

Annual Report Template for Organized Research Units

Office of the Vice-President Research & Innovation
York University

Please see the Annual Report Guide for additional instructions to complete the Template. Note that Annual Reports for 2014-15 are due by Friday **May 29, 2015**.

In addition to reviewing this Template and its associated Guide, all ORUs are encouraged to review the *Academic Program Information Form (PIF)* (available at <http://vpap.info.yorku.ca/aap/>).

Muscle Health Research Centre

Annual Report
May 1, 2014 – April 30, 2015

1. Contact Information

Director	David A. Hood
Telephone	Ext 66640
Email	dhood@yorku.ca or mhrc@yorku.ca
Campus address	302 Farquharson
Admin contact	Liam Tryon
	Ext 22999
ORU Website	http://mhrc.info.yorku.ca

2. List Faculties that supplied active members to the ORU, indicating the number of active members from each.

Faculty of Health (14), Faculty of Science and Engineering (2)

3. Charter dates: 06/2008 of first Charter; July 1 2014 (last renewal)

4. Mandate

The MHRC is an organized research unit (ORU) within the Faculty of Health dedicated to Biomedical Sciences. Its mandate is to provide a centralized and focused research emphasis on the importance of “muscle health” for the overall health and well-being of Canadians. The MHRC

consists of a strong cohort of very well-funded and highly productive scholars (including a Canada Research Chair) and graduate students from the Faculty of Health and the Faculty of Science. The vision statement of the MHRC is “*to be Canada’s leading research centre for the study of muscle health and disease*”. This is achieved this through 1) innovative research, 2) the education of qualified trainees, and 3) the translation of our findings for the benefit of all Canadians.

5. Membership and Governance

Active members (York faculty): 16; a complete list of active and adjunct members of the MHRC and their departmental affiliations is provided below.

Other members: Adjunct faculty members: 6; Graduate and UG student members (York): 81; Graduate and UG student members (non-York, other Universities): 49

Executive Committee members: Drs. David Hood (Director), Mike Connor, Robert Tsushima, Mike Riddell, Rolando Ceddia and Ms. Erin Mandel (Graduate Student Member)

Executive Committee Subcommittee (name and members)(if any): N/A

Faculty Member	Rank	Research Area	Office Number/ E-Mail	Office Location
School of Kinesiology and Health Science				
Hood, David	Professor, Canada Research Chair, Director of the Muscle Health Research Center	Molecular basis of Mitochondrial Biogenesis in health and disease	dhood@yorku.ca (416)736-2100 x 66640	Farquharson Building, 302
Adegoke, Olasunkanmi	Associate Professor	Protein and amino acid nutrition and metabolism	oadeoke@yorku.ca (416)736-2100 x 20887	Norman Bethune College, 362
Belcastro, Angelo	Professor, Chair, School of Kinesiology and Health Science	Muscle injury and damage in health and disease	abelcas@yorku.ca (416)736-2100 x 21088	Norman Bethune College, 333B
Biro, Olivier	Associate Professor	Vascular plasticity in striated muscle (angiogenesis vs. capillary regression)	birot@yorku.ca (416)736-2100 x 44043	Norman Bethune College, 353
Ceddia, Rolando	Associate Professor	Glucose and fat metabolism in muscle and adipose tissue	roceddia@yorku.ca (416)736-2100 x 77204	Lumbers Building, 225A
Connor, Michael	Associate Professor	Muscle Development and Cancer	mconnor@yorku.ca (416)736-2100 x 77206	Life Sciences Building, 423B
Edgell, Heather	Assistant Professor	Cardiovascular disease in women	edgell@yorku.ca (416) 736-2100 x 22927	Norman Bethune College, 355

