

## **Appendix 2: FUNDING RECEIVED or CONTINUING between May, 1 2012 – April 30, 2013**

### **1. O. Adegoke**

#### **Funding Received:**

- NSERC Discovery Grant, 2008/2009 Competition: \$100000.00 over 5 years to study ‘Mechanism of nutritional regulation of protein metabolism in skeletal muscle’.

- Minor Research: Branched-chain amino acid metabolism and regulation of muscle differentiation.

Amount awarded: \$3000;

Organization: Faculty of Health, York University. May 2012.

#### **Funding Applied for:**

- Title: Liquid Chromatography System

Co-investigators: Riddell MC, Hamadeh M

Amount requested: \$149,000.00

Organization and program: NSERC; Research Tools and Instruments, Fall 2012

### **2. A. Belcastro**

#### **Funding Applied for:**

- Community-Driven Solution for Active Healthy Kids. (Submitted – not received) SunLife Community Foundation (\$74,100)

### **3. O. Birot**

#### **Funding Received:**

- NSERC Research Tool Infrastructure, 2013, Co-PI with Dr. Haas, \$40,741, Awarded.

- NSERC Discovery Grant, 2011-2016, PI, \$120,000, Awarded.

### **4. R. Ceddia**

#### **Funding Received:**

NSERC *Discovery Grant*

**Project Title:** Regulation of whole-body energy metabolism

**Funding period:** 5 years (2011 – 2016) **Amount awarded:** \$200,000.00

#### **Funding Applied for:**

- Operating grant – CIHR – Amount requested: \$437,100.00

### **5. M. Connor**

#### **Funding Received:**

York University Faculty of Health Minor Research Grants. *The Paracrine Role of Adipokines in Prostate Cancer*. This project will look at the paracrine role of adipose tissue obtained from prostate cancer patients on prostate cancer cell cycle regulation. This project uses a co-culture model (primary adipose tissue and prostate cancer cells). Value: \$2,850 over 2 years (2013-2015).

Canada Foundation for Innovation Infrastructure Operating Funds. *Molecular regulation of muscle development*. This project will look at the role of electrical activity in the molecular regulation of muscle development/differentiation. Value: \$50,000 over 3 years (2012-2015).

**Funding Applied for:**

Title: *The paracrine/endocrine effects of adipose tissue on prostate cancer.*

Source: Prostate Cancer Canada

Dollars Requested: \$190,400

Dates of Project: 07/ 2013 - 06/2015

PI: **Michael Connor**

Co-PIs: Fleshner N,

Major Goal of project: Investigate whether metformin and statin administration alter the serum adipokine profile in obese prostate cancer patients from one that promotes disease progression to one that prevents progression.

Title: *The interaction between stress hormones and adipokines.*

Source: N.S.E.R.C. Discovery Grant

Dollars Requested: \$265,050

Dates of Project: 04/ 2013 - 03/2018

PI: **Michael Connor**

This project is designed to evaluate the effects of stress hormones (cortisol) and their effects on skeletal muscle cell cycle regulation and differentiation. In addition, cortisol has been shown to affect adipocyte adipokine secretion patterns and these adipokines can have affects skeletal muscle cell cycle regulation. Thus, we will look at the combinatory effects of cortisol and adipocyte effects on cell cycle control in skeletal muscle.

Title: *A combination high-resolution respirometer, fluorometer and nitric oxide sensing system.*

Source: N.S.E.R.C. RTI grant

Dollars Requested: \$56, 138

Dates of Project: 04/ 2013 - 03/2014

PI: Christopher Perry

Co-PIs: **Michael Connor**, Anthony Scime

This grant is designed for the purchase of new equipment for the sensing of mitochondrial respiration/ATP production, oxidant emission, calcium uptake, membrane potential and nitric oxide character in a variety of cell types.

**6. W. Gage**

**Funding Received:**

Harris L (PI), Gage WH (Investigator), + 7 others. (2012). Full field vision and spatial orientation. Canadian Foundation for Innovation – Leading Edge and New Initiatives Fund. \$790,891

Harris L (PI), Gage WH (Investigator), + 7 others. (2012). Full field vision and spatial orientation. Ontario Research Fund. \$790,891

## **7. T. Haas**

### **Funding Received:**

- 2013 NSERC Discovery Grant (renewal); \$33,000/year (5 years)  
“Regulation of capillary sprouting and stabilization in skeletal muscle”
- 2013 NSERC Research Tools and Instrumentation; \$40,741 (PI; 1 co-applicant)  
“Multi-modal plate reader”
- 2012 Faculty of Health Conference Travel Funds; \$1000
- 2012 Faculty of Health Minor Research Grant; \$3000

