

# IMOGEN R. COE

## Curriculum Vitae

E-mail: [imogen.coe@ryerson.ca](mailto:imogen.coe@ryerson.ca)  
Instagram & Twitter: @RySciDean  
LinkedIn: [linkedin.com/in/imogenceoe](https://www.linkedin.com/in/imogenceoe)

Imogen Ruth Coe  
Professor (tenured),  
Department of Chemistry & Biology,  
Faculty of Science,  
Ryerson University

### ADDRESS

Rm. 724, 350 Victoria St.,  
Faculty of Science,  
Ryerson University  
Toronto, ON  
M5B 2K3

T. (416) 979 – 5247  
F. (416) 736 – 5698

### AFFILIATE SCIENTIST

Li Ka Shing Knowledge Institute  
Keenan Research Centre  
St. Michael's Hospital

### ADJUNCT MEMBER

Graduate Program in Biology  
York University

### CITIZENSHIP

Canada  
United Kingdom

### EDUCATION

Doctor of Philosophy  
University of Victoria  
Dept. of Biology 1992  
Master of Science  
University of Victoria  
Dept. of Biology 1987  
Bachelor of Science, (Hons.)  
Exeter University, U.K.  
Dept. of Biol. Sci. 1984

### EMPLOYMENT

August 2012 – July 2017

Founding Dean, Faculty of Science, Ryerson University

August 2012 – Present

Professor, Dept. Chemistry & Biology, Ryerson University

November 2011 – July 2012

Associate Dean, Research and Partnerships, Faculty of Science  
and Engineering (FSE), York University

July 2011 – November 2011

Chair, Dept. of Biology, FSE, York University

February 2011

Appointed as Senior Research Scientist, Southlake Regional  
Healthcare Centre

January 2011

Promoted to Full Professor, FSE, York University

July 2010 – June 2010

Sabbatical

January 2005 – June 2010

Chair, Dept. of Biology, FSE, York University

July 2003 – December 2010

Associate Professor, Dept. of Biology, FSE, York University.  
Appointed by Faculty of Graduate Studies to the Graduate  
Program in Chemistry (FSE), the Graduate Program in  
Kinesiology and Health Science (Faculty of Health) and the  
Graduate Program in Health (Faculty of Health).

June 1997 – June 2003

Assistant Professor, Dept. of Biology, FSE, York University

May 1995 – May 1997

AHFMR Postdoctoral Fellow, Dept. Biochemistry & Dept.  
Oncology, University of Alberta (Advisor, Dr. C.E. Cass)

June 1992 – April 1995

Postdoctoral Fellow, Dept. Neurology, University of California,  
San Francisco (Advisor, Dr. I. Diamond)

## BOARD MEMBERSHIP

---

### **Michael Garron Hospital (formerly Toronto East General Hospital) 2015 – Present**

Member of the Performance Monitoring and Quality Committee 2015 – 2016

Member of the Innovation Task Force 2015-2016

### **Canadian Mining Innovation Council 2015 – Present**

Member of the Strategy and Innovation Committee

### **Franq Magazine 2014- Present**

Advisory Board

### **HerVolution 2014- Present**

Advisory Board

## INVITED TALKS

---

### **RESEARCH INTERNATIONAL**

- 2015** 16<sup>th</sup> International Symposium on Purines and Pyrimidine Metabolism in Man "The SLC29A Family of Nucleoside Transporters: New Modalities of Regulation and Therapeutics". Columbia University, New York, NY, USA Jun 6<sup>th</sup> to 9<sup>th</sup>.
- 2015** 2<sup>nd</sup> International Congress of Purinergic Signaling in South America & 5th Mtg Brazilian Purines Club, "The SLC29A Family of Nucleoside Transporters: New Modalities of Regulation and Therapeutics". Maresias, Sao Paulo, Brazil May 30<sup>th</sup> to June 2<sup>nd</sup>.
- 2014** Purines 2014 – International Conference on Nucleotides, Nucleosides and Nucleobases. "Novel modes of regulation of the equilibrative nucleoside transporters (ENTs)". Bonn, Germany, July 23<sup>rd</sup> to 27<sup>th</sup>.
- 2013** Institute for Biology, Graduate Program in Neurosciences, Fluminense Federal University of Rio de Janeiro "Nucleoside Transport Proteins: In and out, ups and downs". Rio de Janeiro, Brazil, November 27<sup>th</sup>.
- 2013** Department of Cell Biology, University of Calabria, "Understanding the Purinome: The Role of Nucleoside Transporters". Cosenza, Italy, March 6<sup>th</sup>.
- 2012** Departamento de Bioquímica y Biología Molecular, University of Barcelona, "Understanding the Purinome: The Role of Nucleoside Transporters" Barcelona, Spain, June 1<sup>st</sup>.
- 2012** Samsung Medical Centre, Sungkyunkwan University, "Equilibrative Nucleoside Transporters and Diabetes". Seoul, South Korea, Feb 24<sup>th</sup>.
- 2012** Konkuk University, "Understanding the Purinome: The Role of Nucleoside Transporters". Seoul, South Korea, Feb 23<sup>rd</sup>.

