Appendix 2: FUNDING RECEIVED or CONTINUING between May 1, 2016 – April 30, 2017

Abdul-Sater, Ali A.
Funding Received:

NSERC Discovery Grants Project
The Effects of Exercise on the Molecular Mechanisms of Inflammation
2017-2022 ($26,000 / year; $130,000 total over 5 years)

Adegoke, Olasunkanmi A. J.
Funding Received:

UPLC System for Muscle Research, NSERC RTI, $143,809, Co-Applicant; PI David Hood

Backx, Peter H.
Funding Received:

CIHR Operating Grant (Principal Investigator)
Uncovering the mechanism of atrial fibrillation using lessons from intense exercise models of atrial remodeling
$756,000 Total ($151,200/year for 5 years)
Start April 2017

NSERC CHRP Grant (M. Radisic PI; Backx co-PI, Kumar co-PI)
Platform technology for maturation of human stem cell derived cardiomyocytes and cardiotoxicity screening
$290,000 Total ($96,667/year for 3 years)
Start June 2016

CIHR Operating Grant (Principal Investigator)
Next generation stem cells for the heart
$780,000 Total ($156,000/year for 5 years)
Start Oct 2015

CIHR Operating Grant (Principal Investigator)
Regulation of contractility by NCX and Ito
$580,000 Total ($116,000/year for 5 years)
Start March 2013

CFI John Evans Award (Principal Investigator)
Toronto Cardiovascular Assessment Centre
$500,000

Birot, Olivier
Funding Received:

NSERC Discovery Grant
Investigating the angiogenic role of Murine Double Minute-2 in contractile muscle cells
$28,000 / year - 5 years

Ceddia, Rolando B.
Funding Received:

NSERC Discovery Grant
Regulation of whole-body energy homeostasis
2016 -2020 ($160,000)

Drake, Janessa D. M.
Funding Received:

NSERC Discovery Grant
Thoracic and Lumbar Spine Biomechanics
May 2012- Apr 2017, Extension May 2017-Apr 2018
$29,000/year (Principle Investigator)

York University Faculty of Health Minor Research Grant
Validation of Ultrasound to Measure Spine Kinematics Invivo Using MRI
May 2016-Apr 2017
$3,000 (Principle Investigator)
Funding Applied For:

NSERC Research Tools & Instruments Grant
Operations and Maintenance Support for Multi-User York MRI Facility
Co-Applicant and Co-Investigator (Principal Investigator and Applicant Dr. J.K.E. Steeves (Psych), Director of York MRI Facility, York University; Other York Co-Applicants: Drs., J.D. Crawford, K.L. Hoffman, S. Rosenbaum, L.E. Sergio, W.D Stevens, G.R. Turner, T. Womelsdorf
$150,000

Edgell, Heather
Funding Received:

CFI Infrastructure operating funds (2017) - $7,700

Junior Faculty Fund (2016) - $2,000 – The Heart of Gold Cardiac Research Fund – Microvascular function in male and female angina patients at Southlake Regional Health Centre.

Minor Research Grant (2016) - $3,000 – The Heart of Gold Cardiac Research Fund – Microvascular function in male and female angina patients at Southlake Regional Health Centre.

St. Jude Medical (2016) –$53,141 – Purchase of an Endo-PAT2000 (and operational funds) for microvascular function measurements at Southlake Regional Health Centre lab.

Conference Travel Funds (2016) –$1,000 – American Autonomic Society in San Diego, CA.
NSERC Discovery Grant - $120,000 (continuing – 2nd of 5 years) – Cerebrovascular and ventilatory responses to autonomic reflex stimulation in supine and upright postures in women throughout the menstrual cycle and men

NSERC Undergraduate Student Research Award - $4,500

Haas, Tara L.
Funding Received:

CIF (Swedish Research Council for Sport Science)
570000 SEK total funding (~$146,000 Cdn) (2 years)
"*Red blood cell-derived nitric oxide: Novel regulator of exercise adaptation"*
PI – Thomas Gustafsson (Karolinska Inst, Sweden); Co-applicants: T.L. Haas; J. Pernow (Sweden)
2017- 2018

