

## **SOPHIE LALANDE, PhD**

### **EDUCATION**

- 2004-2007 PhD Sport & Exercise Science, University of Auckland, New Zealand (Dr. J. Chris Baldi)  
The Effect of Type 2 Diabetes on the Cardiovascular Response to Exercise
- 2000-2002 MSc Exercise Science, University of Toronto (Dr. Fred Buick)  
Improved human +Gz tolerance in acute, repetitive exposures to acceleration
- 1996-1999 BSc Kinesiology, Université de Montréal

### **PROFESSIONAL EXPERIENCE**

- 2017- Assistant Professor - Exercise Physiology  
Department of Kinesiology and Health Education, The University of Texas at Austin, USA
- 2014-2017 Assistant Professor - Exercise Physiology  
School of Exercise and Rehabilitation Sciences, The University of Toledo, USA
- 2012-2014 Postdoctoral Fellow (Dr. J. Kevin Shoemaker)  
School of Kinesiology, Western University, Canada
- 2011 Marie Curie Postdoctoral Fellow (Dr. Robert Naeije)  
Faculté des Sciences de la Motricité, Université Libre de Bruxelles, Belgium
- 2007-2010 Postdoctoral Fellow (Dr. Bruce D. Johnson)  
Division of Cardiovascular Diseases, Department of Internal Medicine, Mayo Clinic,  
Rochester, USA
- 2003-2004 Chief and Personal Trainer, Énergie Cardio Sélect pour elle Crémazie, Montreal
- 2002-2003 Research Associate (Dr. Richard L. Hughson)  
Cardiorespiratory and Vascular Dynamics Laboratory, Department of Kinesiology,  
University of Waterloo, Canada

### **HONORS AND AWARDS**

- 2021 Graduate Teaching Award, Department of Kinesiology and Health Education, UT Austin
- 2019 Dean's Fellowship, College of Education, UT Austin
- 2011 European Respiratory Society - Marie Curie Postdoctoral Research Fellowship
- 2009-2010 American Heart Association Postdoctoral Fellowship
- 2002 Young Investigator Award, Space Medicine Branch of the Aerospace Medical Association
- 2000-2002 Defence Research & Development Canada Fellowship

