

**KENNETH B. STOREY**[www.carleton.ca/~kbstorey](http://www.carleton.ca/~kbstorey)**NATIONALITY:** Canadian**BORN:** October 23, 1949 Taber, Alberta**MARITAL STATUS:** Married, two daughters**EDUCATION:** B.Sc. (First Class Honours) Biochemistry, University of Calgary, 1971  
Ph.D. Zoology, University of British Columbia, 1974**PROFESSIONAL POSITIONS:**

7/11	Cross-appointment, Department of Neuroscience, Carleton University
7/01 -	<b>Canada Research Chair</b> in Molecular Physiology (Tier I), Carleton University, Ottawa
7/85 -	Professor, Institute of Biochemistry, Departments of Biology and Chemistry, Carleton University, Ottawa
7/79 - 6/85	Associate Professor of Biochemistry and Biology, Carleton University, Ottawa
7/74 - 6/79	Assistant Professor of Zoology, Duke University, Durham, North Carolina

**PROFESSIONAL HONOURS:**

2016	Carleton University Research Achievement Award (also in 2008, 2003, 1998, 1992, 1989)
2013	Adjunct Professor, Dept. Veterinary Integrative Biosciences, Texas A&M University College Station, TX
2012	CryoFellow, Society for Cryobiology, elected
2011	Fry Medal, Canadian Society of Zoologists
2010	Flavelle Medal, Royal Society of Canada
2010	Graduate Student Mentor award, Carleton University
2007	Distinguished Alumni Award, University of Calgary
2005-2007	Professor Extraordinary, Botany & Zoology, Stellenbosch University, S. Africa
2004-	ISI Highly Cited Researcher
2000	Public Awareness Prize, Canadian Society of Zoologists
1999	Japan Society for the Promotion of Science Fellowship
1998	Ottawa Life Sciences Council, Basic Research Award
1997	Fellow of the American Association for the Advancement of Science, elected
1993-1995	Killam Senior Research Fellowship
1990	Fellow of the Royal Society of Canada, elected
1989	Ayerst Award, Canadian Biochemical Society
1984-1986	E.W.R. Steacie Memorial Fellowship, NSERC Canada
1971-1974	NRC Science Centennial Postgraduate Scholarship

**PROFESSIONAL ACTIVITIES:****Total research publications: 735****Plenary & keynote lectures (since 1985): 62**Symposia organized: **29**Conference scientific committees **3**Invited lectures at scientific meetings: **103**Invited seminars (university, research stations, public lectures): **380**Contributed communications with students at scientific meetings: **490**

**SERVICE**

**N.S.E.R.C.** Member, Biological Systems and Functions Evaluation Group (EG 1502), 2015-18  
**Royal Society of Canada**, McLaughlin Medal Nominations to Position Committee, 2005-2011; chair in 2011  
**Alberta Ingenuity Fund** grant selection committee, 2001-2003, 2005  
**N.S.E.R.C.**, College of Reviewers, Canada Research Chair program, 2000-2002  
**N.I.H.**, National Heart, Lung and Blood Institute review panel, June 2002

**N.S.E.R.C.:** Member, Grant Selection Committee 31 (Animal Physiology)

Chairman of GSC 31, 1998; Member of GSC 31, 1996-8;

Member of membership committee, 1997

Member of major equipment (SCILS & SCORG) committee, 1997

Scientific advisor: a) Bio S&T Inc., Lachine, PQ, a biotechnology company, since 1997  
 b) Perkin Elmer Corp., Spectroscopy Demo site (1995-2000)  
 c) X-Therma Inc. (biomimetic nanotech), San Francisco, USA (since 2016)

Editor, Cell and Molecular Responses to Stress, Elsevier Press, 2000-2002

Member of the Series Advisory Board, Ecological and Environmental Physiology (ed. W. Burggren) Oxford University Press, 2003-

Member of Journal Editorial Boards:

Genomics Proteomics and Bioinformatics (since 2014)

PeerJ (since 2012)

Research and Reports in Biology (since 2010)

Journal of Comparative Physiology B (since 1994)

*Past member:* Cryo-Letters (1983-2000), J. Thermal Biology, American Journal of Physiology, Molecular Physiology, J. Experimental Zoology, Copeia, Environmental Reviews, Biochemistry & Cell Biology, Experimental Biology Online

**PROFESSIONAL SOCIETIES:**

Royal Society of Canada

Society for Cryobiology

Canadian Society of Zoologists

Canadian Society of Biochemistry and Molecular & Cellular Biology

American Society of Ichthyologists and Herpetologists

American Association for the Advancement of Science (past)

American Society for Biochemistry and Molecular Biology (past)

Royal Canadian Institute (past)

The Explorers Club of New York (past)

**RESEARCH PERSONNEL DIRECTED** (since 1980):

	<u>Past</u>	<u>Current Year (2015-16)</u>
Postdoctoral fellows	12	-
Ph.D. Students	35	11
M. Sc. Students	63	6
B.Sc. Honours Students	95	4
NSERC USRA (2014)	54	9
Other student researchers	39	2
Technicians	11	-

**CURRENT RESEARCH FUNDING**

**N.S.E.R.C. Discovery grant:** Mechanisms of metabolic rate depression: following nature's lead. 4/14 - 3/19.  
\$725,000

**N.S.E.R.C. Research Tools and Instruments grant:** Biochemical adaptation: Analytics to drive next generation research on novel microRNAs and proteins responsive to environmental stress. 4/16-3/17.  
\$61,997.

**N.S.E.R.C. Canada Research Chair in Molecular Physiology:**

\$200,000 per year: salary, benefits, administration, research, 2015 – 2022

2008 – 2015 Component for research support \$13,900 yr 8; \$10,750 yr 9&10; \$4,200 year 11; \$5,500 year 12; \$2,300 year 13; \$0 year 14.

2001 – 2008 Component for research support \$50,000 yr 1 & 2; \$45,000 yr 3; \$40,000 yr 4; \$25,000 yr 5; \$20,000 yr 6 & 7.

**Heart and Stroke Foundation of Canada:** Suspended animation: hypometabolic hearts in a primate hibernator.  
Grant #G-14-0005874; 7/14 – 6/17, \$201,775

**Carleton University Research Achievement Award:** 2015-2016. \$15,000

**PAST FUNDING****N.S.E.R.C. Research (Discovery) grants:**

2009-14 Molecular mechanisms of metabolic rate depression. \$725,000

2004-09 Molecular mechanisms of metabolic rate depression. \$727,600

1999-04 Metabolic arrest and stress tolerance in animals: molecular mechanisms of anaerobiosis, hibernation and estivation. (OGP 6793) \$693,000

1994-99 Molecular mechanisms of metabolic arrest in animals: anaerobiosis and estivation. \$505,000

1991-94 Molecular mechanisms of metabolic arrest: anaerobiosis, hibernation, and estivation.  
\$291,000.