- 2012 Suncheon National University, "Understanding the Purinome: The Role of Nucleoside Transporters".  
Suncheon, South Korea Feb 21<sup>st</sup>.
- 2010 Purines 2010, "Role of Nucleoside Transporters in Cardiovascular Physiology"  
Tarragona, Spain, June 2<sup>nd</sup>.
- 2009 University of Calabria, Department of Cell Biology. Three 2-hour graduate  
lectures on nucleoside transporter structure, function, regulation & evolution.  
Cosenza, Italy, November 4<sup>th</sup> to 5<sup>th</sup>.
- 2009 Department of Cell Biology, University of Calabria, "Nucleoside  
Transporters; from Physiology to Evolution" Nov 4.
- 2007 Departamento de Bioquímica y Biología Molecular, University of Barcelona, "Nucleoside  
Transporters: What's next?"  
Barcelona, Spain, September 21<sup>st</sup>.
- 2006 Membrane Transport Group, University of Barcelona, "Studies on Nucleoside Transporters:  
From Evolution to Regulation".  
Barcelona, Spain, March 17<sup>th</sup>.
- 2000 Department of Biology, Hamilton College, New York. "Moving Molecules across Membranes:  
The structure and function of nucleoside transporters".
- 2000 Department of Biology, Colgate University, New York. "Moving Molecules across Membranes:  
The structure and function of nucleoside transporters".

## RESEARCH NATIONAL

- 2015 "Moving Molecules Across Membranes: The Transporter," Popular Science Lecture  
Series, St. Michaels Hospital. Toronto, Ontario, May 14<sup>th</sup>.
- 2014 "Moving Molecules Across Membranes: Studies on Transporters" St. Michaels  
Hospital, Research Seminar series. Toronto, Ontario, October 1<sup>st</sup>.
- 2013 "Understanding the Purinome: The Role of Nucleoside Transporters" Program in Cell Biology,  
Hospital for Sick Children. Toronto, Ontario, March 1<sup>st</sup>.
- 2013 "Understanding the Purinome: The Role of Nucleoside Transporters" Department of Chemistry  
and Biology, Ryerson University. Toronto, Ontario, January 31<sup>st</sup>.
- 2011 Research Rounds, Southlake Regional Health Centre. Newmarket, Ontario, April 12<sup>th</sup>.
- 2010 "Moving Molecules across Membranes", Board of Governors, York University.  
Toronto, Ontario.
- 2009 "Drug Transporters: Opportunities and Challenges", Astra-Zeneca, York University. Toronto,  
Ontario, January 9<sup>th</sup>.
- 2008 "Partnering with Southlake: Research Potential", Southlake Regional Health Centre.  
Newmarket, Ontario, January 31<sup>st</sup>.
- 2008 "Partnering with Southlake: Research Potential", IBM. Markham, Canada, July 9<sup>th</sup>.
- 2008 "Drug Transporters: Opportunities and Challenges" Sanofi Pasteur. Toronto, Ontario, May 13<sup>th</sup>.

- 2006 "Studies on Nucleoside Transporters: New Models and Old Paradigms", Department of Physiology and Pharmacology, University of Western Ontario. London, Ontario, April 3<sup>rd</sup>.
- 2005 "Nucleoside Transporters in the Cardiovascular System: New Models and Old Paradigms", AHFMR invited speaker, Cardiovascular Research Group, University of Calgary. Calgary, Alberta.
- 2004 "Moving Molecules across Membranes: Studies on Nucleoside Transporters". Department of Chemistry, York University. Toronto, Ontario.
- 2004 "Moving Molecules across Membranes: Structure, Regulation and Evolution of Nucleoside Transporters", Department of Biochemistry and QCRI, Queens University. Kingston, Ontario.
- 2001 "Moving Molecules across Membranes: The structure and function of nucleoside transporters." Department of Zoology, University of Toronto. Toronto, Ontario.
- 2000 "Regulation of Nucleoside Transporters", Department of Human Biology and Nutritional Science, University of Guelph. Guelph, Ontario.
- 1999 "Regulation of Nucleoside Transporters: Implications for improved chemotherapeutics". Biochem Pharma. Laval, Quebec.
- 1997 "Molecular Biology of Nucleoside Transporters", Department of Oncology, University of Alberta. Edmonton, Alberta.
- 1996 "Moving Molecules across Membranes: Nucleoside Transporters". Department of Biology, York University. Toronto, Ontario.
- 1995 "Moving Molecules across Membranes: Nucleoside Transporters and their role in alcoholism", Department of Biological Sciences, University of Alberta. Edmonton, Alberta.

## ACADEMIC INSTITUTIONAL

- 2015 "Transformative Alignment of Institutional Mission for Maximum Community Impact" Presentation given in conjunction with Canon Design (Mark Whitely, Jill Kurth and Safdar Abdi), Society for College and University Planners, 2015 National Conference; Great (Un-funded) Expectations: Integration, Innovation and Collaboration for Quality, Sustainable Higher Education. Chicago, Illinois, USA. July 11<sup>th</sup> to 15<sup>th</sup>.
- 2014 "Transformative Alignment of Institutional Mission for Maximum Community Impact" Presentation given in conjunction with Canon Design (Mark Whitely, Jill Kurth and Safdar Abdi), Society for College and University Planners, 2014 North Central Regional Conference; Great (Un-funded) Expectations: Integration, Innovation and Collaboration for Quality, Sustainable Higher Education. Toronto, Ontario, Canada. November 5<sup>th</sup> to 7<sup>th</sup>.