### **Funding Applied for:**

- Canadian Diabetes Foundation (February 2013) – results not yet available
- CIHR (March 2013) – results not yet available

## **8. M. Hamadeh**

### **Funding Received:**

- October 2012 Does vitamin D deficiency influence skeletal muscle pathology in amyotrophic lateral sclerosis?  
Muscle Health Research Centre Faculty Research Award, York University, \$3,000 (PI).
- May 2012 Does vitamin D deficiency influence skeletal muscle pathophysiology in amyotrophic lateral sclerosis?  
Minor Research Grant, Faculty of Health, York University, \$3,000 (PI).

### **Funding Applied for:**

- March 2013 Optimal vitamin D supplementation in mitigating amyotrophic lateral sclerosis  
CIHR – \$125,234 over 2 years (PI)  
Results: Awaiting response
- November 2012 Understanding the molecular mechanisms governing the actions of vitamin D on oxidative stress, endoplasmic reticulum stress and apoptosis  
NSERC – \$270,801 over 5 years (PI)  
Results: Rejected

## **9. D.A. Hood**

### **Funding Received:**

Natural Science and Engineering Research Council of Canada Research Tools and Instruments Grant entitled: “Ultracentrifuge and rotors” (\$143,438)

Natural Science and Engineering Research Council of Canada Discovery Grant entitled: “Mitochondrial Biogenesis in Skeletal Muscle” (\$110,000 per year; continued).

Canadian Institutes for Health Research (CIHR) Research Grant entitled "Autophagy in skeletal muscle" (103,661 per year; continued).

## **10. J. Kuk**

### **Funding Received:**

1. Project RADICAL: Race/ethnicity And the perception of Diabetes and cardiovascular disease risk factors In the context of CANada's Lifestyle and obesity guidelines (2011-2012) - \$50,000 (Heart and Stroke Foundation - Principal Investigator)
2. Importance of BIA assumptions in predicting body fat York University, Faculty of Health Minor Research Grant (2012-2014) - \$2,350 (Principal Investigator).
3. Musculoskeletal fitness characteristics and back pain in nurses: A case-control study (2012) – \$4,950 (CIHR Undergraduate Research Internship: Mobility, musculoskeletal health and arthritis) – Student: Mariam Paul – Declined.

### **Funding Applied for:**

1. Causes and Implications of Metabolically Healthy Obese. Canadian Institutes of Health Research - \$115,350 (Co-PI)
2. Causes and Implications of Metabolically Healthy Obese. Heart and Stroke Foundation - \$111,780 (Co-PI)
3. Causes and Implications of Metabolically Healthy Obese. Canadian Diabetes Association - \$111,780 (PI)
4. Effect of exercise modality on risk factors for type 2 diabetes in obese youth: A randomized controlled trial. American Diabetes Association - \$817,140 (Co-Investigator)
5. Resistance and Cardiorespiratory Time-matched Exercise in Youth: A Randomized Controlled Trial (RCT:RCT). National, Heart, Lung, and Blood Institute - \$5,587,453 (Co-Investigator).

## **11. J. McDermott**

2013-2018 CIHR operating grant, \$578,000 Regulation of MEF2 in cardiac and skeletal muscle cells (NEW)

2013-2018 CIHR operating grant, \$542,000 Role of Smad7 in Cardiac and Skeletal muscle (NEW)

2012-2014 Heart and Stroke Foundation of Canada operating grant, \$160,000  
Effects of Beta Blockers on Cardiac Gene Expression

2012-2017 NSERC Discovery grant, \$150,000 Role of AP-1 in skeletal myogenesis

2010-2013 CIHR operating grant, \$375,000 Regulation of MEF2 by signaling pathways.

2010-2013 Heart and Stroke Foundation of Canada operating grant, \$287,000  
Regulation of Vascular Smooth Muscle Cells by MEF2 dependent signaling  
Pathways

## **12. Christopher Perry**

### **Funding Received:**

NSERC Discovery 2013-2018  
Total Award: \$145,000

York University Minor Research Grant      2013  
Total Award: \$2,850

York University Junior Faculty Grant      2013  
Total Award: \$2,000

Centre for Sport Research (Centrum för Idrottsforskning), Stockholm, Sweden:      2011-2013  
Title: Optimal performance - molecular methods for individual guidelines for dietary and exercise regimens. P.I.: Carl Johan Sundberg, Karolinska Institutet.  
Co-Investigators: J. Norrbom and C.G.R Perry. Total award – 100,000 SEK (~\$15,500 CAD).