1988-91 Molecular mechanisms of metabolic arrest and freeze tolerance. \$246,800.

1985-88 Metabolic regulation and biochemical adaptation of intermediary metabolism. \$176,000.

1982-85 Studies of intermediary metabolism and its control in invertebrates. \$134,200.

1979-82 Studies of intermediary metabolism and its control in invertebrates. \$79,300.

**N.S.E.R.C. Research Tools and Instruments (Equipment) grants:**

2013-14 Multiplex-ing our way to the future: advanced technology for metabolic analysis. (Storey KB, Hayley S, Golshani A) \$61,362.

2012-13 Life in the slow lane: 2-D electrophoresis for analysis of protein adaptations supporting hypometabolism. \$24,890

2011-12 Stress-responsive gene expression and protein adaptation: analysis with CFX96 real-time PCR detection system. \$49,716

2009-10 Stress tolerance: gel documentation for analysis of gene/protein/enzyme expression and adaptation. \$41,880

2008-09 Instrumentation for studies of animal freeze tolerance: cool, cold and ultra-low!  
\$18,739

2008-09 Laser capture micro-dissection facility. (Perry SF, Gilmour K, Ekker M, Trudeau V, Walsh P, Jonz M, Moon TW, Storey KB) \$142,755.

2007-08 Biochemical adaptation: superspeed centrifuge for studies in enzymology and metabolic regulation. \$36,806.

2005-06 Proteomic equipment for profiling nuclear and organellar proteins. (Willmore WG, Storey, KB, Smith, ML, Aitken, SM, Golshani, A Miller, JD) \$30,000

1999-00 Gene expression and biochemical adaptation: cell culturing equipment. \$9818

1999-00 <sup>32</sup>Phosphor imager for molecular biology and biochemistry (J. Cheetham, K. Storey, C. Wyndham, N. Chaly, I. Lambert, M. Smith, P. Vierula). \$40,650

1999-00 Micro ultracentrifuge for molecular biology/biochemistry (I. Lambert, K. Storey, C. Wyndham, D. Miller, J. Cheetham, P. Vierula). \$75,406  
 1997-98 Gene expression and biochemical adaptation: analytical equipment. \$24,075  
 1996-97 Protein purification by high resolution liquid chromatography. \$30,996  
 1991-92 LS50 luminescence spectrofluorometer. \$47,383.  
 1990-91 UV/VIS spectrophotometers. \$62,598.  
 1989-90 Liquid scintillation counter. \$35,899.  
 1988-89 Spectrofluorometer and ultralow deep freezer. \$24,100.  
 1985-86 High Performance Liquid Chromatography. \$25,000.  
 1979-80 Recording spectrophotometer. \$14,300.

**Canadian Foundation for Innovation:** Environmental stress adaptation: equipment for genomics, proteomics and enzymology research. 03/02-02/03 \$246,540

**Ontario Innovation Trust:** Environmental stress adaptation: equipment for genomics, proteomics and enzymology research. 03/02-02/03 \$246,540

**N.S.E.R.C. support grant** for the Algonquin Park Wildlife Research Station (R. Brooks, S. Desser, K. Storey, J. Sutcliffe, T. Nudds, E. Nol., J. Fryxell, F. Hunter) 4/99-3/02 \$23,800/yr

**C.I.H.R.:** Hyperglycemia resistance: a unique vertebrate model. 02/03 -02/04 \$10,000

Oxidative Stress Consortium. Project leader: A.K. Grover. Coordinating group members: K. Storey, R. Austin, J. Wilson, P. Singal, P. O'Brien. 1999-2000 \$40,000

**Heart and Stroke Foundation of Ontario:** Hypothermic and freezing preservation of heart: vertebrate models. (NA-3742) 7/1998 - 6/2000 \$62,750

**Canadian Diabetes Association:** Mechanisms of extreme hyperglycemia tolerance in a unique vertebrate. 7/97 – 6/98 \$38,455

**National Institutes of Health, U.S.A.** (GM 43796): Organ cryopreservation: model studies on a freeze tolerant frog. 5/90-4/93 \$357,940; 5/93-4/96 \$380,242

**N.S.E.R.C. International Scientific Exchange Award:**

- 1) Dr. E. Skorkowski, Gdansk Marine Laboratory, Poland. 3/86 - 3/87 \$9000, and 1/89 - 1/90 \$6000.
- 2) Dr. V.I. Lushchak, Sevastapol, Ukraine, 7/93 - 1/94 \$12,600

**Carleton University grants and awards:**

Graduate Research grant: 08/04 – 08/05, \$50,000

Research Achievement Award:

5/16-4/17	\$15,000	5/98 - 4/99	\$10,000
5/08-4/09	\$15,000	5/92 - 4/93	\$10,000
5/03 - 4/04	\$15,000	5/89 - 4/90	\$10,000

Infrastructure grant, Faculty of Science: Immobilized enzyme technology. 5/88-4/90 \$50,000.

Graduate Studies and Research grants:

5/99 - 4/00 Stress-activated genes in pancreas identified using cDNA array technology. \$3200  
 3/85 - 3/86 Regulation of metabolic depression in hibernating mammals. \$3,000.  
 5/81 - 5/82 Biochemical strategies of cold tolerance in insects. \$2,400;  
 3/83 - 5/84 Biochemistry of insect cold hardiness. \$3,000.  
 5/79 - 5/80 Refrigerated superspeed centrifuge. \$5,000.

**Canadian Liver Foundation:** A model for cryopreservation: studies of liver biochemistry in a freeze tolerant terrestrial frog. 4/84 - 3/86 \$24,000.

**Atkinson Charitable Foundation:** A model for cryopreservation: freezing tolerance in terrestrial frogs. 6/82 - 6/84 \$25,600

**National Science Foundation (USA) grants:**

Metabolic Biology section: The role of octopine and octopine dehydrogenase in cephalopod muscle metabolism. 6/78 - 5/79 \$38,500.

Regulatory Biology section: Strategies of freezing tolerance and overwintering in insects. 9/78 - 9/80 \$50,000. Held jointly with Dr. J.G. Baust, University of Houston.

