

**UNIVERSITY OF MIAMI**  
**Curriculum Vitae**

Date: August 21, 2018

**PERSONAL**

Name: Kevin Allen Jacobs

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Office address: University of Miami, P.O Box 248065, Coral Gables, FL 33146

Current academic rank: Associate Professor

Primary department: Kinesiology and Sport Sciences

**HIGHER EDUCATION**

Ph.D.	The Ohio State University Exercise Physiology	2000
M.A.	San Diego State University Physical Education – Applied Exercise Physiology	1993
B.A.	University of California, Riverside Psychology	1990

**PROFESSIONAL EXPERIENCE**

Academic:

University of Miami		
Associate Dean for Research		2018-Present
Associate Chair		2017-2018
Graduate Program Director		2017-Present
Graduate Program Coordinator		2008-2017
Associate Professor		2010-Present
Assistant Professor		2004-2010
University of California, Berkeley and Palo Alto VA Health Care System		
Postdoctoral Fellow		2000-2004

The Ohio State University  
Graduate Research Assistant 1995-2000

San Diego State University  
Graduate Assistant 1992-1993

Non-academic:

Geo-Centers  
Research Physiologist 1994-1995

Military: No military experience

## **PUBLICATIONS**

### **Books and Monographs Published:**

Sherman WM, **Jacobs KA**, and Ferrara C. Nutritional strategies to optimize athletic performance. In: *Handbook of Exercise in Diabetes*. Ruderman N, Devlin JT, and Schneider SH (Eds.). Alexandria: American Diabetes Association, 2002, pp. 339-354.

**Jacobs KA**, Paul DR, and Sherman WM. Fat metabolism. In: *Exercise and Sport Science*. Garrett, Jr. WE and Kirkendall DT (Eds.). New York: Lippincott Williams & Wilkins, 1999, pp. 9-18.

Sherman W, **Jacobs K**, and Leenders N. Carbohydrate metabolism during endurance exercise. In: *Overtraining In Sport: Physiological, Psychological, and Biomedical Considerations*. Kreider RB, Fry AC, and O'Toole ML (Eds.). Champaign: Human Kinetics, 1998, pp. 289-307.

### **Juried or Refereed Journal Articles and Exhibitions (38 total, 766 total citations, h-index of 16 on SCOPUS):**

Bailey CH, Signorile JF, Perry AC, **Jacobs KA**, Myers ND. Beta-alanine does not enhance the effects of resistance training in older adults. *Journal of Dietary Supplements* [Epub ahead of print], 2018.

Roberson KB, Potiaumpai M, Widdowson K, Jaghab A, Chowdhari S, Armitage C, Seeley AD, **Jacobs KA**, Signorile JF. Effects of high-velocity circuit resistance and treadmill training on cardiometabolic risk, blood markers, and quality of life in older adults. *Applied Physiology, Nutrition, and Metabolism* [Epub ahead of print], 2018.

Balachandran AT, Gandia K, **Jacobs KA**, Streiner DL, Eltoukhy M, Signorile JF. Power training using pneumatic machines vs. plate-loaded machines to improve muscle power in older adults. *Experimental Gerontology* 98: 134-142, 2017.

Meyers AC, Caldwell EC, Hirsch J, **Jacobs KA**, Pohlig RT, Signorile JF. Orthotic bicycle insoles show no effects on leg muscle activation patterns or performance in recreational cyclists. *Footwear Science* 1-9: July 2017.

Roberson KB, **Jacobs KA**, White MJ, Signorile JF. Loads and movement speed affect energy expenditure during circuit resistance exercise. *Applied Physiology, Nutrition, and Metabolism* 42: 637-646, 2017.

Cutrono SE, Lewis JE, Perry A, Signorile J, Tiozzo E, **Jacobs KA**. The effect of a community-based exercise program on inflammation, metabolic risk, and fitness levels among persons living with HIV/AIDS. *AIDS and Behavior* 20: 1123-1131, 2016.

Hittinger EA, Maher JL, Nash MS, Perry AC, Signorile JF, Kressler J, **Jacobs KA**. Ischemic preconditioning does not improve peak exercise capacity at sea level or simulated high altitude in trained male cyclists. *Applied Physiology, Nutrition, and Metabolism* 40: 65-71, 2015.

Kressler J, **Jacobs KA**, Burns P, Betancourt L, Nash MS. Effect of circuit resistance training and timely protein supplementation on exercise-induced fat oxidation in tetraplegic adults. *Topics in Spinal Cord Injury Rehabilitation* 20: 113-122, 2014.

Serravite DH, Perry A, **Jacobs KA**, Adams JA, Harriell K, Signorile JF. Whole body periodic acceleration affects exercise induced muscle damage after eccentric exercise. *International Journal of Sports Physiology and Performance* 9: 985-992, 2014.

Vance DD, Chen GL, Stoutenberg M, Myerburg RJ, **Jacobs K**, Nathanson L, Perry A, Seo D, Goldschmidt-Clermont PJ, Rampersaud E. Cardiac performance, biomarkers and gene expression studies in previously sedentary men participating in half marathon training. *BMC Sports Science, Medicine, and Rehabilitation* 19, 2014.

**Jacobs KA**, Burns P, Kressler J, and Nash MS. Heavy reliance on carbohydrate across a wide range of exercise intensities during voluntary arm ergometry in persons with paraplegia. *Journal of Spinal Cord Medicine* 36: 427-435, 2013.

