- CURRICULUM VITAE -

NAME: Rolando Bacis Ceddia – B.Sc., M.Sc., Ph.D.

CITZENSHIP: CANADIAN

ACADEMIC QUALIFICATIONS

Education:

2002 – 2004 Department of Biology York University – Toronto, ON - Canada
Postdoctoral Fellowship

1996 – 2000 University of São Paulo (USP) – Department of Physiology and Biophysics – Institute of Biomedical Sciences – São Paulo, Brazil & Department of Medical Biochemistry**,** University of Geneva (UNIGE), Switzerland.
Ph.D. degree in Human Physiology

1991 – 1993 School of Physical Education and Sports – Federal University of Rio de Janeiro – Brazil
Master degree in Exercise Physiology

1986 – 1987 Council of International Programs (CIP) – Ohio State University Columbus, Ohio – USA
Specialization in Exercise Physiology

1982 – 1985 School of Physical Education and Sports – Federal University of Rio de Janeiro – Brazil
Undergraduate degree in Exercise Physiology

HONOURS, AWARDS, AND FELLOWSHIPS

2008 – 2013 ***New Investigator Award –*** Canadian Institute of Health Research (CIHR)

2004 – 2007 ***Postdoctoral Fellowship*** – Canadian Institute of Health Research/Heart and Stroke Foundation (CIHR/HSFC) - Declined

2002 – 2004 ***Postdoctoral Fellowship*** – Canadian Diabetes Association (CDA).

2001 ***Young Investigator Award for Basic Research in Exercise Science***
18th Brazilian National Conference in Exercise Science

1998 ***Young Investigator Award*** – Basic Research
23rd Brazilian Congress on Endocrinology and Metabolism.

1998 ***Oswaldo Cruz Award in Basic Research*** – Faculty of Medicine – University of São Paulo.

1998 – 1999 ***Boursier d'Exellence***
Faculty of Medicine – University of Geneva.

1996 – 2000 ***Doctoral Fellowship***
Brazilian Federal Research Institute.

1990 – 1993 ***Research Fellowship*** – Graduate School (Master Degree)
Brazilian Federal Research Institute.

1986 – 1987 ***CaIP International Exchange Award***
Columbus area International Program – Columbus, Ohio, USA.

EMPLOYMENT

2008 to date Associate Professor – Nutrition and Metabolism – School of Kinesiology and Health Science – York University – Toronto – ON, Canada.

2004 – 2008 Assistant Professor – Nutrition and Metabolism – School of Kinesiology and Health Science – York University – Toronto – ON, Canada.

2002 – 2004 Postdoctoral Research Fellowship – Department of Biology
York University – Toronto – ON, Canada.

2000 – 2002 Associate Professor – Department of Physical Education,
Fluminense Federal University – Niteroi – RJ, Brazil.

1994 – 2000 Assistant Professor – Exercise Physiology – Department of Physical Education
Fluminense Federal University – Niteroi – RJ, Brazil.

1991 – 1993 Lecturer in Physiology – Exercise Physiology – Department of Physical Education – Fluminense Federal University – Niteroi – RJ, Brazil.

1988 – 1990 Coordinator of the Exercise Program for Type I diabetics – Federal University of Rio de Janeiro and Bonsucesso Hospital, Rio de Janeiro – Brazil.

1988 – 1989 Lecturer in Exercise Physiology – School of Physical Education – Rio de Janeiro State University, Rio de Janeiro, Brazil.

1986 – 1987 Exercise Physiologist – J. Leonard Camera Center Industrial Rehabilitation Center – Columbus, Ohio – USA.

TEACHING RESPONSABILITIES AT YORK UNIVERSITY

- School of Kinesiology and Health Science
  Title: KAHS 6340 – *Physiological, molecular, and nutritional aspects of obesity* (*Graduate Level)*
- School of Kinesiology and Health Science
  Title: Kine 4020 – *Human Nutrition* (Undergr*aduate Level)*
- School of Kinesiology and Health Science
  Title: Kine 4900 – *Exercise therapy for chronic diseases* (Undergr*aduate Level)*
- School of Kinesiology and Health Science
  Title: Kine 2031 **–** *Human Anatomy* (Undergr*aduate Level)*

OTHER TEACHING RESPONSABILITIES

- Visiting Professor June 24th to July 30th 2008 – Department of Physiology and Biophysics – University of Sao Paulo, Brazil. Kinesiology and Health Science
  Title: *Regulation of Cellular Metabolism* (*Graduate Level)*

FACULTY COMMITTEES AT YORK UNIVERSITY

- Kinesiology and Health Science Student Organization (KAHSO) Faculty representative – from July 2004 to July 2005 – School of Kinesiology and Health Science. Role: *Committee member*.
- NSERC Graduate Scholarship Ranking Committee, 2004 – School of Kinesiology and Health Science. Role: *Committee member*.
- SSHRC Masters Scholarship Ranking Committee, 2004 – School of Kinesiology and Health Science. Role: *Committee member*.
- Canada Graduate Scholarship Ranking Committee, 2004 – School of Kinesiology and Health Science. Role: *Committee member*.
- Tenure and Promotion Adjudicating Committee, 2004 – School of Kinesiology and Health Science (Michael C. Riddell). Role: *Committee member*.
- CIHR Ranking Committee, 2005 – School of Kinesiology and Health Science. Role: *Committee member*.
- Fitness/Cardiorespiratory Exercise Physiology or Human Nutrition Search Committee, January 2005 – School of Kinesiology and Health Science. Role: *Committee member*.
- York University Animal Care Committee – Since August 2005. Role: *Committee member*.
- Committee of Undergraduate Studies (CUS) Committee from September 2005 to December 2005 – School of Kinesiology and Health Science. Role: *Committee member*.