## PUBLICATIONS

- Satiroglu R, **Lalande S**, Hong S, Nagel MJ, Coyle EF. Four-second power cycling training increases maximal anaerobic power, peak oxygen consumption, and total blood volume. *Med Sci Sports Exerc.* 2021 Jul 12. Online ahead of print.
- Lalande S**, Hemingway HW, Jarrard CP, Moore AM, Olivencia-Yurvati AH, Richey RE, Romero SA. Influence of ischemia-reperfusion injury on endothelial function in men and women with similar serum estradiol concentrations. *Am J Physiol Regul Integr Comp Physiol.* 2021 Aug 1;321(2):R273-R278.
- D'Souza AW, Badrov MB, Wood KN, **Lalande S**, Suskin N, Shoemaker JK. The impact of 6 months of exercise-based cardiac rehabilitation on sympathetic neural recruitment during apneic stress. *Am J Physiol Regul Integr Comp Physiol.* 2021 Aug 1;321(2):R174-R185.
- Wojan F, Stray-Gundersen S, Nagel MJ, **Lalande S**. Short exposure to intermittent hypoxia increases erythropoietin levels in healthy individuals. *J Appl Physiol.* 2021 Jun 1;130(6):1955-1960.
- Jarrard CP, Nagel MJ, Stray-Gundersen S, Tanaka H, **Lalande S**. Hypoxic preconditioning attenuates ischemia-reperfusion injury in young healthy adults. *J Appl Physiol.* 2021 Mar 1;130(3):846-852.
- Nagel MJ, Jarrard CP, **Lalande S**. Effect of a Single Session of Intermittent Hypoxia on Erythropoietin and Oxygen-Carrying Capacity. *Int J Environ Res Public Health.* 2020. 17(19):7257.
- Ahmed S, Safdar M, Morton C, Soave N, Patel R, Castillo K, **Lalande S**, Jimenez L, Mateika JH, Wessells R. Effect of virtual reality-stimulated exercise on sympathovagal balance. *PLoS One.* 2020. 15(7):e0235792.
- Keller MF, Harrison ML, **Lalande S**. Impact of Menstrual Blood Loss and Oral Contraceptive Use on Oxygen-carrying Capacity. *Med Sci Sports Exerc.* 2020. 52(6):1414-1419.
- Cross TJ, Kim CH, Johnson BD, **Lalande S**. The Interactions between Respiratory and Cardiovascular Systems in Systolic Heart Failure. *J Appl Physiol.* 2020. 128(1): 214-224.
- Lalande S**, Cross TJ, Keller-Ross ML, Morris NR, Johnson BD, Taylor BJ. Exercise Intolerance in Heart Failure: Central Role for the Pulmonary System. *Exerc Sport Sci Rev.* 2020. 48(1):11-19.
- Badrov MB, Wood KN, **Lalande S**, Sawicki CP, Borrell LJ, Barron CC, Vording JL, Fleischhauer A, Suskin N, McGowan CL, Shoemaker JK. Effects of 6 Months of Exercise-Based Cardiac Rehabilitation on Autonomic Function and Neuro-Cardiovascular Stress Reactivity in Coronary Artery Disease Patients. *J Am Heart Assoc.* 2019. 3;8(17):e012257.
- Lalande S**, Romero SA. The shear complexity of insulin-stimulated vasodilation. *J Physiol.* 2019. 597(1):11.
- Lalande S**, Mueller PJ, Chung CS. The link between exercise and titin passive stiffness. *Exp Physiol.* 2017. 102(9):1055-1066.
- Leone RJ, **Lalande S**. Intermittent hypoxia as a means to improve aerobic capacity in type 2 diabetes. *Med Hypotheses.* 2017. 100:59-63.
- Taylor NE, Baker SE, Olson TP, **Lalande S**, Johnson BD, Snyder EM. Albuterol Improves Alveolar-Capillary Membrane Conductance in Healthy Humans. *Clin Med Insights Circ Respir Pulm Med.* 2016. 10:19-25.
- Badrov M, **Lalande S**, Olver T, Suskin N, Shoemaker JK. Effects of aging and coronary artery disease on sympathetic neural recruitment strategies during end-inspiratory and end-expiratory apnea. *Am J Physiol Heart Circ Physiol.* 2016. 311(4):H1040-H1050.
- Guénard HJ, Martinot JB, Martin S, Maury B, **Lalande S**, Kays C. In vivo estimates of NO and CO conductance for haemoglobin and for lung transfer in humans. *Respir Physiol Neurobiol.* 2016. 228:1-8.
- Lalande S**, Barron CC, Shoemaker JK. Sex difference in the influence of central blood volume mobilization on the exercise pressor response. *Eur J Appl Physiol.* 2015. 115(12):2653-60.

