CURRICULUM VITAE

Jeffrey F. Horowitz, PhD

CONTACT INFORMATION

Address: University of Michigan
School of Kinesiology
401 Washtenaw Ave
Ann Arbor, MI 48109-2214

Telephone: (734) 647-1076

FAX: (734) 936-1925

e-mail: jeffhoro@umich.edu

PRESENT POSITION

Professor - School of Kinesiology 2012-
The University of Michigan, Ann Arbor, MI

EDUCATION

Ph.D. University of Texas at Austin; Exercise Physiology 1996
M.A. University of Texas at Austin; Exercise Physiology 1992
B.S.E. University of Iowa; Biomedical Engineering 1989

PREVIOUS PROFESSIONAL EXPERIENCE

Associate Professor - School of Kinesiology 2006-2012
The University of Michigan, Ann Arbor, MI

Assistant Professor - School of Kinesiology 2000-2006
The University of Michigan, Ann Arbor, MI

Research Instructor in Medicine – Division of Gastroenterology 1999-2000
Washington University School of Medicine, St. Louis, MO

POST-DOCTORAL TRAINING

Washington University School of Medicine, St. Louis, MO 1996-1999

TEACHING EXPERIENCE

University of Michigan, School of Kinesiology 2000-present

Teaching assistant instructor: Department of Kinesiology 1989-1995
and Health Education - The University of Texas at Austin

PROFESSIONAL ORGANIZATIONS

American College of Sports Medicine (Fellow)
American Physiological Society
American Diabetes Association
American Society of Nutrition
National Academy of Kinesiology (Fellow)

HONORS

Inductee in the National Academy of Kinesiology (2020)
University of Michigan Kinesiology Research Excellence Award (2018)
Charles Cowell Honorary Lecture - Purdue University (2018)
University of Michigan Kinesiology Excellence in Teaching Award (2010)
Fellow of the American College of Sports Medicine (2005)
National Research Service Award (1998) – National Institutes of Health
International Young Scientist Award (1996) - The August Krogh Institute, Copenhagen, Denmark
National Student Researcher Award (1996) - American College of Sports Medicine
Outstanding Dissertation Award (1996) - The University of Texas at Austin
Outstanding Student Researcher Award (1996) - American College of Sports Medicine, Texas Chapter
Professional Development Award (1991, 1992, 1995) - The University of Texas at Austin

RESEARCH

GRANTS – ACTIVE SUPPORT

ACTIVE GRANTS AS PI/PD

Role: PI
Source: National Institutes of Health (R01 DK077966)
Title of Project: Insulin sensitivity and fatty acid partitioning in skeletal muscle after exercise
Major Goals: Determine the effects of acute and chronic exercise on the metabolic fate of fatty acids in skeletal muscle, and the impact on pro-inflammatory/stress and insulin sensitivity in obese adults
Dates of Project: 4/1/10 – 12/31/2021
Annual Direct Cost: $450,000/yr
Percent Effort: 25%

Role: Core Director (Human Phenotyping Core) [PI: Randy Seeley]
Source: National Institutes of Health (P30 DK089503)
Title of Project: Michigan Nutrition and Obesity Research Center (NORC) – Integrative Basic and Clinical Obesity Research Center
Major Goals: To facilitate the performance of basic and clinical nutrition and obesity research
Dates of Project:7/01/15 – 6/30/20
Annual Direct Cost: $750,000/yr
Percent Effort: 10%

Role: Co-PI
Source: University of Michigan – M-Cubed program
Title of Project: Peripheral signals that communicate diet and exercise to the brain
Major Goals: Examine the effects of diet and exercise on the release and function of GDF15 (a hormone linked to changes in appetite, food selection, and anxiety.
Dates of Project: 2019-2021
Annual direct costs: $60,000 ($20,000 to Horowitz Lab)
Annual indirect costs: $0
Percent Effort: 0%

ACTIVE GRANTS AS CO-I
Role: Co-I [PI: Charles Burant, MD, PhD (U. Michigan)]
Source: NIH [U24 DK12342 – Chemical analysis site]
Title of Project: Molecular Transducers of Physical activity consortium (MoTrPAC)
Major goals: identify cellular signals that underlie the fitness and health effects of exercise
Dates of Project: 12/8/2016 – 11/20/2022
Annual direct costs: ~$890,000/year
Percent Effort: 2%

Role: Co-I [PI: Brian Callaghan, MD (U. Michigan)]
Source: National Institutes of Health (R01 DK115687)
Title of Project: The effect of high intensity interval training and surgical weight loss on distal symmetric polyneuropathy outcomes
Major goals: Compare the effects of high intensity interval exercise training vs. weight loss (via bariatric surgery) on diabetic neuropathy and neuropathic pain
Dates of Project: 7/1/2018 – 6/30/2023
Annual direct costs: ~$430,000/year
Percent Effort: 10%

GRANTS – PREVIOUS AWARDS

Role: PI
Source: American Diabetes Association (1-16-ICTS-048)
Title of Project: Protection against insulin resistance in obesity
Major Goals: To identify novel factors in adipose tissue and skeletal muscle that "protect" some obese adults from becoming insulin resistant
Dates of Project: 1/1/16 - 12/31/18
Annual Direct Cost: $180,000/yr
Percent Effort: 10%

Role: Co-I [PI: Zhengping Yi, Wayne State University]
Source: National Institutes of Health (R01 DK107666)
Title of Project: Serine/threonine Protein Phosphatase 1 in Insulin resistance and Type 2 Diabetes
Major Goals: Examine novel phosphorylation events on serine/threonine protein residues human skeletal muscle
Dates of Project: 9/25/15 – 8/31/20
Annual Direct Costs: $330,000/yr
Percent Effort: 10%

Role: Co-I (PI: Zhengping Yi, Wayne State University)
Source: National Institutes of Health (R01 DK081750)
Title of Project: Human Skeletal Muscle Proteome & Phosphoproteome in Obesity and Type 2 Diabetes
Major Goals: This study explores function and regulation of protein phosphatase 2A in human skeletal muscle in obesity and type 2 diabetes.
Dates of Project: 8/1/14-04/30/18
Annual Direct Cost: $200,000/year
Percent Effort: 5%

Role: Co-PI
Source: University of Michigan – M-Cubed program
Title of Project: Metabolic phenotyping of human single skeletal muscle fibers
Major Goals: Compare metabolic profile in different muscle fibers in animals exposed to exercise and/or different dietary treatments
Dates of Project: 2016-2017
Annual direct costs: $60,000 ($20,000 to Horowitz Lab)
Annual indirect costs: $0
Percent Effort: 0%

Role: Co-I (PI: Zhengping Yi, Wayne State University)
Source: American Diabetes Association (1-13-TS-27)
Title of Project: Effect of Exercise on Human Skeletal Muscle Tyrosine Phosphoproteome
Major Goals: Determine the effect of acute and chronic exercise on novel tyrosine phosphorylation sites in human skeletal muscle and how this may be associated with insulin sensitivity.
Dates of Project: 7/1/2013-6/30/2016
Annual Direct Cost: $174,000/year
Percent Effort: 5%

Role: PI
Source: National Institutes of Health (R01 DK071955)
Title of Project: Growth hormone (GH) as a determinant of weight regulation
Major Goals: Determine the impact of GH on the susceptibility for gaining weight
Dates of Project: 9/01/05 - 8/31/11
Annual Direct Cost: $265,000/yr
Percent Effort: 30%

PREVIOUS GRANT AWARDS (continued)

Role: PI
Source: Robert C. Atkins Foundation
Title of Project: Dietary fatty acid composition and obesity-related metabolic abnormalities
Major Goals: To compare the effects of a high saturated fat diet and a high unsaturated fat diet on insulin sensitivity and factors regulating insulin action in overweight men and women
Dates of Project: 5/01/07 - 4/30/11
Annual Direct Costs: $220,000/yr
Percent Effort: 10%

Role: PI (Co-PI: Karen Peterson, School of Public Health)
Source: University of Michigan - Provost Faculty Expansion Initiative
Title of Project: "Physical Activity and Nutrition" (2 new faculty positions)
Major Goals: Obtain support for salaries and start up costs from University on Michigan administration for two new faculty members to teach and conduct research in the content area of "Physical activity and Nutrition" within the School of Kinesiology and the School of Public Health
Dates of Project: 9/1/2011 – for duration the hired faculty remain at the University of Michigan
Annual Direct Costs: $100,000-$150,000 salary support per year for each position and $500,000 start-up cost recovery for each position
Percent Effort: 0%