- Graduate Executive Committee – From July 2005 to February 2006 – School of Kinesiology and Health Science. Role: *Committee member*.
- OGS Ranking Committee – November 2005 – School of Kinesiology and Health Science. Role: *Committee member*.
- NSERC Ranking Committee – 2005 – School of Kinesiology and Health Science.
- Human Nutrition/Metabolism Search Committee – January 2006 – School of Kinesiology and Health Science. Role: *Committee member*.
- Nutrition and Health Search Committee – January 2007 – School of Kinesiology and Health Science. Role: *Committee member*.
- Heart & Stroke Scholarship Ranking Committee – 2007 – School of Kinesiology and Health Science. Role: *Committee member*.
- Tenure and Promotion File Preparation Committee – May 2007 (Hernan Humana). Role: *Committee member (Candidate's Choice)*.
- Tenure and Promotion Adjudicating Committee – October 2007 (Michael K. Connor). Role: *Chair.*
- Kinesiology and Health Science Tenure and Promotion Core Committee – Since March 2008. Role: *Committee member*.
- York University Animal Care Committee – Since July 2005. Role: *Committee member*.
- York University Health and Safety Committee – Since January 2008. Role: *Committee member*.
- Radiation Safety Committee – Since June 2008. Role: *Committee member*.

GRADUATE STUDENT EXAMINATION COMMITTEES

- **Forough Mohammadzadeh –** Master's Thesis Defense Committee (*Outside examiner*). Title: Mechanical strain stimulates JNK-mediated expression of matrix metalloproteinase-2 in endothelium **-** Biology Department, January 2005.
- **Rikeshi Gandhi** – Master's Thesis Defense Committee (*Outside examiner*) – Pokeweed antiviral protein inhibits Brome Mosaic Virus RNA3 accumulation and translation in vivo – Biology Department, August 2005.
- **Elgene Bautista Chan** – Master's Thesis Defense Committee (*Dean's representative*) – The effect of travel across time zones on team performance in the National Hockey League - School of Kinesiology and Health Science, September 2005.
- **Sergiu Fediuc** – Supervisory Committee (*Second reader*). Research Proposal: Effects of voluntary wheel running on diurnal adrenal function and hypothalamic pituitary adrenal axis responsiveness to, and recovery from restraint stress in male Sprague-Dawley rats – School of Kinesiology and Health Science, July 2005.
- **Sergiu Fediuc** – Master's Thesis Defense Committee (*Chair*) – Effects of voluntary wheel running on diurnal adrenal function and hypothalamic pituitary adrenal axis responsiveness to, and recovery from restraint stress in male Sprague-Dawley rats – School of Kinesiology and Health Science, October 2005.
- **Michaela Marback –** Master's Thesis Defense Committee (*Outside examiner*) – Title: Post-translational regulation of Mad-Box Proteins – Biology Department, October 2005.
- **Svetlana Knorr** – Supervisory Committee (*Second Reader*) – Research Proposal: Time course of central inhibition transferability in the lower limb – School of Kinesiology and Health Science – November 2005.

- **Cassandra Kelland** – Supervisory Committee (*Second Reader*) – Research Proposal: The regulation of Ets-1 in response to shear stress – School of Kinesiology and Health Science, November 2005.
- **Cassandra Kelland** – Master's Thesis Defense Committee (*Chair*) – Title: The regulation of Ets-1 in response to shear stress and nitric oxide – School of Kinesiology and Health Science, September 21st, 2006.
- **Nasimeh Rakhshani –** Supervisory committee (*Second Reader*). Research proposal: Effects of voluntary exercise training on the acute stress response and pituitary and adrenal sensitivity in male Sprague-Daley rats – School of Kinesiology and Health Science, November 2005.
- **Nasimeh Rakhshani –** Master's Thesis Defense Committee (*Chair*). Title: Effects of short- and long-term voluntary exercise training on diurnal rhythm, the acute stress response and pituitary and adrenal sensitivity in male Sprague-Daley rats – School of Kinesiology and Health Science, August 28th 2006.
- **Vladmir Luibcic –** Ph.D. Comprehensive Examination Committee Member. Research Proposal: Acute and chronic contractile activity-induced adaptations in muscle and mitochondrial function – School of Kinesiology and Health Science, January, 2006.
- **Don Walkinshaw** – Supervisory Committee (*Second Reader*). Research proposal: Non-genomic effects of T3 on skeletal muscle – School of Kinesiology and Health Science, November, 2005.
- **Keir J**. **Meinzies** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Effect of thyroid hormone on mitochondrial properties and oxidative stress in cells from patients with mtDNA defects – Biology Department, June 2006.
- **Christine A. Danner** – Supervisory Committee (*Second Reader*). School of Kinesiology and Health Science – April 2006.
- **Eric Gee** – Master's to Ph.D. Transfer Committee – School of Kinesiology and Health Science, August 30th, 2006.
- **Svetlana Knorr** – Master's Thesis Defense Committee (*Chair*). Title: Time course of central inhibition transferability in the lower limb – School of Kinesiology and Health Science, September 2006.
- **Karin Elizabeth Shortreed** – Master's Thesis Defense Committee (*Dean's Representative*). Title: The function of Rad in the regulation of skeletal muscle myoblasts – School of Kinesiology and Health Science, October 2nd, 2006.
- **Eric Clelland** – Ph.D. Thesis Defense Committee (*Outside Examiner*). Title: Investigation of Bone Morphogenic Protein 15 (BMP-15) in Zebrafish (Danio rerio): Its role in Ovarian Follicle Development and Oocyte Maturation – Biology Department, May 23rd, 2007.
- **Christine A. Danner** – Master's Thesis Defense Committee (*Chair*). Title: Behavioural patterns in the overweight familial environment: Resistance to change. School of Kinesiology and Health Science – October 19th, 2007.
- **Eric Gee –** Ph.D. Comprehensive Examination Committee Member. Title: Shear stress mediated angiogenesis is regulated by p38 phosphorylation and downstream transcription factors. School of Kinesiology and Health Science – November 23rd, 2007.
- **Sergiu Fediuc** – Ph.D. Comprehensive Examination Committee Member *(Supervisor)*. Title: Effects of nutrient and pharmacological activation of AMPK on substrate metabolism in skeletal muscle. December 12th, 2007.