Heart and Stroke Research Foundation of Canada
$266,211 total funding (3 years);
"*Regulators of angiogenesis in peripheral limb ischemia"*
PI – Tara Haas; Co-applicants: C. Ellis (UWO) and O. Birot
2015-2018

CIHR Operating Grant
$390,800 total funding (4 years)
"*Microvascular remodeling of the adipose and muscle tissues in diet-induced obesity: regulation by FoxO proteins"*
(PI; 1 Co-applicant: E. Roudier)
2013-2017

NSERC Discovery Grant (renewal);
"Regulation of capillary sprouting and stabilization in skeletal muscle"
$165,000 total funding (5 years)
2013-2018

Faculty of Health Minor Research Grant; $3000 - 2016

Hamadeh, Mazen J.
Funding Received:

Minor Research Grant, Faculty of Health, York University, $3,000 (PI)

Does vitamin D deficiency affect spinal cord endoplasmic reticulum stress and related apoptosis in amyotrophic lateral sclerosis?

Hood, David A.
Funding Received:

Natural Science and Engineering Research Council of Canada Research Tools and Instruments Grant
UPLC System for Muscle Health Research
$143,809
2017

Natural Science and Engineering Research Council of Canada Discovery Grant
Mitochondrial Biogenesis in Skeletal Muscle"
$65,000 per year
2016-20

Canadian Institutes for Health Research (CIHR) Research Grant
Mitochondria in Aging Skeletal Muscle
$117,937 per year
2013-18

Bridge funding for CIHR grant
Fall 2016
$4,000

Hynes, Loriann
Funding Received:

University of North Carolina, Chapel Hill 2017
"Role of Rehabilitation in Concussion Management: A Randomized Control Trial."
Data Collection Site Principal Investigator (3 years)

YUFA Teaching and Learning Development Grant 2017
"Exploring the Experiences of Learners Exposed to Simulated person Methodology Within an Athletic Therapy Course." (One-time Award)
Co-Investigator

York University Junior Faculty Fund 2016
"Applying Simulated Person Methodology as Part of a Scenario-Based Skills Evaluation in an Athletic Therapy course" (One-time Award)
Co-Investigator

Kuk, Jennifer L.
Funding Received:

McDermott, John C.
Funding Received:
NSERC Discovery Grant Renewal (awarded April 2017).

MITACS accelerate grant (awarded Dec 2016)
A collaboration with Sanofi-Pasteur, Markham, ON, Canada

Perry, Christopher G. R.
Funding Received:
CO-PI, Infrastructure: NSERC Research Tools and Instruments Grant
UPLC System for Muscle Health Research
PI: David Hood
Total Award: $143,809

CO-PI, Operating: Centre for Sport Research (Centrum för Idrottsforskning)
RNAseq analyses of human muscle responses to exercise
P.I.: J. Norrbom, Karolinska Institutet, Stockholm, Sweden
Total award: 90,000 SEK (~$13,500 CAD).

PI, Operating: Rare Disease Foundation Microgrant
A novel mitochondrial-therapy to treat Duchenne muscular dystrophy
Total: $3,375

Funding Applied For:
Operating: Karolinska Institutet Doctoral student funding (KID) (Co-applicant)
The Role of Red Blood Cell Arginase and Nitric Oxide in human skeletal muscle re-modelling
P.I.: T. Gustafsson. Co-applicant: T. Haas.
Total award: 320,000 SEK (~$49,344 CAD)

Riddell, Michael C.
Funding Received:

JDRF Operating Grant.
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.
$286,920.04 (10/01/2014 - 09/30/2016).