**Funding Applied for:**

J.P. Bickell Foundation – York University’s selected applicant – finalist from internal competition (\$65,000)

CFI Notice of Intent – York University internal competition (\$349,500)

**13. M. Riddell**

**Funding Received:**

External grants and contracts as principle investigator (note: all funds shown came to York):  
New Grants

1. NSERC Discovery Grant (individual- 3rd renewal). \$165,000 (2013-2017), Project Title: Examining the mechanisms for the lipolytic and antilipolytic effects of glucocorticoids in adipose tissue.
2. Corcept Therapeutics contract. \$22,633.90 (5/7/2012-5/7/2013). Project Title: Glucocorticoid Inhibitors in a Rodent Model of Diabetes.
3. MaRS Innovation MSCPoP Round 2b. Prophylactic treatment of hypoglycemia in insulin-treated diabetes (11/15/2012- 7/31/2013) (partners Drs. Herbert Gaisano, Mladen Vranic, MaRS Innovation and the Centre for Drug Research and Development)- amount \$65,000.
4. Centre for Drug Research and Development (Pfizer CDRD Innovation Fund) with support from MaRS Innovation. Pharmaceutical intervention to decrease the threat of hypoglycemia in insulin-treated diabetics (Leaders M. Vranic, M. Riddell and D. Coy). \$294,350 (2012-2013).
5. MaRS Innovation MSCPoP – Prophylactic treatment of hypoglycemia in insulin-treated diabetes (03/31/2012- 03/31/2013) (Partner Dr. Mladen Vranic)- amount \$100,000.00

Ongoing grants

6. CIHR Proof of Principle Program - \$160, 000 (10/1/2011- 03/31/2014) Phase I: Pharmaceutical intervention to decrease the threat of hypoglycemia in insulin-treated diabetics (with M. Vranic).

7. MaRS Innovation MSCPoP Program Round 2. Treatment of hypoglycemia in insulin-treated diabetes (2/1/2011- 8/1/2013), partners Dr Mladen Vranic, MaRS Innovation and the Centre for Drug Research and Development)- amount \$118,085.

**14. A. Scimè**

**Funding Received:**

2012 NSERC- Discovery Grant	\$125,000 5 years
2012 Canadian Foundation for Innovation (CFI-LOI)	\$342,288 one time
2012 NSERC-RTI	\$56 138 one time Co-Investigator (not received)

**Funding Applied for:**

2013 Stem Cell Network (Stem Cell Drug Discovery) Principal Investigator (in Review)	\$75 000 one time
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**15. R. Tsushima**

**Funding Received:**

07.2009 – 06.2013	<i>SNARE Protein Regulation of Cardiac Ion Channels and ANF Secretion</i> Principal Investigator Heart and Stroke Foundation of Ontario (T6770) - \$409,181 (total)
07.2011 – 06.2014	<i>Role of Endogenous Cholesterol in Beta-Cell Stimulus-Secretion Coupling</i> Principal Investigator Canadian Diabetes Association (OG) - \$274,725 (total)
01.2012 – 12.2016	<i>In Vivo Imaging of Cardiovascular Function</i> Principal Investigator: Robert Tsushima Leaders Opportunity Fund Canadian Foundation for Innovation - \$350,720

**Funding Applied for:**

2013.07 – 2018.06	<i>SNARE Protein Regulation of Cardiac Ion Channels and ANF Secretion</i> Principal Investigator CIHR – applied
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**Appendix 3: AWARDS RECEIVED between May 1, 2012 – April 30, 2013**

**O. Birot**

2012 Nomination by the School of Kinesiology and Health Science for the award of International recognition in research.

2012 Invitation to serve on the Editorial board for the journal *Microcirculation*, the official journal from the American and British Societies for Microcirculation.