- **Fariba Nekooei-Dastjerdi** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Characterization of nucleoside transport in human skeletal muscle – Biology Department – February 11th, 2008.
- **Mahira Manzoor** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Effects of depurination on Brome Mosaic virus RNA3 – Biology Department – August 11th, 2008.
- **Sara Samuel** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Role of Glycogen synthase kinase 3 beta in myocardial ischemic preconditioning – Biology Department – December 18th, 2008.
- **Sergiu Fediuc** – Ph.D. Thesis Defense Committee (*Supervisor*). Title: Skeletal muscle and whole-body regulation of substrate partitioning by nutritional and pharmacological AMPK activation – School of Kinesiology and Health Science, February 24th, 2009.
- **German Reyes** – Ph.D. Thesis Defense Committee (*Outside Examiner*). Title: Structural and regulatory characterization of the Mammalian Nucleoside Transporter One (ENT1) – Biology Department, April 6th, 2009.
- **Vladmir Ljubicic** – PhD. Thesis Defense Committee. Title: Acute and Chronic Contractile Activity-Induced Adaptations in Muscle and Mitochondrial Function – School of Kinesiology and Health Science, May 15th, 2009.
- **Michael O'Leary –** Ph.D. Comprehensive Examination Committee Member. Research Proposal: Mitochondrially-mediated apoptosis and autophagy in response to alterations in skeletal muscle activity – School of Kinesiology and Health Science, May 21st, 2009.
- **Mandy So –** Master's Thesis Defense Committee (*Supervisor*). Title: The effects of adipokines derived from subcutaneous versus visceral rat adipocytes on glucose uptake in skeletal muscle cells – School of Kinesiology and Health Science – June 30th, 2009.
- **Nicole M. Anthony** – Master's Thesis Defense Committee (*Supervisor*). Title: The molecular regulation of visceral and subcutaneous adipose tissue lipolysis by AMP-activated protein kinase – School of Kinesiology and Health Science – July 24th, 2009.
- **Nathaniel B. Nowacki** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Regulation of myocyte enhancer factor 2 (MEF2) by glycogen synthase kinase 3β (GSK3β) – Biology Department, July 29th, 2009.
- **Mahsa Marvi** – Master's Thesis Defense Committee (*Outside Examiner*). Title: Examination of human equilibrative and concentrative nucleoside transporter gene expression in cardiovascular tissue – Biology Department, Oct 27th, 2009.

UNDERGRADUATE STUDENT EXAMINATION COMMITTEES

- **Sarah Habib** – Honour's Thesis Defense Committee (Supervisor). Title: Impairment of lipid metabolism by chronic exposure to long-chain fatty acids in skeletal muscle cells – Biology Department – August 17th, 2007.
- **Anna Kop** – Honour's Thesis Defense Committee (Advisor). Title: The effects of ischemic preconditioning on mouse hearts – Chemistry Department – April 28th, 2008.
- **Gundeep Bedi** – Honour's Thesis Defense Committee (Advisor). Title: Molecular evidences for a potential role for the AMP activated Protein Kinase (AMPK) in the regulation of energy balance in fish – Biology Department – August 7th, 2008.

FUNDING

INTERNAL

- ***York University -*** *Start-up Fund – $100,000.00 (One-time only – July 2004)*
- *CIHR-Bridge funding - $10,000.00 (One-time only – April 2007)*

EXTERNAL

PEER-REVIEWED GRANTS AWARDED:

- **Principal Investigator – Sole applicant 2006** – *Discovery Grant* – **Natural Science and Engineering Research Council (NSERC)**

Project Title: Energy sensing and metabolic partitioning in white adipose tissue
Funding period: 5 years **Amount awarded**: $151,800.00

- **Principal Investigator – Sole applicant 2006** – *Leaders Opportunity Fund* – **Canada Foundation for Innovation (CFI) and Ontario Research Fund – Research Infrastructure (ORF-RI)**

Project Title: Laboratory for the study of energy balance and metabolic partitioning
Amount awarded: $579,376.00

- **Principal Investigator – Sole applicant 2007** – *Operating Grant* – **Canadian Diabetes Association (CDA)**

Project Title: Regulation of AMP-activated protein kinase phosphorylation/activity and β-oxidation by long-chain fatty acids in skeletal muscle
Funding period: 1 year (2007/2008) **Amount awarded**: $61,912.00

- **Principal Investigator – Sole applicant 2007** – *Operating Grant* – **Canadian Institute of Health Research (CIHR)**

Project Title: "Regulation of white adipose tissue metabolism by AMPK"
Funding period: 1 year (2007/2008) **Amount awarded**: $100,000.00

- **Principal Investigator – Sole applicant 2008** – *Operating Grant* – **Canadian Institute of Health Research (CIHR)**

Project Title: "Regulation of white adipose tissue metabolism by AMPK"
Funding period: 3 years (2008/2010) **Amount awarded**: $340,602.00

- **Principal Investigator – Sole applicant 2008** – *New Investigator Award* – **Canadian Institute of Health Research (CIHR)**

Project Title: "Regulation of white adipose tissue metabolism by AMPK"
Funding period: 5 years (2008/2010) **Amount awarded**: $250,000.00

- **Principal Investigator – Sole applicant 2008** – *Early Researcher Award (ERA)* – **Ontario Ministry of Research and Innovation**

Project Title: Regulation of metabolic partitioning and whole-body energy homeostasis by AMPK activation in white adipose tissue and skeletal muscle
Amount awarded: $150,000.00

Total external funding = $1,633,690.00

STUDENT SUPERVISION

Graduate:

Current

- *Student:* Mandeep P. Gaidhu, ***Supervisor*** (Ph.D. student from September 2007 to date) – School of Kinesiology and Health Science – York University.
  Project title: The role of AMPK in energy sensing and metabolic partitioning in white adipose tissue.
- *Student:* Heather Reilly – ***Supervisor*** (M.Sc. student from September 2009 to date) – School of Kinesiology and Health Science – York University.
  Project title: The effects of chronic endurance training on lipolysis and resting metabolic rate in rats.
- *Student:* Sanaz Anthony – ***Supervisor*** (M.Sc. student from September 2007 to date) – School of Kinesiology and Health Science – York University.
  Project title: Complete and incomplete skeletal muscle lipid oxidation in diet-induced obesity.

