

**NAME IN FULL** Lisa Chu

**CONTACT INFORMATION** LMC Healthcare  
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## EDUCATION

2012 – 2017 **Ph.D.**  
Medical Sciences, McMaster University, Hamilton, Ontario, Canada

2009 – 2011 **M.Sc.**  
Kinesiology and Health Science, York University, Toronto, Ontario, Canada

2005 – 2009 **B.Sc. in Kinesiology (Honours), Minor in Biochemistry**  
Faculty of Science, McMaster University, Hamilton, Ontario, Canada

## RESEARCH

2019 – present **Clinical Epidemiologist**  
LMC Healthcare, Toronto, Ontario, Canada

2017 – 2019 **Postdoctoral Fellowship**  
The Hospital for Sick Children, Toronto, Ontario, Canada  
Supervisor: Jill Hamilton, MD, MSc, FRCPC  
Primary Study: Mechanisms of inflammation, immunity, islet cell and intestinal hormone changes in youth at risk for diabetes (MI4D)

2012 – 2017 **Ph.D. Thesis**  
Medical Sciences, McMaster University, Hamilton, Ontario, Canada  
Supervisor: Brian Timmons, PhD  
Study: Metabolic flexibility in children with obesity: Exercise as a dynamic stimulus to assess metabolic health

2015 **Intensive Teaching and Networking, Obesity Summer Boot Camp**  
Obesity Canada, Kananaskis County, Alberta, Canada

2014 **Visiting Researcher**  
Loughborough University, Loughborough, United Kingdom  
Supervisor: Keith Tolfrey, PhD

2009 – 2011 **M.Sc. Thesis**  
Kinesiology and Health Science, York University; The Hospital for Sick Children, Toronto, Ontario, Canada  
Co-supervisors: Michael Riddell, PhD and Jill Hamilton, MD, MSc, FRCPC

2008 – 2009 **Undergraduate Research Thesis**  
McMaster University, Hamilton, Ontario, Canada  
Supervisor: Brian Timmons, PhD

2008 – 2009 **Research Assistant**  
McMaster University, Hamilton, Ontario, Canada  
Supervisor: Stephanie Atkinson, PhD, RD

## PROFESSIONAL AFFILIATIONS

- 2009 – present Member, Obesity Canada  
2015 – 2016 Member, Canadian Society for Exercise Physiology  
2014 – 2015 Member, North American Society for Pediatric Exercise Medicine

## SCHOLARLY AND PROFESSIONAL ACTIVITIES

- 2015 – present **Ad-Hoc Reviewer:**
- Pediatric Exercise Science
- 2018 – 2019 **Planning Committee:**
- Exercise is Medicine at SickKids
- 2015 **Planning Committee:**
- 10<sup>th</sup> Golden Horseshoe Pediatric Exercise Group Meeting
- 2012 – 2014 **Executive Committee Member:**
- Networking Relations Director, Canadian Obesity Network Student and New Professional Chapter, McMaster University
- 2009 – 2011 **Executive Committee Member:**
- Vice Chair (2010) and Membership Director (2009), Canadian Obesity Network Student and New Professional Chapter, York University

## ACADEMIC AWARDS & DISTINCTIONS

- 2018 **Banting & Best Diabetes Centre Fellowship in Diabetes Care  
University of Toronto**
- Study: investigating Microbiome Interactions in Children Related to OBesity and Exercise (iMICROBE)
  - Value: \$40,000
- 2018 **Restracomp Fellowship**  
The Hospital for Sick Children
- Study: investigating Microbiome Interactions in Children Related to OBesity and Exercise (iMICROBE)
  - Value: \$67,500
- 2017 **Faculty of Health Sciences Graduate Programs Excellence Award**  
McMaster University
- 2016 **Oral Presentation Award (Bronze)**  
DREAM Diabetes Symposium
- Study: Effect of 7 days of exercise on metabolic flexibility in children with obesity – Presented at the DREAM Diabetes Symposium (Winnipeg, Manitoba, Canada)
- 2015 **Outstanding Oral Presentation Award (2<sup>nd</sup> place)**  
European Group of Pediatric Work Physiology
- Study: Exogenous carbohydrate oxidation during exercise in overweight children with and without impaired glucose tolerance – Presented at the European Group of Pediatric Work Physiology Biennial Meeting (Utrecht, The Netherlands)
- 2015 **Canadian Obesity Network 10<sup>th</sup> Annual Boot Camp Travel Award**
- Value: \$500