NSERC Discovery Grant (individual- 3rd renewal)
Examining the mechanisms for the lipolytic and antilipolytic effects of glucocorticoids in adipose tissue. Grant #261306
$165,000 (2013-2017)

Clinical Research Grant held at LMC Diabetes

Optimal Insulin Correction Factor in Post- High Intensity Exercise Hyperglycemia in Adults with Type 1 diabetes: The FIT Study. Aronson, R & Riddell, MC. LMC Diabetes and Manna Research.
Sanofi Investigator Initiated Study. €461,689.00.

NIH Operating Grant
Control systems for Artificial Pancreas use during and after exercise #1DP3DK101075-01
$2,478,076 (2013-2017) Subcontract to York= $364,000.

NSERC Research Tools and Instruments: UPLC System for Muscle Health Research.
DA Hood (Principle Investigator), O Adegoke, R Ceddia, H Edgell, C Perry and MC Riddell (Co-Investigators).
$143,809.

Funding Applied For:

JDRF Operating Grant
Improving the Daily Lives of People with Type 1 Diabetes by Meeting the Challenges of Glucose Control through the Development of a Next-Generation Closed-Loop System Call Name: Strategic Research Agreement (SRA) - Additional Signals for Next Generation AP Systems RFA.
Principle Investigator: D O'Neal, Co-PIs: A Jenkins, S McAuley, E Botvinivk, A LaGerche, C Smart, B King, G Goodwin, A Medioli, P Colman, R Maclsaac, G Ward, N Cohen, M Riddell.
$500,000

Roudier, Emilie
Funding Received:

CIHR Operating Grant 2013-2017 (Co-applicant):
Microvascular remodeling of the adipose and muscle tissues in diet-induced obesity: regulation by FoxO proteins.
Principal investigator Dr. Tara Haas
Funding: 400K CAD for 4 years

York Academic Equipment Funds Grant to sustain the project related to experiential learning about the microvasculature
6,000 CAD

York University Minor Research Grant, Faculty of Health
"Investigating the effects of statins on endothelial Mdm2 pathway and its downstream effectors"
To facilitate collaboration with clinicians at St Michael Hospital
1,900CAD

Funding Applied For:

CIHR Project Grant Program 2016 Consequences of obesity-associated modifications in capillary endothelial cell phenotype in adipose and skeletal muscles (Co-applicant)

MITACS, Graduate student mobility: Globalink research award, A Community-Driven Solution for Improving Vascular Function in Active Healthy Kids (Campus France. Secondary supervisor)

Scime, Anthony
Funding Received:

Funding Applied For:

Tsushima, Robert
Funding Received:

Funding Applied For:

Appendix 3: AWARDS RECEIVED between May 1, 2016 – April 30, 2017

Hood, David A.

NSERC Tier I Canada Research Chair in Cell Physiology (2nd renewal, January, 2017 start)

McDermott, John. C.

Renewal of McLaughlin Research Chair, Faculty of Science 2017-2022

Perry, Christopher G. R.

Dean's Award for Excellence in Research: Early Career (Faculty of Health, York University)

Appendix 4: Peer-reviewed publications and submitted manuscripts by MHRC Faculty members between May 1, 2016 – April 30, 2017

Abdul-Sater, Ali A.

Abdul-Sater AA, Edilova MI, Clouthier DL, Mbanwi A, Kremmer E, Watts TH. The signaling adaptor TRAF1 negatively regulates Toll-like receptor signaling and this underlies its role in rheumatic disease. Nature Immunology 2017 Jan;18(1):26-35.

Adegoke, Olasunkanmi A. J.

Mahshid Moghei, Pegah Tavajohi-Fini, Brendan Beatty, Olasunkanmi A. J. Adegoke. Ketoisocaproic acid, a metabolite of leucine, suppresses insulin-stimulated glucose transport in skeletal muscle cells in a BCAT2-dependent manner. Am J Physiol Cell Physiol Vol. 311 no. 3, C518-C527, 2016.

Backx, Peter H.