**RESEARCH ACTIVITIES:**

- 3/14 Visiting researcher, King Abdullah University of Science & Technology, Saudi Arabia
- 2/12 Visiting lecturer & researcher, St. George's University, Grenada
- 6/11 Research scientist, R/V New Horizon expedition, Sea of Cortez, Mexico
- 2/11 Visiting lecturer & researcher, St. George's University, Grenada
- 7/10 Visiting researcher, Sport and Exercise Science, U. Coventry, UK
- 2/08-3/08 Visiting researcher, Sable Systems International, Las Vegas, Nevada
- 1/07-2/07 Visiting researcher, Dept. Botany and Zoology, Stellenbosch University, S. Africa
- 7/05 Visiting researcher, Physiologisches Institut, Universitat Zuerich-Irchel, Switzerland
- 8/04 Visiting researcher, Dept. Botany and Zoology, Stellenbosch University, S. Africa
- 10/99 Visiting fellow, Kyoto Institute of Technology, Japan
- 11/98 Visiting researcher, Hofstra University, Hempstead, New York
- 6/98 Visiting researcher, Harvard Medical School (lab of F. Bunn) and Massachusetts General Hospital (lab of D. Brown), Boston, Mass.
- 6/97 Visiting researcher, Department of Mechanical Engineering and Lawrence Berkeley Laboratories, University of California, Berkeley, CA.
- 11/94 - 12/94 Visiting scientist, McMurdo Station, Antarctica
- 2/93 Visiting researcher, Harvard University Medical School, Boston, MA
- 2/92 - 3/92 Visiting researcher, Department of Mechanical Engineering and Lawrence Berkeley Laboratories, University of California, Berkeley, CA.
- 9/91 - 10/91 Visiting researcher, Dept. Biochemistry, University of Victoria, Victoria, BC.
- 8/90 - 9/90 Visiting researcher, University of Massachusetts, Worcester, MA.
- 2/89 - 3/89 Visiting researcher, Department of Mechanical Engineering and Lawrence Berkeley Laboratories, University of California, Berkeley, CA
- 8/88 -9/88 Visiting researcher, Marine Research Inst., Univ. Bologna, Cesenatico, Italy.
- 4/84 - 5/84 Sabbatical leave, International Institute of Cellular and Molecular Pathology, University of Louvain, Brussels, Belgium.
- 2/84 - 4/84 Sabbatical leave, Institute of Enzymology, Univ. Autonoma, Madrid, Spain.
- 8/83 Visiting scientist, Basic Biochemistry Div., Veterans Admin. Hospital, Dallas
- 1/82 Visiting scientist, NMR Facility of the Dept. Cardiology, Johns Hopkins, University, Baltimore, MD.
- 7/81 - 8/81 Visiting scientist, National Institute on Aging, Baltimore, MD.
- 4/81 - 6/81 Visiting researcher, Marine Biological Association of the U.K., Plymouth, U.K. Also 4/80 - 5/80, 8/78 - 9/78, 4/77 - 5-77.
- 9/76 - 10/76 Research scientist, R/V Alpha Helix, Amazon Expedition, Brazil.
- 7/76 - 8/76 Visiting researcher and lecturer, Marine Biological Lab., Woods Hole, Mass. Also 6/75 - 8/75.
- 5/75 Visiting researcher, Pacific Biomedical Research Center, Univ. Hawaii, Honolulu
- 8/73 - 12/73 Research scientist, R/V Alpha Helix, Kona Expedition, Hawaii.

## CARLETON UNIVERSITY TEACHING DUTIES

### Current:

Biochemistry / Biology 2200: Cell Biochemistry & Physiology

Biochem 4908: Honours Research Thesis

Biochem 4907: Honours Essay

Biochem 4901: Selected topics in Biochem

Biology 4901: Directed special studies

Biochemistry 3400: Independent Research II

Biochemistry 2400: Independent Research I

### Courses taught in previous years:

Biology 6304: Topics in Comparative Physiology (joint w U Ottawa)

Biochem 4005: Biochemical Regulation

Biol/Biochem 2200: Cell Biochemistry & Physiology

Biology 5501J: Biochemical Regulation

Biology 5003: Comparative Biochemistry

Biology/Biochem 220: Cell Physiol & Biochem

Biochemistry 310: General Biochemistry

Biology 503: Biochemical Adaptation

Biochemistry 402: Macromolecules

Biochemistry 405: Signal Transduction

Biochemistry: Biochemical Techniques

Biochemistry 403: Metabolic Regulation

Biology 230: Introductory Biology (team)

Biology: Marine Invertebrate Zoology

Chemistry 503: Adv. metabolic regulation

Chemistry 65.579, Chem Toxicol (team)

Chemistry 590: Directed studies

Biol 6304 Adv topics animal physiology

Biol 8361: Recent Adv. Animal Physiol.

Zoology 151: Principles of Physiology

Zoology 420: Environmental Physiology

## UNIVERSITY ADMINISTRATIVE DUTIES

### Present & Recent Committees:

Curriculum committee, Biochemistry

Radiation Management committee, University

Search committee, animal physiology/biochemistry faculty position, Biology, 2015

Search committee, protein chemist faculty position, Biochemistry, 2015

Search Committee, new Department Chair, Biology, 2015, 2016

Search committee for Director of the Biochemistry Institute, 2016

Search committee, faculty position in Health Science, Biology, 2012

Graduate admissions & scholarship committee, Biology, 2009, 2010, 2011, 2012

Graduate student mentoring awards committee, University 2011

Benchmarking exercise, Integrated Science, 2009

# KENNETH B. STOREY PUBLICATION LIST

## SUMMARY:

<b>Career total research publications:</b>	<b>786</b>
<b>including:</b>	
<b>Invited articles in conference proceedings:</b>	<b>48</b>
<b>Invited review articles:</b>	<b>41</b>
<b>Book chapters:</b>	<b>40</b>
<b>Magazine &amp; encyclopedia articles:</b>	<b>13</b>
<b>Books edited</b>	<b>7</b>

## 2016

### Reviews and Chapters

- Storey, K.B. 2016. Comparative enzymology – new insights on from studies of an “old” enzyme, lactate dehydrogenase. *Comp. Biochem. Physiol. B*, 199, 13–20. [PMID: 26688543](#)
- Storey, K.B. and Storey, J.M. 2016. Molecular mechanisms of hibernation in reptiles and amphibians. *In: Hibernation and Daily Torpor in Vertebrates* (Frank, C., ed.), Johns Hopkins Press, in press
- Storey, K.B. and Storey, J.M. 2016. Molecular physiology of freeze tolerance in vertebrates. *Physiol. Rev.* Submitted May 19 PRV-00016-2016
- Tessier, S.N. and Storey, K.B. 2016. Lessons from mammalian hibernator: molecular insights into striated muscle plasticity and remodeling. *BioMol. Concepts*. 7(2), 69-92. [PMID: 26982616](#)
- Wu, C.-W. and Storey K.B. 2016. Life in the cold: links between mammalian hibernation and longevity. *Biomol. Concepts* 7(1): 41-52. [PMID: 26820181](#)