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- 2014 **Institute of Nutrition, Metabolism and Diabetes Travel Award**  
Canadian Institutes of Health Research
- Study: Metabolic flexibility in obese youth: Investigating the relationship between peak height velocity and carbohydrate oxidation – presented at the North American Society for Pediatric Exercise Medicine Biennial Meeting (Minneapolis, Minnesota)
  - Ranked 1<sup>st</sup> out of 10 selected applicants
  - Value: \$1,440.00
- 2014 **Graduate Students Association Travel Grant**  
McMaster University
- Study: Metabolic flexibility in obese youth: Investigating the relationship between peak height velocity and carbohydrate oxidation – presented at the North American Society for Pediatric Exercise Medicine Biennial Meeting (Minneapolis, Minnesota)
  - Value: \$500
- 2014 **Marco Cabrera Student Research Award**  
North American Society for Pediatric Exercise Medicine
- Study: Metabolic flexibility in obese youth: Exercise as a non-invasive screening test
  - Value: \$1,000
- 2014 **Michael Smith Foreign Study Supplement**  
Canadian Institutes of Health Research
- Study: Influence of acute moderate-intensity exercise with and without energy replacement on postprandial lipaemia in boys (Loughborough University, Loughborough, United Kingdom)
  - Value: \$6,000
- 2013 – 2016 **Frederick Banting and Charles Best Canada Graduate Scholarships (Doctoral Award)**  
Canadian Institutes of Health Research
- Study: Metabolic flexibility in obese youth: exercise as a screening test and a treatment
  - Value: \$105,000
- 2013 – 2014 **Ontario Graduate Scholarship (Declined)**  
Ontario Ministry of Training, Colleges and Universities
- Study: Metabolic flexibility in obese youth: Exercise as a screening test and a Treatment
  - Value: \$15,000
- 2013 **Outstanding Oral Presentation Award (2<sup>nd</sup> place)**  
European Group of Pediatric Work Physiology
- Study: Exogenous carbohydrate oxidation during exercise in overweight children with and without impaired glucose tolerance – Presented at the European Group of Pediatric Work Physiology Biennial Meeting (Anadia, Portugal)
- 2012 – 2013 **Ontario Graduate Scholarship**  
Ontario Ministry of Training, Colleges and Universities
- Study: Metabolic flexibility in obese youth: Exercise as a screening test and a treatment
  - Value: \$15,000
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- 2010 – 2011     **Frederick Banting and Charles Best Canada Graduate Scholarship (Master's Award)**  
Canadian Institutes of Health Research
- Study: Influence of pubertal development on fat oxidation rates during exercise in overweight girls
  - Value: \$17,500
- 2006             **The University Senate Scholarship for Scholastic Achievement**  
McMaster University
- Value: \$800
- 2005 – 2009     **Dean's Honour List**  
Department of Kinesiology, Faculty of Science, McMaster University
- 2005 – 2007     **Entrance Scholarship Award**  
Department of Kinesiology, Faculty of Science, McMaster University
- Value: \$2,000
- 2005             **Graduates Scholarship**  
Toronto Lords Basketball Association
- Value: \$1,000

## PUBLICATIONS

### Peer-Reviewed

#### Journal Articles (Published)

1. **Chu L**, Howell B, Steinberg A, Bar-Dayana A, Toulany A, Langer JC, Hamilton JK. Early weight loss in adolescents following bariatric surgery predicts weight loss at 12 and 24 months. *Pediatric Obes* 2019 Mar 6:e12519. doi: 10.1111/ijpo.12519 [Epub ahead of print]
2. **Chu L**, Steinberg A, Mehta M, O'Kane C, Toulany A, Langer JC, Hamilton JK. Resting energy expenditure and metabolic adaptation in adolescents at 12 months following bariatric surgery. *J Clin Endocrinol Metab* 104(7): 2648-2656, 2019.
3. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Effect of 7 days of exercise on metabolic flexibility and insulin resistance in children with obesity. *Appl Physiol Nutr Metab* 43(7): 677-683, 2018.
4. **Chu L**, Timmons BW. Nutritional considerations for sport participation in children and adolescents with obesity. *Am J Lifestyle Med* 13(2): 129-137, 2018.
5. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Validity and reliability of a novel metabolic flexibility test in childhood obesity. *J Appl Physiol* 124(4): 1062-1070, 2018.
6. Leites GT, Cunha GS, **Chu L**, Meyer F, Timmons BW. Energy substrate utilization with and without exogenous carbohydrate intake in boys and men exercising in the heat. *J Appl Physiol* 121(5):1127-1134, 2016.
7. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. No difference in exogenous carbohydrate oxidation during exercise in children with and without impaired glucose tolerance. *J Appl Physiol* 121(3):724-9, 2016.
8. **Chu L**, Timmons BW. Nutritional considerations for the overweight young athlete. *Ped Exer Sci* 27(4): 463-76, 2015.