## SCIENCE OUTREACH

- 2016 **Chair of Symposium** "#Achieving Diversity in STEM, Advancing Innovation", Chair of the Pre-Symposium and moderator of the "Post-Secondary and Beyond" panel. Canadian Science Policy Conference, Ottawa, Ontario, Canada, November 8<sup>th</sup>.

- 2016 **Keynote Speaker** “#ChangetheNumbers: Diversity in STEM is essential for Canada's economic future”, meeting of Society for Women Entering Ecology and Evolution Today held at Canadian Society for Ecology and Evolution Annual General Meeting (CSEE2016), Memorial University of Newfoundland. St. John's, Newfoundland and Labrador, Canada, July 7<sup>th</sup>.
- 2016 **Invited Speaker** “The Lexicon of Diversity, Equity and Inclusion: Knowing the enemy within”. Invited speaker for *Filling the Gaps* (an organization focused on professional and personal career development for women in Toronto). Toronto, Ontario, Canada, June 23<sup>rd</sup>.
- 2016 **Invited Panel Chair** “Brilliant Minds: Young Women in Science, Technology, Engineering and Math (STEM) Changing the World”, at the *International Women's Forum Canada Annual “Canada Connects” Conference*. Toronto, Ontario, Canada, June 10<sup>th</sup>.
- 2016 **Invited Table Host** “Change the Numbers”, invited table host, Royal Canadian Institute for Science, Gala Dinner, MaRS. Toronto, Ontario, Canada, April 21<sup>st</sup>.
- 2016 **Invited Speaker** “The Lexicon of Diversity in Science, Technology, Engineering & Math”, STEMism Conference (invited speaker, student-run conference, Gr 9 – 12, GTA schools), *Ontario Institute for Studies in Education*, University of Toronto. Toronto, Ontario, Canada, April 20<sup>th</sup>.
- 2016 **Invited Panelist** “An Afternoon with Hedy Lamarr” at the Revue Theatre, Q&A following the presentation of the documentary *Calling Hedy Lamarr* as part of their *Extraordinary Women Documentary Series*. Toronto, Ontario, Canada, April 17<sup>th</sup>.
- 2016 **Invited Guest** at CBC Radio, *Cross-Country Checkup*, “New banknote should honour women in science” (<http://www.cbc.ca/radio/checkup/blog/new-banknote-should-honour-women-in-science-1.3530617>). Canada, April 10<sup>th</sup>.
- 2016 **Invited Speaker** “#ChangetheNumbers” at *Architech, Speakers Series*. Toronto, Ontario, Canada. April 8<sup>th</sup>.
- 2016 **Keynote Speaker** “The Lexicon of Diversity in Science, Technology, Engineering & Math” for the *Undergraduate Women in Science Ryerson*, Ryerson University. Toronto, Ontario, Canada, March 17<sup>th</sup>.
- 2015 **Invited Panelist** “Extraordinary Women: Ada Byron Lovelace, Mother of Tech” at the Revue Theatre, Q&A following presentation of the documentary “Ada Byron Lovelace: To Dream Tomorrow” as part of their *Extraordinary Women Documentary Series*. Toronto, Ontario, Canada, December 6<sup>th</sup>.
- 2015 **Invited Speaker** “SRSA Crosstalks Seminar: Women in Science” at St. Michael's Hospital for their *Women in Science Series*. Toronto, Ontario, Canada, December 3<sup>rd</sup>.
- 2015 **Invited Speaker** “#ChangetheNumbers” Iconoclast, TEDxRyerson, The Design Exchange. Toronto, Ontario, Canada, November 14<sup>th</sup>.
- 2015 **Invited Guest** at Fresh Air with Mary Ito, CBC Radio, speaking about Ada Lovelace. Toronto, Ontario, Canada, November 28<sup>th</sup>.
- 2015 **Invited Radio Interview**, Women in STEM, and Diversity in Technology, Bianca Guzzo, (<https://soundcloud.com/biancaguzzo/women-in-stem-and-diversity-in-technology>).
- 2015 **Invited Speaker**, Inaugural Ada Lovelace Day lecture, “All about STEMism” at York University. Toronto, Ontario, Canada, October 26<sup>th</sup>.

- 2015 **Invited Radio Interview** by Jason Osler "S.T.E.M. Toys" for CBC Radio, (<https://soundcloud.com/jasonosler/stem-toys>). Toronto, Ontario, Canada, August 12<sup>th</sup>.
- 2015 **Invited Speaker & Panelist** "The Art and Science of Creativity" Presentations and Panel discussion by artists (3) and scientists (2) hosted by Rick Miller (film-maker), The Grand Theatre MainStage. London, Ontario, Canada, September 9<sup>th</sup>.
- 2015 **Invited Speaker** "Addiction Biology" Days of Science at Ryerson University. Toronto, Ontario, Canada, May 12<sup>th</sup>.
- 2015 **Keynote Speaker** "STEAM-powered innovation" at the inaugural Ontario Organization of Secondary Students. Toronto, Ontario, Canada, April 18<sup>th</sup>.
- 2015 **Invited Speaker** "STEMinism Conference" St. Mildred's School (presentation given twice in one day). Oakville, Ontario, Canada, April 8<sup>th</sup>.
- 2015 **Guest Lecturer** Gender, Communication and Science, Ryerson University, Professional Communication Program, Guest lecture (John Shiga, Course Director).