Lisman P, Signorile JF, Del Rossi G, Asfour S, Eltoukhy M, Stambolian D, and **Jacobs KA**. Investigation of the effects of cervical strength training on neck strength, EMG, and head kinematics during a football tackle. *International Journal of Sports Science and Engineering*, 6: 131-140, 2012.

Stoutenberg M, Kressler J, Chen GL, Perry AC, Meyerburg RJ, Mendez AJ, Signorile JF, Arheart KL, Lewis JE, **Jacobs KA**. Aerobic training does not alter CRP concentrations in apparently healthy, untrained men. *Journal of Sports Medicine and Physical Fitness* 52: 53-62, 2012.

**Jacobs KA**, Kressler J, Stoutenberg M, Roos BA, Friedlander AL. Sildenafil has little influence on cardiovascular hemodynamics or 6-km time trial performance in trained men or women at simulated high altitude. *High Altitude Medicine and Biology* 12: 215-222, 2011.

Kressler J, Stoutenberg M, Roos BA, Friedlander AL, Perry AC, Signorile JF, **Jacobs KA**. Sildenafil does not improve steady state cardiovascular hemodynamics, peak power, or 15-km time trial cycling performance at simulated moderate or high altitudes in men and women. *European Journal of Applied Physiology* 111: 3031-3040, 2011.

Musto A, **Jacobs K**, Nash M, Del Rossi G, and Perry A. The effects of an incremental approach to 10,000 steps a day on metabolic syndrome components in sedentary overweight women. *Journal of Physical Activity and Health* 7: 737-745, 2010.

Adams JA, Edwards D, Serravite D, Bedient AM, Huntsman E, **Jacobs KA**, Del Rossi G, Roos BA, and Signorile JF. *Journal of Strength and Conditioning Research* 23: 237-245, 2009.

Suh SH, Paik IY, and **Jacobs KA**. Regulation of blood glucose homeostasis during exercise. *Molecules and Cells* 23: 272-279, 2007.

Wallis GA, Friedlander AL, **Jacobs KA**, Horning MA, Fattor JA, Wolfel EE, Lopaschuk GD, and Brooks GA. Substantial working muscle glycerol turnover during two-legged cycle ergometry. *American Journal of Physiology - Endocrinology and Metabolism* 293: E950-E957, 2007.

Friedlander AL, **Jacobs KA**, Fattor JA, Horning MA, Hagobian TA, Bauer TA, Wolfel EE, and Brooks GA. Contributions of working muscle to whole body lipid metabolism are altered by exercise intensity and training. *American Journal of Physiology - Endocrinology and Metabolism* 292: E107-E116, 2006.

Hagobian TA, **Jacobs KA**, Subudhi AW, Fattor JA, Rock PB, Muza SR, Fulco CS, Braun B, Grediagin A, Mazzeo RS, Cymerman A, and Friedlander AL. Cytokine response at high altitude: effects of exercise and antioxidants at 4,300 m. *Medicine and Science in Sports and Exercise* 38: 276-285, 2006.

**Jacobs KA**, Krauss RM, Fattor JA, Horning MA, Friedlander AL, Bauer TA, Hagobian TA, Wolfel EE, and Brooks GA. Endurance training has little effect on active muscle fatty acid, lipoprotein cholesterol, or triglyceride net balances. *American Journal of Physiology - Endocrinology and Metabolism* 291: E656-E665, 2006.

Subudhi AW, **Jacobs KA**, Hagobian TA, Fattor JA, Muza SR, Fulco CS, Cymerman A, and Friedlander AL. Changes in ventilatory threshold at high altitude: effect of antioxidants. *Medicine and Science in Sports and Exercise* 38: 1425-1431, 2006.

Fattor JA, Miller BF, **Jacobs KA**, and Brooks GA. Catecholamine response is attenuated during moderate intensity exercise in response to the “lactate clamp”. *American Journal of Physiology - Endocrinology and Metabolism* 288: E143-147, 2005.

Hsu AR, Hagobian TA, **Jacobs KA**, Attallah H, and Friedlander AL. Effects of heat removal through the hand on metabolism and performance during cycling in the heat. *Canadian Journal of Applied Physiology* 30: 87-104, 2005.

**Jacobs KA**, Casazza GA, Suh SH, Horning MA, and Brooks GA. Fatty acid re-esterification but not oxidation is increased by oral contraceptive use. *Journal of Applied Physiology* 98: 1720-1731, 2005.

Miller BF, Lindinger MI, Fattor JA, **Jacobs KA**, LeBlanc PJ, Duong M, Heigenhauser GJF, and Brooks GA. Hematological and acid-base changes in men during prolonged exercise with and without sodium-lactate infusion. *Journal of Applied Physiology* 98: 856-865, 2005.

Casazza GA, **Jacobs KA**, Suh SH, Miller BF, Horning MA, and Brooks GA. Menstrual cycle phase and oral contraceptive effects on triglyceride mobilization during exercise. *Journal of Applied Physiology* 97: 302-309, 2004.

Hagobian TA, **Jacobs KA**, Kiratli BJ, and Friedlander AL. Foot cooling reduces exercise-induced hyperthermia in men with spinal cord injury. *Medicine and Science in Sports and Exercise* 36: 411-417, 2004.

**Jacobs KA**, Paul DR, Geor RJ, Hinchcliff KW, Sams RA, and Sherman WM. Dietary composition influences short-term endurance training-induced adaptations of substrate partitioning during exercise. *International Journal of Sport Nutrition and Exercise Metabolism* 14: 38-61, 2004.