Past

Students graduated through the Graduate Program at York University:

- *Student:* Nicole Anthony – ***Supervisor*** (M.Sc. student from September 2007 to date) – School of Kinesiology and Health Science – York University.
  Project title: Comparative analysis of the metabolic responses of visceral and subcutaneous fat depots to pharmacological activation of AMPK.
- *Student:* Mandy So – ***Supervisor*** (M.Sc. student from September 2007 to date) – School of Kinesiology and Health Science – York University.
  Project title: Secretory profile of subcutaneous and visceral fat depots and the implications for the regulation of glucose and fatty acid metabolism in skeletal muscle cells.
- *Student:* Segiu Fediuc, ***Supervisor*** (Successfully defended his PhD thesis March 24th, 2009). School of Kinesiology and Health Science – York University. Thesis Title: Skeletal muscle and whole-body regulation of substrate partitioning by nutritional and pharmacological AMPK activation. The dissertation was recommended for a prize from York University Faculty of Graduate Studies in recognition of the outstanding work presented.
- *Student:* Mandeep P. Gaidhu, ***Supervisor*** (Successfully defended her Master's thesis May 30th, 2007). School of Kinesiology and Health Science – York University. Thesis Title: The regulation of glucose and lipid metabolism by AMP-activated protein kinase in isolated rat adipocytes. The student received a thesis prize from the Faculty of Graduate Studies (FGS, York University) in recognition of the outstanding work presented.

Undergraduate:

Current

- *Student:* Fawad Nor – ***Supervisor*** (Honour's student, September 2009 to date) – Biology Department – York University.
  Project title: Regulation of glycogen metabolism in skeletal muscle: the effects of diet-induced obesity.
- *Student:* Prital – ***Supervisor*** (Honour's student, September 2009 to date) – Biology Department – York University.
  Project title: Effects of visceral and subcutaneous adipokines on skeletal muscle glucose uptake.
- *Student:* Steven Hung – ***Supervisor*** (Honour's student, September 2009 to date) – Biology Department – York University.
  Project title: Effects of chronic endurance training on energy balance and metabolic partitioning.

Past

- *Student:* Baback Maghdoori – ***Supervisor*** (Independent study student, May 2008 to date) – School of Kinesiology and Health Science – York University.
  Project title: Regulation of AMPK activity by long-chain fatty acids in skeletal muscle cells.
- *Student:* Mani Mirpourian – ***Supervisor*** (Independent Study, September 2007 to August 2008) – School of Kinesiology and Health Science – York University.
  Project title: Regulation of gene expression in white adipose tissue by AMPK.
- *Student:* Baback Maghdoori – ***Supervisor*** (Summer NSERC Student, May 2007 to July 2007) – School of Kinesiology and Health Science – York University.
  Project title: Regulation of AMPK activity by long-chain fatty acids in skeletal muscle cells
- *Student:* Peter Berdenits – ***Supervisor*** (Independent Study, May 2007 to July 2007) – School of Kinesiology and Health Science – York University.
  Project title: Regulation of ATP-citrate lyase (ACL) activity in muscle cells and isolated adipocytes.
- *Student:* Nicole M. Anthony – ***Supervisor*** (Independent Study, September 2006 to April 2007) – School of Kinesiology and Health Science – York University.
  Project title: Comparative analysis of the metabolic responses of visceral and subcutaneous fat depots to pharmacological AMPK – (Project successfully completed April 3rd, 2007).
- *Student:* Sara Habib – ***Supervisor*** (Honors Thesis, September 2006 to April 2007) – Department of Biology – York University.
  Project title: Effects of long-term exposure to palmitate on AMPK activation and β-oxidation in skeletal muscle – (Project successfully completed April 13th, 2007).
- *Student*: Katarzyna Amerska, ***Supervisor*** (Summer Project) – School of Kinesiology and Health Science.
  Project title: The regulation of AMPK activity by fatty acids in rat skeletal muscle cells (2005).

- *Student*: Mira Schwartzburg, ***Supervisor*** (Summer Project) – School of Kinesiology and Health Science.
  Project title: Energy sensing and partitioning in rat white adipose tissue (2005).

Supervision of Post-Doctoral Fellows and Visiting Scholars

- ***Postdoctoral Fellow***: Renata L. Araujo, Ph.D. Project title: Regulation of Thyroid function by dietary manipulation and AMPK activation (From December 2008 to date).
- ***Postdoctoral Fellow***: Robert Perry, Ph.D. Project title: Molecular mechanisms underlying energy storage and dissipation in white adipose tissue (From December 2007 to date).
- ***Visiting Scholar***: Bruno M. Andrade, M.Sc. Project title: Regulation of iodide metabolism in the thyroid gland by AMPK (From December 2008 to date).
- ***Visiting Scholar***: Alvaro Souto Padron de Figueiredo, M.Sc. Project title: Regulation of deiodinases (D1 and D2) by high-fat diet- induced obesity. (From June 2006 to September 2009).
- ***Postdoctoral Fellow***: Aurelio da Silva Pimenta, Ph.D. Project title: Regulation of AMPK activity and β-oxidation by long-chain fatty acids in skeletal muscle. (From December 2006 to November 2007).