Huang J, Wu J, Wang S, You J, Ye Y, Ding Z, Yang F, Wang X, Guo J, Ma L, Yuan J, Shen Y, Yang X, Sun A, Jiang H, Bu L, Backx PH, Ge J, Zou Y. Ultrasound Biomicroscopy Validation of a Murine Model of Cardiac Hypertrophic Preconditioning: Comparison with a Hemodynamic Assessment. Am J Physiol Heart Circ Physiol. 2017 Apr 28:ajpheart.00004.2017.

Kroetsch JT, Levy AS, Zhang H, Aschar-Sobbi R, Lidington D, Offermanns S, Nedospasov SA, Backx PH, Heximer SP, Bolz SS. Constitutive smooth muscle tumour necrosis factor regulates microvascular myogenic responsiveness and systemic blood pressure. Nat Commun. 2017 Apr 5;8:14805.

Protze SI, Liu J, Nussinovitch U, Ohana L, Backx PH, Gepstein L, Keller GM. Sinoatrial node cardiomyocytes derived from human pluripotent cells function as a biological pacemaker. Nat Biotechnol. 2017 Jan;35(1):56-68.

Olofsson PS, Steinberg BE, Sobbi R, Cox MA, Ahmed MN, Oswald M, Szekeres F, Hanes WM, Introini A, Liu SF, Holodick NE, Rothstein TL, Lövdahl C, Chavan SS, Yang H, Pavlov VA, Broliden K, Andersson U, Diamond B, Miller EJ, Arner A, Gregersen PK, Backx PH, Mak TW, Tracey KJ. Blood pressure regulation by $CD4^+$ lymphocytes expressing choline acetyltransferase. Nat Biotechnol. 2016 Oct;34(10):1066-1071.

Oudit GY, Backx PH. Amlodipine Therapy for Iron-Overload Cardiomyopathy: The Enduring Value of Translational Research. Can J Cardiol. 2016 Aug;32(8):938-40.

Belcastro, Angelo N.

Moghaddaszadeh A, Ahmadi Y, Belcastro AN. Children and adolescent physical activity participation and enjoyment during active play. J Sports Med Phys Fitness. 2016 Dec 22.

Moghaddaszadeh A, Jamnik V, Belcastro AN. Characteristics of children's physical activity during active play. J Sports Med Phys Fitness. 2016 Oct 13.

Birot, Olivier

Dunford EC, Leclair E, Aiken J, Mandel ER, Haas TL, Birot O, Riddell MC. The effects of voluntary exercise and prazosin on capillary rarefaction and metabolism in streptozotocin-induced diabetic male rats. J. Appl. Physiol. 122: 492-502, 2017.

Aiken J, Birot O. The Vascular Endothelial Growth Factor-A Phosphorylates Murine Double Minute-2 on its Serine 166 via the Extracellular Signal-Regulated Kinase 1/2 and p90 Ribosomal S6 Kinase in Primary Human Endothelial Cells. Biochem. Biophys. Res. Commun. 478: 1548-1554, 2016.

Ceddia, Rolando B.

Sepa-Kishi DM, Wu MV, Uthayakumar A, Mohasses A, Ceddia RB. Anti-lipolytic and anti-lipogenic effects of the CPT-1b inhibitor oxfenicine in the white adipose tissue of rats. Am J Physiol Regul Integr Comp Physiol. 2016 Aug 24:ajpregu.00243.2016.

Connor, Michael K.

Theriau, C.F. and M.K. Connor. Voluntary Physical Activity Counteracts the Proliferative Tumor Growth Microenvironment Created by Adipose Tissue via High Fat Diet Feeding in Female Rats. In press, *Physiol. Rep.* May, *2017.*

Theriau, C.F., Shpilberg, Y. Riddell1, M.K. and M.K. Connor. Voluntary Physical Activity Abolishes the Proliferative Tumor Growth Microenvironment Created by Adipose Tissue in Animals Fed a High Fat Diet. *J. Appl. Physiol.* 121, 139-153, 2016.

Drake, Janessa D.M.

Nairn, B.C., Sutherland, C.A., Drake, J.D.M. Motion and muscle activity are affected by instability location during a squat exercise. *Journal of Strength and Conditioning*, 31(3): 677-685, 2017.