### Journal Articles

- Biggar, K.K. and Storey, K.B. 2016. Assessment of DNA binding activity and protein composition of transcription factor complexes in non-model organisms. *Methods X*, Submitted Mar 14, 2016 MEX-D-16-00038
- Biggar, K.K. and Storey, K.B.. 2016. Exploration of low temperature microRNA function in an anoxia tolerant vertebrate ectotherm, the red eared slider turtle (*Trachemys scripta elegans*). *J. Thermal Biol.* in press Sept. 12
- Zhang, J. and Storey, K.B. 2016. RBiplot: an easy-to-use R pipeline for automated statistical analysis and data visualization in molecular biology and biochemistry. *PeerJ* in press
- Zhang, J., Yao, L.-H., and Storey, K.B. 2016. Insect cold hardiness: the role of MAPK and Akt signaling in the freeze avoiding larvae of the goldenrod gall moth, *Epiblema scudderiana*. *Insect Biochem. Mol. Biol.*, revised IMB-OA-16-097.R1.
- Tessier, S.N., Luu, B.E., Smith, J.C. and Storey, K.B. 2016. The role of DNA methylation and histone post-translational modifications during mammalian hibernation. *J. Proteomics* submitted Aug 15
- Wu, C.-W., Biggar, K.K., Luu, B.E., Szereswewski, K.E. and Storey, K.B. 2016. Analysis of microRNA expression during the torpor-arousal cycle of a mammalian hibernator, the 13-lined ground squirrel. *Physiol. Genomics* 48(6):388-396. [PMID: 27084747](#)
- Dawson, N.J. and Storey, K.B. 2016. A hydrogen peroxide safety valve: the reversible phosphorylation of catalase from the freeze tolerant North American wood frog, *Rana sylvatica*. *Biochim. Biophys. Acta* 1860, 476-485. [PMID: 26691137](#)
- Wijenayake, S. and Storey, K.B. 2016. The role of DNA methylation during anoxia tolerance in a freshwater turtle (*Trachemys scripta elegans*). *J. Comp. Physiol. B* 186, 333-342. [PMID: 26843075](#)
- Luu B.E., Smolinski, M., Waddington Lamont E., Storey, K.B. and Abizaid, A. (2016) Chronic social stress alters miRNA expression in the amygdala, hippocampus, and cerebellum. *Genes, Brain and Behavior*. Submitted July22
- Luu, B.E., Biggar, K.K., Wu, C.-W. and Storey, K.B. 2016. Torpor-responsive expression of species-specific microRNA in thirteen-lined ground squirrel, *Ictidomys tridecemlineatus*. *FEBS J.* in press Sept 9 (FJ-16-0365)
- Childers, C.L. and Storey, K.B. 2016. Post-translational regulation of hexokinase function and protein stability in the aestivating frog *Xenopus laevis*. *Protein J.* 35, 61-71. [PMID: 26797504](#)
- Childers, C.L., Green, S.R., Dawson, N.J. and Storey, K.B. 2016. Native denaturation differential scanning fluorometry: determining the effect of urea using a quantitative real-time thermocycler. *Anal. Biochem.* 508, 114-117. [PMID: 27296634](#)
- Aguilar, O.A., Hadj-Moussa, H. and Storey, K.B. 2016. Regulation of SMAD transcription factors during freezing in the freeze-tolerant wood frog, *Rana sylvatica*. *Comp. Biochem. Physiol. B* 201, 64-71. [PMID: 27424790](#)
- Aguilar, O.A., Hadj-Moussa, H., and Storey K.B (2016) Freeze-responsive regulation of MEF2 proteins and downstream gene networks in muscles of the wood frog, *Rana sylvatica*. *J. Comp. Physiol. B.* JCPB-D-16-00120 ( in revision).
- Ruberto, A., Childers, C.L. and Storey, K.B. 2016. Purification and properties of glycerol-3-phosphate dehydrogenase from the liver of the hibernating ground squirrel, *Urocitellus richardsonii*. *Comp. Biochem. Physiol. B* 202, 48–55. [PMID: 27521690](#)
- Zhang, Y. and Storey, K.B. 2016. Expression of nuclear factor of activated T cells (NFAT) and downstream muscle-specific proteins in ground squirrel skeletal and heart muscle during hibernation. *Mol. Cell. Biochem.* 412(1), 27-40. [PMID: 26597853](#)