**M. Hamadeh**

2012	Dean's Service Award (Early Career), Faculty of Health, York University
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2009-2012 yearly Merit Award, Faculty of Health, York University

**R. Tsushima**

2009.07 – 2014.06 Career Investigator Award  
Heart and Stroke Foundation of Ontario – \$438,750

**Appendix 4: PUBMED-listed publications and submitted manuscripts  
by MHRC Faculty members between May 1, 2012 – April 30, 2013**

• **Olasunkanmi Adegoke**

1. **Olasunkanmi A.J. Adegoke**, Abdikarim Abdullahi, Pegah Tavajohi-Fini. mTORC1 and the regulation of skeletal muscle anabolism and mass. Applied Physiology, Nutrition, and Metabolism, 2012 Jun, 37(3): 395-406, 10.1139/h2012-009

**In submission:**

1. Dhanshri Kakade\*\*, Nushaba Islam\*\*, and **Olasunkanmi A.J. Adegoke**. Regulation of PDCD4 by amino acids and growth factors in L6 myotubes is sensitive to mTORC1 and the proteasome. Submitted to PLoS ONE, April 2013.
2. Senthure Jeganathan\*, Abdikarim Abdullahi\*, Sana Zargar\*, Naomi Maeda\*, Michael C. Riddell, and **Olasunkanmi A. J. Adegoke** Leucine-induced impairment of insulin sensitivity in healthy and obese rats is reversible. Submitted to Diabetes, March 2013 (DB13-0506). In revision for re-submission.

\* and \*\* are my graduate and undergraduate students, respectively.

• **A. Belcastro**

1. **Angelo N. Belcastro**, Katherine S. Morrison, Emma Hicks, and Helin Matta. (2012) Cardiorespiratory and metabolic responses associated with children's physical activity during self-paced games. Canadian Journal of Physiology and Pharmacology, 90: 1269–1276.

• **Olivier Birot**

1. Roudier E, Forn P, Perry ME, **Birot O**. Murine Double Minute-2 is required for capillary maintenance and exercise-induced angiogenesis in skeletal muscle. FASEB Journal 26: 4530-4539, 2012 - (IF 5,712)
2. Gouzi F, Prefaut C, Abdellaoui A, Roudier E, de Rigal P, Molinari N, Laoudj-Chenivresse D, Mercier J, **Birot O**, Hayot M. Blunted muscle angiogenic training-response in COPD patients versus sedentary controls. European Respiratory Journal, In press 2012 (IF 5,895)
3. Roudier E, Milkiewicz M, **Birot O**, Slopack D, Paik, Depinho P, Casale G, Pipinos P, Haas TL. FoxO transcription factors are critical regulators of angiogenesis within ischemic skeletal muscle. In press in Angiogenesis (IF 6).

**In submission:**

1. Roudier E, Aiken J, Slopack D, Gouzi F, Mercier J, Haas TL, Gustafsson T, Hayot M, **Biro O**. Exercise training stimulus triggers the expression of the oncoprotein Human Double Minute-2 in human skeletal muscle. Under reviewing in J Physiol (London), JPHYSIOL/2013/256701

- **Rolando Ceddia**

1. Vitzel KF, Bikopoulos G, Hung S, Pistor KE, Patterson J, Curi R, **Ceddia RB**. Chronic treatment with the AMP-kinase activator AICAR increases glycogen storage and fatty acid oxidation in skeletal muscles but does not reduce hyperglucagonemia and hyperglycemia in insulin deficient rats. Plos One 2013 (Ms # PONE-D-13-06759 – *In Press*)
2. **Ceddia RB**. The role of AMP-activated protein kinase in regulating white adipose tissue metabolism. Mol Cell Endocrinol. 25;366(2):194-203, 2013.
3. Gaidhu MP, Bikopoulos G, **Ceddia RB**. Chronic AICAR-induced AMP-kinase activation regulates adipocyte lipolysis in a time-dependent and fat depot-specific manner in rats. Am J Physiol Cell Physiol. 1;303(11):C1192-7, 2012.
4. Spaner DE, Lee E, Shi Y, Wen F, Li Y, Tung S, McCaw L, Wong K, Gary-Gouy H, Dalloul A, **Ceddia RB**, Gorzycynski R. PPAR-alpha is a therapeutic target for chronic lymphocytic leukemia. Leukemia. 2012 Nov 19. doi: 10.1038/leu.2012. 329. [Epub ahead of print]
5. Souza RP, Tiwari AK, Chowdhury NI, **Ceddia RB**, Lieberman JA, Meltzer HY, Kennedy JL, Müller DJ. Association study between variants of AMP-activated protein kinase catalytic and regulatory subunit genes with antipsychotic-induced weight gain. J Psychiatr Res. 46(4):462-8, 2012.