Subudhi AW, **Jacobs KA**, Hagobian TA, Fattor JA, Fulco CS, Muza SR, Rock PB, Hoffman AR, Cymerman A, and Friedlander AL. Antioxidant supplementation does not attenuate oxidative stress at high altitude. *Aviation, Space, and Environmental Medicine* 75: 881-888, 2004.

Paul DR, **Jacobs KA**, Geor RJ, Hinchcliff KW, and Lamb DR. No effect of pre-exercise meal on substrate metabolism and time trial performance during intense exercise. *International Journal of Sport Nutrition and Exercise Metabolism* 13: 489-503, 2003.

Miller BF, Fattor JA, **Jacobs KA**, Horning MA, Suh SH, Navazio F, and Brooks GA. Metabolic and cardiorespiratory responses to “the lactate clamp”. *American Journal of Physiology - Endocrinology and Metabolism* 283: E889-E898, 2002.

Miller BF, Fattor JA, **Jacobs KA**, Horning MA, Navazio F, Lindinger MI, and Brooks GA. Lactate and glucose interactions during rest and exercise in men: effect of exogenous lactate infusion. *Journal of Physiology* 544: 963-975, 2002.

Paul DR, Mulroy SM, Horner JA, **Jacobs KA**, and Lamb DR. Carbohydrate-loading during the follicular phase of the menstrual cycle: effects on muscle glycogen and exercise performance. *International Journal of Sport Nutrition and Exercise Metabolism* 11: 430-442, 2001.

**Jacobs KA**, and Sherman WM. The efficacy of carbohydrate supplementation and chronic high-carbohydrate diets for improving endurance performance. *International Journal of Sport Nutrition* 9: 92-115, 1999.

**Jacobs K**, Nichols J, Holmes B, and Buono M. Isometric cervical extension strength of recreational and experienced cyclists. *Canadian Journal of Applied Physiology* 20:230-239, 1995.

## **Other Works, Publications, and Abstracts:**

### **Technical Reports**

Cymerman A, Friedlander AL, Muza SR, Hagobian TA, Subudhi AW, **Jacobs KA**, Stone K, Kambis KW, Grediagin A, Fulco CS, and Rock PB. Oculomotor and pupillary during acclimatization to altitude (4300 m). (USARIEM Technical Report T-05/04). Natick, MA: U.S. Army Research Institute of Environmental Medicine, 2005.

Cymerman A, Muza SR, Ditzler D, Sharp M, Friedlander A, Hagobian T, Subudhi A, **Jacobs K**, Stone S, and Fulco C. Oculomotor and pupillary reflexes during acute exposure to hypobaric hypoxia. (USARIEM Technical Report T-03/04). Natick, MA: U.S. Army Research Institute of Environmental Medicine, 2003.

Hagan R, Bernhard R, **Jacobs K**, Farley J, Ramirez L, Feith S, and Hodgdon J. *Offensive fog water attack reduces firefighting time and heat strain during shipboard firefighting*. (NHRC Technical Report 96-22). San Diego, CA: Naval Health Research Center, 1996.

Hagan R, Huey K, **Jacobs K**, Bennett B, and Hodgdon J. *Core-control cooling system worn under firefighting ensemble increases heat exposure stay time*. (NHRC Technical Report 95-40). San Diego, CA: Naval Health Research Center, 1995.

Shannon M, Ramirez L, **Jacobs K**, Arnall D, Hagan R, and Hodgdon J. *Comparison of anti-exposure suits during rest and arm exercise in cold water*. (NHRC Technical Report 95-41). San Diego, CA: Naval Health Research Center, 1995.

### **Invited Symposium Slide Presentations from National Conferences**

**Jacobs KA**. The plasticity of lipid metabolism at rest and during exercise: Implications for health and disease. *Korean Journal of Obesity* 23: 173, 2014.

**Jacobs KA.** Sildenafil citrate (Viagra) has little influence on cardiovascular hemodynamics, peak power, or time trial performance at simulated moderate or high altitudes. Part of the symposium entitled “Impact of sildenafil citrate (Viagra) on exercise capacity and sport (IPC)”. *Medicine and Science in Sports and Exercise* (Supplement), 44: 77, 2012. \*

**Jacobs KA.** Worth the headache? The efficacy of phosphodiesterase-5 inhibitors at high altitude. Part of the highlighted symposium entitled “Into thin air: Optimizing exercise performance at high altitude”. *Medicine and Science in Sports and Exercise* (Supplement), 42: 27, 2010. \*

### **Slide Presentation Abstracts from National Conferences**

Kressler J, Stoutenberg M, Roos B, Friedlander AL, Perry AC, Signorile J, Viskochil R, **Jacobs KA.** Sildenafil does not improve peak exercise capacity during acute hypoxia in trained men or women. *Medicine and Science in Sports and Exercise* (Supplement), 42: S103, 2010. \*

Kressler, J, Stoutenberg M, Roos B, Friedlander AL, Viskochil R, **Jacobs KA.** Sildenafil does not improve exercise performance during acute hypoxia in trained men or women. *Medicine and Science in Sports and Exercise* (Supplement), 41: S130, 2009. \*

**Jacobs KA,** Burns P, Kressler J, and Nash MS. Spinal cord injury associated with maximal lipid oxidation that occurs at relatively low exercise intensities. *Medicine and Science in Sports and Exercise* (Supplement), 40: S4, 2008. \*