Siu, A., Schinkel-Ivy, A., Drake, J.D.M. Arm position influences the activation patterns of trunk muscles during trunk range-of-motion movements. *Human Movement Science*, 49(Oct): 267-276, 2016.

Martins, O., Schinkel-Ivy, A., Cotter, B.D., Drake, J.D.M. Immediate and long-term effects of a neuromuscular training insole on spatiotemporal gait parameters. *Footwear Science*, 8(3): 147-154, 2016.

Schinkel-Ivy, A., Drake, J.D.M. Breast size impacts spine motion and postural muscle activation. *Journal of Back and Musculoskeletal Rehabilitation*, 29(4): 741-748, 2016.

Ang, C., Nairn, B.C., Schinkel-Ivy, A., Drake, J.D.M. Seated maximum flexion: An alternative to standing maximum flexion for determining presence of flexion-relaxation? *Journal of Back and Musculoskeletal Rehabilitation*, 29(2): 249-258, 2016.

Edgell, Heather

Stickland MK, Fuhr DP, Edgell H, Byers BW, Bhutani M, Wong EYL, and Steinback CD (2016) Chemosensitivity, cardiovascular risk, and the ventilatory response to exercise in Chronic Obstructive Pulmonary Disease. PLoS One 11(6): e0158341

Edgell H, Moore LM, Chung C, Byers BW, and Stickland MK (2016) Short-term cardiovascular and autonomic effects of inhaled salbutamol. Respir Physiol Neurobiol 231: 14-20.

Gage, William H.

Verniba D, Vescovi JD, Hood DA, Gage WH. The analysis of knee joint loading during drop landing from different heights and under different instruction sets in healthy males. Sports Med Open. 2017 Dec;3(1):6.

Kiriella JB, Perry CJ, Hawkins KM, Shanahan CJ, Gage WH, Moore AE. Sagittal plane lumbar loading when navigating an obstacle and carrying a load. Ergonomics. 2016 Nov;59(11):1505-1513.

Haas, Tara L.

E.R Mandel, E.C. Dunford, G. Abdifarkosh, P. C. Turnbull, C.G.R. Perry, M.C. Riddell and T.L. Haas. The superoxide dismutase mimetic tempol does not alleviate glucocorticoid-mediated rarefaction of rat skeletal muscle capillaries. Physiol Rep, accepted March 2017

E.C. Dunford, E. Leclair, J. Aiken, E.R. Mandel, T.L. Haas, O. Birot, and M.C. Riddell. The effects of voluntary exercise and prazosin on capillary rarefaction and metabolism in streptozotocin-induced diabetic male rats. J Appl Physiol (1985). 2017 Mar 1;122(3):492-502.

E.C. Dunford, E.R Mandel, S. Mohajeri, T.L. Haas and M.C. Riddell. The metabolic effects of prazosin on insulin resistance in glucocorticoid-treated rats. Am J Physiol Regul Integr Comp Physiol. 2017 Jan 1;312(1):R62-R73.

E.R Mandel, E.C. Dunford, A. Trifonova, G. Abdifarkosh, T. Teich, M.C. Riddell and T.L. Haas. Prazosin Can Prevent Glucocorticoid-mediated Capillary Rarefaction. PLOS One 2016 Nov 18;11(11):e0166899.

E.R. Mandel, C. Uchida, E. Nwadozi, A. Makki and T.L. Haas. TIMP1 regulates vascular remodeling in response to altered blood flow. J Cell Physiol. 2017 Apr;232(4):831-841.

E. Nwadozi, E. Roudier, E. Rullman, S. Tharmalingam, H. Liu, T. Gustafsson, T.L. Haas. Endothelial FoxO proteins impair insulin sensitivity and restrain muscle angiogenesis in response to high fat diet. . FASEB J. 2016 Sep;30(9):3039-52.

Hamadeh, Mazen J.