Role: Co-I (PI: Craig Jaffe, MD)
Source: National Institutes of Health (R01 DK061501)
Title of Project: Physiological importance of growth hormone pulsatility
Major Goals: Determine the effect of different methods of growth hormone administration (constant dose vs. pulsatile dose) on lipid and protein metabolism
Dates of Project: 4/01/04 - 3/31/09
Annual Direct Costs: $283,000/yr
Percent Effort: 25%

Role: PI
Source: American Diabetes Association (1-03-JF-10)
Title of Project: Fatty acid metabolism and insulin sensitivity: The role of endurance exercise training
Major Goals: Determine the effect of exercise and weight loss on the regulation of insulin sensitivity and lipid-induced insulin sensitivity.
Dates of Project: 1/01/03 - 12/31/05
Annual Direct Costs: $120,000/yr
Percent Effort: 30%

Role: Co-I (PI: Zhengping Yi, Wayne State University)
Source: American Diabetes Association (1-13-TS-27)
Title of Project: Effect of Exercise on Human Skeletal Muscle Tyrosine Phosphoproteome
Major Goals: Determine the effect of acute and chronic exercise on novel tyrosine phosphorylation sites in human skeletal muscle and how this may be associated with insulin sensitivity.
Dates of Project: 7/1/2013-6/30/2016
Annual Direct Cost: $174,000/year
Percent Effort: 5%

Role: Co-I
Source: Michigan Life Sciences Corridor
Title of Project: Improving muscle power and mobility of elderly men and women
Major Goals: Determine the effect of high vs. low velocity resistance training on power production and fall prevention in elderly men and women after 12 weeks of progressive resistance strength training
Dates of Project: 8/1/02 - 7/31/05
Annual Direct Cost: $1,200,000/yr
Percent Effort: 20%

PREVIOUS GRANT AWARDS (continued)

Role: PI
Source: Michigan Diabetes Research Training Center
Title of Project: Role of elevated fatty acid availability on skeletal muscle fatty acid metabolism and the exercise induced increase in insulin sensitivity
Major Goals: Determine the impact of fatty acid disposal on insulin sensitivity and the expression of cellular factors that regulate fatty acid metabolism after a single session of exercise in obesity
Dates of Project: 1/03 - 1/04
Annual Direct Costs: $35,000/yr
Percent Effort: 10%

Role: PI
Source: The University of Michigan Rackham Graduate School
Title of Project: Role of acute physical inactivity and diet on lipid metabolism
Major Goals: Determine the effect of physical inactivity on triglyceride clearance from the circulation
Dates of Project: 11/01/01 - 11/01/02
Annual Direct Costs: $15,000/yr
Percent Effort: 10%

Role: PI
Source: The Michigan Memorial Phoenix Project
Title of Project: Role of acute physical inactivity and diet on lipid metabolism
Major Goals: Determine the fate of ingested lipids (i.e.; oxidation, conversion to other lipid intermediates or storage)
Dates of Project: 1/01/02 - 1/01/03
Annual Direct Costs: $10,000/yr
Percent Effort: 10%

Invited lectures and keynote addresses

1. "Regulation of lipid mobilization in Obesity" *7th Annual European Congress of Sports Science*, Athens Greece, 2002.
2. "Exercise in obesity" *Turkish Obesity Congress,* Antalya, Turkey, 2002.
3. "Lipid Mobilization and Exercise" *Turkish Obesity Congress,* Antalya, Turkey, 2002
4. "The regulation of lipid metabolism in Obesity" *Annual Ontario Exercise Physiology Conference*, Barrie, Ontario, 2002. (Keynote lecture)
5. "Regulation of lipid mobilization and oxidation in obesity" *University of Toledo Annual Exercise Physiology Symposium*, 2002. (Keynote lecture)
6. "Diet and the control of substrate selection" *Canadian Society of Exercise Physiology*, Niagra on the lake, Ontario, Canada, Oct 2003 (Symposium Panelist/Speaker)
7. "Lipid mobilization and oxidation in obesity: A link to insulin resistance" Michigan Diabetes Research Training Center Annual Symposium, March, 2004 (Symposium Speaker)
8. "Regulation of Adipose tissue lipolysis" *American College of Sports Medicine Annual Conference*, Indianapolis, Indiana, June, 2004 (Featured Symposium Panalist/Speaker)
9. "Lipid mobilization and oxidation in obesity". *Florida Department of Health, Diabetes Prevention and Control Program Teleconference* August, 2004 (Keynote lecture)
10. "Does Exercise protect against lipid-induced impairments in insulin sensitivity" *MacMaster University Exercise Physiology Seminar Series*, March, 2005
11. "Exercise, Lipid Metabolism and insulin sensitivity" *American Diabetes Association – Michigan Research Panel Discussion*, July, 2005
12. "The effects of weight-loss and exercise on fatty acid partitioning and insulin sensitivity" *American Diabetes Association 67th Scientific Sessions,* Chicago, June 2007 (Featured Symposium Speaker)

13. “Effects of weight-loss and exercise training on insulin sensitivity” *ACSM Northland Regional Meeting*, Duluth, MN, October 2008 (Featured Speaker)
14. “Fatty acid partitioning and insulin sensitivity after acute exercise” *ACSM Northland Regional Meeting*, Duluth, MN, October 2008 (Featured Speaker)
15. “Effects of diet and exercise on muscle fat metabolism and insulin action” – *University of Toledo Diabetes Update “The Big Game”.* Toledo OH, November, 2009 (Featured Speaker)
16. “Changes in Fat Oxidation in Response to Diet and Exercise: What is the Impact on Metabolic Health?” *American College of Sports Medicine Annual Conference*, Denver, CO, June, 2011 (Co-chair of symposium/Symposium Speaker)
17. “Regulation of muscle lipid metabolism: implications for chronic disease” – Intramuscular Fat Conference - University of California-San Diego, San Diego, September 2011 (Featured Speaker)
18. “Exercise and dietary effects on fat metabolism that may improve metabolic health” - University of Windsor Distinguished Speaker Series, Windsor, Ontario Canada, November 2011 (Invited Lecture)
19. “Mechanisms for improving muscle insulin action through changes in exercise and dietary behaviors” – Wayne State University School of Medicine, April 2012 (Invited-Grand Rounds Lecture)
20. “Mechanisms for improving muscle insulin action through changes in exercise and dietary behaviors” - Pathobiology Seminar Series, Lerner Research Institute, Cleveland Clinic, May 2012 (Invited Lecture)
21. Effects of exercise and diet on muscle lipid metabolism and insulin resistance” 4th Annual Muscle Health Awareness Symposium – York University, Toronto, Canada, May 2013 (Invited Lecture)
22. “Effects of exercise and diet on muscle fat metabolism and insulin action” – European College of Sport Sciences Annual Meeting – Barcelona, Spain, June 2013 (Co-Chair and invited Symposium Speaker.
23. “Metabolic effects of eating before, during and after exercise: implications for endurance exercise performance” – International Forum on the Sports Science Industry – Taipei, Taiwan, Nov 2, 2013 (Invited Lecture)
24. "Exercise and dietary effects on lipid metabolism that may improve cardio-metabolic health” - University of Taipei - Taipei, Taiwan, Nov 2, 2013 (Invited Lecture)
25. "Exercise and diet effects on fat metabolism that may improve Cardio-metabolic health" University of Illinois, Chicago – March 7, 2014 (Invited Lecture)
26. “Working out the kinks: Impact of exercise on insulin resistance” – Integrative Physiology of Exercise Conference – Miami, Florida – Sept 20, 2014 (Featured Symposium Speaker)
27. “Factors underlying the exercise-induced improvement in insulin resistance” – Arizona State University/Mayo Clinic – Scottsdale, AZ – November 13, 2014 (Invited Lecture)
28. “Impact of exercise and diet on insulin resistance and metabolic health in obesity” – Virginia Tech University – Blacksburg, VA – December 8, 2014 (Invited Lecture)
29. “Impact of exercise and diet on insulin resistance and metabolic health in obesity” – Pennington Biomedical Research Center - Baton Rouge, LA – March 19, 2015 (William Hansel Visiting Scientist Lecture Series - Invited Lecture)
30. “Exercise effects on adipocyte cell size and expandability” Integrative Biology of Exercise. Phoenix, AZ. November 4, 2016 (Invited Lecture – Symposium Speaker/Chair)
31. “Alterations in fatty acid metabolism within skeletal muscle and adipose tissue on insulin resistance in obese humans”. Monash Biomedicine Discovery institute Seminar Series, Monash University, Clayton, Victoria, Australia March 21, 2017 (Invited Lecture)