- Zhang, Y. and Storey, K.B. 2016. Regulation of gene expression by NFAT transcription factors in hibernating ground squirrels is dependent on the cellular environment. *Cell Stress Chaperones*, 21: 883-894. [PMID: 27344571](#)
- Zhang, Y., Tessier, S.N. and Storey, K.B. 2016. Inhibition of skeletal muscle atrophy during torpor in ground squirrels occurs through downregulation of MyoG and inactivation of Foxo4. *Cryobiology* 73, 112-119. [PMID: 27593478](#)
- Zhang, Y., Aguilar, O.A. and Storey, K.B. 2016. Transcriptional activation of muscle atrophy promotes cardiac muscle remodelling during mammalian hibernation. *PeerJ*. 4:e2317. [PMID: 27602284](#)
- Al-attar, R., Zhang, Y., and Storey, K.B.. Osmolyte regulation by TonEBP/NFAT5 during anoxia-recovery and dehydration-rehydration stresses in the freeze-tolerant wood frog (*Rana sylvatica*). *PeerJ*. submitted
- Logan, S.M., Luu, B.E. and Storey, K.B. 2016. Avoiding apoptosis during mammalian hibernation (commentary). *Temperature* 3(4), 1–3. DOI: 10.1080/23328940.2016.1211071
- Logan, S.M. and Storey, K.B. 2016. Tissue-specific response of carbohydrate-responsive element binding protein (ChREBP) to mammalian hibernation. *Cryobiology* 73, 103-111. [PMID: 27614289](#)
- Logan, S.M., Tessier, S.N., Tye, J. and Storey, K.B. 2016. Response of the JAK-STAT pathway to mammalian hibernation in 13-lined ground squirrel striated muscle. *Mol. Cell. Biochem.* 414(1), 115-127. [PMID: 26885984](#).
- Logan, S.M., Luu, B.E. and Storey, K.B. 2016. Turn down genes for WAT? Activation of anti-apoptotic pathways protects white adipose tissue in metabolically depressed thirteen-lined ground squirrels. *Mol. Cell. Biochem.* 416:47–62. [PMID: 27032768](#)
- Hadj-Moussa, H., Moggridge, J.A., Luu, B.E., Quintero-Galvis, J.F., Gaitán-Espitia, J.D., Nespolo, R.F. and Storey, K.B. 2016. The hibernating South American marsupial, *Dromiciops gliroides*, displays torpor-sensitive microRNA expression patterns. *Sci. Rep.* 6: 24627. [PMID: 27090740](#)
- Green, S.R. and Storey, K.B. 2016. Regulation of crayfish, *Orconectes virilis*, tail muscle lactate dehydrogenase (LDH) in response to anoxic conditions is associated with alterations in phosphorylation patterns. *Comp. Biochem. Physiol. B* 202, 67-74. [PMID: 27544614](#)
- Gerber, V.E.M, Wijenayake, S., and Storey, K.B. (2016) Anti-apoptotic response during anoxia and recovery in a freeze-tolerant wood frog (*Rana sylvatica*). *PeerJ* 4:e1834. [PMID: 27042393](#)
- Bansal, S., Luu, B.E. and Storey, K.B. 2016. MicroRNA regulation in heart and skeletal muscle over the freeze-thaw cycle in the freeze tolerant wood frog. *J. Comp. Physiol. B* 186, 229-241. [PMID: 26660652](#)
- Bansal, S., Biggar, K.K., Krivoruchko, A., Storey, K.B. 2016. Response of the JAK-STAT signaling pathway to oxygen deprivation in the red eared slider turtle, *Trachemys scripta elegans*. *Gene* 593, 34–40. [PMID: 27502419](#)
- Moggridge, J.A., Biggar, K.K., Dawson, N.J., Storey, K.B. 2016. Determinants of protein stability: Sensitive detection of immunoglobulin G stability using in real time isothermal DSF. *Arch. Biochem. Biophys.* Submitted August 6.
- Lyons, P.J., Govaere, L., Crapoulet, N., Storey, K.B., Morin, P. 2016. Characterization of cold-associated microRNAs in the freeze-tolerant gall fly *Eurosta solidaginis* using high-throughput sequencing. *Comp. Biochem. Physiol.* submitted June 20
- Zhao, M., Wang, T., Adamson, K.J., Storey, K.B. and Cummins, S.F. 2016. Multi-tissue transcriptomics for construction of a comprehensive gene resource for the terrestrial snail *Theba pisana*. *Sci. Rep.* 6: 20685. [PMID: 26852673](#)
- Adamson, K.J., Wang T., Rotgans, B., Kuballa, A.V., Storey, K.B., Cummins, S.F. 2016. Differential peptide expression in the central nervous system of the land snail *Theba pisana*, between active and aestivated. *Peptides*. 80, 61-71. [PMID: 26303007](#)
- Adamson, K.J., Wang T., Rotgans, B., Kruangkum, T., Kuballa, A.V., Storey, K.B., Cummins, S.F. 2016. Genes and associated neuropeptides involved with aestivation in a land snail. *Gen. Comp. Endocrinol.* Epub Oct. 20, 2015, [PMID: 26497253](#)
- Stewart, M.J., Wang, T., Koene, J.M., Storey, K.B., Cummins, S.F. 2016. Characterisation of two conopressin precursor isoforms in the land snail, *Theba pisana*. *Peptides*, 80: 32-39. [PMID: 26752717](#)
- Stewart, M.J., Wang, T., Koene, J.M., Storey, K.B. and Cummins, S.F. 2016. A “love dart” all hormone identified in the mucous glands of hermaphroditic land snails. *J. Biol. Chem.* 291: 7938-7950. [PMID: 26817846](#)
- Stewart, M.J., Wang, T., Harding, B.I., Bose, U., Wyeth, R., Storey, K.B. and Cummins, S.F. 2016. Characterisation of reproduction-associated genes and peptides in the pest land snail, *Theba pisana*. *PLoS One*, in press – Aug 26 PONE-D-16-12414R2
- Bose, U., Centurion, E., Hodson, M., Shaw, P.N., Storey, K.B., and Cummins, S.F. 2016. Global metabolite analysis of the land snail *Theba pisana* hemolymph during active and estivated states. *Comp. Biochem. Physiol. D. Genomics Proteomics* 6, 25-33. [PMID: 27318654](#)
- Zhao, M., Wang, T., Stewart, M., Storey, K.B., Cummins, S. 2016. eSnail: a comprehensive transcriptome-based molecular resource of the central nervous system for land gastropods. *Molecular Ecology Resources* submitted Sept 12.
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75. Storey, K.B. and Storey, J.M. 1983. Carbohydrate metabolism in cephalopod molluscs. in: *The Mollusca. Vol. I. Metabolic Biochemistry and Molecular Biomechanics.* (Hochachka, P.W., ed)(Wilbur, K.M., ed-in-chief). Academic Press, New York, pp. 92-136.
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### Journal Articles

73. Storey, K.B. 1983. Regulation of cockroach flight muscle phosphofructokinase by fructose-2,6-bisphosphate. Role in the activation of muscle metabolism during flight. *FEBS Lett.* 161, 265-268.
72. Storey, K.B. 1983. Tissue specific alanopine dehydrogenase and strombine dehydrogenase from the sea mouse, *Aphrodite aculeata* (Polychaeta). *J. Exp. Zool.* 225, 369-378.
71. Storey, J.M. and Storey, K.B. 1983. Regulation of cryoprotectant metabolism in the overwintering gall fly larvae, *Eurosta solidaginis*: temperature control of glycerol and sorbitol levels. *J. Comp. Physiol. B* 149, 495-502.
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69. Ballantyne, J.S. and Storey, K.B. 1983. Substrate preferences of mitochondria isolated from locust (*Locusta migratoria*) and blowfly (*Phormia regina*) fat bodies. *Can. J. Zool.* 61, 2351-2356.
68. Plaxton, W.C. and Storey, K.B. 1983. Purification and properties of alanopine dehydrogenase isozymes from the channeled whelk, *Busycotypus canaliculatum*. *Comp. Biochem. Physiol.* 76B, 321-326.

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66. Male, K.B. and Storey, K.B. 1983. Kinetic characterization of NADP specific glutamate dehydrogenase from the sea anemone, *Anthopleura xanthogrammica*. Control of amino acid biosynthesis during osmotic stress. Comp. Biochem. Physiol. 76B, 823-829.
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## 1982

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60. Storey, K.B. 1982. Fructose-1,6-bisphosphatase from bumblebee flight muscle. in: Methods in Enzymology (Wood, W.A., ed)(Colowick, S.P. and Kaplan, N.O. ed-in-chief) Academic Press, New York, Vol. 90, Part E, pp. 366-371.

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58. Storey, K.B. and Dando, P.R. 1982. Substrate specificities of octopine dehydrogenase from marine invertebrates. Comp. Biochem. Physiol. 73B, 521-528.
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52. Male, K.B. and Storey, K.B. 1982. Purification and properties of glutamate dehydrogenase from the cold hardy gall fly larva, *Eurosta solidaginis*. Insect Biochem. 12, 507-514.

