-Arthur Riggs Diabetes Research Symposium, Orlando, FL, 2017.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Department of Physiology, The 13th Annual Piero P. Foa Endowed Lecture, Wayne State University, Detroit, MI, 2017.

University Service:

- School of Education Programs Committee, UW-Madison, 1990-1991
- Graduate School Animal Care Committee, UW-Madison, 1991-1995
- National Accreditation Review of Physical Therapy Program, Participant, UW-Madison, 1991
- Ad Hoc Committee for Amendment Process for Animal Care and Use, UW-Madison, 1992

- Summer Research Program for Minority Undergraduates Mentor, UW-Madison, 1994-1996
- Committee on Graduate Assistant Policies and Procedures, School of Education, UW-Madison, 1997-1999, Chair
- Interdepartmental Graduate Program in Nutritional Sciences Admissions Committee, UW-Madison, 1996-1998
- Department of Nutritional Sciences Faculty Search Committee, UW-Madison, 1996
- Selection Committee for NIH Training Grant on Biology of Aging and Age-Related Diseases, UW-Madison, 1998
- Department of Veteran's Affairs Merit Review Application, Reviewer, UW-Madison, 1998
- Academic Advisory Council for Physical Therapy Master's Degree, UW-Madison, 1998-1999
- Institute on Aging Steering Committee, UW-Madison, 1999-2003
- School of Education International Committee, UW-Madison, 1999-2001
- School of Education Academic Planning Council, UW-Madison, 2001-2003
- School of Education Administrative Council, UW-Madison, 1993-1996; 2001-2003
- School of Medicine, Mentor Committee for Assistant Professor Kurt Saupe, UW-Madison, 2002-2003
- Hatch Grant Reviewer for College of Agriculture & Life Sciences, UW-Madison, 2002
- Virginia Horne Henry Fund Grant Review Committee, UW-Madison, 2003
- Nathan Shock Center Internal Advisory Committee, Institute on Gerontology, University of Michigan, 2004-08
- Reviewer for Office of the Vice President for Research Faculty Grants and Awards, University of Michigan, 2007
- Reviewer for Older Americans Independence Center Research Career Development Core Grant, University of Michigan, 2008
- School of Kinesiology Dean Search Advisory Committee, University of Michigan, Chair, 2008-2009.
- American Diabetes Association Pathway Grants, Reviewer, University of Michigan, 2015-2017
- Michigan Nutrition Obesity Research Center (MNORC) Pilot and Feasibility Grants, Reviewer, University of Michigan, 2015-2017
- Michigan Diabetes Research Center Advisory Committee, 2015-2017
- Research Administration Advisory Council (RAAC) Faculty Advisory Council, Member, 2015-2016
- University of Michigan Post-doctoral Advisory Group, Member 2015-2016
- NIH Bridges to the Doctorate (R25) Applications from the University of Michigan, Reviewer 2016
- University of Michigan School of Medicine Physician-Scientist Candidate Interview, 2017
- Michigan Office of Research Faculty Grant, Reviewer 2018

Invited Lectures:

- "Regulation of Skeletal Muscle Glucose Transport", Department of Nutritional Sciences, UW-Madison, 1990.
- "Age-related Effects on Skeletal Muscle Glucose Transport", Department of Medicine, Section of Endocrinology, UW-Madison, 1992.
- "Age-related Effects on Muscle Glucose Transport", Institute on Aging, UW-Madison, 1992.
- "Skeletal Muscle Insulin Resistance", Department of Psychology, UW-Madison, 1993.
- "Growth Hormone Reduces Skeletal Muscle Glucose Transport but not GLUT-4 Glucose Transporter Protein in Adult, Middle-Aged and Old Rats", Institute on Aging and Adult Life Colloquium on Aging, UW-Madison, 1994.
- "Regulation of Skeletal Muscle Glucose Transport by Insulin and Exercise", Summer Research Program for Minority Undergraduates, UW-Madison, 1994.
- "Influence of Growth Hormone Administration on Skeletal Muscle of Young and Old Rats", Wisconsin Regional Primate Center, UW-Madison, 1995.