9. **Chu L**, Riddell MC, Schneiderman JE, McCrindle BW, Hamilton JK. The effect of puberty on fat oxidation rates in overweight and normal weight girls. *J Appl Physiol* 116(1):76-82, 2014.
10. **Chu L**, Retnakaren R, Zinman B, Hanley A, Hamilton JK. Impact of maternal physical activity and infant feeding practices on infant weight gain and adiposity. *Int J Endocrinol* 2012, 2012.
11. **Chu L**, Hamilton JK, Riddell MC. Clinical management of the physically active patient with type 1 diabetes. *Phys Sportsmed* 39(2):64-77, 2011.
12. **Chu L**, Riddell MC, Takken T, Timmons BW. Carbohydrate reduces fat oxidation during exercise in obese boys. *Eur J of Appl Physiol* 111(12):3132-41, 2011.

#### Journal Abstracts

13. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Exercise training in children with obesity. *Ped Exer Sci*, 28(4):S1, 2016
14. **Chu L**, Morrison KM, Riddell MC, Timmons BW. Exogenous carbohydrate oxidation during exercise in overweight children with and without impaired glucose tolerance. *Ped Exer Sci*, 27(S3), 2015.
15. **Chu L**, Morrison KM, Riddell MC, Timmons BW. Metabolic flexibility in obese youth: Investigating the relationship between peak height velocity and carbohydrate oxidation. *Ped Exer Sci*, 27(S1):S9, 2015.

#### **Non Peer-Reviewed**

##### Newsletters

0. Chu L, Timmons BW. Nutrition for young athletes. (Publication of the Child Health & Exercise Medicine Program, McMaster University), Bulletin 1, March, 2015.

## **PRESENTATIONS**

### **Conference Presentations**

1. **Chu L**. The Paediatric Gut microbiome and Obesity. *Banting and Best Diabetes Centre 30<sup>th</sup> Annual Scientific Day*, Toronto, Ontario, Canada. May 10, 2019. Invited Oral Presentation.
2. **Chu L**, Howell B, Steinberg A, Bar-Dayana A, Toulany A, Langer JC, Hamilton JK. Early weight loss in adolescents following bariatric surgery predicts weight loss at 12 and 24 months. *6<sup>th</sup> Canadian Obesity Summit*, Ottawa, Ontario, Canada. April 23-26, 2019. Poster.
3. **Chu L**, Steinberg A, Mehta M, O'Kane C, Toulany A, Langer JC, Hamilton JK. Resting energy expenditure and metabolic adaptation in adolescents at 12 months following bariatric surgery. *ObesityWeek 2018*, Nashville, Tennessee, USA. November 12-15, 2018. Poster.
4. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Effect of 7 days of exercise on metabolic flexibility in children with obesity. *DREAM Diabetes Symposium*, Winnipeg, Manitoba, Canada. November 10, 2016. Oral Presentation.

5. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. The responsiveness of metabolic flexibility to 7-days of exercise training in children with obesity. *North American Society of Pediatric Exercise Medicine Biennial Conference*, Knoxville, Tennessee, USA. August 10-13, 2016. Oral Presentation.
6. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Metabolic flexibility in children with obesity: Exercise as a screening test and a treatment. *Golden Horseshoe Pediatric Exercise Physiology meeting*, the Hospital for Sick Children, Toronto, Ontario, Canada. April 6, 2016. Oral Presentation.
7. **Chu L**, Morrison KM, Riddell MC, Timmons BW. Exogenous carbohydrate oxidation during exercise in overweight children with and without impaired glucose tolerance. *European Group of Pediatric Work Physiology meeting*, Utrecht, The Netherlands. September 9-13, 2015. Oral Presentation.
8. **Chu L**, Morrison KM, Riddell MC, Timmons BW. Metabolic flexibility in obese youth: Investigating the relationship between peak height velocity and carbohydrate oxidation. *North American Society for Pediatric Exercise Medicine Biennial Conference*, Minneapolis, Minnesota, USA. August 20-23, 2014. Oral Presentation.
9. **Chu L**, Timmons BW. Metabolic flexibility under exercise conditions in overweight youth. *Golden Horseshoe Pediatric Exercise Physiology meeting*, Brock University, St. Catharines, Ontario, Canada. April 4, 2014. Oral Presentation.
10. **Chu L**, Hamilton JK, Schneiderman JE, McCrindle BW, Riddell MC. The effect of puberty on fat oxidation rates during exercise in overweight and normal-weight girls. *European Group of Pediatric Work Physiology meeting*, Anadia, Portugal. October 1-5, 2013. Oral Presentation.
11. **Chu L**, Hamilton JK, Schneiderman JE, McCrindle BW, Riddell MC. Fat oxidation rates during exercise in obese early- and late-pubertal boys and girls. *Joint Meeting of the North American Society for Pediatric Exercise Medicine and the European Group for Pediatric Work Physiology*, Niagra-on-the-Lake, Ontario, Canada. Sept. 22-26, 2010. Oral Presentation.
12. **Chu L**, Hamilton JK, Schneiderman JE, McCrindle BW, Riddell MC. Maximal fat oxidation rates during exercise in obese pre- and early-pubertal boys and girls. *Canadian Obesity Network Student Annual Meeting*, Ottawa, Ontario, Canada. June 9-12, 2010. Oral Presentation.
13. **Chu L**, Hamilton JK, Riddell MC. Influence of pubertal development on fat oxidation rates during exercise in overweight boys and girls. *Ontario Exercise Physiology Conference*, Barrie, Ontario, Canada. January 22-24, 2010. Oral Presentation.
14. **Chu L**, Riddell MC, Schneiderman JE, McCrindle BW, Hamilton JK. Maximal fat oxidation rate during exercise in obese early- and late-pubertal boys and girls. *The Hospital for Sick Children Physiology and Experimental Medicine Research Day*, Toronto, Ontario, Canada. March 7, 2010. Poster.
15. **Chu L**, Schneiderman JE, McCrindle BW, Riddell MC, Hamilton JK. A pilot project on the influence of pubertal development on fat oxidation rates during exercise in overweight girls. *The Hospital for Sick Children Research Institute Summer Student Research Program Scientific Day*, Toronto, Ontario, Canada. July 23, 2009. Poster.

### Contributed

16. Bernard-Genest J, Dettmer E, Walsh CM, Strub J, McPherson A, **Chu L**, Steinberg A, Steinegger C, Hamilton JK. Talking about Weight with Families: Helping Health Care

- Professionals Start the conversation. Pediatric Academic Societies 2018 Meeting, Toronto, Ontario, Canada. May 5-8<sup>th</sup>, 2018. Poster.
17. Tolfrey K, Smallcombe J, **Chu L**, Barrett LA. Effect of moderate-intensity exercise on postprandial lipaemia in adolescents: From laboratory to classroom. *European group of Pediatric Work Physiology meeting*, University Medical Center, Utrecht, the Netherlands. September 9-13<sup>th</sup>, 2015. Oral Presentation.
  18. Tolfrey K, Smallcombe J, **Chu L**, Barrett LA. Effect of moderate-intensity exercise on postprandial lipaemia in adolescents: From laboratory to classroom. *European group of Pediatric Work Physiology meeting*, University Medical Center, Utrecht, the Netherlands. September 9-13<sup>th</sup>, 2015. Oral Presentation.
  19. Syme CA, Hamilton JK, **Chu L**, Noseworthy MD, Riddell MC, Schneiderman JE, Wilkes DL, McCrindle BW, Wells GD. Is muscle mitochondrial function associated with physical activity or obesity status in youth? *Muscle Health Awareness Day*, York University, Toronto, Ontario, Canada. May 2010. Poster.
  20. Darmawikarta D, **Chu L**, McCrindle BW, Riddell MC, Hamilton JK. Evaluating physical activity in obese boys and girls using accelerometry. *The Hospital for Sick Children Summer Student Research Day*, Toronto, Ontario, Canada. July 2010. Poster.