- **Michael Connor**

**In submission:**

1. Walker, O.S., D.N. Trivedi, C.F. Theriau, M.P. Gaidhu, R.B. Ceddia and **Connor, M.K.** Adipokines Create a Growth Microenvironment in Breast Cancer That Depends on the Adiponectin:Leptin Ratio and Involves AMPK. Submitted to J. Biol. Chem. August 2012. Currently in revision.
2. Santa Mina, D., **M.K. Connor**, S.M.H. Alibhai, P. Toren, C. Guglietti, A. Matthew, J. Trachtenberg and P. Ritvo. The Effects of Home-Based Exercise on Adipokines and the IGF-1 Axis in Men with Prostate Cancer. Submitted to Cancer Causes Control. June 2012. Currently in revision.
3. Zeppieri, J., G. Trottier, N.E. Fleshner and **M.K. Connor**. Adipocyte-derived factors affect the proliferation of AR-positive and AR-negative prostate cancer cells via AMPK. Submitted to Oncogene. May 2012. Currently in revision.

- **Will Gage**



1. Tung JY, **Gage WH**, Poupart P, McIlroy WE. (in press). Upper Limb Contributions to Frontal Plane Balance Control in Rollator-Assisted Walking. Assistive Technology.
2. Prajapati SK, Mansfield A, **Gage WH**, Brooks D, McIlroy WE. (in press). Cardiovascular responses associated with daily walking in sub-acute stroke. Stroke Research and Treatment.
3. Street BD, **Gage WH**. (in press) The effects of an adopted narrow gait on the external adduction moment at the knee joint during level walking: evidence of asymmetry. Human Movement Science.
4. Chee JN, **Gage WH**, McIlroy WE, Zabjek KF. Foot placement patterns of female rollator users with multiple sclerosis in the community. Disability and Rehabilitation. 2012, May 24.
5. Vergara ME, O'Shea FD, Inman RD, **Gage WH**. Postural control is altered in patients with ankylosing spondylitis. Clinical Biomechanics. 2012, May;27(4):334-40.

- **Tara Haas**

1. E.Roudier, M.Milkiewicz, O.Birot, D.Slopack, A.Montelius, T.Gustafsson, J.H. Paik, R.A. DePinho, G.P. Casale, I.I. Pipinos, **T.L. Haas**. Endothelial FoxO1 is an intrinsic regulator of thrombospondin1 expression that restrains angiogenesis in ischemic muscle. Journal of Angiogenesis, 2013
2. Kopycinska,J., P. Milkiewicz, A. Kempńska-Podhorecka, **T.L. Haas**, E. Elias, R.A. DePinho, J. Paik, M. Milkiewicz. Activation of FoxO3a/ Bim axis in patients with Primary Biliary Cirrhosis. Liver Int. 2013 Feb;33(2):231-8. doi: 10.1111/liv.12030.
3. Shikatani, E.A., A. Trifonova, E.R. Mandel, S.T.K. Liu, E. Roudier, A. Krylova, A. Szigiato, J. Beaudry, M.C. Riddell, and **T.L. Haas**. Inhibition of proliferation, migration and proteolysis contribute to corticosterone-mediated inhibition of angiogenesis. Plos One 2012 Oct, 7: e46625. doi:10.1371/journal.pone.0046625
4. **Haas, T.L.**, P.G. Lloyd, H-T. Yang and R.L. Terjung. Exercise training and peripheral artery disease. Compr Physiol 2012 Oct, 2: 2933-3017. doi: 10.1002/cphy.c110065
5. Kobus, K, J. Kopycińska, A. Kozłowska-Wiechowska, E. Urasinska, A. Kempinska-Podhorońska, **T.L. Haas**, P. Milkiewicz, M. Milkiewicz. Angiogenesis within the duodenum of patients with cirrhosis is modulated by mechanosensitive Kruppel-like factor 2 and microRNA-126. Liver Int. 2012 32(8):1222-1232. doi: 10.1111/j.1478-3231.2012.02791

- **Mazen Hamadeh**

PEER-REFEREED JOURNAL PUBLICATIONS (\*\*indicates most significant contributions; underlined names are my trainees)