- "Influence of Caloric Restriction on Muscle Carbohydrate Metabolism", Department of Nutritional Sciences, UW-Madison, 1996.
- "Effect of Hypoxia on Muscle Glucose Transport", Department of Preventive Medicine, UW-Madison, 1996.
- "Aging and Muscle Function", Departments of Neurology and Kinesiology (742-779), UW-Madison, 1997, 1998, 1999, 2000, 2001.
- "Influence of Exercise on Sarcopenia (Age-Related Changes in Skeletal Muscle)", Department of Kinesiology, Motor Behavior Seminar, UW-Madison, 1998.
- "Sarcopenia" and "Exercise and Aging (3 lectures)", Department of Pathology (Cell and Molecular Biology of Aging), UW-Madison, 1998, 1999, 2000.
- "Diabetes and Exercise", Department of Kinesiology, Physical Activity and Health (742-521), UW-Madison, 2001.
- "Glucoregulation and Insulin Action", Department of Nutritional Sciences, UW-Madison, 1998, 1999, 2000, 2001.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Caloric Restriction", Endocrine and Reproductive Physiology Seminar, Department of Animal Science, UW-Madison, 2001.
- "Can Exercise Prevent or Delay Type 2 (Adult Onset) Diabetes?" Institute on Aging Advisory Board Meeting, UW-Madison, 2001.
- "Can Exercise Prevent or Delay Type 2 (Adult Onset) Diabetes? Institute on Aging "On the Road" Program for UW-Madison Alumni, Minneapolis, MN, 2001.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Calorie Restriction", Gas Club, Department of Preventive Medicine, UW-Madison, 2001.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Calorie Restriction", Institute of Gerontology, University of Michigan, 2004.
- "Effects of Aging and Calorie Restriction on Insulin Signaling and Action in Skeletal Muscle", 13th Annual Summer Training Course in the Biology of Aging, National Institute on Aging and University of Michigan Geriatrics Center, Ann Arbor, Michigan, 2005.
- "Increased Phosphorylation of Akt Substrate of 160 kDa (AS160) in Rat Skeletal Muscle in Response to Insulin or Contractile Activity", Center for Exercise Research Seminar, Division of Kinesiology, University of Michigan, 2005.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Calorie Restriction," Department of Physiology, University of Michigan, 2005.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Age and Calorie Restriction", Richard Miller Laboratory, Geriatrics Center, University of Michigan, 2005.
- "Mechanisms for Improved Insulin Signaling with Exercise or Calorie Restriction", Metabolism, Endocrinology & Diabetes Research Conference, University of Michigan Medical School, 2005.
- "Insulin Signaling and Action in Skeletal Muscle: Effects of Calorie Restriction", Biology of Aging Seminar Series, University of Michigan, 2006.
- "Do Insulin and Contraction Stimulated Signaling Converge at AS160 in Skeletal Muscle?" Michigan Diabetes Research and Training Center Winter Symposium, University of Michigan, 2007.
- "Aging and Calorie Restriction: Effects on Glucose Metabolism and Insulin Signaling", Biogerontology Seminar Series, University of Michigan, 2007.
- "Role of Akt Substrate of 160 kDa in Insulin-stimulated and Contraction-stimulated Glucose Transport", Program in Biomedical Sciences Faculty Seminar, University of Michigan, 2007.
- "Mechanisms for Increased Skeletal Muscle Glucose Transport after Exercise", Department of Molecular and Integrative Physiology, University of Michigan, 2007.
- "AS160 and TBC1D1: Their Regulation and Roles in Glucose Transport of Skeletal Muscle", Metabolism and Endocrine Research Conference, University of Michigan School of Medicine, 2008.