Kolahdouzan M, Hamadeh MJ. The neuroprotective effects of caffeine in neurodegenerative diseases. CNS Neurosci Ther 2017;23:272-290. doi: 10.1111/cns.12684

Hood, David A.

Mesbah Moosavi Z.S. and D.A. Hood. The unfolded protein response in relation to mitochondrial biogenesis in skeletal muscle cells. Am. J. Physiol. Cell Physiol. 2017 (in press).

Verniba, D., J.D. Vescovi, D.A. Hood and W.H. Gage. The analysis of knee joint loading during drop landing from different heights and under different instruction sets in healthy males. Sports Med Open. 3:6, 2017.

Hood, D.A., A.N. Belcastro and L.D. Tryon. Muscle health, exercise and disease. J. Muscle Health. 1: 1001-1002, 2016.

Hornberger T.A., H.N. Carter, D.A. Hood, V.C. Figueiredo, E.E. Dupont-Versteegden, C.A. Peterson, J.J. McCarthy, D.M. Camera, J.A. Hawley, T. Chaillou, A.J. Cheng, G.A. Nader, R.C. Wust, R.H. Houtkooper. Commentaries on Viewpoint: The rigorous study of exercise adaptations: Why mRNA might not be enough. J. Appl. Physiol. 121:597-600, 2016.

Crilly, M.J., L.D. Tryon, A.T. Erlich and D.A. Hood. The role of Nrf2 in skeletal muscle contractile and mitochondrial function. J. Appl. Physiol. 121(3):730-40, 2016.

Hood, D.A., L.D. Tryon, H.N. Carter, Y. Kim and C.C.W. Chen. Unraveling the mechanisms regulating muscle mitochondrial biogenesis. Biochem. J. 473(15):2295-314, 2016.

Klionsky,D.J. et al. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy 12:1-222, 2016.

Erlich, A.T., L.D. Tryon, M.J. Crilly, J. M. Memme, Z. S. Mesbah Moosavi, A.N. Oliveira, K. Beyfuss and D.A. Hood. Function of specialized regulatory proteins and signaling pathways in exercise-induced muscle mitochondrial biogenesis. Integr. Med. Res. 5(3):187-197, 2016.

Memme, J., A. Oliveira and D.A. Hood. The chronology of UPR activation in skeletal muscle adaptations to chronic contractile activity. Am. J. Physiol. Cell Physiol. 310: C1024-C1036, 2016.

Hynes, Loriann.

Miller MB, Macpherson AK, Hynes LM. Athletic Therapy Students' Perceptions of High Fidelity Manikin Simulation: A Pilot Study. Athletic Training Education Journal, *Submitted: Under Review*

Kuk, Jennifer L.

Raiber L, Christensen R, Jamnik VK, Kuk JL: Do Moderate to Vigorous Intensity Accelerometer Count Thresholds Correspond to Relative Moderate to Vigorous Intensity Physical Activity? (Submitted to APNM)

Do K, Wharton S, Ardern CI, Brown RE, Kuk JL: Does fit fat paradox also apply to those with higher levels of obesity? (Submitted to Clinical Obesity).

Brown RE, Canning KL, Fung MDT, Jiandani D, Kuk JL: Waist Circumference Landmarking and Associated Metabolic Health Risk (Submitted to Clinical Obesity)

Randhawa AK, Parikh JS, Kuk JL: Trends in Medication Use by Body Mass Index and Age between 1988 and 2012 in the United States (Submitted to AJE)

Ball GDC, Spence N, Browne NE, O'Connor K, Srikameswaran S, Zelichowska J, Ho J, Gokiert R, Mâsse LC, Carson V, Morrison KM, Kuk JL, Holt NL, Kebbe M, Gehring ND, Cesar M, Virtanen H, Geller J. The Readiness and Motivation Interview for Families (RMI-Family) Managing Pediatric Obesity: Study Protocol. (BMC Health Services Research - In Press).