Gage, William	Associate Professor, Associate Dean of Research, Faculty of Health	Biomechanics of postural control and of joint stability	whgage@yorku.ca (416)736-2100 x 21479	HNES, 428D
Haas, Tara	Associate Professor	Angiogenesis in Muscle	thaas@yorku.ca (416)736-2100 x 77313	Farquharson Building, 341
Hamadeh, Mazen	Associate Professor	Human Nutrition and Exercise Physiology, Diabetes and ALS	hamadeh@yorku.ca (416)736-2100 x 33552	Norman Bethune College, 365
Kuk, Jennifer L.	Associate Professor	Obesity, CVD, Type 2 diabetes and exercise interventions	jennkuk@yorku.ca (416)736-2100 x 20080	Sherman Health Science Research Centre, 2002
Perry, Christopher G.R.	Assistant Professor	Redox Metabolism, Skeletal Muscle, Diet and Exercise	cperry@yorku.ca (416)736-2100 x 33232	Norman Bethune College, 324
Riddell, Michael	Associate Professor, KAHS Graduate Program Director	Exercise Physiology, Stress and Diabetes Metabolism	mriddell@yorku.ca (416)736-2100 x 40493	Norman Bethune College, 347
Scimè, Anthony	Assistant Professor	Stem Cell Biology; Muscle Regeneration; Adipose Differentiation	ascime@yorku.ca (416) 736-2100 x33559	Norman Bethune College, 327C
Department of Biology				
McDermott, John	Professor	Muscle Development	jmcderm@yorku.ca (416)736-2100 x 30344	Life Sciences Building, 427B
Tsushima, Robert	Associate Professor, Associate Dean Research and Partnerships	Cardiac Muscle Physiology and Disease	tsushima@yorku.ca (416)736-2100 x 20996	Farquharson Building, 344
Adjunct Members				
Cafarelli, Enzo (Emeritus)	Professor Emeritus	Neuromuscular Physiology	ecaf@yorku.ca	
Coe, Imogen	Professor, Dean, Faculty of Science	Cardiac Muscle Biochemistry	imogen.coe@ryerson.ca	Ryerson University
Hawke, Thomas	Associate Professor	Muscle Development and Regeneration	hawke@mcmaster.ca	McMaster University
Jacobs, Ira	Dean, Faculty of Physical Education	Muscle Metabolism, Applied Physiology and Pharmacology	ira.jacobs@utoronto.ca	University of Toronto
Laham, Robert	Physician	Muscle physiology	robertlaham@aim.com	York Lanes Appletree Medical Centre
Wharton, Sean	Physician	Obesity and exercise	wharton.sean@gmail.com	Wharton Medical Clinic
MHRC Coordinator				
Tryon, Liam	Research Assistant, MSc		liam.tryon@gmail.com Farquharson Bldg, 342 X 22999	Farquharson Bldg, 342 X 22999 Fax: 416-650-8483

6. Annual Progress in Fulfilling Mandate

The MHRC expands its activities every year, consistent with the goal of uniting muscle health researchers and graduate students and providing a platform which will serve to increase the visibility of York University, and the MHRC, in Canada and around the world. A partial list of our accomplishments are listed in Appendix 2, including the funding obtained, awards received and most significant publications in peer-reviewed journals. This Appendix reveals that the MHRC is fulfilling its mandate in promoting muscle research for the health and well-being of Canadians. We are very successful at obtaining NSERC, CIHR, Heart and Stroke Foundation and Canadian Diabetes Association research funding, and at publishing our findings.

- a) Funding proposals: Multiple collaborations exist among MHRC faculty members, and among faculty at other institutions. Two large scale group grants are currently being prepared: 1) a CFI Infrastructure grant for a MHRC “Core facility” (Title: Muscle, Aging and Aging-related Diseases) involving MHRC members and collaborators has received internal approval to go forward as a full proposal to CFI for submission in 2016, and 2) a Canada First Research Excellence Fund (CFREF) proposal for submission in 2016.
- b) Events organized: We held 3 types of events in the last year:
 - 1) Colloquia, featuring internal speakers discussing their work in an informal interactive research presentation. This year we featured 3 graduate students who presented their research;
 - 2) Seminars, in which external speakers from other Universities were invited to present their work and to interact with faculty members and graduate students. This year, speakers were invited from the Universities of Ottawa and Montreal, Harvard Medical School, the Children’s Hospital of Pittsburgh and the Karolinska Institute in Stockholm.
 - 3) The Annual Muscle Health Awareness Day (MHAD version 5), which attracted 9 external speakers, 16 other faculty members and 120 students. A total of 43 posters were presented. This was our fifth MHAD, and the event grows progressively every year.
- c) Knowledge Mobilization / Outreach: All MHRC faculty members are involved in promoting knowledge mobilization of their research via the MHRC website. Newly published papers-of-the-month are summarized in easy to read language for public dissemination. In addition, many members have had their work featured in Y-file, and some members spend considerable time promoting muscle health, metabolism and diabetes education to the public. Several MHRC members have had media interviews in the past year to promote muscle health in their field;
- d) Mentorship: MHRC faculty members are extremely active in the training and development of graduate students. One of the reasons that MHRC members are so successful individually with NSERC is that we are very active in the training of Highly Qualified Personnel (HQP), a major criterion for success with NSERC. MHRC faculty members directly trained and mentored > 50 MSc and PhD students, > 20 undergraduate students, and 9 post-doctoral fellows over the past year alone;
- e) Continuing Education: The MHRC has developed courses for offering through the Health Leadership and Learning network (HLLN). These include programs in “Muscle Health”, “Exercise” and “Muscle Physiology” specifically directed toward diverse fields such as Message