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44. Storey, K.B. 1980. Regulatory properties of hexokinase from flight muscle of *Schistocerca americana gregaria*. Role of the enzyme in control of glycolysis during the rest-to-flight transition. Insect Biochem. 10, 637-645.
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42. Storey, K.B. and Storey, J.M. 1979. Kinetic characterization of tissue-specific isozymes of octopine dehydrogenase from mantle muscle and brain of *Sepia officinalis*. Functional similarities to the M4 and H4 isozymes of lactate dehydrogenase. *Eur. J. Biochem.* 93, 545-552.
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37. Storey, K.B. 1978. Purification and properties of fructose diphosphatase from bumblebee flight muscle. Role of the enzyme in control of substrate cycling. *Biochim. Biophys. Acta* 523, 443-453.
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4. Storey, K.B. and Hochachka, P.W. 1974. Enzymes of energy metabolism in a vertebrate facultative anaerobe, *Pseudemys scripta*: turtle heart phosphofructokinase. *J. Biol. Chem.* 249, 1417-1422.
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**STOREY LAB PERSONNEL TRAINED****Post-doctoral fellows**

1. Jim Ballantyne	1982 – 1983
2. Saidur Rahman	1984 – 1986
3. Basile Michaelidis	1988 – 1989
4. Ralph Ferguson	1989 – 1991
5. Stephen Brooks	1986 – 1992
6. Marcelo Hermes-Lima	1991 – 1994
7. Craig Frank	1992 – 1994
8. Qinyin Cai	1995 – 1996
9. Isabelle Grangemard-Moineau	1998 – 1999
10. Marina Batrukova	1999 – 2000
11. Eiji Kotani	2001 – 2002
12. Barbara Katzenback	2012 – 2014

**Ph.D. students**

1. Bill Plaxton (Biol)	1980-84	22. Pier Morin (Chem)	2002-06
2. Tom Churchill (Biol)	1988-92	23. Khalil Abnous (Chem)	2002-07
3. Denis Joannis (Biol)	1989-95	24. Mamady Hapsatou (Biol)	2002-06
4. Yanjing Su (Chem)	1990-92	25. Chris Ramnanan (Biol)	2002-06
5. Jean Grundy (Chem)	1990-96	26. Christopher Dieni (Chem)	2004-08
6. Hossein Mehrani (Chem)	1991-94	27. Amal Malik (Biol)	2005-09
7. Clark Holden (Biol)	1991-95	28. Anastasia Krivoruchko (Biol)	2006-10
8. William Willmore (Biol)	1992-97	29. Ben Lant (Biol)	2006-11
9. Bradley Thatcher (Biol)	1993-97	30. Kyle Biggar (Biol)	2008-13
10. Justin MacDonald (Biol)	1993-98	31. Jing Zhang (Biol)	2008-13
11. Kyra Cowan (Chem)	1994-98	32. Cheng-Wei (Mike) Wu (Biol)	2009-14
12. Tolga Bilgen (Biol)	1994-98	33. Neal Dawson (Biol)	2009-14
13. Shao-Bo Wu (Biol)	1995-99	34. Ryan Bell (Chem)	2009-14
14. Tamara English (Biol)	1996-00	35. Shannon Tessier (Biol)	2010-14
15. Andreas Fahlman (Biol)	1996-00	36. Sanoji Wijenayake (Biol)	2012-
16. Dayre McNally (Chem)	1998-02	37. Bryan Luu (Biol)	2013-
17. Kevin Larade (Biol)	1998-02	38. Christine Childers (Biol)	2014-
18. Sean Eddy (Chem)	1998-03	39. Kama Szereszewski (Biol)	2014-
19. Dustin Hittel (Biol)	1999-01	40. Liam Hawkins (Biol)	2016-
20. Dave McMullen (Chem)	1998-04	41. Rasha Al-Attar (Biol)	2016-
21. Amritha de Croos (Biol)	2000-03	42. Alex Watts (Biol)	2016-

**M.Sc. students**

1. Keith Male (Biol)	1980-82	36. Lin Hui Yao (Chem)	2005-07
2. Danny Miller (Biol)	1981-83	37. Mani Mathialagan (Biol)	2006-08
3. Sandra Korycan (Biol)	1982-84	38. Judeh Lama (Biol)	2006-08
4. Roy Cole (Biol)	1982-84	39. Ryan Bell (Biol)	2006-08
5. Ajoy Chakrabarti (Biol)	1986-88	40. Oscar Aguilar (Biol)	2007-09
6. John Duncan (Biol)	1986-88	41. Neal Dawson (Biol)	2007-09
7. Ross Whitwam (Biol)	1986-88	42. Craig Brooks (Biol)	2007-09
8. Dave Kelly (Biol)	1986-88	43. Rabih Roufayel (Biol)	2008-09
9. Doris Schafhauser (Chem)	1988-90	44. Shannon Tessier (Biol)	2008-10
10. Clark Holden (Biol)	1989-91	45. Allan Letourneau (Biol)	2008-10
11. Elizabeth Russell (Chem)	1991-93	46. Marcus Allan (Biol)	2008-10
12. Donna Douglas (Chem)	1991-93	47. Alyx Holden (Biol)	2009-11
13. Aleixo Muise (Chem)	1991-93	48. Katrina Sullivan (Biol)	2009-11
14. Tina Pannunzio (Chem)	1992-94	49. Altaf Mahmud (Biol)	2010-12
15. Peggy Schade (Chem)	1993-96	50. Julie Wu (Biol)	2011-13
16. Steven Greenway (Biol)	1993-95	51. Yulia Maistrovski (Biol)	2011-13
17. Marc de la Roche (Chem)	1993-95	52. Bryan Luu (Biol)	2011-13
18. Tammy English (Biol)	1993-95	53. Christine Childers (Biol)	2012-14
19. Dawn Lobsinger (Biol)	1993-96	54. Andrew Rouble (Biol)	2012-14
20. Lars Jurgensen (joint) (Biol)	1994-96	55. Kama Szerezewski (Biol)	2012-14
21. Sylvie Lautru (Chem)	1995-97	56. Jean Abboud (Biol)	2012-15
22. Tom Pfister (Chem)	1997-99	57. Anthony Ruberto (Biol)	2013-15
23. Shahriar Saeedi (Biol)	1998-00	58. Ryan Girgrah (Chem)	2014-15
24. Estatira Sepehr (Chem)	1999-02	59. Michael Smolinski (Biol)	2014-16
25. Keqin Yan (Biol)	2002-05	60. Liam Hawkins (Biol)	2014-8/16
26. Julie Ni (Biol)	2002-04	61. Alex Watts (Biol)	2014-8/16
27. Li Zhenhong (Biol)	2002-04	62. Rasha Al-Attar (Biol)	2014-8/16
28. Ashley Woods (Biol)	2003-05	63. Tony Zhang (Biol)	2014-8/16
29. Stephanie McFadyen (Biol)	2003-11	64. Sam Williamson (Biol)	2015-
30. Jun Du (Chem)	2003-05	65. Stuart Green (Biol)	2015-
31. Jeremy Zhang (Chem)	2004-06	66. Samantha Logan (Biol)	2015-
32. Jiayun Zhou (Chem)	2004-06	67. Hanane Hadj-Moussa (Biol)	2015-
33. Lin Xie (Biol)	2005-07	68. Trong Nguyen (Biol)	2015-
34. Melanie Bouffard (Chem)	2005-07	69. Jessica Mattice (Biol)	2016-
35. Jacques Niles (Biol)	2005-07		