32. "Impact of exercise and diet on insulin resistance and metabolic health in obesity" Deakin Institute of Physical Activity and Nutrition Seminar Series, Deakin University, Burwood, Victoria, Australia – April 19, 2017 (Invited Lecture)
33. "Impact of exercise on adipose tissue expandability and metabolic health" – Purdue University, West Lafayette, IN, April 4, 2018 (Annual "Charles Cowell Honorary Lecture" – Invited lecturer
34. "Exercise effects on fatty acid metabolism in obesity: impact on insulin resistance" – University of Colorado - Nutrition Obesity Research Center Annual Symposium – Oct 16, 2018 (Keynote Lecture),
35. "Exercise effects on fatty acid metabolism in obesity: impact on insulin resistance" - Translational Research Institute for Metabolism and Diabetes/Florida Hospital. Orlando, FL, Dec 13, 2018 (Invited Lecture)
36. "Fitter Fat: How exercise may reshape your body fat in surprisingly healthy ways" - University of Michigan School of Kinesiology, Feb 22, 2019 (Research Excellence Award Presentation)
37. "Exercise effects on fatty acid metabolism in obesity: Impact on insulin resistance" – Washington University School of Medicine "Obesity and Diabetes Seminar Series, St Louis, MO, Sept 19, 2019 (Invited Lecture)
38. "Exercise effects on fatty acid metabolism in obesity: Impact on insulin resistance" - University of Alabama, Birmingham, Diabetes Research Center Plenary Session, Nov 14, 2019 (Invited Lecture)
39. "Exercise effects on fatty acid metabolism in obesity: Making a "fitter" fat?!" University of Michigan Diabetes, Obesity, Nutrition & Metabolism Translational Research Club. March 8, 2021 (Invited Lecture)

PUBLICATIONS (PEER-REVIEWED)

1. Coyle EF, LS Sidossis, JF Horowitz, and JD Beltz. Cycling efficiency is related to the percentage of Type I muscle fibers. *Med. Sci. Sports Exerc.* 24(7): 782-788, 1992.
2. Sidossis LS, JF Horowitz, and EF Coyle. Load and velocity of contraction influences gross and delta mechanical efficiency. *Int. J. Sports Med.* 13(5): 407-411, 1992.
3. Balon TW, JF Horowitz, and KM Fitzsimmons. Effect of carbohydrate loading and weight-lifting on muscle girth. *Int. J. Sprts. Nutr*. 2:328-334, 1992.
4. Horowitz JF and EF Coyle. Metabolic responses to pre-exercise meals containing various carbohydrates and fat. *Am. J. Clin. Nutr.* 58: 235-241, 1993.
5. Romijn JA, EF Coyle, L Sidossis, A Gastaldelli, JF Horowitz, E Endert, and RR Wolfe. Regulation of endogenous fat and carbohydrate metabolism in relation to exercise intensity. *Am. J. Physiol.* 265(28): E380-E391, 1993.
6. Horowitz JF, LS Sidossis, and EF Coyle. High efficiency of Type I muscle fibers improves performance. *Int. J. Sports Med.* 15(3):152-157, 1994.
7. Horowitz JF, R Mora-Rodriguez, LO Byerley, and EF Coyle. Lipolytic suppression following carbohydrate ingestion limits fat oxidation during exercise. *Am J. Physiol*. 273(36):E768-E775, 1997.
8. Coppack SW, JF Horowitz, DS Paramore, PE Cryer, HD Royal, and S Klein. Whole body, adipose tissue, and forearm norepinephrine kinetics in lean and obese women. *Am. J. Physiol.* 275(38): E830-E834, 1998.
9. Horowitz JF, R Mora-Rodriguez, LO Byerley, and EF Coyle. Substrate metabolism when fed carbohydrate during exercise. *Am J. Physiol*. 276(39):E828-E835, 1999.
10. Horowitz JF., SW. Coppack, D Paramore, P Cryer, G Zhao, and S Klein. Effect of short-term fasting on lipid kinetics in lean and obese women. *Am. J. Physiol.* 276(2 Pt 1): E278-E284, 1999.
11. Horowitz JF, RJ Braudy, WH Martin, and S Klein. Endurance exercise training does not alter lipolytic or adipose tissue blood flow sensitivity to epinephrine. *Am. J. Physiol*. 277(40):E325-E331, 1999.

12. Horowitz JF, R Mora-Rodriguez, LO Byerley, and EF Coyle. Pre-exercise medium-chain triglyceride ingestion does not alter muscle glycogen use during exercise. *J. Appl. Physiol.* 88:219-225, 2000.
13. Horowitz JF and S Klein. Whole-body and abdominal subcutaneous adipose tissue lipolytic sensitivity to epinephrine is suppressed in women with upper-body obesity. *Am. J. Physiol.* 278:E1144-E1152, 2000.
14. Horowitz JF and S Klein. Oxidation of non-plasma fatty acids during exercise is increased in women with abdominal obesity. *J. Appl. Physiol.* 89:2276-2282, 2000.
15. Horowitz JF, TC Leone, DP Kelly, and S Klein. Effect of endurance training on lipid metabolism in women: a role for PPARα in the metabolic response to training. *Am. J. Physiol. Endocrinol. Metab.* 279: E348-E355, 2000.
16. Klein S, JF Horowitz, M Landt, SJ Goodrick, V Mohamed-Ali, and SW Coppack. Leptin production during short-term fasting in lean and obese women. *Am. J. Physiol.* 278: E280-E284, 2000.
17. Davis A, M Christensen, JF Horowitz, S Klein, M Hellerstein, and RE Ostlund. Effect of pinitol treatment on insulin action in subjects with insulin resistance. *Diabetes Care.* 23(7):1000-1005, 2000.
18. Racette SB, JF Horowitz, B Mittendorfer, and S Klein. Racial differences in lipid metabolism in women with abdominal obesity. *Am. J. Physiol*. 279(3):R944-R950, 2000.
19. Horowitz JF, SW Coppack, and S Klein. Whole-body and adipose tissue glucose metabolism in response to short-term fasting in lean and obese women. *Am. J. Clin. Nutr.*73:517-522, 2001.
20. Landt M, JF Horowitz, SW Coppack, and S Klein. Effect of short-term fasting on free and bound leptin concentrations in lean and obese women. *J Clin Endocrinol Metab.* 86(8):3768-3771, 2001.
21. Horowitz JF, and S Klein. Differences in acetate recovery factor between groups may interfere with tracer estimates of fat oxidation - Letters to the Editor. *J. Appl. Physiol.* 90:2520-2521, 2001.
22. Mittendorfer B, JF Horowitz, and S Klein. Gender differences in lipid and glucose kinetics during short-term fasting. *Am J Physiol*. 281(6):E1333-E1339, 2001.
23. Patterson BW, JF Horowitz, G Wu, M Watford, SW Coppack, and S Klein Regional muscle and adipose tissue amino acid metabolism in lean and obese women *Am J Physiol* 282:E931-E936, 2002.
24. Mittendorfer B, JF Horowitz, and S Klein, Effect of gender on lipid kinetics during moderate intensity endurance exercise in untrained subjects. *Am J. Physiol.* 283:E58-E65, 2002.
25. Fox AK, AE Kaufman, and JF Horowitz. Adding fat calories to meals after exercise does not alter insulin sensitivity. *J. Appl. Physiol*. 97:11-16, 2004.
26. Schenk S, JN Cook, AE Kaufman, and JF Horowitz. Post-exercise insulin sensitivity is not impaired after an overnight lipid infusion. *Am. J. Physiol.* 288(3):E519-E525, 2005
27. Horowitz JF, AE Kaufman, AK Fox, and MP Harber. Energy deficit without reducing dietary carbohydrate alters resting carbohydrate oxidation and fatty acid availability. *J Appl Physiol*. 98(5):1612-1618, 2005.
28. Harber MP, S Schenk, AL Barkan and JF Horowitz. Alterations in carbohydrate metabolism in response to short-term dietary carbohydrate restriction. *Am J Physiol Endocrinol Metab*. 289:E306-E312, 2005.
29. Harber MP, S Schenk, AL Barkan and JF Horowitz. Effects of dietary carbohydrate restriction with high protein intake on protein metabolism and the somatotropic axis. *J Clin Endocrinol Metab*. 90:5175-5181, 2005.
30. Knuth, ND and JF Horowitz. The elevation of ingested lipids within plasma chylomicrons is prolonged in men compared with women. *J Nutr.* 136:1498-1503, 2006. PMID: 16702311