## INTERVIEWS

---

### PRINT MEDIA

- 2016 Canadian Science Publishing: Women in Science Series "Women in Science: Dr. Imogen Coe". Author: Sarah Boon. February 17<sup>th</sup>.  
**Link to interview:** <http://www.cdnsceincepub.com/blog/women-in-science-dr-imogen-coe.aspx>
- 2016 Water Canada: The Complete Water Magazine "Interview: Imogen Coe, Dean of the Faculty of Science at Ryerson". February 15<sup>th</sup>.  
**Link to interview:** <http://watercanada.net/2016/24329/>
- 2015 The Washington Post "Advice to young scientists: Don't worry about adviser peering down your shirt". Author: Susan Svrluga. June 3<sup>rd</sup>.  
**Link to article:** <https://www.washingtonpost.com/news/grade-point/wp/2015/06/02/advice-to-young-scientists-dont-worry-about-adviser-peering-down-your-shirt/>
- 2015 HerVolution "#STEMSpark: Meet Dr. Imogen Coe, PhD, Dean Faculty of Science at Ryerson University". Author: Dorothy Nixon. June 1<sup>st</sup>.  
**Link to interview:** <http://www.hervolution.org/2015/06/01/stemspark-meet-dr-imogen-coe-phd-dean-faculty-of-science-at-ryerson-university/>

## EXTERNAL RESEARCH FUNDING

---

### CURRENTLY HELD

#### Operating Grants

2011 – 2017 (Deferred renewal), Natural Sciences and Engineering Research Council (NSERC) of Canada (Grant no. 203397-2011-RGPIN). "Regulation of a transport protein, ENT1"	\$280,000
--	-----------

## PREVIOUSLY AWARDED

2007 – 2012	Canadian Institutes for Health Research (CIHR) Role of Nucleoside Transporters in Cardiovascular Physiology	\$541,930
2004 – 2007	CIHR Adenosine Transporters in the Cardiovascular System	\$283,500
2004 – 2006	Heart and Stroke Foundation of Ontario Adenosine Transporters in the Cardiovascular System	\$130,402 (DECLINED)
2003 – 2010	NSERC Molecular Evolution of Nucleoside Transporters *Note that this grant was extended, without change in award amount, for the 3 years that I served on GSC 32.	\$210,400
2000 – 2005	PREA (now known as ERA) (trainee salary support)	\$150,000
2000 – 2003	National Cancer Institute of Canada, (NCIC) Mechanisms underlying PKC regulation of hENT1	\$289,272
2000 – 2003	CIHR Adenosine Transporters in the Cardiovascular System	\$201,567
1998 – 2002	NSERC Regulation and Evolution of Nucleoside Transporters,	\$120,974
1999	NSERC-IPM Group PKC epsilon regulation of hENT1	\$15,590
1998	Banting Research Foundation Biochem Pharma/Biochem Therapeutic Award, Hormonal regulation of human equilibrative nucleoside transporter, hENT1	\$20,000

## Equipment Grants

2014	NSERC Facility for Detection of Cellular Metabolites (Co-applicant with 8 others, Dr. R. Botelho – principal applicant)	
2012	NSERC Components in support of a new confocal spinning disk microscope	\$147,000
2003	NSERC Detector Assembly Replacement Kit for Instant Imager (Co-applicant with 8 others, Dr. R. Pearlman – Principal applicant)	\$19,543
2001	NSERC Equipment for Microbiological Culture (Co-applicant with 6 others, Dr. B. Coukell – principal applicant)	\$20,148
2000	NSERC Beckman Coulter Optima Max Ultracentrifuge (Principal applicant with five others)	\$65,564
1999	NSERC Cell Culture Facility	\$18,065
1999	NSERC Large Capacity Autoclave (Co-applicant with 7 others, Dr. B. Colman - Principal applicant)	\$18,020
1999	NSERC Hunter Thin Layer Electrophoresis System (Co-applicant with 3 others, Dr. D. Goring - Principal applicant)	\$7,819
1998	NSERC Preparative Centrifuge (Co-applicant with 4 others, Dr. R. Pearlman - Principal applicant)	\$27,500

## Multi-User Equipment and Maintenance Grants

2000 – 2003 MRC/CIHR

\$252,000

Molecular Biology Core Facility, Department of Biology  
(Co-applicant with Drs. Bedard, Andrews (University of Toronto) and Pearlman –  
Principal applicant)