Kanagasabai T, Dhanoa R, Kuk JL and Ardern CI. Association between Sleep Habits and Metabolically Healthy Obesity in Adults: A Cross-sectional Study (J Obesity – In Press)
Lee S, Kuk JL, Boesch C, Arslanian S: Waist circumference is associated with liver fat in black and white adolescents (APNM – In Press).

Lee S, Kuk JL: Visceral fat is associated with the racial differences in non-alcoholic fatty liver disease between black and white adolescent boys with obesity (Pediatric Diabetes – In Press).
Christensen R, Raiber L, Wharton S, Kuk JL: The associations of resting metabolic rate with chronic conditions and weight loss (Clinical Obesity – 2017 Apr;7(2):70-76. doi: 10.1111/cob.12178. Epub 2017 Feb 7).

Christensen R, Raiber L, MacPherson A, Kuk JL: The association between obesity and sinus infection in adults: A cross-sectional study. (Clinical Obesity – In Press)

Raiber L, Christensen R, Jamnik VK, Kuk JL: Accelerometer Thresholds: Accounting for Body Mass Reduces Discrepancies between Measures of Physical Activity for Individuals with Overweight and Obesity. (APNM – In Press)

Fung MDT, Wharton S, MacPherson A, Kuk JL: Receptivity to Bariatric Surgery in Qualified Patients (J Obesity – 2016;2016:5372190. doi: 10.1155/2016/5372190. Epub 2016 Jul 19).
Kuk JL and Wharton S: Differences in Weight Change Trajectory Patterns in a Publicly Funded Adult Weight Management Center (Obesity Science & Practice – – *2(2): 215-223, 2016*). doi: 10.1002/osp4.35.

Lee J, Kuk JL, Ardern CI: The relationship between changes in sitting time and mortality in post-menopausal US women. (J Public Health (Oxf). 38(2):270-8, Jun 2016. doi: 10.1093/pubmed/fdv055. Epub May 1, 2015).

Kuk JL, Brown RE: Aspartame intake is associated with greater glucose tolerance in individuals with obesity (APNM – May 24: 1-4, 2016).

McDermott, John C.

Tobin, SW., Yang,D., Girgis, J., Farahzad, A., Blais, A. and McDermott JC. Regulation of Hspb7 by MEF2 and AP-1: implications for Hspb7 in muscle atrophy. **J Cell Sci**. 2016 Nov 1;129(21):4076-4090.

Pagiatakis C, Sun D, Tobin SW, Miyake T, McDermott JC. TGFβ-TAZ/SRF signalling regulates vascular smooth muscle cell differentiation. **FEBS J.** 2017 Mar 25. doi: 10.1111/febs.

Perry, Christopher G. R.

Perry CGR and Hawley JA. Molecular Basis of Exercise-Induced Skeletal Muscle Mitochondrial Biogenesis: Historical Advances, Current Knowledge, and Future Challenges. Invited review in 'The Biology of Exercise', Cold Harbor Springs Perspectives in Medicine. *(Accepted April 2017).*

Mandel ER, Dunford EC, Abdifarkosh G, Turnbull PC, Perry CGR, Riddell MC, Haas TL. The s uperoxide dismutase mimetic Tempol does not alleviate glucocorticoid-mediated rarefaction of r at skeletal muscle capillaries. Physiological Reports. *Accepted March 16, 2017.* ID: PHY2-2017-02-0072.R1.

Perry CGR. Mitochondrial adaptations to exercise in human skeletal muscle: a possible role for c ristae density as a determinant of muscle fitness. *Accepted in J Physiol. (Jan 2017, Invited Perspecctives)*

Bhattacharya D, Ydfors M, Hughes MC, Norrbom J, Perry CGR, Scimè A. Decreased transcripti onal co-repressor p107 is associated with exercise-induced mitochondrial biogenesis in human sk eletal muscle. *Accepted in Physiological Reports (Jan. 13, 2017).*

Porras DP, Abbaszadeh M, Bhattacharya D, D'Sousa NC, Edjiu N, Perry CGR, Scimè A. p107 d etermines a metabolic checkpoint required for adipocyte lineage fates. *Accepted in Stem Cells (J an. 8, 2017)*

Smith BK, Ford RJ, Desjardins EM, Green AE, Hughes MC, Houde VP, Day EA, Marcinko K, Crane JD, Motillo EP, Perry CGR, Kemp BE, Tarnopolsky MA, Steinberg GR. Salsalate (salicyl ate) uncouples mitochondria, improves glucose homeostasis, and reduces liver lipids independent of AMPK β1. Diabetes. Nov: 65(11): 3352-3361, 2016.