31. Schenk S and JF Horowitz. Co-immunoprecipitation of FAT/CD36 and carnitine palmitoyl transferase-I in skeletal muscle increases proportionally with fat oxidation after endurance exercise training. *Am J Physiol Endocrinol Metab.* 291(2):E254-E260, 2006. PMID: 16670153

32. Schenk S and JF Horowitz. Acute exercise increases triglyceride synthesis in skeletal muscle and prevents fatty acid-induced insulin resistance. *J. Clin Invest*. 117(6): 1690-1698, 2007. PMID: 17510709

33. Knuth, ND, Remias DB, and JF Horowitz. Adding carbohydrate to high-fat meal blunts postprandial lipemia in women and reduces meal-derived fatty acids in systemic circulation. *Appl Physiol Nutr Metab*. 33: 315-325, 2008. PMID: 18347687

34. Sakharova AA, Horowitz JF, Surya S, Goldenberg N, Harber MP, Symons K, Barkan A.Role of growth hormone in regulating lipolysis, proteolysis, and hepatic glucose production during fasting. *J Clin Endocrinol Metab*. 93(7):2755-2759, 2008. PMCID: PMC2453052

35. Knuth, ND, Shrivastava, SR, and JF Horowitz. Reducing dietary fat from a meal increases the bioavailability of exogenous carbohydrate without altering plasma glucose concentration. *J Appl Physiol.* 106(1): 122-129, 2009. PMCID: PMC2636944

36. Surya, S, JF Horowitz, Goldenberg, N, Sakharova, A, Harber, M, Cornford, AS, Symons, K, and AL Barkan. The pattern of GH delivery to peripheral tissues determines IGF-1 and lipolytic responses in obese people. *J Clin Endocrinol Metab.* 94(8): 2828-2834, 2009. PMCID: PMC2730877

37. Schenk, S, MP Harber, CR Shrivastava, CF Burant, and JF Horowitz. Improved insulin sensitivity after weight loss and exercise training is mediated by a reduction in plasma fatty acid mobilization, not enhanced oxidative capacity. *J. Physiol*. 587(20):4949-4961, 2009. PMID: 19723783

38. Newsom SA, Schenk S, Thomas KM, Harber MP, Knuth ND, Goldenberg N, and JF Horowitz. Energy deficit after exercise augments lipid mobilization but does not contribute to the exercise-induced increase in insulin sensitivity. *J Appl Physiol*. 108(3):554-60, 2010. PMID: 20044472

39. Newsom SA, Schenk S, Li M, Everett AC, JF Horowitz. High fatty acid availability after exercise alters the regulation of muscle lipid metabolism. *Metabolism*. 60(6):852-9, 2011. PMCID: PMC3011035

40. Cornford AS, Barkan AL, and JF Horowitz. Rapid Suppression of Growth Hormone Concentration by Overeating: Potential Mediation by Hyperinsulinemia. *J Clin Endocrinol Metab*. 96(3):824-30, 2011. PMCID: PMC3047219

41. Li M, Paran C, Wolins NE, and JF Horowitz. High muscle lipid content in obesity is not due to enhanced activation of key triglyceride esterification enzymes or to the suppression of lipolytic proteins. *Am J Physiol Endo*. 300(4):E699-E707, 2011. PMCID: PMC3074947\

42. Mittendorfer B, Horowitz JF, DePaoli AM, McCamish MA, Patterson BW, and S Klein. Recombinant human leptin treatment does not improve insulin action in obese subjects with type 2 diabetes. *Diabetes*. 60(5):1474-1477, 2011. PMCID: PMC3292320

43. Claflin DR, Larkin LM, Cederna, PS, Horowitz, JF, Alexander NB, Cole NM, Galecki AT, Chen S, Nyquist L, Carlson BM, Faulkner JA, and JA Ashton-Miller. Effects of high- and low-velocity resistance training on the contractile properties of skeletal muscle fibers from young and older humans. *J Appl Physiol.* 111(4): 1014-1020, 2011. PMCID: PMC3191797

44. Cornford AS, Barkan AL, Hinko A, and JF Horowitz. Suppression in growth hormone during overeating ameliorates the increase in insulin resistance and cardiovascular disease risk. *Am J Physiol Endocrinol Metab*. 303(10):E1264-E1272, 2012. PMCID: PMC3517632

45. Watt MJ, Barnett AC, Bruce CR, Schenk S, Horowitz JF, and AJ Hoy. Regulation of plasma ceramide levels with fatty acid oversupply: evidence that the liver detects and secretes de novo synthesised ceramide. *Diabetologia*, 55(10): 2741-2746, 2012. PMID:22854889 - NIHMS439819

46. Boon J, Hoy AJ, Stark R, Brown RD, Meex RC, Henstridge DC, Schenk S, Meikle PJ, Horowitz JF, Kingwell BA, Bruce CR, and MJ Watt. Ceramides Contained in LDL Are Elevated in Type 2 Diabetes

and Promote Inflammation and Skeletal Muscle Insulin Resistance. *Diabetes*, 62(2): 401-410, 2013. PMCID: PMC3554351

47. Cornford AS, Hinko A, Nelson, RK, Barkan AL, and JF Horowitz. Rapid development of systemic insulin resistance with overeating is not accompanied by robust changes in skeletal muscle glucose and lipid metabolism. *Appl Physiol Nutr Metab*. 38(5):512-519, 2013. PMCID: PMC3891585
48. Nelson RK, Horowitz JF, Holleman RG, Swartz AM, Strath SJ, Kriska AM, and Richardson CR. Daily physical activity predicts degree of insulin resistance: a cross-sectional observational study using the 2003--2004 National Health and Nutrition Examination Survey. *Int J Behav Nutr Phys Act*. 10:10, 2013. PMCID: PMC3575359
49. Newsom SA, Everett AC, Hinko A, and JF Horowitz. A single session of low-intensity exercise is sufficient to enhance insulin sensitivity into the next day in obese adults. *Diabetes Care*. 36(9): 2516-2622, 2013. PMCID: PMC3747878
50. Nelson RK, and JF Horowitz. Acute exercise ameliorates differences in insulin resistance between physically active and sedentary overweight adults. *Appl Phys Nutr Metab*.39(7):811-418, 2014. PMCID: PMC4115061
51. Caruso M, Ma D, Msallaty Z, Lewis M, Seyoum B, Al-Janabi W, Diamond M, Abou-Samra AB, Højlund K, Tagett R, Draghici S, Zhang X, Horowitz JF, Yi Z Increased Interaction with Insulin Receptor Substrate-1, a Novel Abnormality in Insulin Resistance and Type 2 Diabetes. *Diabetes.* Jun;63(6):1933-1947, 2014. PMCID: PMC4030113
52. Van Pelt DW, Newsom SA, Schenk S, and JF Horowitz. Relatively low endogenous fatty acid mobilization and uptake helps preserve insulin sensitivity in obese women. *Int. J. Obesity*. 39(1):149-155, 2015. PMCID: PMC42167783.
53. Newsom SA, Everett AC, Park S, Hinko A, Van Pelt DW, and JF Horowitz. Lipid mixtures containing a very high proportion of saturated fatty acids only modestly impair insulin signaling in cultured muscle cells. *PlosOne*, 10(3), 2015 PMCID: PMCID: 4368748
54. Ortega JF, Morales-Palomo F, Fernandez-Elias V, Hamouti N, Bernardo FJ, Martin-Doimeadios RC, Nelson RK, Horowitz JF, and Mora-Rodriguez R. Dietary supplementation with omega-3 fatty acids and oleate enhances exercise training effects in patients with metabolic syndrome. *Obesity* 24: 1704–1711, 2016. PMID: 27356240
55. Ajluni N, Meral R, Neidert AH, Brady GF, Buras E, McKenna B, DiPaola F, Chenevert TL, Horowitz JF, Buggs-Saxton C, Rupani AR, Thomas PE, Tayeh MK, Innis JW, Omary MB, Conjeevaram H, and Oral EA. Spectrum of disease associated with partial lipodystrophy: lessons from a trial cohort. *Clin Endocrinol (Oxf)* 86: 698–707, 2017. PMCID: PMC5395301
56. Oral EA, Reilly SM, Gomez AV, Meral R, Butz L, Ajluni N, Chenevert TL, Korytnaya E, Neidert AH, Hench R, Rus D, Horowitz JF, Poirier B, Zhao P, Lehmann K, Jain M, Yu R, Liddle C, Ahmadian M, Downes M, Evans RM, and Saltiel AR. Inhibition of IKKϵ and TBK1 Improves Glucose Control in a Subset of Patients with Type 2 Diabetes. *Cell Metab* 26: 157–170.e7, 2017. PMID: 28683283
57. Van Pelt DW, Guth LM, Wang AY, and Horowitz JF. Factors regulating subcutaneous adipose tissue storage, fibrosis, and inflammation may underlie low fatty acid mobilization in insulin sensitive obese adults. *Am J Physiol Endocrinol Metab* 313(4):E429-E439, 2017. PMID:28679624
58. Van Pelt DW, Guth LM, and Horowitz JF. Aerobic exercise elevates markers of angiogenesis and macrophage IL6 gene expression in the subcutaneous adipose tissue of overweight-to-obese adults. *J Appl Physiol* 123: 1150–1159, 2017. PMID: 28798202
59. Liu D, Morales FE, IglayReger HB, Treutelaar MK, Rothberg AE, Hubal MJ, Nadler EP, Robidoux J, Barakat H, Horowitz JF, Hoffman EP, Burant CF, and Gordon PM. Expression of macrophage genes within skeletal muscle correlates inversely with adiposity and insulin resistance in humans. *Appl Physiol Nutr Metab* 43: 187–193, 2018. PMID:29035695