## REFEREED PUBLICATIONS

---

### 2016

53. Bicket, A. and Coe, I.R. N-linked glycosylation of N48 is required for Equilibrative Nucleoside Transporter 1 (ENT1) function. Revised manuscript resubmitted to *Bioscience Reports*
52. Grañé-Boladeras, N., Spring, C.M. Hanna, W.J.B., Pastor-Anglada, M., and Coe, I.R. Novel Nuclear hENT2 Isoforms Regulate Cell Cycle Progression via Controlling Nucleoside Transport and Nuclear Reservoir. *Cellular and Molecular Life Sciences*, in press.
51. Zafar, M., Naydenova, Z. and Coe, I.R. Extended Exposure to Substrate Regulates the Human Equilibrative Nucleoside Transporter (hENT1). *Nucleosides, Nucleotides and Nucleic Acids*, in press.
50. Bicket, A., Mehrabi, P., Naydenova, Z., Wong, V., Donaldson, L., Stagljar, I., and Coe, I.R. Novel regulation of Equilibrative Nucleoside Transporter 1 (ENT1) by receptor-stimulated  $\text{Ca}^{2+}$ -dependent calmodulin binding. *Am J Physiol Cell Physiol*. 2016 Mar 23;ajpcell.00243.2015. doi: 10.1152/ajpcell.00243.2015.

### 2015

49. Console, L., Scalise, M., Tarmakova, Z., Coe, I.R. and Indiveri, C. 2015. N-linked Glycosylation of human SLC1A5 (ASCT2) transporter is critical for trafficking to membrane. *Biochim Biophys Acta*. 2015 Apr 7. 1853(7):1636-45.
48. Panigrahi, R., Chandra, P.K., Ferraris, P., Kurt, R., Song, K., Garry, R.F., Reiss, K., Coe, I.R., Furihata, T., Balart, L.A., Wu, T., and Dash, S. Persistent Hepatitis C Virus Infection Impairs Ribavirin Antiviral Activity through Clathrin-Mediated Trafficking of Equilibrative Nucleoside Transporter 1. *J Virol*. 2015 Jan. 89(1):626-42.

### 2014

47. Dos Santos Rodrigues, A., Grañé-Boladeras, N., Bicket, A. and Coe, I.R. Nucleoside Transporters in the Purinome. *Neurochemistry International*. 2014 Jul. 73:229-3746.
46. Kaneko, M., Hakuno, F., Kamei, H., Yamanaka, D., Chida, K., Mianami, S., Coe, I.R., Takahashi, S. 2014 Jan 10. Steroid hormones are novel nucleoside transport inhibitors by competition with nucleosides for their transporters. *BBRC*. 443:(2)505-510.
45. Ramadan, A., Naydenova, Z., Stevanovic, K., Rose, J.B., and Coe, I.R. 2014. The adenosine transporter, ENT1, in cardiomyocytes is sensitive to inhibition by ethanol in a kinase dependent manner: implications for ethanol-dependent cardioprotection and nucleoside analog drug cytotoxicity. *Purinergic Signaling* 10(2):305-12



## 2012

44. Grenz, A., Bauerle, J.D., Dalton, J.H., Ridyard, D., Badulak, A., Tak, E., McNamee, E.N., Clambey, E., Moldovan, R., Reyes, G., Klawitter, J., Ambler, K., Magee, K., Christians, U., Brodsky, K.S., Ravid, K., Choi, D.S., Wen, J., Lukashev, D., Blackburn, M.R., Osswald, H., Coe, I.R., Nürnberg, B., Haase, V.H., Xia, Y., Sitkovsky, M., and Eltzschig, H.K. 2012 Feb. Equilibrative nucleoside transporter1 (ENT1) regulates post-ischemic blood-flow during acute kidney injury in mice. *Journal of Clinical Investigation*, 122(2):693-710.

## 2011

43. Rose, J.B., Naydenova, Z., Bang, A., Ramadan, A., Klawitter, J., Schram, K., Sweeney, G., Grenz, A., Eltzschig, H., Hammond, J., Choi, D. S. and Coe, I.R. 2011 Oct 24. Absence of equilibrative nucleoside transporter 1 in ENT1 knockout mice leads to altered nucleoside levels following hypoxic challenge. *Life Sciences*. 89(17-18):621-30
42. Reyes, G., Nivillac, N.M., Karim, M.Z., DeSouza, L., Siu, K.W., and Coe, I.R. 2011 Sep. The Equilibrative Nucleoside Transporter (ENT1) can be phosphorylated at multiple sites by PKC and PKA. *Molecular Membrane Biology*, 28(6):412-26
41. Nivillac, N.M., Bacani, J., and Coe, I.R. 2011 Jul 1. The life cycle of the human equilibrative nucleoside transporter 1: From ER export to degradation. *Experimental Cell Research* 317(11):1567-79.
40. Reyes, G., Nivillac, N.M., Chalsev, M., and Coe, I.R. 2011 Apr. Analysis of recombinant tagged equilibrative nucleoside transporter 1 (ENT1) expressed in *E. coli*. *Biochem Cell Biol*. 89 (2):246-55.