Therapy, Nursing and Post-secondary teachers. Unfortunately, enrollments have not allowed us to actually provide these courses as yet. We are currently working on a “Certificate in Muscle Health” for graduate and undergraduate students.

- f) Other leadership activities: The MHRC continues to sponsor one Faculty Research Award (\$3000) and two MHRC Student Fellowships (\$1000 each) directed against the Graduate Student’s fees;
- g) Industry partners: The MHRC has developed relationships with industry on several fronts. Some of these industry partners include Panacea Global, a cancer screening company, Takeda Pharmaceuticals, Novartis, Reveragen, and Edison Pharmaceuticals. This list continues to grow every year. We are developing collaborations with companies having an interest in muscle health and metabolism;
- h) Student-based activities: The MHRC Student Committee was active once again in managing the MHRC Facebook page, and in providing input to MHRC educational activities. Our Career Day Workshop was extremely successful (attendance was 55-60 graduate students) for those interested in careers outside of academia. Invited guests from Industry, Colleges, Hospitals and Research Institutes were invited to present short talks on their career paths, and provide advice for future graduates. We also sponsored our second MHRC Student Colloquium, in which graduate students presented their work orally and responded to questions.

7. Financial Accountability

The attached Excel spreadsheet provides the 3 year rolling budget and line-by-line explanation. At the moment, there is one research contracts that is administered by the MHRC. The Faculty of Health has made a commitment to provide supportive funding for the Centre for the next 3 years. The Faculty supports the MHRC's efforts to achieve self-sufficiency and attract donors. The Faculty will also continue to fund the Director's course release (approximately \$20k/year). The MHRC is investigating the possibility of acquiring financial support through other initiatives, such as Continuing Education programs (see above), fundraising, and industry or granting agency contract overhead contributions.

8. Objectives for Upcoming Year

- a) Continue to adopt the recommendations of the External Reviewer Report. The external review process for the MHRC took place on January 20, 2014. The Reviewers made some constructive suggestions for improvement. One of our main goals for the coming year will be to continue to assess these recommendations and try to adopt these suggestions wherever possible;
- b) Continue to try to develop Continuing Education initiatives with Teachers, Nurses, Massage Therapists in an effort to bring in revenue to support the MHRC;

- c) Interact with our Development office within the University to promote outreach and the visibility of the MHRC among members of the public, in an effort to seek interested financial contributions from potential benefactors.
- d) Develop a “Muscle Health Education Day” to increase the exposure of the MHRC to the public for educational purposes, as well as to encourage the involvement of potential donors.
- e) Develop more relationships with industry to initiate contractual agreements which will bring in revenue for the MHRC. Discussion are ongoing with colleagues in Innovation York to help us with this;
- f) Consider having a grant crafting workshop, one or twice a year;
- g) Develop more collaborations between laboratories within the MHRC.

9. Other relevant items the Director wishes to report

(None)

10. **Appendix 1** – Additional Information about Progress in Fulfilling Mandate (that does not appear elsewhere in the Report). (N/A; not included)

11. **Appendix 2** – Individual Member Contributions (up to five most notable items only for each member). Appendix 2 is attached. Please note that this represents only a small sampling of the publications and achievements of our MHRC faculty members, as requested for this Annual Report template. A more complete list is available at <http://mhrc.info.yorku.ca>

Appendix 2: Top 5 contributions per Faculty Member **May, 1 2014 – April 30, 2015**

Adegoke, Olasunkanmi A. J.