1. Devries MC, Samjoo IA, **Hamadeh MJ**, McCready C, Sischek S, Raha S, Watt MJ, Steinberg GR, Tarnopolsky MA. Endurance training modulates intramyocellular lipid compartmentalization and morphology in skeletal muscle of lean and obese women. J Clin Endocrinol Metab 2013 (submitted on April 26<sup>th</sup>, 2013).
2. Samjoo IA, Safdar A, **Hamadeh MJ**, Glover AW, Mocellin NJ, Santana J, Little JP, Steinberg GR, Raha S, Tarnopolsky MA. Markers of skeletal muscle mitochondrial function and lipid accumulation are weakly associated with the homeostasis model assessment index of insulin resistance in obese men. PLoS One 2013 (*in revision*; ms# PONE-D-13-02283R1).
3. **\*\*Gianforcaro A**, **Hamadeh MJ**. Vitamin D as a potential therapy in amyotrophic lateral sclerosis. CNS Neurosci Ther 2013 (*in revision*; ms# CNSNT-2012-133.R1).
4. **\*\*Seevaratnam R**, Tarnopolsky MA, **Hamadeh MJ**. Coffee is more effective than caffeine and chlorogenic acid in reducing oxidative stress, inflammation and the pro-apoptotic Bax in male G93A mice. PLoS One 2013 (*in revision*; ms# PONE-D-11-12506R1).
5. Samjoo IA, Safdar A, **Hamadeh MJ**, Raha S, Tarnopolsky MA. The effect of endurance exercise on both skeletal muscle and systemic oxidative stress in previously sedentary obese men. Nutr Diabetes 2013 (*in revision*; ms# 2013NUTD00016-T.R1).
6. **\*\*Gianforcaro A**, Solomon JA, **Hamadeh MJ**. Vitamin D<sub>3</sub> at 50x AI attenuates the decline in paw grip endurance, but not disease outcomes, in the G93A mouse model of ALS, and is toxic in females. PLoS ONE 2013;8:e30243. doi:10.1371/journal.pone.0030243
7. Abramovitch SL, Reddigan JI, **Hamadeh MJ**, Jamnik VK, Rowan CP, Kuk JL. Estimating serving sizes and food intake using Canada's Food Guide. Appl Physiol Nutr Metab 2012;37:923-30. doi:10.1139/H2012-071
8. **\*\*Gianforcaro A**, **Hamadeh MJ**. Vitamin D<sub>3</sub> supplementation at 10x the adequate intake attenuates functional decline in the G93A transgenic mouse model of ALS, a pilot study. CNS Neurosci Ther 2012;18(7):547-57. doi: 10.1111/j.1755-5949.2012.00316.x
9. Ma X, **Hamadeh MJ**, Christie BR, Foster JA, Tarnopolsky MA. Impact of treadmill running and sex on hippocampal neurogenesis in the mouse model of amyotrophic lateral sclerosis. PLoS One 2012;7(4):e36048. doi:10.1371/journal.pone.0036048

- **David Hood**

1. Pastore, S. and **D.A. Hood**. Endurance training ameliorates the metabolic and performance characteristics of circadian Clock mutant mice. J. Appl. Physiol. 114: 1076-84, 2013 (April).
2. Menzies, K.J., K. Singh, A. Saleem and **D.A. Hood**. Sirtuin 1-mediated effects of exercise and resveratrol on mitochondrial biogenesis. J. Biol. Chem. 288: 6968-79, 2013 (March).

3. Ostojic, O., M.F. O'Leary, K. Singh, K.J. Menzies, A. Vainshtein and **D.A. Hood**. The effects of chronic muscle use and disuse on cardiolipin metabolism. J. Appl. Physiol. 114: 444-452, 2013 (Feb).
4. O'Leary, M.F., A. Vainshtein, S. Iqbal, O. Ostojic and **D.A. Hood**. Adaptive plasticity of autophagic proteins to denervation in aging skeletal muscle. Am J Physiol Cell Physiol. 304: C422-30, 2013 (March).
5. **Hood, D.A.** and S. Iqbal. Muscle mitochondrial ultrastructure: new insights into morphological divergences. J. Appl. Physiol. 114:159-60, 2013 (January).
6. Klionsky, D.J., F.C. Abdalla, **Hood, D.A.** et al. Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy 8:445-544, 2012 (Nov).
7. Carter, H.N. and **D.A. Hood**. Contractile activity-induced mitochondrial biogenesis and mTORC1. Am. J. Physiol. Cell Physiol. 303: C540-C547, 2012 (Sept).
8. D'souza, D., R. Lai, M. Shuen and **D.A. Hood**. mRNA Stability as a Function of Striated Muscle Oxidative Capacity. Am. J. Physiol. Regul. Integ. Comp. Physiol. 303:R408-R417, 2012 (Aug).
9. O'Leary, M.F.N., A. Vainshtein, H.N. Carter, Y. Zhang and **D.A. Hood**. Denervation-induced mitochondrial dysfunction and autophagy in skeletal muscle of apoptosis-deficient animals. Am. J. Physiol. Cell Physiol. 303: C447-C454, 2012 (Aug).