## 2010 AND EARLIER

39. Marvi, M., Rose, JB, Bang, A., Moon, BC, Pozeg, Z, Ibrahim, M, Peniston, C, and Coe, I.R. 2010 Dec 23. Nucleoside transporter expression profiles in human cardiac tissue show striking individual variability with overall predominance of hENT1. *European Journal of Pharmaceutical Sciences*, 41 (5):685-91
38. Bone, D.B., Choi, D.S., Coe, I.R., Hammond, J.R. 2010 Sep. Nucleoside/nucleobase transport and metabolism by microvascular endothelial cells isolated from ENT1 <sup>-/-</sup> mice. *Am J Physiol Heart Circ. Physiol*. 299 (3):H847-56.
37. Reyes, G., Naydenova, Z., Abdulla, P., Chalsev, M., Villani, A., Rose, J.B., Chaudary, N., DeSouza, L., Siu, K.W., Coe, I.R. Characterization of mammalian equilibrative nucleoside transporters (ENTs) by mass spectrometry. *Protein Expr Purif*. 2010 Sep; 73(1):1-9.
36. Rose, J.B., Naydenova, Z., Bang, A., Eguchi, M., Sweeney, G., Choi, D.S., Hammond, J.R., Coe I.R. 2010 Mar. Equilibrative nucleoside transporter 1 plays an essential role in cardioprotection. *Am J Physiol Heart Circ Physiol*. 298(3):H771-7.
35. Nivillac, N.I., Wasal, K., Villani, D.F., Naydenova, Z., Hanna, W.J.B., and Coe, I.R. 2009 Oct. Disrupted plasma membrane localization and loss of function reveal regions of human equilibrative nucleoside transporter 1 involved in structural integrity and activity. *BBA – Biomembranes* 1788(10): 2326-34
34. Morote-Garcia, J.C., Rosenberger, P., Nivillac, N.M., Coe, I.R., and Eltzschig, H.K. 2009 Feb. Hypoxia-inducible factor-dependent repression of equilibrative nucleoside transporter 2 attenuates mucosal inflammation during intestinal hypoxia. *Gastroenterology*, 136(2): 607-18.

33. Naydenova, Z., Rose, J.B. and Coe, I.R. 2008 Jun 1. Inosine and equilibrative nucleoside transporter 2 contribute to hypoxic preconditioning in the murine cardiomyocyte HL-1 cell line. *American Journal of Physiology - Heart and Circulatory Physiology*, 294: H2687-H2692.
32. Rose, J.B and Coe, I.R. 2008 Feb 11. The Physiology of Nucleoside Transporters: Back to the Future....(Invited, refereed review). *Physiology*, 23: 41-48
31. Löffler, M., Morote-Garcia, J.C., Eltzschig, S.A., Coe, I.R. and Eltzschig, H.K. 2007 Mar 1. Physiological Roles of Vascular Nucleoside Transporters. *Arteriosclerosis, Thrombosis and Vascular Biology*. 27(5):1004-13.
30. Machado, J., Abdulla, P., Hanna, B., Hilliker, A. and Coe, I.R. 2007 Feb 1. Genomic analysis of nucleoside transporters in Diptera and functional characterization of DmENT2, a Drosophila equilibrative nucleoside transporter. *Physiological Genomics* 28 (3): 337-347.
29. Mohajer- Maghari, B., Amini-Bavil-Olyaei, S., Webb, R.A., and Coe, I.R. 2007 Feb. Molecular cloning and characterization of *Hymenolepis diminuta* alpha-tubulin gene. *DNA Sequence*, 18 (1): 80-83.
28. Abdulla, P., and Coe, I.R. 2007. Characterization and functional analysis of the promoter for the human equilibrative nucleoside transporter gene, hENT1. *Nucleosides, Nucleotides and Nucleic Acids*, 26 (1): 99-110.
27. Palanivel, R., Eguchi, M., Shuralyova, I., Coe, I., and Sweeney, G. 2006 Aug. Distinct effects of short- and long-term leptin treatment on glucose and fatty acid uptake and metabolism in HL-1 cardiomyocytes. *Metabolism*. 55 (8):1067-75.
26. Eltzschig, H.K., Abdulla, P., Hoffman, E., Hamilton, K.E., Daniels, D., Schönfeld, C., Löffler, M., Reyes, G., Duszenko M., Karhausen, J., Robinson, A., Westerman, K., Coe, I.R., and Colgan, S.P. 2005 Dec 5 . HIF-1-dependent repression of endothelial equilibrative nucleoside transporter (ENT) in hypoxia. *Journal of Experimental Medicine*, 202 (11):1493-505 (also subject of editorial comment).
25. Reyes, G., and Coe, I.R. Genomics and Proteomics of Nucleoside Transporters. 2005 Dec. *Current Pharmacogenomics* 3 (4); 281-290 (peer-reviewed, invited mini-review).
24. Chaudary, N., Naydenova, Z., Shuralyova, I., and Coe, I.R. 2004 Sep. The Adenosine Transporter, mENT1, Is a Target for Adenosine Receptor Signaling and Protein Kinase C $\epsilon$  in Hypoxic and Pharmacological Preconditioning in the Mouse Cardiomyocyte Cell Line, HL-1 *Journal of Pharmacology and Experimental Therapeutics*, 310 (3):1190-1198.
23. Tajmir, P., Ceddia, R. B., Li, R-K., Coe, I.R. and Sweeney, G. 2004 Apr. Leptin increases cardiomyocyte hyperplasia via extracellular signal-regulated kinase- and phosphatidylinositol 3-kinase-dependent signaling pathways. *Endocrinology* 145 (4): 1550-5.
22. Chaudary, N., Naydenova, Z., Shuralyova, I. and Coe, I.R. 2004 Mar. Hypoxia regulates the adenosine transporter, mENT1, in the murine cardiomyocyte cell line, HL-1. *Cardiovascular Research* 61 (4), 780-788.
21. Shuralyova, I., Tajmir, P., Bilan, P., Sweeney, G., and Coe, I.R. 2004 Feb. Inhibition of glucose uptake in the murine cardiomyocyte cell line, HL-1, by the cardioprotective drugs dilazep and dipyridamole. *American Journal of Physiology – Heart and Circulatory Physiology* 286 (2), H627-32.
20. Acimovic, Y., and Coe, I.R. 2002 Dec. Molecular Evolution of the Equilibrative Nucleoside Transporter Family: Identification of Novel Family Members in Prokaryotes and Eukaryotes. *Molecular Biology and Evolution*. 19 (12), 2199-2210.
19. Sankar, N., Machado, J., Abdulla, P., Hilliker, A.J. and Coe, I.R. 2002 Oct 15. Comparative genomic analysis of equilibrative nucleoside transporters suggests conserved protein structure despite limited sequence identity. *Nucleic Acids Research*, 30 (20), 4339-4350.