Stoutenberg M, Kressler J, Chen GL, Perry AC, Myerburg RJ, Mendez A, Lewis JE, and **Jacobs KA.** Endurance training does not alter serum C-reactive protein concentrations in apparently healthy, inactive males. *Medicine and Science in Sports and Exercise* (Supplement), 40: S43, 2008. \*

**Jacobs KA,** Fattor JA, Horning MA, Friedlander AL, Bauer T, Hagobian T, Wolfel EE, and Brooks GA. The error in the estimation of net leg total FFA balance from palmitate balance is small at rest and during exercise. *Medicine and Science in Sports and Exercise* (Supplement), 38: S47, 2006. \*

**Jacobs KA,** Casazza GA, Suh SH, Horning MA, and Brooks GA. Menstrual cycle phase does not influence plasma free fatty acid flux during rest or exercise. *Medicine and Science in Sports and Exercise* (Supplement), 36: S143, 2004. \*

**Jacobs KA,** Paul DR, Geor RJ, Hinchcliff KW, Sams RA, and Sherman WM. The influence of dietary composition on short-term aerobic training-induced adaptations of glucose kinetics. *Medicine and Science in Sports and Exercise* (Supplement), 33: S176, 2001. \*

**Jacobs KA,** Leenders NYJM, and Sherman WM. Creatine (CR) supplementation and swimming. *Medicine and Science in Sports and Exercise* (Supplement), 30: S264, 1998. \*

## Poster Presentation Abstracts from National and Regional Conferences

Flanagan CP, Smith WN, **Jacobs KA**, Kaplan LD. Post-operative lifestyle intervention and markers of physical and mental health. *Medicine and Science in Sports and Exercise* (Supplement), 50, 2018.

Seeley A, Brenman JS, **Jacobs KA**. Impact of remote ischemic preconditioning post-application delay on muscle oxygenation during subsequent cycling intervals. *Medicine and Science in Sports and Exercise* (Supplement), 50, 2018.

Chowdhari S, Roberson K, Potiaumpai M, Widdowson K, Jaghab A, Armitage C, McGriff K, **Jacobs KA**, Signorile JF. Changes in cognition and power output in adults following high-velocity circuit resistance and treadmill training. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017.

Jimenez LQ, Arwari B, Perry AC, Signorile JF, Ahn S, Kamakawiwo'ole S, **Jacobs KA**. Moderate intensity exercise ameliorates negative impacts of simulated altitude on executive function. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017. \*

Kamakawiwo'ole S, Jimenez LQ, Arwari B, Perry AC, Signorile JF, Ahn S, **Jacobs KA**. Auditory discrimination and short term memory are preserved during simulated altitude and moderate intensity exercise. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017. \*

McMillan DW, Freeman D, Bellman M, **Jacobs K**, Nash MS. Energetic and hemodynamic response to electrical stimulation cycling in persons with paralysis. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017.

McMillan DW, Freeman D, Bellman M, **Jacobs K**, Nash MS. Energy expenditure and fuel homeostasis during and after bouts of FES cycling with different FES devices. American Spinal Injury Association 2017 Annual Meeting.

Potiaumpai M, Roberson K, Widdowson K, Chowdhari S, Jaghab A, Armitage C, McGriff K, **Jacobs KA**, Signorile JF. Changes in cardiometabolic risk factors after high-velocity circuit resistance or treadmill training in older adults. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017.

Roberson K, Potiaumpai M, Widdowson K, Jaghab A, Chowdhari S, Armitage C, McGriff K, **Jacobs KA**, Signorile JF. Hemodynamic changes following high-velocity circuit resistance or treadmill training in adults with cardiometabolic risk factors. *Medicine and Science in Sports and Exercise* (Supplement), 49, 2017. \*

Harrington RF, Romero MA, Ordille A, **Jacobs KA**. Blood flow restriction fails to alter adiponectin response to an acute low-intensity resistance exercise session. *Medicine and Science in Sports and Exercise* (Supplement), 48, 2016.



Riquelme D, Perry A, Ugarriza D, **Jacobs K**, Gattmorta K, Arwari B. Effects of moderate-intensity aerobic exercise on cognition and arousal in extrovert-introvert personality types. *Medicine and Science in Sports and Exercise* (Supplement), 48, 2016.

Roberson KB, Signorile JF, **Jacobs KA**. Effect of varying loads and contraction speeds during circuit training on energy expenditure. *Medicine and Science in Sports and Exercise* (Supplement), 48, 2016. \*

Cutrono SE, Lewis JE, Perry A, Signorile J, Tiozzo E, **Jacobs KA**. Effect of a community-based exercise program on inflammation and fitness among persons living with HIV/AIDS. *Medicine and Science in Sports and Exercise* (Supplement), 47, 2015. \*

**Jacobs KA**, Hittinger EA, Maher JL, Nash MS, Perry AC, Signorile JF, Kressler J. Ischemic preconditioning does not improve peak exercise capacity at sea level or simulated high altitude. *Medicine and Science in Sports and Exercise* (Supplement), 47, 2015. \*

**Jacobs KA**, Raeburn JM, Meneghini LF, Myers ND, Perry AC, Coblenz P, White J, Myers C. Maximal sprint does not alter exercise hemodynamics or fuel use in individuals with Type-1 diabetes. *Medicine and Science in Sports and Exercise* (Supplement), 46, 2014.

Price AA, Musto AA, Ahn S, Perry AC, **Jacobs KA**. Effects of a translational education-based intervention on health habits and weight maintenance in college freshman. *Medicine and Science in Sports and Exercise* (Supplement), 46, 2014.