60. Ludzki AC, Pataky MW, Cartee GD, and JF Horowitz. Acute endurance exercise increases *Vegfa* mRNA expression in adipose tissue of rats during the early stages of weight gain. Appl Physiol Nutr Metab. 43(7):751-754, 2018. PMID: 29486133
61. Horowitz JF, Ortega JF, Hinko A, Li M, Nelson RK and R Mora-Rodriguez. Changes in markers for cardio-metabolic disease risk after only 1-2 weeks of a high saturated fat diet in overweight adults. *PlosOne*. PLoS One. 2018 Jun 27;13(6), 2018. PMID:29949578
62. Meral R, Ryan BJ, Malandrino N, Jalal A, Neidert AH, Muniyappa R, Akıncı B, Horowitz JF, Brown RJ, and EA Oral. "Fat Shadows" From DXA for the Qualitative Assessment of Lipodystrophy: When a Picture Is Worth a Thousand Numbers. Diabetes Care. 41(10):2255-2258, 2018. PMID:30237235
63. Ryan BJ, Van Pelt DW, Guth LM, Ludzki AC, Gioscia-Ryan RA, Ahn C, Foug KL, and JF Horowitz. Plasma ferritin concentration is positively associated with in vivo fatty acid mobilization and insulin resistance in obese women. Exp Physiol. 103(11):1443-1447, 2018. PMID:30178895
64. Rothberg AE, Herman WH, Wu C, IglayReger HB, Horowitz JF, Burant CF, Galecki AT, Halter JB. Weight Loss Improves β-Cell Function in People with Severe Obesity and Impaired Fasting Glucose: A Window of Opportunity. *J Clin Endocrinol Metab.* 105(4):1621-1630, 2020
65. Schleh MW, Pitchford LM, Gillen JB, Horowitz JF. Energy Deficit Required for Exercise-induced Improvements in Glycemia the Next Day. *Med Sci Sports Exerc.* 52(4): 976-982, 2020.
66. Ryan BJ, Schleh MW, Ahn C, Ludzki AC, Gillen JB, Varshney P, Van Pelt DW, Pitchford LM, Chenevert TL, Gioscia-Ryan RA, Howton SM, Rode T, Hummel SL, Burant CF, Little JP, Horowitz JF. Moderate-Intensity Exercise and High-Intensity Interval Training Affect Insulin Sensitivity Similarly in Obese Adults. *Journal of Clinical Endocrinology & Metabolism* 105: 1334–19, 2020.
67. Ludzki AC, Krueger EM, Baldwin TC, Schleh MW, Porsche CE, Ryan BJ, Muir LA, Singer K, Lumeng CN, Horowitz JF. Acute Aerobic Exercise Remodels the Adipose Tissue Progenitor Cell Phenotype in Obese Adults. *Front Physiol* 11: 2238–8, 2020.
68. Ryan BJ, Foug KL, Gioscia-Ryan RA, Varshney P, Ludzki AC, Ahn C, Schleh MW, Gillen JB, Chenevert TL, Horowitz JF. Exercise training decreases whole-body and tissue iron storage in adults with obesity. *Exp Physiol* In Press. (February 9, 2021). doi: 10.1113/EP089272.
69. Ryan BJ, Foug KL, Gioscia-Ryan RA, Ludzki AC, Ahn C, Schleh MW, Gillen JB, Chenevert TL, Horowitz JF. Skeletal muscle ferritin abundance is tightly related to plasma ferritin concentration in adults with obesity. *Exp Physiol* In Press (September 5, 2020). doi: 10.1113/EP089010.

INVITED REVIEWS AND BOOK CHAPTERS

1. Horowitz JF and S Klein. Lipid metabolism during endurance exercise. *Am. J. Clin. Nutr*. 72(suppl.) 558S-563S, 2000.
2. Horowitz JF. Regulation of lipid mobilization and oxidation during exercise in obesity. *Exerc. Sport Sci. Rev.* 29(1), 42-46, 2001.
3. Horowitz JF and S Klein. Endurance exercise and adipose tissue lipolysis in vivo. In: B. Nicklas ed. Endurance Exercise and Adipose Tissue. Boca Raton, FL. CRC Press. pps. 15-30, 2001.
4. Horowitz JF. Fatty acid mobilization from adipose tissue during exercise. *Trends Endocrinol. Metab.* 14(8): 386-392, 2003.
5. Horowitz JF. Adipose tissue lipid mobilization during exercise. In: M Hargreaves and LL Spriet eds. Metabolic responses to exercise. Champaign, Il. Human Kinetics. pps. 89-104, 2006.
6. Horowitz JF. Exercise-induced alterations in muscle lipid metabolism improve insulin sensitivity. *Exerc Sport Sci Rev*. 35(4):192-196, 2007.
7. Horowitz, JF. Insulin Resistance, In: *Encyclopedia of Exercise Medicine in Health and Disease*. Springer Publishing. New York/Heidelberg Germany. 2012

ABSTRACTS (PAST TEN YEARS)