- “Effects of Aging on Skeletal Muscle Glucose Metabolism and Insulin Signaling”, Biogerontology Seminar Series, University of Michigan, 2009.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Symposium on Exercise and Healthspan in Flies, Worms and Rodents, University of Michigan Geriatrics Center, 2012.
- “Effects of Calorie Restriction on Skeletal Muscle Glucose Uptake and Insulin Signaling in Adult and Old Rats.” Biogerontology Seminar Series, University of Michigan, 2012.
- “Effects of Exercise and Diet on Muscle Glucose Uptake.” MEND (Metabolism and Endocrine) Research Conference, University of Michigan, 2013.
- “Effects of Aging, Exercise and Calorie Restriction on Skeletal Muscle Glucose Uptake”, Biogerontology Seminar Series, University of Michigan, 2014.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, Integrated Aspects of Diabetes, Obesity and Metabolism Club Seminar, University of Michigan, 2015.
- “Mechanisms for Improved Insulin Sensitivity in Skeletal Muscle after Acute Exercise”, School of Kinesiology Faculty Research Award Seminar, 2015.
- “Mechanisms for Increased Insulin Sensitivity in Skeletal Muscle after Acute Exercise, Integrated Aspects of Diabetes, Obesity and Metabolism Research Club Seminar, University of Michigan, 2017.

Kinesiology Committee Memberships:

- Undergraduate Committee, UW-Madison, 1989-1995
- Merit Committee, UW-Madison, 1989, 1993, 1995 and 2001
- Student Grievance Committee, UW-Madison, 1989-1992 and 1994
- Future Directions Committee, UW-Madison, 1989
- Biomechanics Search Committee, UW-Madison, 1990
- Pedagogy Search Committee, UW-Madison, 1991
- Human Subjects Committee, Chair, UW-Madison, 1991-1993
- Faculty Associate Search Committee, Chair, UW-Madison, 1993
- Exercise Physiology Search Committee, UW-Madison, 1993
- Motor Control/Behavior Search Committee, UW-Madison, 1994
- Scholarship, Assistantship, and Student Affairs Committee, UW-Madison, 1994
- Mentor Committee for Assistant Professor Barbara Loitz, UW-Madison, 1995-1996
- Mentor Committee for Assistant Professor Kreg Gruben, Chair, UW-Madison, 1995-2001
- Faculty Workload Policies and Procedures Ad Hoc Committee, UW-Madison, 1995
- Physical Therapy Search Committee, UW-Madison, 1995
- Department of Kinesiology Mission Statement Ad Hoc Committee, UW-Madison, 1995
- Department of Kinesiology Laboratory Manager Search Committee, Chair, UW-Madison, 1995
- Graduate Program, Coordinator, UW-Madison, 1995-1997
- Graduate Committee, UW-Madison, 1998-2001
- Mentor Committee for Assistant Professor Barbara Morgan, Chair, UW-Madison, 1995-1997
- Teaching Assistant Ad Hoc Committee, UW-Madison, 1995-1997
- Mentor Committee Policies and Procedures Ad Hoc Committee, UW-Madison, 1995
- Mentor Committee for Assistant Professor Peter van Kan, Chair, UW-Madison, 1997-2001
- Physical Therapy Search Committee, UW-Madison, 1996
- Exercise Physiology Search Committee, Chair, 1997
- Mentor Committee for Assistant Professor Gary Diffie, UW-Madison, 1997-2001
- Space, Technology and Facilities Committee, Chair, UW-Madison, 1997-2001
- Division of Kinesiology Executive Committee, University of Michigan, 2004-2008
- Movement Science Department Chair, University of Michigan, 2005-2007

- Biomechanics Assistant/Associate Professor Search Committee, University of Michigan, 2005-2006
- Mentor for Assistant Professor Riann Palmieri, University of Michigan, 2005-2009
- Exercise Physiology Assistant/Associate Professor Search Committee, University of Michigan, Chair, 2006-2007
- Mentor for Assistant Professor Mark Palmer, University of Michigan, 2009-2014
- Physical Activity and Nutrition Assistant/Associate Professor Search Committee, University of Michigan, 2011
- HMRC Director Search Committee, University of Michigan, 2011-2012
- School of Kinesiology Executive Committee, University of Michigan, 2011-2013
- School of Kinesiology Executive Committee, University of Michigan, ex officio member, 2014-2016
- Exercise Physiology Assistant/Associate/Full Professor Search Committee, University of Michigan, Chair, 2014-2015
- School of Kinesiology Dean Search Advisory Committee, 2015-2016
- Exercise Physiology Assistant/Associate/Full Professor Search Committee, Chair, 2016-2017
- School of Kinesiology Space Committee, 2017-