- Simaga B, Vicenzi M, Faoro V, Caravita S, Di Marco G, Forton K, Deboeck G, **Lalande S**, Naeije R. Pulmonary vascular function and exercise capacity in Black Sub-Saharan Africans. *J Appl Physiol*. 2015, 119(5):502-7.
- Cross TJ, **Lalande S**, Hyatt RE, Johnson BD. Response characteristics of esophageal balloon catheters handmade using latex and nonlatex materials. *Physiol Rep*. 2015, 3(6): e12426.
- Coverdale NS, **Lalande S**, Perrotta A, Shoemaker JK. Heterogeneous patterns of vasoreactivity in the middle cerebral and internal carotid arteries. *Am J Physiol Heart Circ Physiol*. 2015, 308(9):H1030-8.
- Lalande S**, Sawicki CP, Baker JR, Shoemaker JK. Effect of age on the hemodynamic and sympathetic responses at the onset of isometric handgrip exercise. *J Appl Physiol (1985)*. 2014, 116(2):222-7.
- Lalande S**, Petrella, RJ, Shoemaker, JK. Effect of exercise training on diastolic function in metabolic syndrome. *Appl Physiol Nutr Metab*. 2013, 38(5):545-50.
- Lalande S**, Luoma CE, Miller AD, Johnson BD. Expiratory loading improves cardiac output during exercise in heart failure. *Med Sci Sports Exerc*. 2012, 44(12):2309-14.
- Lalande S**, Yerly P, Faoro V, Naeije R. Pulmonary vascular distensibility predicts aerobic capacity in healthy individuals. *J Physiol*. 2012, 590(Pt 17):4279-88.
- Lalande S**, Kelsey JW, Joyner MJ, Johnson BD. Determination of blood volume by Pulse CO-Oximetry. *Physiol Meas*. 2012, 33(1):19-27.
- Lalande S**, Luoma CE, Miller AD, Johnson BD. Effect of changes in intrathoracic pressure on stroke volume during moderate exercise in heart failure. *Exp Physiol*. 2012, 97(2):248-56.
- Ceridon ML, Morris NR, Olson TP, **Lalande S**, Johnson BD. Effect of supine posture on airway blood flow and pulmonary function in stable heart failure. *Respir Physiol Neurobiol*. 2011, 178(2):269-74.
- Ceridon ML, Morris NR, Hulsebus ML, Olson TP, **Lalande S**, Johnson BD. Influence of bronchial blood flow and conductance on pulmonary function in stable systolic heart failure. *Respir Physiol Neurobiol* 2011, 177(3):256-64.
- Lalande S**, Anderson PJ, Miller AD, Ceridon ML, Beck KC, O'Malley KA, Johnson JB, Johnson BD. Variability in pulmonary function following rapid altitude ascent to the Amundsen-Scott South Pole station. *Eur J Appl Physiol*. 2011, Sep;111(9):2221-8.
- Lalande S**, Okazaki K, Yamazaki Y, Nose H, Joyner MJ, Johnson BD. Effect of interval walking on physical fitness in middle-aged individuals. *J Prim Care Community Health*. 2010, 1(2):104-10.
- Lalande S**, Hofman PL, Baldi JC. Effect of reduced total blood volume on left ventricular volumes and kinetics in type 2 diabetes. *Acta Physiol* 2010, 199(1): 23-30.
- Lalande S**, Johnson BD. Breathing strategy to preserve exercising cardiac function in patients with heart failure. *Med Hypotheses* 2010, 74(3): 416-21.
- Lalande S**, Buick F. Physiologic +Gz tolerance responses over successive +Gz exposures in simulated air combat maneuvers. *Aviat Space Environ Med* 2009, 80: 1032-8.
- Arena R, MacCarter D, Olson TP, **Lalande S**, Ceridon ML, Olson LJ, Johnson BD. Ventilatory expired gas at constant-rate low-intensity exercise predicts adverse events and is related to neurohormonal markers in patients with heart failure. *J Card Fail* 2009, 15(6): 482-8.
- Lalande S**, Snyder EM, Olson TP, Hulsebus ML, Orban M, Somers VK, Johnson BD, Frantz RP. The effects of sildenafil and acetazolamide on breathing efficiency and ventilatory control during hypoxic exercise. *Eur J Appl Physiol* 2009, 106(4): 509-15.
- Lalande S**, Johnson BD. Diastolic dysfunction: a link between hypertension and heart failure. *Drugs Today (Barc)* 2008, 44(7): 503-13.
- Gusso S, Hofman P, **Lalande S**, Cutfield W, Robinson E, Baldi JC. Impaired stroke volume and aerobic capacity in female adolescents with type 1 and type 2 diabetes mellitus. *Diabetologia* 2008, 51(7): 1317-20.

**Lalande S**, Gusso S, Hofman PL, Baldi JC. Reduced leg blood flow during submaximal exercise in type 2 diabetes. *Med Sci Sports Exerc* 2008, 40(4): 612-7.

**Lalande S**, Baldi JC. Left ventricular mass in elite olympic weight lifters. *Am J Cardiol* 2007, 100(7): 1177-80.

Baldi JC, **Lalande S**, Carrick-Ranson G, Johnson BD. Postural differences in hemodynamics and diastolic function in healthy older men. *Eur J Appl Physiol* 2007, 99(6): 651-7.