PUBLICATIONS AS AN INDEPENDENT INVESTIGATOR SINCE JULY 2004

In Peer–reviewed Journals:

11. Shortreed KE, Krause MP, Huang JH, Dhanani D, Moradi J, **Ceddia RB**, Hawke T. Muscle-specific adaptations, impaired oxidative capacity, and maintenance of contractile function characterize diet-induced obese mouse skeletal muscle. ***PLoS One.*** 2009 Oct 6;4(10):e7293.
10. Gaidhu MP & **Cedia RB**. Remodeling glucose and lipid metabolism through AMPK activation: relevance for treating obesity and Type 2 diabetes. ***Clin Lipidol.*** Jun;4(4):465-477, 2009.
9. Gaidhu MP, Fediuc S, Anthony NM, So M, Mirpourian M, **Ceddia RB.** Prolonged AICAR-induced AMP-Kinase activation promotes energy dissipation in white adipocytes: Novel mechanisms integrating HSL and ATGL. ***J Lipid Res.*** Apr;50(4):704-15, 2009.
8. Anthony NM, Gaidhu MP, **Ceddia RB.** Regulation of visceral and subcutaneous lipolysis by acute AICAR-induced AMPK activation. ***Obesity (Silver Spring).*** Jul;17(7):1312-7, 2009.
7. Pimenta AS, Gaidhu MP, Habib S, So M, Fediuc S, Mirpourian M, Musheev M, Curi R, **Ceddia RB**. Prolonged exposure to palmitate impairs fatty acid oxidation despite activation of AMP-activated protein kinase in skeletal muscle cells. ***J Cell Physiol.*** Nov;217(2): 478-85, 2008.
6. Bikopoulos G, da Silva Pimenta A, Lee SC, Lakey JR, Der SD, Chan CB, **Ceddia RB**, B Wheeler M, Rozakis-Adcock M. Ex vivo transcriptional profiling of human pancreatic islets following chronic exposure to monounsaturated fatty acids. ***J Endocrinol.*** Mar;196(3): 455-64, 2008.
5. Fediuc S, Pimenta AS, Gaidhu MP, **Ceddia RB.** AMP-activated protein kinase activation, inhibition of pyruvate dehydrogenase activity, and redistribution of substrate partitioning mediate the acute insulin-sensitizing effects of troglitazone in skeletal muscle cells. ***J Cell Physiol.*** May;215(2):392-400, 2008.

4. Gaidhu MP, Fediuc S, **Ceddia RB**. 5-Aminoimidazole-4-carboxamide-1-beta-D-ribo furanoside-induced AMP-activated protein kinase phosphorylation inhibits basal and insulin-stimulated glucose uptake, lipid synthesis, and fatty acid oxidation in isolated rat adipocytes. ***J Biol Chem.*** 8;281(36):25956-64, 2006.
3. Fediuc S, Gaidhu MP, **Ceddia RB**. Inhibition of insulin-stimulated glycogen synthesis by 5-aminoimidasole-4-carboxamide-1-beta-d-ribofuranoside-induced adenosine 5'-mono phosphate-activated protein kinase activation: interactions with Akt, glycogen synthase kinase 3-alpha/beta, and glycogen synthase in isolated rat soleus muscle. ***Endocrinology.*** 147(11):5170-7, 2006.
2. Fediuc S, Gaidhu MP, **Ceddia RB**. Regulation of AMP-activated protein kinase and acetyl-CoA carboxylase phosphorylation by palmitate in skeletal muscle cells. ***J Lipid Res.*** 47(2):412-20, 2006.
1. **Ceddia RB**. Direct metabolic regulation in skeletal muscle and fat tissue by leptin: implications for glucose and fatty acids homeostasis. ***Int J Obes.*** (Lond) 29(10):1175-83, 2005.

Submitted/*In Press*:

2. Gaidhu MP, Perry R.L.S, **Ceddia RB**. Disruption of AMPKα1 signaling prevents AICAR-induced inhibition of AS160/TBC1D4 phosphorylation and glucose uptake in primary rat adipocytes. ***Mol Endocrinol.*** (*Under Review*)
1. Gaidhu MP, Anthony NM, Perry R.L.S., **Ceddia RB**. Dysregulation of lipolysis in visceral and subcutaneous adipocytes by high-fat diet: The role of AMPK, ATGL, and HSL. ***J Biol Chem.*** (*Under review*).

Posters/Abstracts presented

12. Gaidhu MP, Fediuc S, Anthony NM, So M, Mirpourian M, **Ceddia RB**. Chronic Activation of AMP-activated Protein Kinase Impairs Glucose Uptake and Promotes Energy Dissipation in Rat White Adipose Tissue. 5th Asia-Oceania Conference on Obesity, Mumbai, India, Feb 5-8, 2008-2009. Oral presentation
11. Gaidhu MP, Anthony NM, So M, Fediuc S, **Ceddia RB**. Chronic Activation of AMP-activated Protein Kinase Impairs Glucose Uptake and Promotes Energy Dissipation in Rat White Adipose Tissue. 68th Scientific Sections of the American Diabetes Association. San Francisco, California, USA, June 6 – 10, 2008.
10. Anthony NM, Gaidhu MP, **Ceddia RB**. The anti-lipolytic effect of AICAR-induced AMPK activation is mediated via inhibition of Hormone Sensitive Lipase activity in isolated rat visceral and subcutaneous fat depots. 1st Canadian Obesity Meeting. Laval University, Laval, Quebec, Canada, June 4 – 6, 2008.
9. So M, Gaidhu MP, Fediuc S, Ceddia RB. In vitro secretory profile of subcutaneous and visceral rat adipose tissues and the effects on glucose uptake in skeletal muscle cells. 1st Canadian Obesity Meeting. Laval University, Laval, Quebec, Canada, June 4 – 6, 2008.
8. Anthony NM, Gaidhu MP, **Ceddia RB**. The anti-lipolytic effect of acute AICAR-induced AMPK activation in visceral and subcutaneous rat adipose tissue is independent of HSL phosphorylation on Serine 563 and 660 residues. Experimental Biology 2008 (Abstract # 6890), San Diego, California, April 5 – 9, 2008.