1. Li M. Paran C, Wolins NE, and JF Horowitz. High muscle triglyceride content in obesity is not due to elevated lipogenic enzyme activity or to the suppression of lipolytic proteins. Experimental Biology Conference, Anaheim, CA. April 2010.
2. Newsom SA, Schenk S, Li M, Everett AC, and JF Horowitz. Elevated fatty acid availability after exercise increases intramyocellular triglyceride content by enhancing capacity for fatty acid flux into skeletal muscle. Experimental Biology Conference, Anaheim, CA. April 2010.
3. Newsom SA, Schenk S, Harber MP, Burant CF, and JF Horowitz. Insulin Sensitivity is Lowest in Obese Women with High Rates of Fatty Acid Uptake. Integrative Physiology of Exercise Conference, Miami, Florida. September 2010.
4. Nelson RK, Horowitz JF, Holleman RG, Strath SJ, Kriska AM, Swartz AM, Richardson CR. Physical Activity is a Better Predictor of Insulin Resistance than Cardiorespiratory Fitness – Integrative Physiology of Exercise Conference - Miami, Florida. September, 2010.
5. Li M, Cornford AS, Schenk S, and JF Horowitz. Fatty Acid Uptake Is Enhanced after Modest Energy Deficit via Acute Exercise, Not Caloric Restriction, Integrative Physiology of Exercise Conference,Miami, Florida. September 2010.
6. Cornford AS, Barkan AL, and JF Horowitz. Suppression in Growth Hormone Secretion with Overeating Contributes to a Higher Whole-body Proteolytic Rate. Integrative Physiology of Exercise Conference, Miami, Florida. September 2010.
7. Cornford AS, Barkan AL, and JF Horowitz Suppression of Endogenous Growth Hormone with Overeating Not Responsible for the Reduction in Lipolytic Rate. American College of Sports Medicine (ACSM), Denver, CO. June 2011.
8. Newsom SA, Everett AC, and JH Horowitz. A single session of exercise improves insulin sensitivity in obese adults: effects of exercise intensity. ACSM, Denver, CO. June 2011.
9. Nelson RK, Li M, Hinko A, Burant CF, and JH Horowitz. Rapid Alterations in Plasma and Muscle Lipid Profiles in Response to a High Saturated Fat Diet. American Diabetes Association 71th Scientific Sessions, San Diego, CA. June 2011.
10. Newsom SA. Everett AC, and JF Horowitz. Improved Insulin Sensitivity the Day After a Modest Session of Exercise in Obese Adults. ACSM, San Francisco, CA, May, 2012.
11. Nelson, RK, and JF Horowitz. Single Session of Exercise Ameliorates Differences in Insulin Resistance Between Active and Inactive Overweight Adults. ACSM, San Francisco, CA, May, 2012.
12. Newsom SA, Everett AC, Hinko A, and JF Horowitz. The severe impairment in insulin signaling with palmitate in cultured muscle cells not found with physiologic mixtures of fatty acids. American Diabetes Association – Scientific Sessions, Philadelphia, PA, June 2012.
13. Cornford AC, Barkan AL, and JF Horowitz. Changes in Skeletal Muscle Metabolism May Not Contribute to the Early Development of Insulin Resistance After 2 Weeks of Overeating. American Diabetes Association – Scientific Sessions, Philadelphia, PA, June 2012.
14. N. Goldenberg N, Horowitz JF, Georgey A, Sakharova A and S Surya The magnitude of growth hormone pulse amplitude helps regulate the elevated lipolytic rate during prolonged fasting. Endocrine Society Annual Meeting, Houstin, TX, June 2012.
15. Nelson RK, Van Pelt DW, Gianchandani SY, and JF Horowitz. Effects of Habitual Physical Activity Level and Acute Exercise on Markers of Systemic Inflammation and Cardiometabolic Risk in Overweight/Obese Adults. American Physiological Society – Integrative Biology of Exercise Meeting, Westminster, CO, September 2012.

16. Park S, Gumucio JP, Hinko A, Newsom SA, and JF Horowitz. Insulin signaling in myotubes derived from obese adults was not impaired in response to a mixture of fatty acids resembling that found in human plasma American Physiological Society – Integrative Biology of Exercise Meeting, Westminster, CO, September 2012.
17. Halter J, Rothberg A, Pietropaolo M, Herman W, Horowitz J, and A Galecki. Weight Reduction Normalizes Impaired Beta Cell Function in Obese Adults. Keystone Symposia - Diabetes — New Insights into Mechanism of Disease and its Treatment, Keystone, CO, January 2013.
18. Van Pelt DW, Newsom SA, Schenk S, and JF Horowitz. Systemic fatty acid uptake and skeletal muscle inflammatory pathway activation may contribute to the variability in insulin sensitivity found in obesity. Experimental Biology Conference. Boston, MA April 2013.
19. Nelson, RK, and JF Horowitz. Adopting a modest-intensity exercise program can improve metabolic health in obese adults even without weight-loss. American College of Sports Medicine (ACSM), Indianapolis, IN. May 2013.
20. Nelson, RK, Van Pelt, DW, and JF Horowitz. Improvements in Insulin Action Only After Adding Weight-loss to a Mild-intensity Exercise Training Program. American College of Sports Medicine (ACSM), Orlando, FL. May 2014.
21. Van Pelt, DW, Guth, LM, Nelson, RK, Hinko, A, and JF Horowitz. Mild-intensity exercise training without weight loss very modestly improves cardio-metabolic disease risk in obese adults. Integrative Physiology of Exercise Conference, Miami, FL. Sept 2014.
22. Guth, LM, Van Pelt, DW, Nelson, RK, and JF Horowitz. Mild-intensity exercise training without weight loss does not alter markers of inflammation in obese adults. Integrative Physiology of Exercise Conference, Miami, FL. Sept 2014.
23. Wang, A, Guth, LM, Van Pelt, DW, Nelson, RK, Hinko, A. and JF Horowitz. A mild-intensity exercise program does not induce persistent improvements in insulin resistance without weight loss. Integrative Physiology of Exercise Conference, Miami, FL. Sept 2014.
24. Petit-Mee RJ, Horowitz JF, and RK Nelson. The influence of exercise and insulin resistance on biomarkers of endothelial dysfunction. American College of Sports Medicine (ACSM), San Diego, CA, May 2015
25. Van Pelt DW, Guth LM Hinko A, and JF Horowitz. Maintaining a Relatively Low Rate of Fatty Acid Mobilization from Adipose Tissue Helps Protect Obese Adults from Becoming Insulin Resistant. American Diabetes Association Scientific Sessions, Boston, MA, June 2015.
26. Guth LM, Van Pelt DW, Nelson RK, Hinko a, and JF Horowitz. Modest weight loss required for a mild-intensity exercise/lifestyle program to induce persistent improvements in insulin resistance. American Diabetes Association Scientific Sessions, Boston, MA, June 2015.
27. Van Pelt DW, Wang AY, and JF Horowitz. Protection against insulin resistance in obesity is accompanied by low rates of systemic fatty acid mobilization and attenuated markers of fibrosis and inflammation in adipose tissue. Experimental Biology Annual Conference, San Diego, CA April, 2016.
28. Casey J, Van Pely DW, Burant CF, Horowitz JF, and C Evans. Differences in Plasma Metabolites in Insulin Resistant and Insulin Sensitive Obese Individuals during a Hyperinsulinemic/Euglycemic Clamp. Experimental Biology Annual Conference, San Diego, CA April, 2016.
29. Van Pelt DW, Guth LM, and JF Horowitz. A single session of exercise initiates adaptive responses in adipose tissue that may lead to improvements in inflammation and adipose tissue vascularization American Diabetes Association Scientific Sessions, New Orleans, LA. June 2016.
30. Guth LM, Van Pelt, DW, and JF Horowitz. Basal systemic fatty acid mobilization is higher in exercise-trained vs. untrained obese adults. American Diabetes Association Scientific Sessions, New Orleans, LA. June 2016.