TEACHING:

M.S. Thesis and Ph.D. Preliminary Examination and Dissertation Committees

- Eric Kietzke, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Carol Briggs-Tung, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Thomas Wetter, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Erika Bohn Goldbaum, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- David Dean, Ph.D., Major Professor, University of Wisconsin-Madison (Nutritional Sciences)
- Annie Gazdag, Ph.D., Major Professor, University of Wisconsin-Madison (Nutritional Sciences)
- Charles Dumke, Ph.D., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Joel Chapman, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Lisa Sanborn, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Raquel Sancho-Solis, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Matthew Bruss, M.S., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Junghoon Kim, Ph.D., Major Professor, University of Wisconsin-Madison (Kinesiology)
- Carrie McCurdy, Ph.D., Major Professor, University of Wisconsin-Madison (Nutritional Sciences)
- Ahbijit D. Bhat, M.S., Major Professor (Co-Chair), University of Michigan (Human Nutrition)
- Katsuhiko Funai, Ph.D., Major Professor, University of Michigan (Kinesiology)
- George Schweitzer, Ph.D., Major Professor, University of Michigan (Kinesiology)
- Donel Sequea, Ph.D., Major Professor, University of Michigan (Molecular & Integrative Physiology)
- James MacKrell, Ph.D., Major Professor, University of Michigan (Molecular & Integrative Physiology)
- Carlos Castorena, Ph.D., Major Professor, University of Michigan (Kinesiology)
- Mark Pataky, Major Professor, current Ph.D. student, University of Michigan (Kinesiology)
- Yilin Nie, Major Professor, M.S., University of Michigan (Kinesiology)
- Valerie Choy, M.S., University of Wisconsin-Madison (Kinesiology)
- Patricia Griffith, M.S., University of Wisconsin-Madison (Kinesiology)
- Laura Liedtke, M.S., University of Wisconsin-Madison (Kinesiology)
- Jennifer Hall, M.S., University of Wisconsin-Madison (Kinesiology)
- Kevin Smith, M.S., University of Wisconsin-Madison (Kinesiology)
- Taina Luhtala, M.S., University of Wisconsin-Madison (Nutritional Sciences)
- David Guhl, M.S., University of Wisconsin-Madison (Kinesiology)
- Cheryl Railing, M.S., University of Wisconsin-Madison (Kinesiology)