7. Fediuc S, Pimenta AS, Gaidhu MP, **Ceddia RB**. The acute insulin sensitizing effects of troglitazone in skeletal muscle cells are mediated by AMPK activation and inhibition of pyruvate dehydrogenase activity. Experimental Biology 2008 (Abstract # 4823), San Diego, California, April 5 – 9, 2008.
6. Gaidhu MP, Anthony NM, So M, Fediuc S, **Ceddia RB**. Chronic AICAR-induced AMPK activation exerts an anti-lipogenic effect in isolated adipocytes. Experimental Biology 2008 (Abstract # 4541), San Diego, California, April 5 – 9, 2008.
5. Pimenta AS, Gaidhu MP, Habib S, Fediuc S, So M, **Ceddia RB**. Chronic exposure to palmitate impairs fatty acid oxidation and insulin-stimulated glucose uptake despite activation of AMPK in skeletal muscle cells. Experimental Biology 2008 (Abstract # 4836), San Diego, California, April 5 – 9, 2008.
4. So M, Gaidhu MP, Fediuc S, **Ceddia RB**. In vitro secretory profile of subcutaneous and visceral adipose tissues and the effects on glucose uptake in skeletal muscle cells. Ontario Exercise Physiology Annual Meeting – Barrie, ON, Canada, January 25 – 27, 2008.
3. Habib S, Fediuc S, Gaidhu MP, **Ceddia RB**. Impairment of lipid metabolism by chronic exposure to long-chain fatty acids in skeletal muscle cells. Ontario Exercise Physiology Annual Meeting – Barrie, ON, Canada, January 26 – 28, 2007.
2. Fediuc S, Gaidhu MP, **Ceddia RB**. Effects of AICAR-induced AMPK activation on glycogen metabolism in slow and fast twitch skeletal muscle. *CDA/CSEM Professional Conference and Annual Meetings.* Toronto, ON, Canada, October 18 – 21, 2006.
1. Gaidhu MP, Fediuc S, **Ceddia RB**. AICAR-induced AMPK and ACC phosphorylation inhibits basal and insulin-stimulated lipid synthesis and fatty acid oxidation in isolated rat adipocytes. *CDA/CSEM Professional Conference and Annual Meetings.* Toronto, ON, Canada, October 18 – 21, 2006.

PUBLICATIONS PRIOR TO JULY 2004

In Peer–reviewed Journals:

19. **Ceddia RB,** Somwar R, Maida A, X Fang, Bikopoulos G, Sweeney G. Globular adiponectin increases GLUT4 translocation and glucose uptake but reduces glycogen synthesis in rat skeletal muscle cells. ***Diabetologia***; 48(1):132-9, 2005.
18. **Ceddia RB**, Sweeney G. Creatine increases glucose oxidation and AMPK phosphorylation and reduces lactate production in L6 rat skeletal muscle cells. ***J Physiol*** *(London)* 555(Pt 2):409-21, 2004.
17. Sweeney G, Garg RR, **Ceddia RB**, Li D, Ishiki M, Somwar R, Foster L, Neilsen PO, Prestwich GD, Rudich A, Klip A. Intracellular delivery of phosphatidylinositol (3,4,5)-trisphosphate causes incorporation of GLUT4 into the plasma membrane of muscle and fat cells without increasing glucose uptake. ***J Biol Chem*** 279(31):32233-42, 2004.
16. Tajmir P, **Ceddia RB**, Li RK, Coe IR, Sweeney G. Leptin increases cardio-myocyte hyperplasia via extracellular signal-regulated kinase- and phosphatidylinositol 3-kinase-dependent signaling pathways. ***Endocrinology*** 145(4):1550-5, 2004.
15. Bikopoulos G, **Ceddia RB**, Sweeney G, Hilliker AJ. Insulin reduces apoptosis and increases DNA synthesis and cell size via distinct signalling pathways in Drosophila Kc cells. ***Cell Prolif*** 37(4):307-16, 2004.

14. **Ceddia RB**, Bikopoulos GJ, Hilliker AJ, and Sweeney G. Insulin stimulates glucose metabolism via the pentose phosphate pathway in Drosophila Kc cells. ***FEBS Lett*** 555(2):307-10, 2003.
13. **Ceddia RB**, Koistinen HÁ, Zierath JR, Sweeney G. Analysis of paradoxical observations on the association between leptin and insulin resistance. ***FASEB J*** 16(10): 1163–1176, 2002.
12. William Jr. WN, **Ceddia RB**, Curi R. Leptin controls the fate of fatty acids in adipocytes. ***J Endocrinol*** 2002.
11. Souza HM, Borba-Murad GR, **Ceddia RB**, Curi R, Peicher-Vardanega M, Bazotte RB. Rat liver responsiveness to gluconeogenic substrates during insulin-induced hypoglycemia. ***Braz J Med Biol Res*** 34(6): 771 – 777, 2001.
10. Simonyan RA, Jimenez M, **Ceddia RB**, Giacobino J, Muzzin P, Skulachev VP. Cold-induced changes in the energy coupling and the UCP3 level in rodent skeletal muscles. ***Biochim Biophys Acta*** 1505(2-3): 271–9, 2001.
9. **Ceddia RB**, William Jr. WN, Curi R. The response of skeletal muscle to leptin. ***Front Biosci*** 6: d90–d97, 2001.
8. **Ceddia RB**, William Jr. WN, Lima FB, Curi R, Giacobino JP. Leptin stimulates uncoupling protein-2 mRNA expression and Krebs cycle activity and inhibits lipid synthesis in isolated rat white adipocytes. ***Eur J Biochem*** 267 (19): 5952–5958, 2000.
7. **Ceddia RB**, William Jr. WN, Carpinelli AR, Curi R. Modulation of insulin secretion by leptin. ***Gen. Pharmacol*** 32(2): 233–237, 1999.
6. **Ceddia RB**, Lopes G, Souza HM, Borba-Murad GR, William WN Jr, Bazotte RB, Curi R. Acute effects of leptin on glucose metabolism of in situ rat perfused livers and isolated hepatocytes. ***Int J Obes Relat Metab Disord*** 23(11): 1207–1212, 1999.
5. **Ceddia RB**, William Jr. WN, Curi R. Comparing effects of leptin and insulin on glucose metabolism in skeletal muscle: evidence for an effect of leptin on glucose uptake and decarboxylation. ***Int J Obes Relat Metab Disord*** 23(1): 75–82, 1999.
4. **Ceddia RB**, William Jr. WN, Lima FB, Curi R. Leptin inhibits insulin-stimulated incorporation of glucose into lipids and stimulates glucose decarboxylation in isolated rat adipocytes. ***J Endocrinol*** 158(3): R7–R9, 1998.
3. **Ceddia RB**, William Jr. WN, Curi R. Leptin increases glucose transport and utilization in skeletal muscle in vitro. ***Gen Pharmacol*** 31(5): 799–801, 1998.
2. **Ceddia RB**, William Jr. WN, Lima FB, Carpinelli ER, Curi R. Pivotal role of leptin in insulin effects. ***Braz J Med Biol Res*** 31(6): 715–22, 1998.
1. Ferreira EB, **Ceddia RB**, Curi R, Alonso MI, Lopes G, Bazotte RB. Swimming-exercise increases the capacity of perfused rat liver to produce urea from ammonia and L-glutamine. ***Res Commun Mol Pathol Pharmacol*** 102 (3): 289–303, 1998.