Raeburn JM, Meneghini LF, Myers ND, Perry AC, Coblenz P, White J, Myers C, **Jacobs KA**. Maximal sprints prevent hypoglycemia during exercise and not recovery in individuals with Type-1 diabetes. *Medicine and Science in Sports and Exercise* (Supplement), 46, 2014. \*

**Jacobs KA**, Burns P, Kressler J, Nash MS. Ventilatory threshold does not coincide with maximal whole body fat oxidation rate in those with paraplegia. *Medicine and Science in Sports and Exercise* (Supplement), 45, 2013.

Raeburn JM, Hittinger EA, **Jacobs KA**. Variability of stroke volume and cardiac output measurements of a thoracic electrical bioimpedance device across test monitoring settings. *Medicine and Science in Sports and Exercise* (Supplement), 45, 2013.

Hittinger EA, Price A, Kressler J, **Jacobs KA**. Ischemic preconditioning does not improve cycling capacity at sea level or during acute normobaric hypoxia. *Medicine and Science in Sports and Exercise* (Supplement), 44: S540, 2012. \*

Bedient AM, Lee SY, **Jacobs KA**, Asfour S, Roos B, Signorile JF. Comparisons of laboratory tests and simple clinical tests for identifying fallers among healthy older persons. *Medicine and Science in Sports and Exercise* (Supplement), 43: S491, 2011.

**Jacobs KA**, Burns P, Kressler J, Nash MS. Short-term circuit resistance training does not alter substrate use during exercise in those with paraplegia. *Medicine and Science in Sports and Exercise* (Supplement), 43: S562, 2011. \*

Vance DD, Stoutenberg M, Chen G, Myerberg R, Tekin D, Nathanson L, **Jacobs K**, Clark J, Perry A, Raumpersaud E, Goldschmidt-Clermont P, Seo D. Increased eNos expression identified among marathon runners with increased VO<sub>2</sub>max. *Medicine and Science in Sports and Exercise* (Supplement), 43: S150, 2011. \*

Lisman PJ, Signorile JF, Del Rossi G, Asfour S, Abdelrahman KZ, Eltoukhy M, Stambolian D, **Jacobs KA**. Cervical strength training does not enhance dynamic stabilization of head and neck during football tackling. *Medicine and Science in Sports and Exercise* (Supplement), 42: S479, 2010. \*

Stoutenberg M, Kressler J, Roos B, Friedlander AL, Viskochil R, Signorile J, **Jacobs KA**. Sildenafil does not improve performance at simulated high or moderate altitudes in men or women. *Medicine and Science in Sports and Exercise* (Supplement), 42: S331, 2010. \*

Viskochil R, Kressler J, Stoutenberg M, Roos B, Friedlander AL, Perry AC, Signorile J, **Jacobs KA**. Men and women exhibit similar declines in peak exercise capacity and performance at simulated altitudes. *Medicine and Science in Sports and Exercise* (Supplement), 42: S331, 2010.

**Jacobs KA**, Stoutenberg M, Kressler J, Roos B, Friedlander AL. Trained women demonstrate greater preservation of peak exercise capacity during acute hypoxia than trained men. *Medicine and Science in Sports and Exercise* (Supplement), 41: S374, 2009.

Chen GL, Stoutenberg M, Kressler J, **Jacobs KA**, Perry AC, Myerburg RJ. Longitudinal changes in cardiac parameters and biomarkers associated with rapid half-marathon training in previously sedentary subjects. *Journal of the American College of Cardiology* (Supplement), 51: A287, 2008.

Kressler J, Stoutenberg M, **Jacobs KA**, and Signorile JF. Lemongrass supplementation during endurance exercise may compensate for reduced carbohydrate intake. *Medicine and Science in Sports and Exercise* (Supplement), 38: S402, 2006. \*

Muza SR, Fulco CS, Friedlander AL, Zupan M, Rock PB, Beidleman BA, **Jacobs KA**, Staab J, and Cymerman A. Acute mountain sickness and SaO<sub>2</sub> in moderate altitude versus sea-level residents ascending to 4300m. *Medicine and Science in Sports and Exercise* (Supplement), 38: S526, 2006.

Brooks GA, Fattor JA, Wolfel EE, Horning MA, **Jacobs KA**, Bauer T, Hagobian T, and Friedlander AL. Minimal effects of endurance training on whole-body FFA flux and oxidation. *The Physiologist* 47: 254, 2004. \*

Fattor JA, **Jacobs KA**, Bauer T, Hagobian T, Friedlander AL, Wolfel EE, and Brooks GA. Evaluation of net leg norepinephrine balance before and after endurance training. *The Physiologist* 47: 254, 2004. \*

Friedlander AL, **Jacobs KA**, Fattor JA, Horning MA, Bauer T, Hagobian T, Wolfel EE, and Brooks GA. Small increases in active leg tracer measured FFA uptake with endurance training. *The Physiologist* 47: 254, 2004. \*

Horning MA, Fattor JA, Friedlander AL, **Jacobs KA**, Bauer T, Hagobian T, Wolfel EE, and Brooks GA. Minimal effects of training on whole-body and muscle lipolysis. *The Physiologist* 47: 255, 2004. \*

**Jacobs KA**, Krauss RM, Fattor JA, Horning MA, Friedlander AL, Bauer T, Hagobian T, Wolfel EE, and Brooks GA. Net leg individual fatty acid, lipoprotein, and triglyceride balances are unaffected by endurance training. *The Physiologist* 47: 254, 2004. \*