18. Chaudary, N, Shuralyova, I., Liron, T., Sweeney, G. and Coe, I.R. 2002. Transport characteristics of HL-1 cells; a new model for the study of adenosine physiology in cardiomyocytes. *Biochem. Cell Biol.* 80, 655-665.
17. Coe, I., Zhang, Y., McKenzie, T., and Naydenova, Z. 2002 Apr 7. PKC regulation of the human equilibrative nucleoside transporter, hENT1. *FEBS Letters* 517, 201-205.
16. Pennycooke, M., Chaudary, N., Shuralyova, I., Zhang, Y., and Coe, I.R. 2001 Jan 26. Differential expression of human nucleoside transporters in normal and tumor tissue. *BBRC.* 280 (3) 951-959.
15. Graham, K.A., Leithoff, J., Coe, I.R., Mowles, D., Mackey, J.R., Young, J.D, and Cass, C.E. 2000 Jan - Feb. Differential transport of cytosine-containing nucleosides by recombinant human concentrative nucleoside transporter protein hCNT1. *Nucleosides and Nucleotides*, 19 (1&2), 415-434.
14. Gordon, A.S., Yao, L., Wu, Z-L., Coe, I.R., and Diamond, I. 1997 Oct. Ethanol alters the subcellular localization of delta- and epsilon protein kinase C in NG108-15 cells. *Mol. Pharm.* 52 (4), 554-9.
13. Coe, I.R., Griffiths, M., Young, J.D., Baldwin, S.A. and Cass, C.E. 1997 Oct 15. Assignment of the human equilibrative nucleoside transporter (hENT1) to 6p21.1-21.2. *Genomics* 45, 459-460.
12. Boleti, H., Coe, I.R., Baldwin, S., Young, J.D., Cass, C.E. 1997 Sep. Molecular identification of the equilibrative NBMPR-sensitive (es) nucleoside transporter and demonstration of an equilibrative NBMPR-insensitive (ei) transport activity in human erythroleukemia (K562) cells *Neuropharmacology*, 36 (9), 1167-1179.
11. Griffiths, M., Beaumont, N., Yao, S.Y.M., Sundaram, M., Boumah, C.E., Davies, A., Kwong, F.Y.P., Coe, I.R., Cass, C.E., Young, J.D., and Baldwin, S.A. 1997. Cloning of a human nucleoside transporter implicated in the Cellular uptake of adenosine and chemotherapeutic drugs. *Nature-Medicine* 3 (1), 89-93.
10. Coe, I.R., Yao, L., Diamond, I., and Gordon, A.S. 1996 Nov. The role of Protein Kinase C in cellular tolerance to ethanol. *J. Biol. Chem.* 271 (46), 29468-29482.
9. Coe, I.R., Dohrman, D.P., Constantinescu, A., Diamond, I., and Gordon, A.S. 1996 Feb. Activation of cyclic AMP-dependent protein kinase reverses tolerance of a nucleoside transporter to ethanol. *J. Pharm. Exp. Ther.* 276 (2), 365-369.
8. Coe, I.R., von Schalburg, K.R., and Sherwood, N.M. 1995 Nov. Characterization of the Pacific salmon gonadotropin-releasing hormone gene, copy number and transcription start site. *Mol. Cell. Endocrin.*, 115, 113-122.
7. Parker, D.B., Coe, I.R., Dixon, G.H., and Sherwood, N.M. 1993 Jul. Two salmon neuropeptides coded in one brain cDNA are structurally related to members of the glucagon superfamily. *Eur. J. Biochem.*, 215 (2), 439-448.
6. Sherwood, N.M., Lovejoy, D.L. and Coe, I.R. 1993 Apr. Origin of mammalian gonadotropin-releasing hormones. *Endocrine Reviews*, 4 (2), 241-254.
5. Coe, I.R., Munro, R. and Sherwood, N.M. 1992. Isolation of different brain-specific isoforms of alpha-tubulins from chum salmon (*Oncorhynchus keta*). *DNA Sequence* 3 (4), 257-262.
4. Lovejoy, D.A., Ashmead, B.J., Coe, I.R. and Sherwood, N.M. 1992 Sep 1. Presence of gonadotropin-releasing hormone immunoreactivity in dogfish and skate brains (*Squalus acanthias*) and black skate (*Bathyraja kincaidii*). *J. Exp. Zool.*, 263, 272-283.
3. Coe, I.R., Grier, H.J. and Sherwood, N.M. 1992 Apr 26. Gonadotropin-releasing hormone in molly *Poecilia latipinna*: Molecular form, quantity and location. *J. Exp. Zool.*, 261, 414-423.
2. Kelsall, R., Coe, I.R., and Sherwood, N.M. 1990 Jun. Phylogeny and ontogeny of gonadotropin-releasing hormone: comparison of guinea-pig, rat and a protochordate. *Gen. Comp. Endocrinol.* 78, 479-494.