Funding Received:

NSERC Discovery Grant renewed

Title: “Mechanisms of regulation of skeletal muscle mass and growth”

5 years

Adegoke OA, Bates HE, Kiraly MA, Vranic M, Riddell MC, Marliss EB. Exercise in ZDF rats does not attenuate weight gain, but prevents hyperglycemia concurrent with modulation of amino acid metabolism and AKT/mTOR activation in skeletal muscle. *European Journal of Nutrition*, Published Online August 2014. DOI 10.1007/s00394-014-0754-4

Jeganathan S, Abdullahi A, Zargar S, Maeda N, Riddell MC, **Adegoke OA**. Amino acid-induced impairment of insulin sensitivity in healthy and obese rats is reversible. *Physiological Reports*. 2014 Jul 4;2(7). pii: e12067. doi: 10.14814/phy2.12067.

Biro, Olivier

Funding Received:

2015

Heart and Stroke, Grant-in-Aid, Co-applicant with Drs. Haas and Ellis, \$266, 211 / 3 years

Pelletier J, Roudier E, Abraham P, Fromy B, Saumet JL, **Biro, O**, Sigauco-Roussel D. VEGF-A promotes both pro-angiogenic and neurotrophic capacities for nerve recovery after compressive neuropathy in rats. *Molecular Neurobiology*, 51: 240-251, 2015.

Ceddia, Rolando B.

Funding Received:

NSERC Discovery Grant: \$40,000

Wu MV, Bikopoulos G, Hung S, **Ceddia RB**. Thermogenic capacity is antagonistically regulated in classical brown and white subcutaneous fat depots by high-fat diet and endurance training in rats: Impact on whole-body energy expenditure. *J Biol Chem*. 289(49):34129-40, 2014.

Pistor KE, Sepa-Kishi D, Hung S, **Ceddia RB**. Lipolysis, lipogenesis, and adiposity are reduced while fatty acid oxidation is increased in visceral and subcutaneous adipocytes of endurance-trained rats. *Adipocyte* 4(1):22-31, 2015.

Mortazavi S, Gonzalez R, **Ceddia R**, Unniappan S. Long-term infusion of nesfatin-1 causes a sustained regulation of whole-body energy homeostasis of male Fisher 344 rats. *Front Cell Dev Biol*. 8;3:1-12, 2015.

Connor, Michael K.

Shpilberg Y, **Connor MK**, Riddell MC. The direct and indirect effects of corticosterone and primary adipose tissue on MCF7 breast cancer cell cycle progression. *Horm. Mol. Biol. Clin. Investig*. 2015 Apr 14. pii: /j/hmbci.ahead-of-print/hmbci-2015-0003/hmbci-2015-0003.xml. doi: 10.1515/hmbci-2015-0003.

Thomas, M.M., D.C. Wang, D.M. D'Souza, M.P. Krause, A.S. Layne, D.S. Criswell, H.M. O'Neill, **M.K. Connor**, J.E. Anderson, B.E. Kemp, G.R. Steinberg and T.J. Hawke. Muscle-Specific AMPK β 1- β 2-null mice display a myopathy resultant from impairments in blood flow. *Faseb J.* **28**, 2098-2107, 2014.

Dionyssiou, M.G., S. Ehyai, E. Avrutin, **M.K. Connor** and J.C. McDermott. Glycogen synthase kinase 3 β represses Myogenin function in Alveolar Rhabdomyosarcoma. *Cell Death Dis.* **5**, e1054; doi: 10.1038/cddis.2014.58; 2014.

Edgell, Heather

Funding Received:

2 Junior Faculty Awards – York University, Faculty of Health \$2,000 each (one-time)

1 Minor Research Grant – York University, Faculty of Health \$3,000 (one-time)

Funding Applied For:

Banting Research Foundation Discovery Award - \$25,000 (one-time)

Canadian Foundation for Innovation - \$100,000 (one-time)

Ontario Research Fund - \$100,000 (one-time)

Gage, William H.

Verniba D, Vergara ME, **Gage WH**. Force plate targeting has no effect on spatiotemporal gait measures and their variability in young and healthy population. *Gait Posture.* 2015 Feb;41(2):551-6. doi: 10.1016/j.gaitpost.2014.12.015. Epub 2015 Jan 5. PubMed PMID: 25737237.

Chee JN, **Gage WH**, McIlroy WE, Zabjek KF. Development of a video-based technique for ambulatory monitoring of foot placement with an instrumented rollator. *J Rehabil Med.* 2015 Feb 23;47(3):273-7. doi: 10.2340/16501977-1907. PubMed PMID: 25436942.

Tung JY, **Gage WH**, Poupart P, McIlroy WE. Upper limb contributions to frontal plane balance control in rollator-assisted walking. *Assist Technol.* 2014 Spring; 26(1):15-21; quiz 22-3. PubMed PMID: 24800450.