## RESEARCH GRANTS

### Ongoing

College of Education Small Grants Program (\$10,000)  
Effect of intermittent hypoxia on hematological variables in type 2 diabetes  
01/01/2020 - 12/31/2021

American College of Sports Medicine (\$2,000)  
The effect of a single session of intermittent hypoxia on hematological variables in patients with type 2 diabetes  
07/01/2020 - 12/31/2021

### Completed

College of Education Small Grants Program (\$9,888)  
The effect of the menstrual cycle on hemoglobin mass  
01/01/2018 - 12/31/2018

deArce-Koch Memorial Endowment Fund in support of Medical Research and Development (\$18,500)  
Effect of intermittent hypoxia on aerobic capacity in patients with type 2 diabetes  
05/01/2016 - 05/31/2017

## TEACHING EXPERIENCE (UT Austin student evaluation scores)

Spring 2021	KIN 352K Research Methods in Exercise Science KIN 395 Pulmonary Exercise Physiology
Fall 2020	KIN 395 Environmental Physiology (5/5)
Spring 2020	KIN 395 Pulmonary Exercise Physiology (4.9/5) KIN 352K Research Methods in Exercise Science (4.9/5)
Fall 2019	Dean's Fellow, exempt from teaching
Spring 2019	KIN 395 Cardiovascular Response to Exercise - co-instructor (4.9/5) KIN 395 Environmental Physiology (5/5)
Fall 2018	KIN 395 Pulmonary Exercise Physiology (4.9/5) KIN 352K Research Methods in Exercise Science (5/5)
Spring 2018	KIN 395 Environmental Physiology (4.4/5)
Fall 2017	KIN 425K Physiology of Exercise - co-instructor (4.4/5) KIN 322 Diagnosis and Evaluation of Fitness - co-instructor (4.4/5)

## **MENTORSHIP (UT Austin)**

### PhD

2021 - Jiahui Zhao  
2019 - Sten Stray-Gundersen, Frank Wojan

### PhD dissertation committee

2020 - Emily Dunlap, Taha Alhalimi  
2019 - Drew Gourley, Brandon Fico  
2019 - 2020 Savannah Wooten

### MSc

2019 - Sahar Massoudian  
2018 - 2020 Caitlin Jarrard, Mercedes Nagel  
2018 - 2019 Melissa Keller

### MSc advisor

2021 - Jamie Guei  
2020 - Gonie Altman, Kelsey Rode  
2019 - 2020 Erin Crownover, Eric Wong

### MSc thesis reader

2020 Melanie Heath, Remzi Satiroglu, Yuzi Zhang, Michael Dial, Jonathon Kava  
2019 Sten Stray-Gundersen  
2018 Emre Vardali, Yu Huo

### BSc

2018 Kim Tae Goon

## **GUEST SPEAKER PRESENTATIONS**

- 2019 Exercise limitations in patients with type 2 diabetes. McCraw lecture series, Department of Kinesiology and Health Education, The University of Texas at Austin, TX, USA. October 25<sup>th</sup>.  
Exercise limitations in patients with type 2 diabetes. CTRL Catapult Seminar and Round Table, Center for Translational Research in Aging and Longevity, Texas A&M University, College Station, TX, USA. March 8<sup>th</sup>.
- 2018 Intermittent hypoxia as a means to improve aerobic capacity in type 2 diabetes. Therapeutic Intermittent Hypoxia Retreat at the University of Florida, Gainesville, FL, USA. April 16<sup>th</sup>.  
Aerobic Capacity and Type 2 Diabetes. EPIC Center of the Montreal Heart Institute. June 14<sup>th</sup>.
- 2016 Possible benefits of intermittent hypoxic exposure on maximal aerobic capacity in patients with type 2 diabetes. Endocrine Diabetes and Metabolism Grand Rounds, University of Toledo Medical Center, Toledo, USA
- 2015 Impact of type 2 diabetes on the cardiovascular response to exercise. Neural Control of Cardiorespiratory Function Research Conference. School of Medicine, Wayne State University, Detroit, USA
- 2014 Facteurs limitant la capacité aérobie chez des patients atteints de maladies chroniques, Department of Exercise Science, Concordia University, Montreal, Canada