**B.Sc. Hons. 4908 students**

1. Keith Male	1979-80
2. Bill Plaxton	1980
3. Mike Cooke	1980
4. Kevin Rooney	1980-81
5. Danny Miller	1980-81
6. Ian Park	1980-81
7. Corinne O'Grady	1981-82
8. Sandra Korycan	1981-82
9. John Eberlee	1982-83
10. Helen McDonald	1984-85
11. Cyril Butler	1984-85
12. Julian Rickards	1984-85
13. Mary Jane Kelleher	1984-85
14. Inger Weibust	1985-86
15. Ross Whitwam	1985-86
16. John Duncan	1985-86
17. Dave Kelly	1985-86
18. Tom Churchill	1987-88
19. Brent Derry	1988-89
20. Adam Vyse	1988-89
21. Derrick Keefe	1988-89
22. Denis Joannis	1989
23. Lauralynn Kourtz	1989-90
24. Robert Vogrig	1989-90
25. Angela Mendicino	1990
26. Maureen Callighan	1990
27. Maria Pittarelli	1990-91
28. Lori Pender	1990-91
29. Spencer Bruce Gibson	1990-91
30. Serita Anand	1991-92
31. Garth Hanson	1995-96
32. Tom Pfister	1996
33. Mike Hillmer	1996-97
34. Mike Blank	1996-97
35. Nathan Isotalo	1996-97
36. Rashid Abdulle	1997
37. Michael Page	1997-08
38. Maher Char	2000
39. Matthew Castellarin	2000
40. Chris Sturgeon	2000-01
41. Jessica Maloney	2000-01
42. Chris Ramnanan	2001-02
43. Tara MacIsaac Nevins	2001-02
44. Mandy Woodhouse	2001-02
45. Angie Bielecki	02-03
46. Ahmad Kadhim	02-03
47. Crystal Wylie	02-03
48. Daniel Kolczynski	2003
49. Amira Sultan	2003-04
50. Joann Tye	2004
51. Rebecca Sadler	2004-05
52. Judeh Lama	2005-06
53. Ryan Bell	2005-06
54. Anastasia Krivoruchko	2005-06
55. Ben Lant	2005-06
56. Amy Groom	2005-06
57. Oscar Aguilar	2006-07
58. Neal Dawson	2006-07

59. Adrian Dubuc	2006-07
60. Tunde Forrest	2007
61. Marcus Allan	2007-08
62. Obiajulu Anozie	2007-08
63. Yan (Kelly) Gao	2007-08
64. Helen (Alyx) Holden	2008-09
65. Kristen Marshall	2008-09
66. Cheng-wei (Mike) Wu	2008-09
67. Anthony Reardon	2008-09
68. Camille Francisco	2008-09
69. Jie Huang	2008-09
70. Cassandra Belo	2009
71. Bryan Luu	2010-11
72. Samantha Kornfeld	2010-11
73. Yulia Maistrovski	2010-11
74. Ted Daigle	2010-11
75. Rana Abu-Safeyeh	2010-11
76. Andrew Rouble	2011-12
77. Joshua Hefler	2011-12
78. Jean (Johny) Abboud	2011-12
79. Zi Jian Xiong	2011-12
80. Annamaria Ruscito	2011-12
81. Nadine Adam	2012-13
82. Michael Smolinski	2012-13
83. Victoria Gerber	2013-14
84. Daniela Azman	2013-14
85. Anam Arbab	2013-14
86. Jazz Smyl Joly	2014
87. Stuart Green	2014-15
88. Samantha Logan	2014-15
89. Saumya Bansal	2014-15
90. Hanane Hadj-Moussa	2014-15
91. Chris Mordak	2014-15
92. Trong Nguyen	2014-15
93. Ashley Gerber	2015-16
94. Jessica Mattice	2015-16
95. Jason Moggridge	2015-16
96. Amanda Mattice	2016-17
97. Isabelle MacLean	2016-17
98. Myriam Hoyeck	2016-17
99. Jannelle Lamontagne	2016-17

**B.Sc. Hons. 4907 students – Non-research thesis**

Eric Sullivan	2007-08
Akbar Katawazy	2008
Samar Rashid	2008
Shifawn O'Hara	2009
Magdalene Jackson	2013-14

**Undergrad research course (Biochem 3400 or 2400)**

Bryan Luu	2009-10
Zi Jian Xiong	2010-11
Yi (Rick) Zheng	2011-12
Hanane Hadj-Moussa	2013-14
Samantha Logan	2014
Victoria Gerber	2014
Ashley Gerber	2014
Myriam Hoyeck	2016
Simon English	2016
Martin Lunn	2016

**Summer NSERC USRA Scholars**

1. Tom Churchill	87, 88
2. Ken Mitton	88
3. Anna Lindholm	88, 89
4. Lauralynn Kourtz	89,90
5. Mary Pham	89
6. Jeff Benedictson	91
7. Serita Anand	91
8. Loren Matheson	99
9. Tia Moffat	99
10. Andre Nimigan	2000
11. Maher Char	2000
12. Tara MacIsaac	2000
13. Shauna Duigenan	2000
14. Chris Sturgeon	2000
15. Indhani Sutarjono	2000
16. Chris Ramnanan	2001, 2002
17. Agnieszka Bielecki	2001, 2002
18. Joann Tye	2002, 2003
19. Janel Yu	2002
20. Crystal Wylie	2003
21. Kate Storey	2004
22. Judeh Lama	2004, 2005, 2006
23. William Xu	2004
24. Anastasia Krivoruchko	2005, 2006
25. Niall Filewod	2005
26. Ryan Bell	2005, 2006
27. Amy Groom	2006
28. Tarek Abd El Halim	2006
29. Edwin Chang	2006
30. Marcus Allan	2006, 2007, 2008
31. Adrian Dubuc	2007
32. Linlu Zhao	2007
33. Corey Stein	2007
34. Salini Gopalapillai	2007
35. Victoria Ho	2007
36. Rishi Vashishta	2007
37. Helen (Alyx) Holden	2008, 2009
38. Kristen Marshall	2008
39. Camille Francisco	2008
40. Bryan Luu	2009, 2010
41. Samantha Kornfeld	2010
42. Andrew Rouble	2010, 2011, 2012
43. Yulia Maistrovski	2010, 2011
44. Joshua Hefler	2010, 2011, 2012
45. Lien Davidson	2011
46. Nadine Adam	2011, 2012
47. Alex Tseytlin	2011
48. Jean Abboud	2011, 2012
49. Annamaria Ruscito	2011
50. Haroun Zayed	2012
51. Victoria Gerber	2013, 2014
52. Stuart Green	2013, 2014, 2015
53. Ashley Gerber	2014, 2015, 2016
54. Jason Moggridge	2014, 2015
55. Sam Logan	2015
56. Amanda Mattice	2015, 2016
57. Myriam Hoyeck	2015, 2016
58. Jessica Mattice	2015, 2016
59. Sarah Kealey	2015, 2016