#### ACADEMIC PRESENTATIONS

1. **Chu L**. Metabolic Cart 101: For cardiorespiratory fitness testing. *Child Health and Exercise Medicine Program, McMaster University*, Hamilton Ontario, Canada. December 7, 2016. Oral Presentation.
2. **Chu L**, Morrison KM, Riddell MC, Raha S, Timmons BW. Metabolic flexibility in children with obesity: Exercise as a screening test and a treatment. *EMPhasis on Health Seminar, Mac Obesity, McMaster University*, Hamilton, Ontario, Canada. April 7, 2016. Oral Presentation.
3. **Chu L**. <sup>13</sup>C-Glucose Stable Isotopes: Application for metabolic studies in obesity and type 2 diabetes. *Child Health and Exercise Medicine Program, McMaster University*, Hamilton Ontario, Canada. February 25, 2015. Oral Presentation.
4. **Chu L**, Riddell MC, Schneiderman JE, McCrindle BW, Hamilton JK. The effect of puberty on fat oxidation during exercise in overweight and normal weight girls. *Healthy Weight Rounds, the Hospital for Sick Children*, Toronto, Ontario, Canada. Jan 2014. Invited Oral Presentation.
5. **Chu L**, Timmons BW. Metabolic flexibility in overweight youth. *EMPhasis on Health Seminar, Mac Obesity, McMaster University*, Hamilton, Ontario, Canada. Dec 5, 2013. Oral Presentation.
6. **Chu L**, Hamilton JK, Schneiderman JE, McCrindle BW, Riddell MC. Maximal fat oxidation rate during exercise in obese early- and late-pubertal boys and girls. *Graduate Student Seminar, York University*, Toronto, Ontario, Canada. March 7, 2010. Oral Presentation.
7. Syme CA, **Chu L**, Patel B. HISTORY childhood obesity research team: Specialty care research update. Determinants of metabolic risk in overweight children and adolescents. *Healthy Weight Rounds, the Hospital for Sick Children*, Toronto, Ontario, Canada. February 22, 2010. Oral Presentation.
8. **Chu L**, Riddell MC, Takken T, Timmons BW. Impact of carbohydrate intake on fat oxidation during exercise in obese boys. *Healthy Weight Rounds, the Hospital for Sick Children*, Toronto, Ontario, Canada. August 25, 2009. Invited Oral Presentation.

**TEACHING**

- 2018 – 2019     **Guest Lecture**  
Endocrinology Fellow's Teaching  
Department of Endocrinology, The Hospital for Sick Children, Toronto  
Ontario, Canada  
Title of lectures: Introduction to SPSS; Introduction to SPSS: Part 2
- 2018            **Guest Lecture**  
Health and Disease (4<sup>th</sup> year Undergraduate Course)  
University of Toronto, Toronto, Ontario, Canada  
Title: Obesity in Children and Adolescents
- 2018            **The Art of Teaching Workshop (Certificate Received)**  
The Hospital for Sick Children, Toronto, Ontario, Canada  
Course Instructor: Dr. Karen Reid  
Date: March 26-May 14, 2018
- 2015            **Guest Lecture**  
Pediatric Exercise Physiology (Undergraduate Course)  
Department of Kinesiology, McMaster University, Hamilton, Ontario, Canada  
Title: Childhood Obesity
- 2012 – 2013    **Teaching Assistantship**  
Faculty of Health Sciences, McMaster University, Hamilton, Ontario, Canada
- HTH SCI 1LL3: Human Biochemistry I
  - HTH SCI 3BB3: Human Biochemistry II: Nutrition and Metabolism
- 2009 – 2011    **Teaching Assistantship**  
Kinesiology & Health Science, York University, Toronto, Ontario, Canada
- Human Anatomy (Laboratory Tutorials); Human Physiology
  - Exercise Therapy for Chronic Diseases

**LEADERSHIP & COMMUNITY INVOLVEMENT**

- 2004 – present   **North American Chinese Basketball Association (Participant)**  
Toronto, Ontario, Canada
- 2012 – 2017    **Youth Basketball Program (Program Leader)**  
Hamilton, Ontario, Canada
- 2015            **Knowledge Translation Initiative (Volunteer)**  
Neighbourhood Hoops Project, Hamilton, Ontario, Canada
- 2012 – 2015    **Youth Summer Soccer League Coach (Volunteer)**  
Hamilton, Ontario, Canada
- 2012 – 2013    **International Student Movement (Program Leader)**  
McMaster University, Hamilton, Ontario, Canada
- 2006 – 2009    **MacWheelers and Body-Weight Support Treadmill (Volunteer)**  
McMaster University, Hamilton, Ontario, Canada
- 2007 – 2009    **Student Athletic Therapist, David Braley Sport Medicine and  
Rehabilitation Centre (Volunteer)**  
Varsity Women's Rugby (2008) and Varsity Track and Field (2007- 2008),  
McMaster University, Hamilton, Ontario, Canada