Fattor JA, Miller BF, **Jacobs KA**, and Brooks GA. Catecholamine response is attenuated during moderate intensity exercise in response to the "lactate clamp". *Medicine and Science in Sports and Exercise* (Supplement), 36: S19, 2004. \*

Hagobian TA, **Jacobs KA**, Subudhi AW, Fattor JA, Rock PB, Braun B, Cymerman A, and Friedlander AL. Antioxidant supplementation does not attenuate the rise in IL-6 and C-reactive protein at 4300 m elevation. *Medicine and Science in Sports and Exercise* (Supplement), 36: S108-109, 2004. \*

Friedlander AL, Subudhi AW, Hagobian TA, **Jacobs KA**, Fattor JA, Stone KS, Rock PB, Muza SR, Fulco CS, Hoffman AR, and Cymerman A. Antioxidants do not attenuate the rise in lipid hydroperoxides observed at 4300 m elevation. *Medicine and Science in Sports and Exercise* (Supplement), 35: S163, 2003.

Hagobian TA, **Jacobs KA**, Kiratli BJ, and Friedlander AL. Foot cooling during exercise attenuates the rise in tympanic temperature in individuals with spinal cord injury. *Medicine and Science in Sports and Exercise* (Supplement), 35: S31, 2003. \*

Hsu AR, **Jacobs KA**, Hagobian TA, Attallah H, and Friedlander AL. Effects of lowering core temperature on endurance cycling performance. *Medicine and Science in Sports and Exercise* (Supplement), 35: S31, 2003. \*

**Jacobs KA**, Muza SR, Pidgeon S, Hagobian TA, Subudhi AW, Stone KS, Fattor JA, Fulco CS, Rock PB, Cymerman A, Friedlander AL. Antioxidant supplementation does not reduce incidence or severity of acute mountain sickness at 4300 m. *Medicine and Science in Sports and Exercise* (Supplement), 35: S164, 2003. \*

Muza SR, Friedlander AL, Pidgeon SP, Forte VA, Fulco CS, Rock PB, Hagobian T, **Jacobs KA**, Subudhi A, Grediagin A, Kambis K, and Cymerman A. Effect of antioxidant

supplements on ventilation and saturation at 4300 m altitude. *Medicine and Science in Sports and Exercise* (Supplement), 35: S164, 2003.

Stone KS, Cymerman A, Subudhi AW, Hagobian TA, **Jacobs KA**, Fattor JA, and Friedlander AL. Exercise decreases postural stability at sea level and acute exposure to 4300 m elevation. *Medicine and Science in Sports and Exercise* (Supplement), 35: S163, 2003.

**Jacobs KA**, Friedlander AL, Horning MA, Henderson G, Pollack M, MacDonald JR, Braun B, Brooks GA, Hoffman AR, and Cymerman A. Influence of altitude and caloric restriction on plasma alanine and glutamine during exercise. *Medicine and Science in Sports and Exercise* (Supplement), 34: S223, 2002. \*

Miller BF, Fattor JA, **Jacobs KA**, Navazio F, and Brooks GA. Recovery of CO<sub>2</sub> with lactate infusion during rest and exercise – “The lactate clamp”. *Medicine and Science in Sports and Exercise* (Supplement), 34: S284, 2002. \*

Miller BF, Fattor JA, **Jacobs KA**, Suh SH, and Brooks GA. Respiratory and metabolic effects of a lactate infusion during rest and exercise – “The lactate clamp”. Presented at the 2002 Southwest Regional Meeting of the American College of Sports Medicine. \*

Paul DR, Mulroy SM, Horner JA, and **Jacobs KA**. Carbohydrate loading diets in women cyclists. *Medicine and Science in Sports and Exercise* (Supplement), 31: S194, 1999. \*

Buckworth J, Cureton KJ, Convertino VA, **Jacobs K**, and Dishman RK. Orthostatic responses in women with parental hypertension: fitness and carotid baroreflex function. *Medicine and Science in Sports and Exercise* (Supplement), 29: S89, 1997.

Hagan RD, Bernhard RD, **Jacobs KA**, Cohen BS, and Hodgdon JA. Whole-body anti-exposure suits reduce heat loss during arm exercise and progressive immersion in cold water. *Medicine and Science in Sports and Exercise* (Supplement), 29: S95, 1997.

**Jacobs K**, Grindeland R, Bigbee A, Lauderdale M, Finch B, Azevedo J, and Linderman J. The effects of growth hormone and functional overload on soleus mass and oxidative capacity in hypophysectomized rats. *Medicine and Science in Sports and Exercise* (Supplement), 28: S62, 1996.

Shannon M, Ramirez L, **Jacobs K**, Arnall D, Hagan R, and Hodgdon J. Anti-exposure suits increase stay-time and reduce heat loss during rest/exercise cycles in cold water. *Medicine and Science in Sports and Exercise* (Supplement). 27: S153, 1995.

**Jacobs K**, Nichols J, Holmes B, and Buono M. Isometric cervical extension strength of recreational and experienced cyclists. *Medicine and Science in Sports and Exercise* (Supplement), 26: S75, 1994. \*

\* Designates abstracts published in or submitted to peer-reviewed journals

## **PROFESSIONAL**

### **Funded Research Projects:**

The efficacy of ischemic preconditioning on leg blood flow and oxygen delivery during exercise at simulated high altitude. University of Miami, Provost Research Award, June 2018-May 2019. PI (Jacobs). \$16,998.