1. Heierhorst, J., Mahlmann, S.D., Morley, S.D., Coe, I.R., Sherwood, N.M. and Richter, D. 1990 Jan 29. Molecular cloning of two distinct vasotocin precursor cDNAs from chum salmon (*Oncorhynchus keta*) suggests ancient gene duplication. *FEBS Letts.*, 260, 301-304.

## POSTER PRESENTATIONS

---

### 2015 ONLY

- Bicket et al. 16<sup>th</sup> International Symposium on Purines and Pyrimidine Metabolism in Man, Purine and Pyrimidine Society, June 6<sup>th</sup> to 9<sup>th</sup>, New York, USA.
- Zafar et al. 16<sup>th</sup> International Symposium on Purines and Pyrimidine Metabolism in Man, Purine and Pyrimidine Society, June 6<sup>th</sup> to 9<sup>th</sup>, New York, USA.
- Mariglia, J., Coe, I.R. and Karshafian, R. "Ultrasound and microbubble therapy enhances the cytotoxic effects of gemcitabine". ISTU Annual Meeting, April 15<sup>th</sup> to 18<sup>th</sup>, in Utrecht, The Netherlands.
- Grañe-Boladeras, N., Hanna, W.J.B., Pastor-Anglada, M., and Coe, I.R. "Contributions of novel nuclear nucleoside transporters, HNP36 and HNP32, to DNA synthesis during cell cycle." Poster #3788 AACR Philadelphia, Pennsylvania, US April 18<sup>th</sup> to 22<sup>nd</sup>.

## SELECTED PUBLISHED ABSTRACTS

---

### 2014 & EARLIER

- Grañe-Boladeras, N., dos Santos Rodrigues, A., Villani, L., Williams, D., Siu K.W.M., Pastor-Anglada, M and Coe I.R. 2013. Understanding the physiological relevance of protein-protein interactions and PKC regulation of the nucleoside transporters, hENT1 and hENT2. Am. Soc. Cell Biol., New Orleans, Dec. 14-18. Published in MCB 24: p. 1097 #2435
- Grañe-Boladeras, N, Hanna, WJ., Coe, IR., and Pastor-Anglada, M 2013. Identification and characterization of 3 novel nuclear splice variants of the human Equilibrative Nucleoside Transporter 2 (hENT2). Am. Soc. Cell Biol., New Orleans, Dec. 14-18. Published in MCB 24: p. 1098 #2436
- Bicket, A., Mehrabi, P., Tarmakova, Z. and Coe, I.R. 2013. The drug transporter hENT1 is regulated by Ca<sup>2+</sup>/CaM: implications on the efficacy of therapeutic nucleoside analog drugs. Am. Soc. Cell Biol., New Orleans, Dec. 14-18. Published in MCB 24: p.
- dos Santos-Rodrigues, A., Naydenova, Z., and Coe, I.R. 2012. Regulation of ENT1, a member of the SLC29 family of transporters, by various signaling pathways: a biochemical-proteomic approach to understanding membrane protein regulation. Canadian National Proteomics Network, 4th Annual Symposium, Proteomics: from protein structures to clinical applications April 23-25
- Bicket, A., Mehrabi, P., Naydenova, Z., Donaldson, L., Stagić, I., and Coe, I.R. 2012. Calcium-dependent regulation of ENT1 by CaM and the potential consequences on nucleoside analog drug delivery. Canadian National Proteomics Network, 4th Annual Symposium, Proteomics: from protein structures to clinical applications April 23-25

Grañe-Boladeras, N., Mehrabi, P., Williams, D., DeSouza, L. Siu, K.W.M., Pastor-Anglada, M. and Coe, I.R. 2012. Proteomic approaches to investigating the phosphorylation status of the drug transporters, ENT1 and ENT2. Canadian National Proteomics Network, 4th Annual Symposium, Proteomics: from protein structures to clinical applications April 23-25.

Nivillac, N.I., Villani, D.F., Wasal' K., Hanna' W.J.B., Naydenova,, Z., and Coe, I.R. 2008. The C-terminus of human equilibrative nucleoside transporter 1 is involved in correct localization and function. Gordon Research Conference, Membrane Transport Proteins, Il Ciocco Hotel and Resort, Italy, July 20 – July 25