

**CURRICULUM VITAE**  
Jeffrey F. Horowitz, PhD

**CONTACT INFORMATION**

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**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**

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

**HONORS**

University of Texas – Department of Kinesiology - Hall of Honor Inductee (2022)  
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 DK13172)

**Title of Project:** Exercise effects on adipose tissue morphology, metabolic function, and metabolic health with weight loss and weight regain in obesity

**Major Goals:** The overall goals of this project are to assess the effects of exercise on changes in the structure and function of adipose tissue as adults with obesity lose weight.

**Dates of Project:** 8/16/2022 – 5/31/2027

**Annual Direct Cost:** \$405,000/yr

**Percent Effort:** 30%

**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 – 6/30/25

**Annual Direct Cost:** \$750,000/yr

**Percent Effort:** 10%

#### *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 (No Cost Extension through 6/30/2024)

**Annual direct costs:** ~\$430,000/year

**Percent Effort:** 10%

## **GRANTS – PREVIOUS AWARDS**

**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:** 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%

**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%

**PREVIOUS GRANT AWARDS (continued)**

**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%

**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 of 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%

**PREVIOUS GRANT AWARDS (continued)**

**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%

**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" *7<sup>th</sup> 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 Panelist/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 67<sup>th</sup> 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" 4<sup>th</sup> 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)
40. “Effects of exercise on fatty acid metabolism in obesity: Making a “fitter” fat?!” – University of Missouri, Columbia – Department of Nutrition and Exercise Physiology, March 17, 2022 (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. Sports. 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 PPAR $\alpha$  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 somatotrophic 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. PMID: 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. PMID: 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. PMID: 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
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  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.
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75. Ludzki AC, Krueger EM, Gillen JB, Taylor NM, Middlebrook DO, Baldwin TC, Karabetsos KC, Schleh MW, Horowitz JF. One Week of Overeating Upregulates Angiogenic and Lipolytic Gene Expression in Human Subcutaneous Adipose Tissue from Exercise Trained and Untrained Adults *Appl Physiol Nutr Metab*. 47(10):992-1004, 2022.
76. Schleh MW, Ryan BJ, Ahn C, Ludzki AC, Varshney P, Gillen JB, Van Pelt DW, Pitchford LM, Howton SM, Rode T, Chenevert TL, Hummel SL, Burant CF, and Horowitz JF. Metabolic dysfunction in obesity is related to impaired suppression of fatty acid release from adipose tissue by insulin. *Obesity*. doi: 10.1002/oby.23734. Online ahead of print.

#### **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
8. Horowitz, JF Adipose tissue lipid metabolism during exercise. In: G. McConnell ed. *Exercise Metabolism – Physiology in Health and Disease*. Springer Publishing. New York/Heidelberg Germany. 2022

#### **ABSTRACTS (PAST TEN YEARS)**

1. 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.

2. 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.
3. 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.
4. 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.
5. 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, Houston, TX, June 2012.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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
16. 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.

17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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. Integrative Biology of Exercise. Phoenix, AZ. November 2016.
23. Van Pelt DW, Guth LM, Karabetsos KC, and JF Horowitz A single session of aerobic exercise reduces markers of inflammation in subcutaneous adipose tissue. Integrative Biology of Exercise. Phoenix, AZ. November 2016.
24. 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. Integrative Biology of Exercise. Phoenix, AZ. November 2016.
25. 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. Integrative Biology of Exercise. Phoenix, AZ. November 2016
26. 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. Integrative Biology of Exercise. Phoenix, AZ. November 2016.
27. Gillen JB, Nelson RK, Van Pelt DW, Guth LM, and JF Horowitz. Mild-intensity exercise training alters skeletal muscle phospholipid composition in obese adults. Integrative Biology of Exercise. Phoenix, AZ. November 2016.
28. 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.
29. 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 IKK $\epsilon$  and TBK1 Improves Glucose Control in Patients with Type 2 Diabetes, American Diabetes Association 2017 Scientific Sessions; San Diego, CA, June 2017.
30. 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. Endocrine Society Annual Meeting, Chicago, IL March 2018.

31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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 Scientific Sessions; Virtual, June 2021.
45. 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 Scientific Sessions; Virtual, June 2021.

46. 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 Scientific Sessions; Virtual, June 2021.
47. Schleh, M, Ryan B, Ahn C, Ludzki A, Varshney P, Gillen J and JF Horowitz. Adipose Tissue Fibrosis and Low Anti-lipolytic Sensitivity to Insulin May Underlie Diminished Insulin-Mediated Peripheral Glucose Uptake in Adults with Obesity, 2022 Keystone Symposia Conference Adipose Tissue and Metabolic Health. (Poster Accepted but Conference canceled due to COVID-19)
48. Ahn C, Schleh M, Zhang T, Luker A, Chugh O, and JF Horowitz. Restricted lipid storage capacity in adipose tissue may contribute to insulin resistance in adults with overweight/obesity with low cardiorespiratory fitness. International Biochemistry of Exercise Conference (IBEC). Toronto, Canada May 26-28, 2022.
49. Luker AT, Schleh M, Ahn C, Ryan B, Chugh O, Luker KE, Zhang T, Gillen J, and JF Horowitz. Both high- and moderate-intensity exercise training increase the number of lipid droplets in the intramyofibrillar region of skeletal muscle in adults with obesity. International Biochemistry of Exercise Conference (IBEC). Toronto, Canada May 26-28, 2022.
50. Zhang T, Ahn C, Schleh M, Ryan B, Gillen J, and JF Horowitz. Impaired antilipolytic response to insulin in adults with obesity with low cardiorespiratory fitness is reversed after exercise training. International Biochemistry of Exercise Conference (IBEC). Toronto, Canada May 26-28, 2022.
51. Ahn C, Zhang T, Rode T, Chugh O, Schleh M, Ryan BJ, Gillen J, and JF Horowitz. Exercise training remodels skeletal muscle extracellular matrix in adults with obesity, Integrative Physiology of Exercise Conference, ACSM, Baltimore, MD, Sept 234, 2022.