- Russell Fiebig, M.S., University of Wisconsin-Madison (Kinesiology)
- Gregory Rebella, M.S., University of Wisconsin-Madison (Kinesiology)
- Tiffany Rench, M.S., University of Wisconsin-Madison (Kinesiology)
- Jeffrey Bejma, M.S., University of Wisconsin-Madison (Kinesiology)
- Malani Trine, M.S., University of Wisconsin-Madison (Kinesiology)
- Julie Davis, M.S., University of Wisconsin-Madison (Nutritional Sciences)
- Eunhee Chung, M.S., University of Wisconsin-Madison (Kinesiology)
- Kathleen McCormick, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Daniel Martinez, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Polly Hansen, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Timothy Hacker, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Oscar Suman, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Steven McClaran, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Ken Blemings, Ph.D., University of Wisconsin-Madison (Animal Science)
- Mark Tetrack, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Ann Garvin, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Randell Gardiner, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Lauren Aspnes, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- John Swallow, Ph.D., University of Wisconsin-Madison (Zoology)
- Kevin Bonine, Ph.D., University of Wisconsin-Madison (Zoology)
- Theresa Gresl, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Sadeeka Al-Majid, Ph.D., University of Wisconsin-Madison (Nursing)
- Terri Gomez, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Samuel Nadler, Ph.D., University of Wisconsin-Madison (Biochemistry)
- Susanne Votruba, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Thomas Wetter, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Justin Rhodes, Ph.D., University of Wisconsin-Madison (Zoology)
- Cynthia Bartok, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Karen Kritsch, Ph.D., University of Wisconsin-Madison (Nutritional Sciences)
- Xiao Mei Song, Ph.D., Karolinska Institute (Clinical Physiology)
- Entela Bua, Ph.D., University of Wisconsin-Madison (Animal Health and Biological Science)
- Joshua Rodman, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Allen Herbst, Ph.D., University of Wisconsin-Madison (Animal Health and Biological Science)
- Emily Kircher, Ph.D., University of Wisconsin-Madison (Environmental Toxicology)
- Hans Haverkamp, Ph.D., University of Wisconsin-Madison (Kinesiology)
- Jordan Miller, Ph.D., University of Wisconsin-Madison (Kinesiology)
- David Morris, Ph.D., University of Michigan (Molecular & Integrative Physiology)
- Simon Schenk, Ph.D., University of Michigan (Kinesiology)
- Chris Herman, Ph.D., University of Michigan (Kinesiology)
- Jonas Thue Treebak, Ph.D., University of Copenhagen (Exercise and Sport Sciences)
- Jessica Gumerson, Ph.D., University of Michigan (Molecular & Integrative Physiology)
- Sean Newsom, Ph.D., University of Michigan (Kinesiology)
- Rachael Weese Nelson, Ph.D., University of Michigan (Kinesiology)
- Katherine Overmyer, Ph.D., University of Michigan (Molecular & Integrative Physiology)
- Xiaoya Ma, Ph.D., University of Michigan (Kinesiology)
- Rasmus Kjøbsted, Ph.D., University of Copenhagen (Nutrition, Exercise and Sports)
- Nashwa J. Cheema, Ph.D., University of Alberta (Biological Sciences)
- Douglas Van Pelt, Ph.D., University of Michigan (Kinesiology)

- Justin Kang, Ph.D., University of Michigan (Kinesiology)
- Chanisa Thonusin, Ph.D., University of Michigan (Molecular & Integrative Physiology)
- Alison Ludzki, current Ph.D. student, University of Michigan (Kinesiology)
- Michael Schleh, current Ph.D. student, University of Michigan (Kinesiology)

Post-doctoral Trainees

- Edward B. Arias, Ph.D.
- Robert T. Davidson, Ph.D.
- Taku Hamada, Ph.D.
- Naveen Sharma, Ph.D.
- Yuanyuan Xiao, Ph.D.
- Swati Agrawal, Ph.D.
- Pragma Sharma, Ph.D.
- Kentaro Oki, Ph.D.
- Haiyan Wang, Ph.D.

University Courses Taught:

- Graduate Physiology (PT-503), Washington University School of Medicine Program in Physical Therapy
- Exercise, Nutrition and Health (740-100), University of Wisconsin-Madison
- Physiology of Exercise (742-314), University of Wisconsin-Madison
- Physical Activity and Health (742-521), University of Wisconsin-Madison
- Biological Factors Influencing Exercise Performance (742-614), University of Wisconsin-Madison
- Laboratory Techniques in Exercise Physiology (742-615), University of Wisconsin-Madison
- Metabolic Responses to Exercise and Environmental Stress (742-774), University of Wisconsin-Madison
- Nutritional Sciences Seminar (694-931), University of Wisconsin-Madison
- Human Biodynamics Seminar (742-953), University of Wisconsin-Madison
- Graduate Seminar: Movement Science (KINSLGY-600), University of Michigan
- Metabolic Responses to Exercise (KINSLGY/PHYSIOL-545), University of Michigan
- Exercise Adaptations in Health and Disease (KINSLGY-511), University of Michigan
- Biological and Behavioral Bases for Human Movement (MOVESCI-110), University of Michigan
- Professional Skills for Research Scientists (KINSLGY-616), University of Michigan