31. Ludzki AC, Gillen JB, Guth LM, Karabetsos KC, and JF Horowitz. Effects of exercise on adipose tissue responses to short-term overeating in healthy adults. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016.
32. Van Pelt DW, Guth LM, Karabetsos KC, and JF Horowitz A single session of aerobic exercise reduces markers of inflammation in subcutaneous adipose tissue. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016.
33. Yuan F, Guth LM, Van Pelt DW, Jawanda HS, and JF Horowitz. Human serum collected immediately after exercise does not alter mRNA expression related to fatty acid metabolism or inflammation in cultured 3T3-L1 adipocytes. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016.
34. Guth LM, Van Pelt DW, Yi Z, and JF Horowitz. Systemic fatty acid mobilization rates are elevated in endurance-trained obese/overweight adults, but are blunted the day after acute exercise. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016
35. Jawanda HS, Van Pelt DW, Guth LM, and JF Horowitz. Endurance exercise training decreases mRNA expression of inflammatory genes in peripheral blood mononuclear cells in overweight and obese adults. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016.
36. Gillen JB, Nelson RK, Van Pelt DW, Guth LM, and JF Horowitz. Mild-intensity exercise training alters skeletal muscle phospholipid composition in obese adults. **I**ntegrative Biology of Exercise. Phoenix, AZ. November 2016.
37. Ludzki AC, Pataky MW, Cartee GD, and JF Horowitz "Effects of Acute Exercise and High Fat Diet on Angiogenic Signaling in Adipose Tissue of Rats" American Diabetes Association 2017 Scientific Sessions; San Diego, CA, June 2017.
38. Oral EA, Reilly SM, Meral R, Butz L, Ajulni NN, Chenevery TL, Korytnaya E, Neidert A, Hench R, Rus D, Horowitz JF, Gomez AV, Zhao P, Lehmann KA, Jain M, Yu R, Liddle C, Ahmadian M, Downes M, Evans RM, and AR Saltiel. Inhibition of IKKε and TBK1 Improves Glucose Control in Patients with Type 2 Diabetes, American Diabetes Association 2017 Scientific Sessions; San Diego, CA, June 2017.
39. Meral R, Ryan B, Malandrino N, Muniyappa R, Neidert A, Rus D, Hench R, Ajluni N, Williams CL, McClintock D, Cheng JY, Brown RJ, Horowitz JF, Balis UGJ, and E Oral. Diagnosis of Familial Partial Lipodystrophy Using Dexa Scans: Proof of Concept for Applying Machine Learning to Detect a Rare Disease Phenotype. Encocrine Society Annual Meeting, Chicago, IL March 2018.
40. Schleh MW, Guth L, Jing H, and JF Horowitz. Exercise-induced energy deficit lowers glycemia at breakfast the next day, but not over 24-hours. American College of Sports Medicine (ACSM) Annual Conference, Minneapolis MN, May 2018.
41. Meral R, Ryan BJ, Neidert AH, Horowitz JF, and EA Oral. Fat Shadows from DEXA for Documentation of Fat Distribution in Patients with Lipodystrophy. American Diabetes Association 2018 Scientific Sessions; Orlando, FL, June 2018.
42. Ryan BJ, Van Pelt DW, Guth LM, Ludzki A, Gioscia-Ryan RA, Ahn C, and JF Horowitz. Insulin Resistance and in vivo Lipolytic Rate are Positively Associated with Body Iron Stores in Obese Women. American Diabetes Association 2018 Scientific Sessions; Orlando, FL, June 2018.
43. Gillen JB, Gioscia-Ryan RA, Ludzki A, Chenevert TL, and JF Horowitz. Lower ectopic fat accumulation in obese women may help explain sex differences in the magnitude of insulin resistance. American Diabetes Association 2018 Scientific Sessions; Orlando, FL, June 2018.
44. Schleh MW, Ryan BJ, Gillen JB, Ludzki A, and JF Horowitz. Moderate- and high-intensity exercise training improve "free-living" glycemic control independently of weight loss. American Diabetes Association 2018 Scientific Sessions; Orlando, FL, June 2018.

45. Ahn C, Ryan B, Gillen J, Ludzki A, Schleh M, Reinheimer B, and JF Horowitz. Exercise training alters subcutaneous adipose tissue morphology in obese adults even without weight loss. American Diabetes Association 2019 Scientific Sessions; San Francisco, CA, June 2019.
46. Schleh MW, Ryan BJ, Gillen JB, Varshney P, Foug, KL, Ludzki AC, and JF Horowitz. Exercise Training Does Not Alter Resting Fatty Acid Mobilization from Adipose Tissue. American Diabetes Association 2019 Scientific Sessions; San Francisco, CA, June 2019.
47. Varshney P, Lisa M, Guth LM, Anderson C, Raajendiran A, Watt MJ, and JF Horowitz. Acute Exercise Enhances the Differentiation Rate of Human Adipocyte Precursor Cells. American Diabetes Association 2019 Scientific Sessions; San Francisco, CA, June 2019.
48. Ludzki AC, Krueger EM, Baldwin T, Taylor N, Muir LA, Lumeng CN, and JF Horowitz. A single session of exercise increases tissue resident macrophages in subcutaneous adipose tissue from healthy human subjects. American Diabetes Association 2019 Scientific Sessions; San Francisco, CA, June 2019.
49. Ryan BJ, Schleh MW, Varshney P, Ludzki AC, Gillen JB, Foug KL, Carr BD, and JF Horowitz. High-intensity Interval Training and Moderate-intensity Continuous Training Induce Similar Modifications to Factors Regulating Skeletal Muscle Lipolysis. American Diabetes Association 2019 Scientific Sessions; San Francisco, CA, June 2019.
50. Varshney P, Ryan BJ, Ahn C, Schleh MW, and JF Horowitz. Effects of Exercise on Extracellular Matrix Modifiers in Subcutaneous Adipose Tissue of Obese Adults. American Diabetes Association 2020 Scientific Sessions; Virtual, June 2020.
51. Schleh MW, Ryan BJ, Ludzki AC, Gillen JB, and JF Horowitz. High- and Moderate-intensity Exercise Training Increased Skeletal Muscle Acylcarnitine and Phospholipid Abundance in Obese Adults. American Diabetes Association 2020 Scientific Sessions; Virtual, June 2020.
52. Schleh MW, Ryan BJ, Ahn C, Ludzki AC, Varshney P, Gillen JB, and JF Horowitz. High-intensity interval training increased aerobic capacity but did not improve peripheral insulin sensitivity, in either insulin resistant or insulin sensitive obese adults. Integrative Physiology of Exercise Conference. Virtual, November 2020.
53. Ahn C, Schleh M, Ryan B, Ludzki A, Varshney P, Gillen J, Chen S, and JF Horowitz. Exercise training improved antilipolytic sensitivity to insulin in obese adults with low sensitivity to insulin before training. American Diabetes Association 2020 Scientific Sessions; Virtual, June 2021.
54. Schleh MW, Ryan BJ, Ahn C, Ludzki AC, Varshney P, Gillen JB, and JF Horowitz. Adipose tissue anti-lipolytic insulin sensitivity protects against whole-body insulin resistance and lowers acylcarnitine accumulation in adults with obesity. American Diabetes Association 2020 Scientific Sessions; Virtual, June 2021.
55. Pallavi Varshney P, Schleh MW, Ahn C, Zheng X, Arias EB, Cartee GD, and JF Horowitz. Caloric restriction modified factors regulating lipid storage and apoptosis in inguinal but not epididymal adipose tissue of 24-month-old male rats. American Diabetes Association 2020 Scientific Sessions; Virtual, June 2021.

TEACHING

COURSES TAUGHT AT THE UNIVERSITY OF MICHIGAN

1. MOVESCI 340 – Exercise Physiology
2. KINESLGY 540 – Advanced Exercise Physiology
3. KINESLGY 541 – Experiments in Human Exercise Physiology
4. KINESLGY 572 – Fitness Evaluation and Exercise Prescription
5. KINESLGY 600 - Graduate Seminar in Movement Science
6. KINESLGY 615 - Philosophy of Science and Research in Kinesiology
7. KINESLGY 513 – Physical Activity and Nutrition

STUDENT MENTORING

Doctoral students

Cheehoon Ahn (major advisor)	2019-
Michael Schleh (major advisor)	2017-
Alison Ludzki (major advisor)	2014-2019
Doug Van Pelt (major advisor)	2012-2017
Rachael Nelson (major advisor)	2008-2013
Sean Newsom (major advisor)	2007-2012
Andrea Cornford (major advisor)	2005-2012
Simon Schenk, (major advisor)	2002-2006
Nicolas Knuth, (major advisor)	2001-2007

Major Advisees – current positions

Dr. Douglas Van Pelt in a Post-Doctoral Scholar at the University of Kentucky
Dr. Rachael Nelson is an Associate Professor at Central Michigan University
Dr. Sean Newsom is an Assistant Professor at Oregon State University
Dr. Schenk is an Associate Professor at The University of California-San Diego
Dr. Knuth is an Associate Professor at Towson University