- **Jennifer Kuk**

**Published Peer Reviewed Manuscripts**

1. Liu RH, Wharton S, Ardern CI, **Kuk JL**: A multidisciplinary lifestyle intervention from a publicly funded weight management clinic for overweight and obese adults: 1 year results. (Clinical Obesity – In Press)
2. Lee SJ, **Kuk JL**: Changes in fat and skeletal muscle with exercise training in obese adolescents: comparison of whole-body MRI and dual energy X-ray absorptiometry (Obesity – In Press).
3. Lee SJ, Burns SF, White D, **Kuk JL**, Arslanian S: Effects of acute exercise on postprandial triglyceride response after a high fat meal in overweight black and white adolescents (IJO – In Press).
4. **Kuk JL** and Ardern CI: The influence of ethnicity and sex on self-rated overweight physical activity and health status (Perspectives in Public Health – In Press).
5. Liu RH, Wharton S, Sharma AM, Ardern CI, **Kuk JL**: Influence of a Lifestyle-Based Weight Loss on the Metabolic Risk Profile of Metabolically Normal and Abnormal Obese Adults (Obesity – In Press)
6. Canning KL, Brown RE, Jamnik RE, **Kuk JL**: The Relationship between Obesity and Obesity-Related Morbidities Weakens with Ageing (J Gerontology – In Press).

7. Lee SJ, **Kuk JL**, Arslanian SA: Relationships between insulin sensitivity, skeletal muscle mass and muscle quality in obese adolescent boys. (Eur J Clin Nutr – In Press).
8. Lee SJ, Kim Y, **Kuk JL**, Boada FE and Arslanian SA: Whole-body MRI and ethnic differences in adipose tissue and skeletal muscle distribution in overweight black and white adolescent boys (J Obesity – In Press).
9. Moonsammy SH, Guglietti CL, Santa Mina D, Ferguson C, **Kuk JL**, Urowitz S, Wiljer D and Ritvo P: A pilot study of an exercise & cognitive behavioral therapy intervention for epithelial ovarian cancer patients. J Ovarian Res, 6(1), 21, 2013.
10. Lee SJ, Boesch C, **Kuk JL**, Arslanian SA: Effects of an overnight intravenous lipid infusion on intramyocellular lipid content and insulin sensitivity in African-American versus Caucasian adolescents. (Metabolism – Mar;62(3):417-23, 2013)
11. Spassiani NA, Jeffery-Tosoni S, **Kuk JL** and Fraser-Thomas J: Understanding Youths' Experiences in a Holistic Weight Management Program (Journal of Youth Development – 7(2), 15-26, 2012).
12. Lee SJ, Bacha F, Hannon T, **Kuk JL**, Boesch C, Arslanian SA: Effects of aerobic versus resistance exercise without calorie restriction on abdominal fat, intrahepatic lipid and insulin sensitivity in obese adolescent boys: A randomized controlled trial (Diabetes – Nov;61(11):2787-95, 2012).
13. Schwartz A, **Kuk JL**, Lamothe G, Doucet E: Greater than predicted decrease in resting energy expenditure during weight loss: Results from a systematic review (Obesity – Nov;20(11):2307-10, 2012).
14. Abramovitch SL, Reddigan JI, Hamadeh MJ, Jamnik VK, Rowan CP, **Kuk JL**: Estimating serving sizes and food intake using Canada's Food Guide (APNM – Oct;37(5):923-30, 2012).
15. Yates EA, MacPherson A, **Kuk JL**: Secular trends in the diagnosis & treatment of obesity among U.S. adults in the primary care setting (Obesity – Sep;20(9):1909-14, 2012).

### **Published Invited Reviews, Book Chapters or Non-Peer Reviewed Works**

1. **Kuk JL**: Fitness and Health Laboratory Manual – HH/KINE 1020 6.0. York University, Toronto, 2012 (ISBN: 2819990233835)

- **John McDermott**

1. Dionyssiou MG, Salma J, Bevzyuk M, Wales S, L LZ, **McDermott JC**. Kruppel-like factor 6 (KLF6) promotes cell proliferation in skeletal myoblasts in response to TGFbeta/Smad3 signaling. Skelet Muscle. 2013 Apr 2;3(1):7.