PUBLICATIONS:

Primary Research Publications:

1. Johnston, C.S., G.D. Cartee and B.E. Haskell. Effect of ascorbic acid nutriture on protein-bound hydroxyproline in guinea pig plasma. *J. Nutr.* 115:1089-1093, 1985.
2. Young, D.A., J.J. Uhl, G.D. Cartee and J.O. Holloszy. Activation of glucose transport in muscle by prolonged exposure to insulin. *J. Biol. Chem.* 261(34):16049-16053, 1986.
3. Cartee, G.D. and R.P. Farrar. Muscle respiratory capacity and VO₂max in identically trained young and old rats. *J. Appl. Physiol.* 63:257-261, 1987.
4. Macrae, P.G., W.W. Spirduso, G.D. Cartee, R.P. Farrar and R.E. Wilcox. Endurance training effects on striatal D2 dopamine receptor binding and striatal dopamine metabolite levels. *Neurosci. Letters.* 79:138-144, 1987.
5. Cartee, G.D. and R.P. Farrar. Exercise training induces glycogen sparing during exercise by old rats. *J. Appl. Physiol.* 64:259-265, 1988.

6. Klip, A., T. Ramlal, A.G. Douen, E. Burdett, D. Young, G.D. Cartee, and J.O. Holloszy. Insulin-induced decrease in 5'nucleotidase activity in skeletal muscle membranes. *Fed. Euro. Biochem. Soc.* 238:419-423, 1988.
7. S.H. Constable, R.J. Favier, G.D. Cartee, D.A. Young and J.O. Holloszy. Muscle glucose transport: interactions of in vitro contractions, insulin, and exercise. *J. Appl. Physiol.* 64:2329-2332, 1988.
8. Farrar, R.P., J.W. Starnes, G.D. Cartee, P.Y. Oh and H.L. Sweeney. Effects of exercise on cardiac myosin isozyme composition during the aging process. *J. Appl. Physiol.* 64:880-883, 1988.
9. Cartee, G.D., D.A. Young, M.D. Sleeper, J. Zierath, H. Wallberg-Henriksson and J.O. Holloszy. Prolonged increase in insulin-stimulated muscle glucose transport after exercise. *Am. J. Physiol.* 256 (*Endocrinol. Metab.* 19): E494-E499, 1989.
10. Douen, A.G., T. Ramlal, A. Klip, D.A. Young, G.D. Cartee and J.O. Holloszy. Exercise-induced increase in glucose transporters in plasma membranes of rat skeletal muscle. *Endocrinology.* 124:449- 454, 1989.
11. Lawrence, J.C., J. Colvin, G.D. Cartee and J.O. Holloszy. Effects of aging and exercise on insulin action in rat adipocytes are correlated with changes in fat cell volume. *J. Geront.: Biol. Sci.* 44:B88-92, 1989.
12. Cartee, G.D. and J.O. Holloszy. Exercise increases susceptibility of muscle glucose transport to activation by various stimuli. *Am. J. Physiol.* 258 (*Endocrinol. Metab.* 21): E390-E393, 1990.