ABSTRACTS – PRIOR TO JULY 2004

18. Maida A, **Ceddia RB**, Fang X, Bikopoulos G, Sweeney G. Adiponectin regulates glucose uptake and metabolism in rat skeletal muscle cells via activation of AMPK. Annals of the 12th International Conference on Second Messengers and Phosphoproteins**.** Montreal, PQ, Canada, July 4 – 7, 2004.
17. **Ceddia RB**, Maida A, Fang X, Bikopolus G, Sweeney G. Adiponectin activates AMPK and stimulates GLUT4 translocation, glucose uptake and metabolism in L6 muscle cells. *Annals*

of the Keystone Symposia. Diabetes mellitus: Molecular signalling, genes and therapeutics. Banff, Alberta, Canada, March 4 – 10, 2004.

16. **Ceddia RB**, Sekula D, Lee M, Sweeney G. Effects of leptin on glomerular mesangial cell proliferation and activity of metalloproteinases. *Canadian Journal of Diabetes* 27(3) p.361, 2003.
15. **Ceddia RB** and Sweeney G. Effects of creatine on GLUT4 translocation, glucose uptake, and glucose metabolism in L6 rat skeletal muscle cells. In: *Annals of the Ontario Exercise Physiology Meeting*. Barrie, Ontario, January 24th –26th, 2003.
14. **Ceddia RB**, Russell A, Giacobino JP. Differential expression of UCP3 mRNA in fast and slow twitch rat muscle. In: 48th Annual Meeting of the American College of Sports Medicine, Baltimore, MD, 2001. *Medicine and Science in Sports and Exercise* V.33. p.S53, 2001.
13. **Ceddia RB**, William Jr. NW, Lima FB, Giacobino JP, Curi R. Leptin increases uptake and oxidation of fatty acids and inhibit lipid synthesis in adipocytes in vitro. In: *Annals of the IV Congress on Diabetes and Metabolism*, São Paulo, Brazil. p.38-39, 2000.
12. William Jr. WN, **Ceddia RB**, Lima FB, Curi R. Leptin increases metabolites oxidation in isolated rat adipocytes. In: Co-Joint Congress on Body Weight Regulation and Obesity: Metabolic and Clinical Aspects, Pamplona. *Proceedings of the Nutrition Society* V.59. p.110A, 2000.
11. Sumida DH, William Jr. NW, **Ceddia RB**, Carvalho CRO, Lima FB, Machado UF, Curi R. Leptin reduces Pp185 phosphorylation status and lipogenesis induced by insulin in isolated rat adipocytes. In: *Abstract book of the 60th Scientific Sessions of the American Diabetes Association*, San Antonio, Texas. p. A414, 2000.
10. William Jr. WN, Sumida DH, **Ceddia RB**, Carvalho CRO, Lima FB, Machado UF, Curi R. Leptin Reduces PP185 phosphorylation status and lipogenesis induced by insulin in isolated rat adipocytes. In: *Annals of the IV Congress on Diabetes and Metabolism*, São Paulo, Brazil. p.39, 2000.
9. **Ceddia RB.** Leptina and type II diabetes implications. In: *Annals of the IV Congress on Diabetes and Metabolism*, São Paulo, Brazil. p.69, 2000.
8. **Ceddia RB**, William Jr. WN, Curi R. Comparing effects of leptin and insulin on glucose metabolism in skeletal muscle: Evidence for an effect of leptin on glucose uptake and decarboxylation. In: *Annals of the III Congress on Diabetes and Metabolism*, São Paulo, Brazil, 1998.
7. **Ceddia RB**, William Jr. WN, Lima FB, Curi R. Effects of leptin on glucose uptake and metabolism in adipocytes and skeletal muscles of rats. In: *Annals of the XVII University Medical Congress – School of Medicine* – University of Sao Paulo, São Paulo, Brazil, 1998.
6. **Ceddia RB**, William Jr. WN, Curi R. Effect of leptin on glucose metabolism of rat soleus muscle. In: *Annals of the XII Annual Meeting of the Federation of Experimental Biology Societies* (FESBE), Minas Gerais, Brazil. p.102, 1997.
5. **Ceddia RB**, William Jr. WN, Curi R. Leptin increases glucose transport and utilization in skeletal muscle in vitro. In: *Annals of the Kern Aspen Lipid Conference – Lipids, Insulin Resistance and Obesity*, Aspen. USA, 1997.
4. **Ceddia RB**, William Jr. WN, Lima FB, Curi R. Leptin increases glucose uptake in isolated adipocytes. In: *Annals of the XII Annual Meeting of the Federation of Experimental Biology Societies* (FESBE), Minas Gerais, Brazil. p.261, 1997.
3. **Ceddia RB**, William Jr. WN, Carpinelli AR, Curi R. Modulation of insulin secretion by leptin. In: Annals of the Fifth Workshop of the Islet Research European Network – Ion

Channels and Exocytosis in Pancreatic Islets and Insulin Secretory Cell Lines. Tübigen, Germany, 1997.

2. **Ceddia RB**, Carpinelli AR, Curi R. Modulation of insulin secretion by leptin. *Annals of the XII Annual Meeting of the Federation of Experimental Biology Societies* (FESBE). Minas Gerais, Brazil, p.349, 1997.
1. **Ceddia RB**. Absolute and relative water loss by athletes after an Inronman Triatlhon competition. In: *Annals of the XIX International Symposium on Sports Sciences.* São Paulo, Brazil. p.167, 1994.