## **TEACHING/MENTORSHIP**

### **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

Tao Zhang (major advisor)	2021-
Cheehoon Ahn (major advisor)	2019-
Michael Schleh (major advisor)	2017-2022
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. Michael Schleh is a Post-Doctoral Scholar at Vanderbilt University*

*Dr. Alison Ludzki is a Post-Doctoral Fellow at the Karolinska Institut (Stockholm, Sweden)*

*Dr. Douglas Van Pelt is 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)	2018-2022
Edwin Miranda (committee member)	2018-2022
Tiwa Ajibewa (committee member)	2016-2020
Mark Pataky (committee member)	2014-2019
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 2018-2021  
 Benjamin Ryan 2016-2020  
 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

Ina Gjoka 2022-  
 Sanjay, Dronavalli, MD 2022-  
 Leonardo Iaboni 2020-2022  
 Tao Zhang 2021  
 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

Aspen Yang 2023-  
 Shriya Mehta 2022-  
 Gayoung Yang 2022-  
 Sierra Ellis 2022-  
 Sophia Ghayur 2022-  
 Ryan Salzman 2021-  
 Olivia Chugh 2021-

Eleanor Wang	2019-2022
Ben Reinheimer	2018-2019
Katie Foug	2018-2019
Emily Krueger	2017-2018
Toree Baldwin	2017-2020
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
Jamie Klein	2010-2012
Allison Everett	2008-2012
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. Kinesiology Clinical Research Suite – point person                           | 2021-                              |
| 4. University of Michigan - Kinesiology – Executive Committee member            | 2006-2011, 2013-2015,<br>2017-2019 |
| 5. Kinesiology Mentor for Junior Faculty (Rebecca Hasson)                       | 2012-2018                          |
| 6. Kinesiology Mentor for Junior Faculty (Andrew Ludlow)                        | 2017-                              |
| 7. Search Committee Member (Exercise Physiology – Assistant Professor)          | 2016-2017                          |
| 8. Chair of search committee for 2 new faculty hires in Exercise Physiology     | 2015-2016                          |
| 9. Kinesiology Search Committee member for Senior Movement Science Faculty      | 2014-2015                          |
| 10. Physical Activity/Nutrition (PAN) graduate certificate program committee    | 2013-2018                          |
| 11. Chair of search committee for new faculty hire in Exercise Physiology       | 2011-2016                          |
| 12. Kinesiology Mentor for Junior Faculty (Steve Broglio)                       | 2011-2013                          |
| 13. Director of the Michigan “Physical Activity and Nutrition” Seminar Series   | 2010-2011                          |
| 14. Kinesiology Mentor for Junior Faculty (Pete Bodary)                         | 2007-2013                          |
| 15. Movement Science Department Chair   | 2007-2009                          |

16. Search Committee Member (Motor Control – Assistant Professor)	2009-2010
17. Search Committee Member (Bickner Endowed Chair in Kinesiology)	2007-2008
18. Search Committee Member (Exercise Physiology – Assistant Professor)	2006-2007
19. Kinesiology Salary Equity Committee	2006-2007
20. University of Michigan Kinesiology Building committee member	2002-2005, 2011-
21. Director of the University of Michigan - Center for Exercise Research (CXR)	2001-2004, 2011-2013 2017

**UNIVERSITY SERVICE**

1. UM/OVPR Human Research Protection Program Advisory Council	2021-
2. M-Diabetes Clinical Research, Mentoring and Development Committee	2019-
3. Steering Committee member of the UM Momentum Center (Child Obesity Center)	2013-2018
4. Core-Director, Michigan Nutrition and Obesity Research Center ("Nutrition, Exercise and phenotype Testing (NExT) Core	2010-
5. Ethics Advisory committee for disclosing findings to research participants	2017-2019
6. Rackham Graduate School Pre-doctoral Fellowship Review Selection committee	2010-2012
7. Rackham Graduate School International Student Fellowship Selection committee	2010-2013
8. Advisory Committee on University of Michigan Recreational Sports	2013-2016
9. Search Committee Member on 2 faculty searches (School of Public Health)	2012-2015

**PROFESSIONAL SERVICE OUTSIDE THE UNIVERSITY OF MICHIGAN**

1. Keystone conference organization – Chair	2022-2024
2. Associate Editor – Diabetes	2016-2021
3. American Diabetes Association – Annual Scientific Sessions Planning Committee	2017-2019
4. American Diabetes Association – Exercise Interest Group Chair	2017-2021
5. International Biology of Exercise – Steering committee	2015-2016
6. American Diabetes Association – Human metabolism symposia steering committee	2015-2016
7. American Diabetes Association – Exercise symposia steering committee	2013-2014
8. Associate Editor for <i>Applied Physiology, Nutrition and Metabolism</i>	2006-2016
9. Associate Editor for the <i>Canadian Journal of Applied Physiology</i>	2001-2006
10. Grant Reviewer (see details above)	
11. Reviewer for Professional Journals (see details above)	