13. Klip, A., T. Ramlal, G.D. Cartee, E.A. Gulve and J.O. Holloszy. Insulin-induced recruitment of glucose transporters to the plasma membrane in skeletal muscle from diabetic rats. *Biochem. Biophys. Res. Comm.* 172: 728-736, 1990.
14. Douen, A.G., T. Ramlal, S. Rastogi, P.J. Bilan, G.D. Cartee, M. Vranic, J.O. Holloszy and A. Klip. Exercise induces recruitment of the "insulin responsive glucose transporter". *J. Biol. Chem.* 265:13427-13430, 1990.
15. Douen, A.G., T. Ramlal, G.D. Cartee and A. Klip. Exercise modulates the insulin-induced translocation of glucose transporters in rat skeletal muscle. *FEBS Letters.* 261: 256-260, 1990.
16. Gulve, E.A., G.D. Cartee, J.R. Zierath, V.M. Corpus and J.O. Holloszy. Reversal of enhanced muscle glucose transport after exercise: roles of insulin and exercise. *Am. J. Physiol.* 259 (*Endocrinol. Metab.* 22): E331-E335, 1990.
17. Cartee, G.D., A.G. Douen, T. Ramlal, A. Klip and J.O. Holloszy. Glucose transport in skeletal muscle: stimulation by hypoxia. *J. Appl. Physiol.* 70: 1593-1600, 1991.
18. Gulve, E.A., G.D. Cartee, J.H. Youn and J.O. Holloszy. Prolonged incubation of skeletal muscle increases system A amino acid transport. *Am. J. Physiol.* 260 (*Cell Physiol.* 29): C88-C95, 1991.
19. Gulve, E.A., G.D. Cartee, and J.O. Holloszy. Prolonged incubation of skeletal muscle in vitro: Prevention of increases in glucose transport. *Am. J. Physiol.* 261 (*Cell Physiol.* 30): C154-C160, 1991.
20. Holloszy, J.O., M. Chen, G.D. Cartee, and J.C. Young. Atrophy of skeletal muscle in old rats: Differential changes in the three fiber types. *Mech. Ageing Develop.* 60: 199-213, 1991.
21. Ren, J., E.A. Gulve, G.D. Cartee, and J.O. Holloszy. Hypoxia causes glycogenolysis without an increase in percentage phosphorylase a in rat skeletal muscle. *Am. J. Physiol.* 263 (*Endocrinol. Metab.* 26): E1086-E1091, 1992.
22. Cartee, G.D., C. Briggs-Tung, and J.O. Holloszy. Diverse effects of calcium channel blockers on skeletal muscle glucose transport. *Am. J. Physiol.* 263 (*Regulatory Integrative Comp. Physiol.* 32): R70-R75, 1992.
23. Cartee, G.D. Age-related decline in myocardial GLUT-4 glucose transporter protein levels of rats. *J. Geront.: Biol. Sci.* 48: B168-B170, 1993.
24. Cartee, G.D., C. Briggs-Tung, and E.W. Kietzke. Persistent effect of exercise on glucose transport across the lifespan. *J. Appl. Physiol.* 75(2): 972-978, 1993.
25. Stanley, W.C., J.L. Hall, K.R. Smith, G.D. Cartee, T.A. Hacker, and J.A. Wisneski. Myocardial glucose transporters and glycolytic metabolism in hyperglycemic diabetic swine. *Metabolism.* 43 (1): 61-69, 1994.