Postprandial fat metabolism following an acute exercise bout in persons with spinal cord injuries. The Craig H. Nielsen Foundation, July 2018-July 2020. PI (Jacobs)/Co-I (David McMillan, Mark Nash). \$299,955.

Obesity/overweight in persons with early and chronic SCI: A randomized, multicenter, controlled lifestyle intervention. U.S. Department of Defense, May 2010-May 2015. PI (Mark Nash)/Co-I (Jacobs). \$1,800,000.

Exercise treatment of obesity-related secondary conditions in adults with paraplegia. National Institute on Disability and Rehabilitation Research, September 2007-September 2010. PI (Mark Nash)/Co-I (Jacobs). \$596,253.

Can sildenafil improve exercise performance at moderate altitude? World Anti-Doping Agency, July 2007-July 2009. PI (Jacobs). \$173,968.

Effects of exercise on prandial lipemia and fat oxidation after tetraplegia. The Craig H. Nielsen Foundation, June 2007-June 2009. PI (Mark Nash)/Co-I (Jacobs). \$248,896.

Development of exercise training programs to improve lipid use and reduce the prevalence of obesity in the physically disabled. University of Miami James W. McLamore Summer Award, June 2007-August 2007. PI (Jacobs). \$9300.

The influence of triphasic oral contraceptives on body composition and time trial exercise performance. University of Miami General Research Support Award, June 2006-June 2007. PI (Jacobs). \$1000.

The influence of dietary composition on short-term aerobic training-induced adaptations in glucose kinetics. Oats Company, October 1998-October 1999. PI (W. Michael Sherman)/Co-I (Jacobs). \$12,220.

### **Grant Proposals Not Funded:**

Effects of exercise intensity on inflammation and CVD risk in young adults. National Heart Lung and Blood Institute (NHLBI), October 2012. PI (Chantal Vella)/Co-I (Jacobs). \$435,900.

The Influence of Sildenafil on Pulmonary Arterial Pressure Across a Wide Range of Simulated Altitudes. World Anti-Doping Agency, February 2011. PI (Jacobs). \$165,226.

### **Editorial Responsibilities:**

Exercise science Section Editor for Measurement in Physical Education and Exercise Science from August 2015-June 2018.

Ad hoc reviewer primarily for the following journals:

- *Applied Physiology, Nutrition, and Metabolism*
- *European Journal of Sport Science*
- *International Journal of Sports Medicine*
- *Journal of Applied Physiology*
- *Medicine and Science in Sports and Exercise*
- *Sports Medicine*

**Professional and Honorary Organizations:** Member and Fellow of the American College of Sports Medicine.

**Honors and Awards:** Graduate Associate Research Award, The Ohio State University, 2000.

### **Postdoctoral Fellowships:**

Completed a postdoctoral fellowship at the University of California, Berkeley in the Department of Integrative Biology and the laboratory of Dr. George Brooks and the laboratory of Dr. Anne Friedlander at the Palo Alto VA Health Care System from 2000-2004.

### **Other Professional Activities:**

Invited to speak at the 11<sup>th</sup> Annual SCPMG Diabetes Symposium in Industry Hills, California on 11/29/05. Title of talk was “The Efficacy of Exercise in the Prevention and Treatment of Type 2 Diabetes Mellitus”.

## **TEACHING**

### **Teaching Awards Received:**

Graduate Teaching Award, The Ohio State University, 1999.

Outstanding Faculty Member nominee, University of Miami Apple Polishing Reception, 2013.

### **Teaching Specialization:**

## **Undergraduate**

KIN 321 – Introduction to Systemic Exercise Physiology

## **Graduate**

KIN 477/677 – Advanced Nutrition for Sports and Fitness

KIN 679 – Principles of Exercise Prescription/Assessment: Cardiovascular

KIN 686 – Exercise Prescription/Assessment Laboratory

KIN 755 – Exercise Biochemistry

Teaching evaluations from the Fall 2004 to Spring 2013 reveal that an average of 96 and 98% of undergraduate and graduate students, respectively, have strongly agreed or agreed to the statement “My overall impression of the instructor is positive” during my five years of teaching at the University of Miami. An average of 88 and 94% of undergraduate and graduate students, respectively, have strongly agreed or agreed to the statement “I would recommend this instructor to a friend”.

Redesigned KIN 686 and 746 to improve the practical application of the material presented. Developed KIN 755 as a course that combines theoretical and applied instruction in which students learn metabolic regulation as it relates to exercise as well as biochemistry laboratory techniques used to quantify blood metabolite concentrations.

## **Thesis and Dissertation Advising:**

### **Masters Theses**

Chairperson for four Masters theses:

- Matthew Romero, graduated Spring 2015
- Steven Hwang, graduated Spring 2009
- Marie Grunbeck, graduated Fall 2009
- Rich Viskochil, graduated Fall 2008

### **Doctoral Dissertations**

Chairperson for nine doctoral dissertations:

- Craig Flanagan, graduated Fall 2017 (Co-chair with Wes Smith, Ph.D.)  
“Post-operative cardiometabolic effect of a behavioral intervention in patients undergoing partial meniscectomy”
- Laura Jimenez, graduated Fall 2016  
“The combined effects of acute exposure to simulated altitude and moderate intensity aerobic exercise on measures of cognition”
- Stacy Cutrono, graduated Summer 2014  
“The effect of a community-based exercise program on inflammation, metabolic risk, and fitness levels among persons living with HIV/AIDS”