Phadke CP, Ismail F, Boulias C, **Gage W**, Mochizuki G. The impact of post-stroke spasticity and botulinum toxin on standing balance: a systematic review. *Expert Rev Neurother.* 2014 Mar;14(3):319-27. doi: 10.1586/14737175.2014.887443. Epub 2014 Feb 10. Review. PubMed PMID: 24506569.

Haas, Tara L.

Funding Received:

Heart and Stroke Research Foundation of Canada \$266,211 total funding (3 years, 2015-2018);

“Regulators of angiogenesis in peripheral limb ischemia” PI – Tara Haas; Co-applicants: C. Ellis (UWO) and O. Birot

CIHR Operating Grant; \$390,800 total funding (4 years) (PI; 1 Co-applicant: E. Roudier)

“Microvascular remodeling of the adipose and muscle tissues in diet-induced obesity: regulation by FoxO proteins”

Beaudry, J. E. Dunford, E. Leclair, E. Mandel, A. Peckett, **T.L. Haas** and M.R. Riddell. Voluntary exercise improves metabolic profile in high-fat fed glucocorticoid treated rats. *J. Appl. Physiol.* In press Mar 2015; doi: 10.1152/jappphysiol.00467.2014

Uchida, C., E. Nwadozi, A. Hasanee, S. Olenich, I.M. Olfert and **T.L. Haas**. Muscle derived vascular endothelial growth factor regulates microvascular remodelling in response to increased shear stress in mice. *Acta Physiol (Oxf)*, In press Feb. 2015 doi: 10.1111/apha.12463

Slopack, D., E. Roudier, S.T.K. Liu, E. Nwadozi, O. Birot, **T.L. Haas**. Forkhead BoxO transcription factors restrain exercise-induced angiogenesis. *J Physiol.* 2014, 592(Pt 18):4069-82; doi: 10.1113/jphysiol.2014.275867.

Hamadeh, Mazen J.

Funding Received:

Minor Research Grant, Faculty of Health, York University, Spinal cord adaptation to vitamin D deficiency in amyotrophic lateral sclerosis, \$3,000 (PI). May 2014

Parikh S, **Hamadeh MJ**, Kuk JL. Serving size estimation for healthier and unhealthier versions of food. *J Hum Nutr Diet 2015 (in revision)*.

Moghimi E, Gianforcaro A, Solomon JA, **Hamadeh MJ**. Vitamin D₃ supplementation at 50x the adequate intake attenuates disease pathophysiology in the spinal cord of male, but is toxic in female, G93A mouse model of amyotrophic lateral sclerosis. *PLoS One 2015 (in revision)*.

Moghimi E, Solomon JA, Gianforcaro A, **Hamadeh MJ**. Dietary vitamin D₃ restriction exacerbates disease pathophysiology in the spinal cord of the G93A mouse model of amyotrophic lateral sclerosis. *PLoS One 2015 (in press)*.

Hood, David A.

Funding Received:

2013-18

Canadian Institutes for Health Research (CIHR) Research Grant entitled "Mitochondria in Aging Skeletal Muscle" (117,937 per year).

2011-16

CIHR Research Grant entitled "Autophagy in skeletal muscle" (103,661 per year).

2011-16

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

Award: Canadian Society for Exercise Physiology (CSEP) John R. Sutton Lecturer, October 2015

Vainshtein, A., E.M. Desjardins, A. Armani, M. Sandri, and **D.A. Hood**. PGC-1 α modulates denervation-induced mitophagy in skeletal muscle. *Skeletal Muscle* 5:9, 2015.

Kuk, Jennifer L.

Funding Received:

2014-18

Canadian Institutes of Health Research (CIHR) – Co-Investigator, PI: Geoff Ball, U of Alberta: \$627,877. Developing and Validating the Readiness and Motivation Interview for Families (RMI-Family) Managing Pediatric Obesity

2013-2015

CIHR – New Investigator Bridge Funding (#131594): \$100,000 (Co-PI). Causes and Implications of Metabolically Healthy Obese.

Award: TOPS New Investigator Award – Canadian Obesity Network (2015)

Carlton K, Rotondi M, Ardern CI, **Kuk JL**: Antidepressant usage influences the association between BMI and health risk factors (*Clin Obesity* – Dec 4(6), 296-302, 2014).