2. Dionyssiou MG, Nowacki NB, Hashemi S, Zhao J, Kerr A, Tsushima RG, **McDermott JC**. Cross-talk between glycogen synthase kinase  $\beta$  (GSK3 $\beta$ ) and p38MAPK regulates myocyte enhancer factor 2 (MEF2) activity in skeletal and cardiac muscle. J Mol Cell Cardiol. 2013 Jan;54:35-44.
3. Belozarov VE, Lin ZY, Gingras AC, **McDermott JC**, Michael Siu KW High-resolution protein interaction map of the Drosophila melanogaster p38 mitogen-activated protein kinases reveals limited functional redundancy. Mol Cell Biol. 2012 Sep;32(18):3695-706.

- **Chris Perry**

1. **Perry CGR\***, Kane DA\*, Lanza I, Neuffer PD. Methods for assessing mitochondrial function in Diabetes. *Invited Review*, Diabetes. 62: 1041-1053, 2013. (1<sup>st</sup> publication during faculty position)
2. Lally JS, Herbst EA, Matravadia S, Maher AC, **Perry CGR**, Ventura-Clapier R, Holloway GP. Over-expressing mitofusin-2 in healthy mature mammalian skeletal muscle does not alter mitochondrial bioenergetics. *IN PRESS*, PLoS One. 2013.
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- **Michael Riddell**

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B) Book Chapters (7)

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## **Appendix 5: – List of Specialized Equipment**

### **Olivier Birot**

- Harvard Isoflurane anesthesia station
- Tissue lyser Retsch MM400 using stainless steel beads.
- Imaging station Kodak 4000MM Pro.

### **Rolando Ceddia**

- Scintillation counter (Beckman Coulter LS 6500)
- Plate reader (Biotek Synergy HT)
- Temperature controlled spectrophotometer (Ultrospec 4300 Pro)
- Real Time - PCR (Biorad CFX96)

### **Mike Connor**

- Kodak In Vivo FX Pro imaging station
- Hunter apparatus
- Cell culture electrical stimulator
- Ultracentrifuge
- Nanodrop spectrophotometer

### **Will Gage**

- 7 camera optoelectronic motion capture system (Vicon)
- Six 6-degree of freedom force plates (AMTI)
- Wireless, 16 channel EMG data collection system (Noraxon)
- XY gantry for perturbing postural control and balance
- Wireless three-dimensional accelerometers for measuring movement "in the field"
- HUMAC isokinetic muscle strength testing system

### **Tara Haas**

- Heraeus Table top centrifuge (up to 100 mL volumes)
- UV Crosslinker
- Hybridization Oven
- Shaking Water Bath
- Bacterial Incubator with shaking platform
- Biopetechs closed Flow Chamber for cultured cells
- FlexCell Fx4000 Cell Stretch Apparatus
- Gel Dryer
- Homogenizer



- MilliQ water purification
- Arcturus PixCell II Laser Capture Microdissection system
- Zeiss M200 Inverted Fluorescence microscope with Quantix57 Digital Cooled CCD imaging system and Metamorph image analysis software.

### **Mazen Hamadeh**

- Microcentrifuge
- Mettler balance
- Equipment to run Western blots
- Electrophoresis apparatus
- PCR machine (Bio-Rad MyCycler)
- Spectrophotometer
- HPLC with -ve conductivity dectector

### **David Hood**

- Electroporation
- Real-time PCR system (Applied Biosystems)
- Kodak In Vivo Fx Pro Imaging System
- Cell culture facility
- Ultracentrifuge (Beckman)
- Flow Cytometer (non-sorting, BD)
- Small animal surgical facility
- Mitochondrial respirometer (Strathkelvin)
- Muscle contractile activity equipment
- Fluorescent plate reader
- Upright and inverted fluorescent microscopes
- Cryostat for muscle sectioning
- Rodent treadmills and activity wheels

### **Christopher Perry**

- Muscle biopsy bed
- Biopsy needles

### **Michael Riddell**

- Rodent voluntary activity wheels and forced activity wheels
- Muscle stimulator and Power lab in situ muscle stimulation equipment
- Luminex multiplex
- Cryostat
- Metabolic cart-human
- Metabolic cages
- Tissue freeze dryer
- Paediatric cycle ergometer
- RT-PCR
- Spectrophotometer

- Plate reader
- Imaging station for in situ hybridization

**Robert Tsushima**

- 2 patch-clamp electrophysiology setups
- 2 isolated perfused heart systems
- Low speed tabletop centrifuge
- Beckman spectrophotometer
- Mitochondria respirometer (Strathkelvin)