- Cardiovascular limitations to exercise capacity in type 2 diabetes. Data club, Center for Diabetes and Endocrine Research (CeDER), University of Toledo, USA
- 2013 Cardiovascular limitations to exercise capacity in health and chronic disease. Heart and Vascular Institute, Penn State University, Hershey, USA.
- 2012 The effect of type 2 diabetes on the cardiovascular response to exercise. College of Biological Sciences. University of Guelph, Canada.
- The effect of type 2 diabetes on the cardiovascular response to exercise. Department of Kinesiology. Penn State University, State College, USA.
- 2010 The effect of type 2 diabetes on the cardiovascular response to exercise. Zurich Center for Integrative Human Physiology, University of Zurich, Switzerland.
- 2009 Cardiovascular response to +Gz forces. Biology department, Winona State University, USA.
- Effects of a 3-month high-intensity interval walking training on physical fitness and cardiovascular risk factors in middle-aged individuals. Preventive Cardiology conference, Mayo Clinic, USA.
- 2008 The effect of type 2 diabetes on the cardiovascular response to exercise. Faculty of Kinesiology and Recreation Management, University of Manitoba, Canada.
- Effects of a 3-month high-intensity interval walking training on physical fitness and cardiovascular risk factors in middle-aged individuals. The 2<sup>nd</sup> International Symposium and Progress Reports 2007. Shinshu University, Japan.

## ORAL PRESENTATIONS

- 2018 **Lalande S**, Miller AD, Johnson BD. Manipulation of intrathoracic pressure improves stroke volume during exercise in patients with heart failure. Co-Chair, Highlighted symposium on the Respiratory System in Heart Failure, American College of Sports Medicine annual meeting, Minneapolis, MN. June 1<sup>st</sup>.
- 2012 **Lalande S**, Petrella, RJ, Shoemaker, JK. Effect of exercise training on diastolic function in metabolic syndrome. Annual meeting of the Canadian Society for Exercise Physiology, Regina, Saskatchewan, Canada.
- 2007 **Lalande S**, Flaherty S, Baldi JC. Concentric hypertrophy of the left ventricle in resistance-trained athletes. Annual meeting of the American College of Sports Medicine, New Orleans, LA. Med Sci Sports Exerc 39 (5 Suppl): S52.
- 2002 **Lalande S**, Buick F. Improved +Gz tolerance in short term, repetitive exposures to acceleration. Annual meeting of the Aerospace Medical Association, Montreal, Quebec, Canada. Aviat Space Environ Med 73: 305.

## ABSTRACTS

- 2021 Wojan F, Stray-Gundersen S, Nagel MJ, **Lalande S**. Intermittent hypoxia increases erythropoietin levels in healthy individuals. International Journal of Exercise Science: Conference Proceedings 2 (13), 14
- 2020 Nagel MJ, Jarrard CP, **Lalande S**. Effect of a single session of intermittent hypoxia on erythropoietin and oxygen-carrying capacity. The FASEB Journal 34 (S1), 1-1
- Jarrard CP, Nagel MJ, Tanaka H, **Lalande S**. Effect of intermittent hypoxia on ischemia-reperfusion injury in healthy individuals. The FASEB Journal 34 (S1), 1-1
- Nagel MJ, Jarrard CP, **Lalande S**. Effect of acute intermittent hypoxia on erythropoietin and oxygen-carrying capacity. International Journal of Exercise Science: Conference Proceedings 2 (12), 56
- Jarrard CP, Nagel MJ, **Lalande S**. Intermittent hypoxia attenuates ischemia-reperfusion injury. International Journal of Exercise Science: Conference Proceedings 2 (12), 63
- 2019 Keller MF, **Lalande S**. The Effect of the Menstrual Cycle on Hemoglobin Mass. The FASEB Journal 33 (1\_supplement), 840.3-840.3
- Keller MF, **Lalande S**. TACSM Abstract. The Effect of the Menstrual Cycle on Hemoglobin Mass.