MacPherson RE, Dragos SM, Ramos S, Sutton C, Frendo-Cumbo S, Castellani L, Watt MJ, Perry CGR, Mutch DM, Wright DC. Reduced ATGL-mediated lipolysis attenuates beta adrenergic induced AMPK signaling but not the induction of PKA targeted genes in adipocytes and adipose. Am J Physiol Cell Physiol. Aug 1: 311(2): C269-76, 2016.

Edgett BA, Hughes MC, Matusiak JBL, Perry CGR, Simpson CA, Gurd BJ. SIRT3 gene expression but not subcellular localization is altered in response to fasting and exercise in human skeletal muscle. Exp Physiol. Aug 1: 101(8): 1101-13, 2016.

Perry CGR, Wright DC. 2016. Challenging dogma: Is hepatic lipid accumulation in Type 2 Diabetes due to mitochondrial dysfunction? J Physiol. Aug 1: 594(15): 4093-4094, 2016. (Invited Perspectives)

Edgett BA, Scribbans TD, Raleigh JP, Matusiak JBL, Boonstra K, Simpson CA, Perry CGR, Quadrilatero J, Gurd BJ. The impact of a 48-hour fast on SIRT1 and GCN5 in human skeletal muscle. Appl Physiol Nutr Metab. Sept: 41(9): 953-62, 2016.

Ydfors M, Hughes MC, Laham R, Schlattner U, Norrbom J, Perry CGR. Modeling in vivo creatine/phosphocreatine in vitro reveal divergent adaptations in human muscle mitochondrial respiratory control by ADP post-exercise. J Physiol. Jun 1: 594(11): 3127-40, 2016. ⁎These authors contributed equally to this investigation.

Riddell, Michael C.

Pasieka, A.M., and Riddell, M.C. (2017, in press). Advances in Exercise, Physical Activity and Diabetes Mellitus. In M. Phillip and T. Battelino (Ed.), *Advanced Technology and Treatments in Diabetes 2016 Yearbook*. New Rochelle, NY: Mary Ann Liebert Inc.

Riddell, M.C., and Taplin, C.E. (2017, in press). Exercise in children with type 1 diabetes. In A.E. Scaramuzza, C. de Beaufort, R. Hanas (Eds.), Research into Childhood-Onset Type 1 Diabetes: *From Study Design to Improved Management.* (pp 77-89). New York. NY: Springer. ISBN 978-3-319-40242-0.

Thanh Q. Dang, Nanyoung Yoon, Helen Chasiotis, Emily C. Dunford, Qilong Feng, Pingnian He, Michael C. Riddell, Scott P. Kelly and Gary Sweeney. Transendothelial movement of Adiponectin is restricted by glucocorticoids. Journal of Endocrinology (JOE-16-0363R1, submitted Nov 2016).

Katherina C. Chojnacki, Thirumagal Kanagasabai, Michael C. Riddell and Chris I. Ardern. Associations between Sleep Habits, A1c, and Diabetes Risk and Dysglycemia in U.S. Adults: A

Cross-sectional Analysis of the US NHANES Database, 2005-08. Canadian Journal of Diabetes (submitted).

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Appendix 5: Additional Specialized Equipment

Edgell, Heather

- Endo-PAT2000 for endothelial function testing (*note – this is located at Southlake Regional Health Centre and is not available for MHRC members)
- Vivid i ultrasound system
- Bilateral transcranial Doppler
- BMEYE Nexfin beat-to-beat blood pressure system