Oral presentations at national and international meetings

5. Effects of creatine on GLUT4 translocation, glucose uptake, and glucose metabolism in L6 rat skeletal muscle cells. Ontario Exercise Physiology Meeting. Barrie, Ontario, Canada, January 24th –26th, 2003.
4. Differential expression of UCP3 mRNA in fast and slow twitch rat muscle. 48th Annual Meeting of the American College of Sports Medicine, Baltimore, MD, USA, 2001.
3. Leptin increases metabolites oxidation in isolated rat adipocytes. Co-Joint Congress on Body Weight Regulation and Obesity: Metabolic and Clinical Aspects. Pamplona, Spain, 2000.
2. Comparing effects of leptin and insulin on glucose metabolism in skeletal muscle: Evidence for an effect of leptin on glucose uptake and decarboxylation. III Congress on Diabetes and Metabolism, São Paulo, Brazil, 1998.
1. Effects of leptin on glucose uptake and metabolism in adipocytes and skeletal muscles of rats. XVII University Medical Congress – School of Medicine – University of Sao Paulo, São Paulo, Brazil, 1998.

PRESENTATIONS AS GUEST SPEAKER

15. *Remodeling adipocytes metabolism through AMPK signaling: Novel mechanisms integrating HSL, ATGL, and pathways of energy storage and dissipation*. Center for Addition and Metal Health (CAMH) – January 21st, 2009.
14. *The adipose Tissue as an endocrine organ: The role of adipokines in metabolic regulation*. Seminar presented at the Department of Physiology and Biophysics, University of Sao Paulo, Sao Paulo, Brazil, July 7th, 2008.
13. *Regulation of energy storage and dissipation by AMP-Kinase activation in white adipocytes*. Seminar presented at the Department of Physiology and Biophysics, University of Sao Paulo, Sao Paulo, Brazil, July 8th, 2008.
12. *Remodeling adipocytes metabolism through AMPK signaling: Novel mechanisms integrating HSL, ATGL, and pathways of energy storage and dissipation*. III Cell Signaling International Symposium of the Department of Physiology and Biophysics, University of Sao Paulo, Sao Paulo, Brazil, June 27 – 28th, 2008.
11. *Molecular regulation of fatty acid oxidation in skeletal muscle cells: Importance for performance during prolonged aerobic exercise*. International Symposium on Physical Activity, Sport, and Health. Cruzeiro do Sul University, Sao Paulo, Brazil, June 25th, 2008.
10. *Nutrient regulation of substrate oxidation in skeletal muscle cells: Implications for exercise performance*. 11th International Symposium on Physiological and Nutritional Basis of Physical Activity and Performance, November 9 – 11th, 2007 – Rio de Janeiro, Brazil.
9. *Endocrine role of the white adipose tissue and the implications for metabolic syndrome*. 11th

International Symposium on Physiological and Nutritional Basis of Physical Activity and Performance, November 9 – 11th, 2007 – Rio de Janeiro, Brazil.

8. *Regulation of adipocyte metabolism by AMPK: implications for the treatment of obesity and type 2 diabetes*. Annual Meeting of the Brazilian Federation of Experimental Biology Societies, August 22nd – 25th, 2007 – Aguas de Lindoia, Sao Paulo, Brazil.
7. *The role of AMPK in energy sensing and metabolic partitioning in white adipose tissue.* Department of Human Health and Nutritional Sciences – University of Guelph, Guelph, ON, Canada. March 12th, 2007.
6. *Regulation of glycogen metabolism in skeletal muscle by AMPK*. 1st International Symposium on Exercise and Health. Cruzeiro do Sul University, Sao Paulo, Brazil, May 12th, 2006
5. *Regulation of glucose and fatty acids metabolism in white adipose tissue by AMPK: Implications for exercise and weight loss*. 1st International Symposium on Exercise and Health. University Cruzeiro do Sul, Sao Paulo, Brazil, May 12th, 2006
4. *How to maximize weight loss through diet and exercise*? International Exercise Physiology Symposium, Pocos de Caldas, Minas Gerais, Brazil, 2006.
3. *Regulation of adipose tissue metabolism by AMPK: implications for weight loss and exercise*. International Exercise Physiology Symposium, Pocos de Caldas, Minas Gerais, Brazil, 2006.
2. Body composition, basal metabolic rate and exercise. 1st Congress of the Exercise Physiology Society of Rio de Janeiro. Rio de Janeiro, Brazil, July 18th – 20th, 2002.
1. Leptin and Type II Diabetes implications. IV Congress on Diabetes and Metabolism, São Paulo, Brazil. 2000.

OTHER PROFESSIONAL ACTIVITIES

Grant reviewer

- **CIHR External Reviewer – 2006**
- **CDA External Reviewer – 2008**
- **NSERC External Reviewer (Discovery Grant applications) – 2006/2007**
- **CFI External Reviewer (Leaders Opportunity Fund) – 2008**
- **CFI External Reviewer (Leaders Opportunity Fund) – 2009**
- **Manitoba Health Research Council – External Reviewer (Operating Grant) – 2009**
- **Member of the CIHR Doctoral Research Awards (DRA) A and Canada Graduate Student Awards (CGA) A committees – 2009/2010**
- **Diabetes UK – External Reviewer – 2009**

Ad-Hoc Reviewer for the following journals:

- Journal of Endocrinology
- Journal of Clinical Endocrinology and Metabolism
- Regulatory Peptides
- Nutrition
- Cell Biology International

- Cell Biochemical and Function
- Life Sciences
- Diabetes/Metabolism Research and Reviews
- International Journal of Obesity and Related Metabolic Disorders
- Canadian Journal of Physiology and Pharmacology
- European Journal of Nutrition
- American Journal of Physiology – Regulatory, Integrative and Comparative Physiology
- American Journal of Physiology – Endocrinology and Metabolism
- Diabetes
- Diabetes Care
- Biochemical Journal
- Obesity
- Clinical Science
- Molecular Nutrition and Food Research
- FASEB J.