Canning KL, Brown RE, Jamnik RE, Art Salmon, Chris I Ardern, **Kuk JL**: Can Canadians properly use Canada's Physical Activity Guide to select light, moderate and vigorous intensity physical activity? (*PLoS* – 2014 May 16;9(5):e97927). PMID: 24835105.

McDermott, John C.

Funding Received:

2013-2018

CIHR Operating Grant, \$578,000 Regulation of MEF2 in cardiac and skeletal muscle cells

2013-2018

CIHR Operating Grant, \$542,000 Role of Smad7 in Cardiac and Skeletal muscle

2012-2017

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

Wales S, Hashemi S, Blais A, **McDermott JC**. Global MEF2 target gene analysis in cardiac and skeletal muscle reveals novel regulation of DUSP6 by p38MAPK-MEF2 signaling. *Nucleic Acids Res.* 2015 Feb 1;42(18):11349-62. doi: 10.1093/nar/gku813. Epub 2014 Sep 12. PMID: 25217591

Perry, Christopher G. R.

Funding Received:

04/2015

NSERC Research Tools and Instruments Grant (P.I.) - Title: A core in vivo microCT imaging system for analyzing body composition, circulation and cardiorespiratory function in rodents.

Co P.I.s: Rolando Ceddia, Michael Riddell, Anthony Scime, David Hood, Tara Haas

Total Award: \$150,000

Perry CGR. Is muscle hypertrophy following resistance exercise regulated by truncated splice variants of PGC-1 α ? *Acta Physiol Scand.* Oct., 212(2): 122-4, 2014. PMID: 25042237. (Invited editorial).

Williams CB, Hughes MC, Edgett BA, Scribbans TD, Simpson CA, **Perry CGR**, Gurd BJ. An examination of Resveratrol's mechanisms of action in human tissue: Impact of a single dose in vivo and dose responses in skeletal muscle ex vivo. *PLoS ONE.* 9(7): e102406, 2014. PMID: 25019209

De Sousa M, Porras DP, **Perry CGR**, Seale P, Scime A. p107 is a crucial regulator for determining the adipocyte lineage fate choices of stem cells. *Stem Cells*. May; 32(5): 1323-36, 2014. PMID: 24449206

Kang Li, Dai C, Lustig ME, Bonner JS, Mayes WH, Mokshagundam S, James FD, Thompson CS, Lin CT, **Perry CGR**, Anderson EJ, Neuffer PD, Wasserman DH, Powers AC. Heterozygous SOD2 Deletion Impairs Glucose-Stimulated Insulin Secretion, but not Insulin Action in High Fat-Fed Mice. *Diabetes*. 63(11):3699-710, 2014 Nov. PMID: 24947366

Riddell, Michael C.

Funding Received:

(10/01/2014 - 09/30/2016).

JDRF Operating Grant \$286,920.04 Project title: Preclinical drug development of somatostatin receptor 2 antagonists for the prevention of recurrent hypoglycemia in type 1 diabetes. Grant JDRF 2-SRA-2014-268-M-R.

Mohajeri S, **Riddell MC**. Advances in exercise, physical activity, and diabetes mellitus. *Diabetes Technol Ther*. 2015 Feb;17 Suppl 1:S88-95. doi:10.1089/dia.2015.1511. PubMed PMID: 25679435.

Pivovarov JA, Taplin CE, **Riddell MC**. Current perspectives on physical activity and exercise for youth with diabetes. *Pediatr Diabetes*. 2015 Mar 9. doi: 10.1111/pedi.12272. [Epub ahead of print] PubMed PMID: 25754326.

Zaharieva DP, **Riddell MC**. Prevention of exercise-associated dysglycemia: a case study-based approach. *Diabetes Spectr*. 2015 Jan;28(1):55-62. doi: 10.2337/diaspect.28.1.55. PubMed PMID: 25717279; PubMed Central PMCID: PMC4334080.