26. Hall, J.L., R.S. Mazzeo, D.A. Podolin, G.D. Cartee, and W.C. Stanley. Exercise training does not compensate for an age-related decrease in myocardial GLUT-4 concentration. *J. Appl. Physiol.* 76(1): 104-111, 1994.
27. Cartee, G.D., E.W. Kietzke, and C. Briggs-Tung. Adaptation of muscle glucose transport with caloric restriction in adult, middle-aged and old rats. *Am. J. Physiol.* 266 (Regulatory Integrative Comp. Physiol. 35): R1443-R1447, 1994.
28. Cartee, G.D. and D.J. Dean. Glucose transport with brief dietary restriction: Heterogenous responses in muscles. *Am. J. Physiol.* 266 (*Endocrinol. Metab.* 29): E946-E952, 1994.
29. Cartee, G.D. and E.E. Bohn. Growth hormone reduces glucose transport but not GLUT1 or GLUT4 in adult and old rats. *Am. J. Physiol.* 268 (*Endocrinol. Metab.* 31): E902-E909, 1995.
30. Cartee, G.D., E.E. Bohn, B.T. Gibson, and R.P. Farrar. Growth hormone supplementation increases skeletal muscle mass of old male Fischer 344/Brown Norway rats. *J. Geront.: Biol. Sci.* 51A (3): B214-B219, 1996.
31. Dean, D.J. and G.D. Cartee. Brief dietary restriction increases skeletal muscle glucose transport in old Fischer 344 rats. *J. Geront.: Biol. Sci.* 51A (3): B209-B213, 1996.
32. Kohles, S.S., G.D. Cartee and R. Vanderby, Jr. Cortical elasticity in aging rats with and without growth hormone treatments. *J. Med. Engineering Tech.* 20: 157-163, 1996.
33. Cartee, G.D., T.J. Wetter, A.N. Guerra and T.N. Cox. Decline in muscle insulin-dependent and -independent glucose uptake but not GLUT-4 in 21- vs. 28-day-old rats. *Am. J. Physiol. (Endocrinol. Metab.* 29). 272: E446-E452, 1997.
34. Ranheim, T., Dumke, C., Schueler, K.L., Cartee, G.D., and Attie, A.D. Interaction between BTBR and C57BL/6J genomes produces an insulin resistance syndrome in (BTBR x C57BL/6J) F1 mice. *Arterioscler. Thromb. Vasc. Biol.* 17(11): 3286-3293, 1997.
35. Dean, D.J., A.C. Gazdag, T.J. Wetter, and G.D. Cartee. Comparison of the effects of 20 days and 15 months of calorie restriction on male Fischer 344 rats. *Aging: Clin. Exper. Res.* 10(4): 303-307, 1998.
36. Dean, D.J., J.T. Brozinick, Jr., S.W. Cushman, and G.D. Cartee. Calorie restriction increases cell surface GLUT4 in insulin-stimulated skeletal muscle. *Am. J. Physiol. (Endocrinol. Metab.* 38). 275: E957-E964, 1998.
37. Gazdag, A.C., M.Z. Tucker, L.P. Turcotte, D.J. Dean, and G.D. Cartee. Effect of extracellular palmitate on 2-deoxy-D-glucose uptake in muscles from ad libitum fed and calorie restricted rats. *Biochem. Biophys. Res. Comm.* 252: 733-737, 1998.
38. Brozinick, Jr., J.T., T.H. Reynolds, D.J. Dean, G.D. Cartee, and S.W. Cushman. KN-62, an inhibitor of calcium dependent calmodulin kinase II, inhibits both insulin and hypoxia-stimulated glucose transport in skeletal muscle. *Biochem. J.* 339(Part 3): 533-540, 1999.
39. Wetter, T.J., A.C. Gazdag, D.J. Dean, and G.D. Cartee. Effect of calorie restriction on *in vivo* glucose metabolism by individual tissues in rats. *Am. J. Physiol. (Endocrinol. Metab.* 39). 276: E728-E738, 1999.
40. Gazdag, A.C., C.L. Dumke, C.R. Kahn, and G.D. Cartee. Calorie restriction increases insulin stimulated glucose transport in skeletal muscle from IRS-1 knockout mice. *Diabetes.* 48:1930-1936, 1999.
41. Gazdag, A.C., S. Sullivan, J.W. Kemnitz, and G.D. Cartee. Effect of long-term calorie restriction on GLUT4, phosphatidylinositol-3 kinase p85 subunit, and insulin receptor substrate-1 protein levels in rhesus monkey skeletal muscle. *J. Geront.: Biol. Sci.* 55A: 44-46, 2000.
42. Gazdag, A.C., T.J. Wetter, R.T. Davidson, K.A. Robinson, M.G. Buse, A.J. Yee, L.P. Turcotte, and G.D. Cartee. Lower calorie intake enhances muscle insulin action and reduces hexosamine levels. *Am. J. Physiol. Regulatory, Integrative Comp. Physiol.* 278: R504-R512, 2000.
43. Dean, D.J. and G.D. Cartee. Calorie restriction increases insulin-stimulated tyrosine phosphorylation of insulin receptor and insulin receptor substrate-1 in rat skeletal muscle. *Acta Physiol. Scand.* 169: 133-140, 2000.

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