Jonathan Herrera (committee member)	2018-
Edwin Miranda (committee member)	2018-
Tiwa Ajibewa (committee member)	2016-
Mark Pataky (committee member)	2014-
Dale Morrison – Deakin University – Australia (committee member)	2017
Marcelo Alehandro – University of Melbourne (committee member)	2017
Justin Kang (Co-Chair and committee member)	2010-2017
Chanisa Thonusin (committee member)	2014-2014
Jonathan Gumucio (committee member)	2011-2017
Xiaoya Ma (Co-Chair and committee member)	2011-2015
Po-Ju Lin (committee member)	2007-2014
Carlos Castorena (committee member)	2007-2013
Nicollete Bradley – University of Guelph (committee member)	2012
Jesse Moes (committee member)	2009-2012
George Schweitzer (committee member)	2007-2012
John Ussher – University of Alberta (committee member)	2009
Emma Estevez – Univerisdad Castilla la Mancha (committee member)	2009
Christopher Mendias (committee member)	2005-2007
Hyun Seok Hwang (committee member)	2002-2007
Elizabeth Wuorinen (committee member)	2000-2007
Katrina Fogleman (preliminary exam committee member)	2003-2004
Angela Smith – University of Guelph (committee member)	2006
Gregory Steinberg – University of Guelph (committee member)	2002

Post-doctoral Fellows

Pallavi Varshney	2018-
Benjamin Ryan	2016-
Jenna Gillen, PhD	2016-2017
Lisa Guth, PhD	2014-2017
Minghua Li, PhD	2007-2010
Ashraf Gorgey, PhD	2006-2008
Matthew Harber PhD.	2003-2005

Dr. Gillen is an Assistant Professor at the University of Toronto
Dr Guth is a Research Scientist at "Metabolic Technologies"
Dr. Gorgey is an Associate Professor at Virginia Commonwealth University
Dr. Harber is an Associate Professor at Ball State University

MD Fellows

Naila Goldenberg, MD	2004-2007

Dr. Goldenberg is the Associate Medical Director of The Cholesterol and Metabolism Center – University of Cincinnati

Master's students

Shiqi Chen	2019-2020
Michelle Aube	2019
Chiwoon (Chris) Ahn	2017-2018
Haojia (Julie) Jing	2016-2018
JoAnna Arnold	2016-2017
Alvin (AJ) Pearson	2016-2017
Fei Yuan	2016-2017
Mark Karam	2014-2015
Cara Shrivastava	2005-2007
Jingwei Miao	2005-2005
Brandon Snead	2004-2007
David Morris	2004-2005
Sungha Kim	2002-2003
Amy Kaufman	2001-2003
Christopher Song, MS	2001-2002
Elaine Tan, MS	2001-2002
Amanda Fox, MS (Thesis)	2000-2002
Aileen Schiller, MS	2000-2002
Jennifer Graf, MS	2000-2002
Kristen Farrell, MS	2000-2002
Sheryl Hansen Smith, MS	2000-2001
Justin Keenan – RMIT Australia (Thesis committee member)	2001

Undergraduate students

Ben Reinhemer	2018-2019
Emily Krueger	2017-2018
Toree Baldwin	2017-
Natalie Taylor	2016-2020
Konstantinos Karabetsos	2015-2018
Cara Anderson	2016-2017
Darby Middlebrook	2016-2017
Harkirat Jawanda	2014-2017
Abigail Wang	2013-2016
Stephen Doll	2012-2014
Sachi Gianchandani	2011-2014
Doug Yang	2011
Jamie Klein	2010-2012
Allison Everett	2008-2102

Ellen Railsback	2008-2010
Chris Paran	2007-2009
Kristin Thomas	2006-2009
Kevin Weiss	2008
Dan Faden	2003-2006
Audie Veloria	2004-2005
Jack Zuckerman	2004-2005
David Remias	2003-2004
Michele Emory	2003-2004
Kevin Jamil	2003-2004
Andrew Lockton	2003-2004
Peter Trzos	2003-2004
Jill Cook	2002-2003
Sara Cook	2000-2003
Elizabeth Heyn	2002-2003
Jonathan Gifford	2002-2003
Samantha Kanarek	2001-2002
Matthew Buczynski	2001-2002
Kathy Haley	2001-2002

SERVICE

INVITED GRANT REVIEWER

1. NIH - Clinical and Integrative Diabetes and Obesity (CIDO) study section	2011-2012, 2018-
2. NIH MoTrPAC – Ancillary Project Review Committee	2017-
3. National Science Foundation (Ad hoc reviewer)	2007
4. Clinical and Translational Science Award pilot grants	2007, 2009
5. Natural Science and Engineering Research Council of Canada	2003, 2005, 2008
6. Veteran's Administration Grants	2005
7. Federation of Polish Science	2017

INVITED REVIEWER FOR PROFESSIONAL JOURNALS

American Journal of Clinical Nutrition
American Journal of Physiology
Applied Physiology, Nutrition and Metabolism
British Journal of Nutrition
Cell Metabolism
Diabetes
Exercise and Sport Science Reviews
Experimental Physiology
FASEB Journal
International Journal of Sports Nutrition and Exercise Metabolism
Journal of Applied Physiology
Journal of the American Gerontology Society
Journal of Clinical Endocrinology and Metabolism
Journal of Clinical Investigation
Journal of Gerontology
Journal of Physiology
Medicine and Science in Sport and Exercise
Metabolism
Obesity
Obesity Research

OTHER PROFESSIONAL SERVICE

KINESIOLOGY SERVICE

1. Kinesiology Exercise Oncology Search Committee – Chair (3 faculty positions)	2020-
2. MAES Winter cohort Steering Committee Chair	2020-
3. University of Michigan - Kinesiology – Executive Committee member	2006-2011, 2013-2015, 2017-2019
4. Kinesiology Mentor for Junior Faculty (Rebecca Hasson)	2012-2018
5. Kinesiology Mentor for Junior Faculty (Andrew Ludlow)	2017-
6. Search Committee Member (Exercise Physiology – Assistant Professor)	2016-2017
7. Chair of search committee for 2 new faculty hires in Exercise Physiology	2015-2016
8. Kinesiology Search Committee member for Senior Movement Science Faculty	2014-2015
9. Physical Activity/Nutrition (PAN) graduate certificate program committee	2013-2018
10. Chair of search committee for new faculty hire in Exercise Physiology	2011-2016
11. Kinesiology Mentor for Junior Faculty (Steve Broglio)	2011-2013
12. Director of the Michigan "Physical Activity and Nutrition" Seminar Series	2010-2011
13. Kinesiology Mentor for Junior Faculty (Pete Bodary)	2007-2013
14. Movement Science Department Chair	2007-2009
15. Search Committee Member (Motor Control – Assistant Professor)	2009-2010

16. Search Committee Member (Bickner Endowed Chair in Kinesiology) 2007-2008
17. Search Committee Member (Exercise Physiology – Assistant Professor) 2006-2007
18. Kinesiology Salary Equity Committee 2006-2007
19. University of Michigan Kinesiology Building committee member 2002-2005, 2011-
20. Director of the University of Michigan - Center for Exercise Research (CXR) 2001-2004, 2011-2013 2017

UNIVERSITY SERVICE

1. M-Diabetes Clinical Research, Mentoring and Development Committee 2019-
2. Steering Committee member of the UM Momentum Center (Child Obesity Center) 2013-2018
3. Core-Director, Michigan Nutrition and Obesity Research Center 2010-
   ("Nutrition, Exercise and phenotype Testing (NExT) Core
4. Ethics Advisory committee for disclosing findings to research participants 2017-2019
5. Rackham Graduate School Pre-doctoral Fellowship Review Selection committee 2010-2012
6. Rackham Graduate School International Student Fellowship Selection committee 2010-2013
7. Advisory Committee on University of Michigan Recreational Sports 2013-2016
8. Search Committee Member on 2 faculty searches (School of Public Health) 2012-2015

PROFESSIONAL SERVICE OUTSIDE THE UNIVERSITY OF MICHIGAN

1. Associate Editor – Diabetes 2016-2021
2. American Diabetes Association – Annual Scientific Sessions Planning Committee 2017-2019
3. American Diabetes Association – Exercise Interest Group Chair 2017-2021
4. International Biology of Exercise – Steering committee 2015-2016
5. American Diabetes Association – Human metabolism symposia steering committee 2015-2016
6. American Diabetes Association – Exercise symposia steering committee 2013-2014
7. Associate Editor for *Applied Physiology, Nutrition and Metabolism* 2006-2016
8. Associate Editor for the *Canadian Journal of Applied Physiology* 2001-2006
9. Grant Reviewer (see details above)
10. Reviewer for Professional Journals (see details above)