- 2018 **Lalande S**, Miller AD, Johnson BD. Manipulation of Intrathoracic Pressure Improves Stroke Volume During Exercise in Patients with Heart Failure. *Med Sci Sports Exerc.* 50 (5S), 497
- 2016 Badrov MB, Norton KN, **Lalande S**, Suskin N, Shoemaker JK. Effect of Six Months of Cardiac Rehabilitation on Autonomic Function in Coronary Artery Disease Patients. *The FASEB Journal* 30 (1\_supplement), 756.5-756.5
- Ward AT, Dier NL, Rotarius TR, **Lalande S**. We are not ready for the red planet. *J Appl Physiol.* 120 (4), 473-474
- 2015 Badrov MB, **Lalande S**, Shoemaker JK. Effects of healthy aging and coronary artery disease on sympathetic axonal recruitment strategies during prolonged end-inspiratory apnea. *Autonomic Neuroscience: Basic and Clinical.* 192, 113-114
- Cross TJ, **Lalande S**, Chase S, Johnson BD. Response Characteristics Of Oesophageal Balloon Catheters Handmade From Latex And Nonlatex Materials. *Med Sci Sports Exerc.* 47 (5S), 724
- Simaga B, Vicenzi M, Faoro V, Deboeck G, Caravita S, Giovanni D, **Lalande S**, Yerly P, Moraine JJ, Naeije R. Exercise Stress Echocardiography of Racial Differences in Pulmonary Vascular Function. *American Journal of Respiratory and Critical Care Medicine* 191, 1
- Simaga B, Vicenzi M, Forton K, Caravita S, Di Marco GG, Deboeck G, **Lalande S**, Yerly P, Moraine JJ, Faoro V, Naeije R. Effet de l'ethnicité sur la fonction vasculaire pulmonaire à l'effort: noirs Sub-sahariens vs. caucasiens Européens.
- 2014 **Lalande S**, Barron CC, Shoemaker JK. Impact of central blood volume on the cardiovascular response to isometric handgrip exercise. *The FASEB Journal* 28 (1\_supplement), 852.5. Annual meeting of Experimental Biology. San Diego, CA, USA
- Martinot JB, Kays C, **Lalande S**, Silkoff PH, Guénard H. Révision de l'interprétation du transfert pulmonaire du CO et du NO à la lueur des conductances spécifiques de l'hémoglobine pour ces deux gaz:  $\theta_{CO}$  et  $\theta_{NO}$ . *Revue des Maladies Respiratoires* 31, A51-A52
- 2013 **Lalande S**, Sawicki CP, Baker JR, Shoemaker JK. Effect of aging on the hemodynamic and sympathetic response at the onset of isometric handgrip exercise. *The FASEB Journal* 27 (1\_supplement), 943.12-943.12. Annual meeting of Experimental Biology. Boston, MA, USA
- 2012 **Lalande S**, Yerly P, Guénard H, Naeije R. Pulmonary vascular function and lung diffusion during exercise in healthy individuals. International meeting of the American Thoracic Society. San Francisco, CA, USA.
- 2011 **Lalande S**, Luoma CE, Johnson BD. Inspiratory unloading improves stroke volume during submaximal exercise in heart failure. *The FASEB Journal* 25 (1\_supplement), 1108.4-1108.4. Annual meeting of Experimental Biology. Washington, DC, USA
- 2010 **Lalande S**, Ceridon ML, Anderson PJ, Miller AD, Beck KC, O'Malley KA, Mueller JJ, Johnson JB, Johnson BD. Variability in pulmonary function changes in United States Antarctic Program participants following rapid transport to the South Pole. *The FASEB Journal* 24 (1\_supplement), 990.13-990.13. Annual meeting of Experimental Biology. Anaheim, CA, USA
- 2009 Gusso S, Hofman P, **Lalande S**, Cutfield W, Robinson E, Baldi JC. Left ventricular diastolic function and exercise capacity in diabetes. Reply to Brassard P, Poirier P. *Diabetologia* 52 (5), 992-993
- Lalande S**, Sierra-Johnson J, Miller WL, Johnson BD. Influence of left ventricular diastolic function on pulmonary function in healthy individuals. *The FASEB Journal* 23 (1\_supplement), 812.20-812.20. Annual meeting of Experimental Biology. New Orleans, LA, USA
- Lalande S**, Miller WL, Johnson BD. Influence of left ventricular diastolic function on ventilatory responses during exercise in healthy individuals. *Med Sci Sports Exerc.* 41 (5), 29. Annual meeting of the American College of Sports Medicine. Seattle, WA, USA