- Jennifer Maher, graduated Fall 2013  
“The effect of a 10-s maximal effort sprint performed prior to and immediately following moderate-intensity exercise on glucoregulation in individuals with Type I diabetes”
- Amanda Price, graduated Summer 2013  
“The effect of a translational education-based intervention on health habits and weight maintenance in college freshmen”
- Liz Hittinger, graduated Summer 2012  
“The effect of ischemic preconditioning of the lower limbs on peak cycling capacity, cardiovascular hemodynamics, arterial oxygen saturation, and EMG activity in male cyclists and triathletes at sea level and simulated high altitude”
- Pete Lisman, graduated Fall 2009  
“Effects of a cervical resistance training program on the electromyographical and kinematic response of the head and neck to a standard football tackle”
- Jochen Kressler, graduated Summer 2009  
“Sildenafil does not improve cardiovascular hemodynamics, peak power, or 15-km time trial performance at simulated moderate or high altitudes in men or women”, funded by World Anti-Doping Agency grant (Kevin A. Jacobs, Principal Investigator)
- Mark Stoutenberg, graduated Fall 2008  
“Aerobic training does not alter CRP concentrations in apparently healthy, untrained men”, funded by \$125,000 from the Dean of the University of Miami Miller School of Medicine.

Committee member for 15 doctoral dissertations:

- Yvette Figueroa, expected to graduate in Fall 2018  
“The relationship between weekly total calorie carbohydrate intakes and strength and power during a training cycle in collegiate volleyball players”
- Anoop Balachandran, graduated Summer 2016  
“Comparison of high-velocity training using plate-loaded pneumatic machines on strength, power, and physical function in older adults”
- Christopher Bailey, graduated Spring 2016  
“The interactive effects of beta-alanine supplementation and resistance training on muscular endurance in older adults”
- Deborah Riquelme, graduated in 2015  
“The effects of moderate-intensity exercise on cognition and arousal in extrovert and introvert personality types”
- Chantis Mantilla, graduated Summer 2014



“The effects of a wellness-based after-school program compared to traditional YMCA program on physical fitness, health-related, and executive cognitive function variables in minority elementary school children”

- Melissa Marcus, graduated Summer 2014  
“The physiologic profile of competitive sport baton twirlers in comparison to competitive cheerleaders and modern dancers”
- Amos Cole Meyers, graduated Summer 2014  
“Bicycle shoe insoles and their effect on foot excursion, leg muscle activation patterns, and performance in experienced cyclists”
- Yi-Tzu Kuo, graduated Fall 2011  
“A comparison of body composition, high risk behaviors, eating and exercise habits in a tri-racial group of collegiate female athletes”
- Eduard Tiozzo, graduated Fall 2011  
“The effect of combined moderate intensity training on immune functioning, metabolic variables, and quality of life in HIV-infected individuals receiving highly active antiretroviral therapy”
- Elizabeth Edwards, graduated Spring 2011  
“Results from a pilot translational health and wellness based summer program in minority adolescents”
- Abigail Bedient, graduated Spring 2010  
“A strategy utilizing simple clinical and laboratory tests to identify fallers among healthy independent-living older persons”
- Daniel Serravite, graduated Spring 2010  
“Whole body periodic acceleration reduces levels of delayed onset muscle soreness after eccentric exercise”
- Kysha Harriell, graduated Spring 2010  
“The menstrual cycle does not influence joint position sense, joint kinesthesia, or dynamic balance”
- Tony Musto, graduated Fall 2008  
“Does a short-term pedometer assessed physical activity program reduce risk of dysmetabolic syndrome X?”
- Jason Youngman, graduated Fall 2007  
“Risk for exercise addiction: a comparison of triathletes competing in sprint-, Olympic-, and Ironman-distance triathlons”
- Jessica Adams, graduated Spring 2007

“Optimal frequency, displacement, duration, and recovery patterns to maximize power output following acute whole body vibration training”

## SERVICE

### **University Committee and Administrative Responsibilities:**

#### Administrative responsibilities

Associate Dean for Research	Fall 2018-present
Associate Department Chair	June 2017-Fall 2018
Graduate Program Director	June 2017-present
<ul style="list-style-type: none"><li>• Clinical and Applied Exercise Physiology</li><li>• Nutrition for Health and Human Performance</li><li>• Strength and Conditioning/Fitness Entrepreneurship</li></ul>	
Graduate Program Coordinator	Fall 2008-Spring 2017
<ul style="list-style-type: none"><li>• Clinical and Applied Exercise Physiology</li></ul>	
Interim Department Chair	Fall of 2010

#### Committee service

University of Miami	
<ul style="list-style-type: none"><li>• Graduate Council</li></ul>	Fall 2015-present
School of Education and Human Development	
<ul style="list-style-type: none"><li>• Scholarship (Chair)</li><li>• Research Policy</li><li>• School Council</li></ul>	Fall 2011-present Fall 2009-present Fall 2007-Spring 2009

#### Search committee service

Search Committee Chair	
<ul style="list-style-type: none"><li>• Lecturer, Nutrition for Health and Human Performance</li><li>• Associate educator faculty, Neurokinesiology</li></ul>	Fall 2017 Spring 2017
Search Committee Member	
<ul style="list-style-type: none"><li>• Dean, School of Education and Human Development</li><li>• Assistant professor, Research and Measurement Evaluation</li></ul>	Spring 2018 Spring 2018