Yardley JE, Kenny GP, Perkins BA, **Riddell MC**, Goldfield GS, Donovan L, Hadjiyannakis S, Wells GA, Phillips P, Sigal RJ; on behalf of the READI trial investigators. Resistance Exercise in Already Active Diabetic Individuals (READI): Study Rationale, Design and Methods for a Randomized Controlled Trial of Resistance and Aerobic Exercise in Type 1 Diabetes. *Contemp Clin Trials*. 2015 Jan 2. pii: S1551-7144(14)00202-X. doi: 10.1016/j.cct.2014.12.017. [Epub ahead of print] PMID: 25559915

Roudier, Emilie

Funding Received:

Embassy of France in Canada - Public and international promotion of education - Grant agreement for Science and Technology to organize a symposium on Global perspective on health: New approaches for cardiovascular health - Awarded 4,000€

York University Internal Award: Academic innovation fund - Online course - "Anatomie et physiologie humaine" - \$5,000

Slopack D, **Roudier E**, Liu ST, Nwadozi E, Birot O, Haas TL. Forkhead BoxO transcription factors restrain exercise-induced angiogenesis. *J Physiol*. 2014 Sep 15;592(Pt 18):4069-82.

Pelletier J, **Roudier E**, Abraham P, Fromy B, Saumet JL, Birot O, Sigaud-Roussel D. VEGF-A promotes both pro-angiogenic and neurotrophic capacities for nerve recovery after compressive neuropathy in rats. *Mol Neurobiol*. 2015 Feb;51(1):240-51.

Tsushima, Robert

Funding Applied For:

2015 – 2020

CIHR - Endogenous Cholesterol Regulation of Islet Stimulus-Secretion Coupling
\$159,964/year

2015 - 2020

CIHR - SNARE Protein Regulation of Cardiac Ion Channels and ANP Secretion
\$159,860/year

Scimè, Anthony

Downey J, Lauzier D, Kloen, P, Klarskov K, Richter M, Hamdy R, Faucheux N, **Scimè A**, Balg F, Grenier G. (2015). Mesenchymal cells with brown adipocyte potential in human skeletal muscle. Bone. Feb;71:164-70 .

De Sousa M, Porras DP, Seale P, Perry CGR and **Scimè A**. (2014). p107 is a crucial regulator for determining the adipocyte lineage fate choices of stem cells. Stem Cells. May;32(5):1323-36.

Muscle Health Research Centre: Three Year Budget Plan

Revenue	2014-15 (Actuals)	2015-16	2016-17	2017-18	
Muscle Health Awareness Day Sponsorship	\$4,500.00	\$5,000.00	\$6,000.00	\$7,000.00	seeking additional sponsors
Muscle Health Awareness Day conference registration fees	\$2,055.00	\$2,500.00	\$2,500.00	\$2,500.00	
Continuing Professional Development Workshop fees	\$0.00	\$3,000.00	\$3,000.00	\$3,000.00	
Diagnostic Service fees (@ \$5 / sample)	\$0.00	\$2,500.00	\$5,000.00	\$7,500.00	
Anticipated overhead from research contracts	\$0.00	\$2,000.00	\$3,000.00	\$4,000.00	
Contribution from Health - Director's course release (1.0 FCE)	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	approximate
Contribution from Health				\$20,000.00	provisional - if advancement
Costs covered by Director's CRC	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	efforts are successful
Total Revenue	\$36,555.00	\$45,000.00	\$49,500.00	\$74,000.00	
Expenses					
Operating Expenses					
Director's Stipend and Benefits	\$7,200.00	\$7,200.00	\$7,200.00	\$7,200.00	
Director's Course release	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	approximate
Admin Support (YUSA2 GA 270hr + 135hr assignment at 60%)	\$10,920.00	\$10,920.00	\$10,920.00	\$10,920.00	approximate
Office/Computer Supplies	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00	
Telephone	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00	
Research, Training and Knowledge Mobilization Expenses					
MHRC Faculty Research Awards (1 @ \$3000)	\$0.00	\$3,000.00	\$3,000.00	\$3,000.00	seeking donor
MHRC Student Scholarships (2 @ \$1000)	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	seeking donor
Muscle Health Awareness Day	\$6,575.55	\$6,500.00	\$6,500.00	\$6,500.00	
Poster Prizes for Muscle Health Awareness Day (4 @ \$150)	\$600.00	\$600.00	\$600.00	\$600.00	seeking additional sponsors
Seminar Series (hospitality and invited speakers)	\$4,471.00	\$4,500.00	\$4,500.00	\$4,500.00	
Total Expenses	\$54,166.55	\$57,120.00	\$57,120.00	\$57,120.00	
Total Revenue Less Expenses	-\$17,611.55	-\$12,120.00	-\$7,620.00	\$16,880.00	
Carryforward from Previous Year		\$12,630.00	\$510.00	-\$7,110.00	
Carryforward to Next Year		\$510.00	-\$7,110.00	\$9,770.00	