- Ceridon ML, Hulsebus ML, Olson TP, **Lalande S**, Fitz-Gibbon JM, O'Malley KA, Olson LJ, Wanner A, Beck KC, Johnson BD. Relationship between Airway blood flow and severity of heart failure disease. International meeting of the American Thoracic Society.
- 2008 **Lalande S**, Snyder EM, Olson TP, Hulsebus ML, Orban M, Somers VK, Johnson BD, Frantz RP. The effect of sildenafil and acetazolamide on sleep architecture with hypoxia. International meeting of the American Thoracic Society. Toronto, Canada
- Lalande S**, Snyder EM, Olson TP, Hulsebus ML, Orban M, Somers VK, Johnson BD, Frantz RP. The effects of sildenafil and acetazolamide on breathing efficiency during hypoxic exercise. The FASEB Journal 22 (1\_supplement), 1173.13-1173.13. Annual meeting of Experimental Biology. San Diego, USA
- Cassuto NA, Snyder EM, **Lalande S**, Olson TP, Johnson BD. Gender differences in muscle efficiency during short-term exercise. Integrative Biology of Exercise, Hilton Head, SC, USA
- Cassuto NA, **Lalande S**, Olson TP, Johnson BD, Snyder EM. Arg16Gly polymorphism of the beta-2 adrenergic receptor and muscular efficiency during exercise. Integrative Biology of Exercise, Hilton Head, SC, USA
- 2007 Gusso S, Hofman PL, **Lalande S**, Baldi JC. Reduction in aerobic capacity and cardiac output in diabetic adolescents. Med Sci Sports Exerc. May ;39 (5 Suppl):S54
- 2006 Carrick-Ranson G, Walsh HJ, Whalley GA, **Lalande S**, Gusso S, Doughty RN, Baldi JC. Diastolic filling response to submaximal exercise in trained and untrained subjects. Med Sci Sports Exerc. May ;38 (5 Suppl):S115
- Walsh H, Carrick-Ranson G, Whalley G, **Lalande S**, Gusso S, Doughty R, Baldi JC. Mitral and tissue Doppler evaluation of diastolic filling response during rest and submaximal exercise in trained and untrained subjects. European Journal of Echocardiography 7 (suppl 1), S195
- Gusso S, Hofman PL, **Lalande S**, Carrick-Ranson G, Baldi JC. The impact of type 2 diabetes on exercise capacity of adolescents. Med Sci Sports Exerc. May; 38(5 Suppl):S324
- 2005 **Lalande S**, Carrick-Ranson G, Aoina JL, O'Shaughnessy HM, Walsh H, Whalley GA, Doughty RN, Baldi JC. The effect of type 2 diabetes and low aerobic fitness on diastolic function. Med Sci Sports Exerc. 37 (5), S92-S93. Annual meeting of the American College of Sports Medicine. Nashville, TN, USA
- 2004 Pizzolitto KS, **Lalande S**, Hughson RL. Effect of 4-hours of 6 degrees head down tilt bed rest on cardiac function during an orthostatic tolerance test. 55<sup>th</sup> International Aeronautical Congress, Vancouver, BC, Canada
- Pizzolitto KS, **Lalande S**, Hughson RL. Central vein pressure-volume and cardiac function during random application of lower body negative pressure following 4-hours of 6 degrees head down tilt bed rest. Canadian Student Summit on Aerospace.

## PROFESSIONAL AFFILIATIONS

American Physiological Society; American College of Sports Medicine; American Heart Association; Canadian Society for Exercise Physiology

## PROFESSIONAL SERVICE

### Reviewer services

Review Editor, Frontiers in Physiology - Respiratory Physiology

Reviewer, Peer Reviewed Medical Research Program Investigator - Initiated Research Award, Department of Defense

Ad hoc reviewer for the following journals:

Diabetes Care; Medicine and Science in Sports and Exercise; American Journal of Physiology; American Journal of Cardiology; Journal of Applied Physiology; Experimental Physiology; Exercise and Sport Sciences Reviews; European Respiratory Journal; Applied Physiology, Nutrition and Metabolism; Journal of Cerebral Blood Flow and Metabolism; Respiratory Physiology & Neurobiology; Physiological Reports; Journal of Basic and Clinical Physiology and Pharmacology; Wilderness and Environmental Medicine Journal; High Altitude Medicine & Biology; Journal of Visualized Experiments; Journal of Rehabilitation Medicine; Diabetology & Metabolic Syndrome; Scandinavian Journal of Medicine & Science in Sports; International Journal of Vascular Medicine; Diabetes Research and Clinical Practice; European Journal of Sport Science; International Journal of Environmental Research and Public Health.