60. Isabelle MacLean	2015, 2016
61. Ameen Ismail	2016
62. Jordan Levy	2016
63. Amy Zhang	2016

**Summer Co-op, DSRI or Walker Scholars**

1. Marcus Allan	2006	Co-op
2. Cheng-wei (Mike) Wu	2008	Co-op
3. Anthony Reardon	2008	Walker
4. Xiao Li Wang	2009	DSRI
5. Theodore Daigle	2010	DSER
6. Michael Smolinski	2010	DSRI
7. Alex Tseytlin	2010	DSRI
8. Zi Jian Xiong	2011	Walker
9. James Podrebarac	2011	DSRI
10. Haroun Zayed	2011	DSRI
11. Samantha Logan	2012	DSRI; 2013 Walker
12. Saumya Bansal	2012	DSRI; 2013 Walker
13. Stuart Green	2012	DSRI
14. Jennifer Ferraro	2012	DSRI
15. Jason Moggridge	2013	DSRI
16. Kyle Fournier	2013	DSRI
17. Hanane Hadj-Moussa	2013	volunteer
18. Amanda Mattice	2014	DSRI
19. Myriam Hoyeck	2014	DSRI
20. Simon English	2015	DSRI
21. Jannelle Lamontagne	2015	DSER
22. Kelsea McKay	2016	DSRI

**Research interns supervised (Fleming college)**

Dianna Duford	Jan-Apr 2010
Bradley Hess	Sept-Dec 2010
Andrew Gordon	Sept-Dec 2016

**Work-study students**

Yousef Iqbal	Sept 2013 – April 2014
Luxshni Kirupakaran	Sept 2014 – April 2015

**Full time Technicians**

1. Keith Male	1982-84
2. John Eberlee	1983-84
3. Sandra Walters	1984-86
4. Mary Brown	1984-85
5. John Duncan	1988-91
6. Ross Whitwam	1989-90
7. Doris Schafhauser	1990-91
8. Eileen Dent	1995
9. Joann Tye	2004-06
10. Jacques Niles	2007-08

**Summer Technicians**

1. Alexandra Fotiou	1988, 89, 90
2. Garth Hanson	1995
3. Rashid Abdulle	1898
4. Lee Timms	2002
5. Joann Tye	2004
6. Tarek Abd El Halim	2007

## KENNETH B. STOREY

### LECTURES AND CONFERENCE PRESENTATIONS

#### CAREER SUMMARY

<b>Plenary, Keynote and Named Lectures:</b>	<b>63</b>
<b>Conference Scientific Committees</b>	<b>3</b>
<b>Symposia Organized</b>	<b>30</b>
<b>Invited Lectures in Symposia at Scientific Meetings</b>	<b>106</b>
<b>Invited Seminars (universities, research stations, public lectures)</b>	<b>394</b>
<b>Contributed Communications with Students at Scientific Meetings</b>	<b>426</b>

#### PLENARY LECTURES, KEYNOTE ADDRESSES & NAMED LECTURES 2007 - Present (40 others 2006 and earlier):

- Life on pause: Epigenetic mechanisms underlie global metabolic rate depression. Ottawa-Carleton Institute of Biology Conference, University of Ottawa, Ottawa, May 5-6, 2016.
- The edges of life. Ontario Biology Day conference, Carleton University, Ottawa. March 21-22, 2015.
- Lessons in organ preservation from nature. Keynote address, Organ Banking Summit, Palo Alto, CA, February 26-28, 2015.
- The living dead. Plenary lecture, Colloque ExoMod, Centre National de la Recherche Scientifique- Campus Gérard Mégie, Paris, France, February 9-10, 2015.
- Metabolic rate depression: biochemical and molecular mechanisms. Keynote address, Society for Experimental Biology, Manchester, UK. July 1-4, 2014.
- The living dead: metabolic arrest and the control of biological time. Hilgendorf Lecture, Evolution and Ecology Forum, University of Tübingen, Tübingen, Germany, October 24-25, 2013.
- Mammalian hibernation – clinical applications. American College of Cryosurgery (ACCryo 2013), Miami, Florida, USA. January 2-7, 2013.
- Stress response and adaptation: a new molecular toolkit for the 21<sup>st</sup> century. 1<sup>st</sup> International Conference on Oxidative Stress in Aquatic Ecosystems. Los Cabos, Mexico, November 20-24, 2012.
- Metabolic mechanisms of mammalian hibernation. Keynote speaker, 14<sup>th</sup> Chemistry & Biochemistry Graduate Research Conference, Concordia University, November 18, 2011.
- Mammals on ice: Biochemical regulation of winter hibernation. Plenary series. Department of Biomedical and Molecular Sciences, Queen's University, Kingston, September 16, 2011.
- Exploring biochemical adaptations: synthetic intuition on a family farm. Fry lecture, 50<sup>th</sup> annual Canadian Society of Zoologists, University of Ottawa, May 16-20, 2011.
- Frozen alive: Molecular mechanisms of vertebrate freeze tolerance. Keynote lecture, 11<sup>th</sup> Extreme Cryo meeting, Edmonton, Alberta, January 29-30, 2010.
- Life in the cold: a biochemist's perspective on animals in winter. Keynote lecture, 39<sup>th</sup> Annual meeting, German Ecological Society, Bayreuth, Germany, September 14-18, 2009.
- Life in the cold: molecular mechanisms of mammalian hibernation. Keynote lecture, 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, St. Francis Xavier University, Antigonish, Nova Scotia, May 14 -16, 2009.
- Life in an ice cube. Keynote lecture, Biology Graduate Research Conference, University of North Texas, Denton, TX, April 25, 2009.
- Metabolic arrest: it isn't just for turtles anymore! How the concepts of Peter Lutz have spread across phylogeny. Peter L. Lutz Memorial lecture, Florida Atlantic University, Boca Raton, FL, March 24, 2009.
- Frozen and alive: ectothermic vertebrates in winter. Keynote lecture, Richard E. Peter Biology Conference, University of Alberta, Edmonton, AB, March 5-6, 2009.
- Mammals on ice: the molecular secrets of winter hibernation. 25<sup>th</sup> Annual meeting, Australian and New Zealand Society for Comparative Physiology and Biochemistry, University of Sydney, Sydney, Australia, December 5-8, 2008.
- Life on pause: Nature's ways of suppressing metabolism. European Community project: Sleeping beauties – dormancy and resistance in harsh environments. Max Planck Institute, Berlin, Germany, May 18-21, 2008.
- Life in the cold: a biochemist's perspective on animals in winter. Northeast Natural History Conference, Albany, NY, April 17-18, 2008.
- Mammalian hibernation: how to miss 630 meals in a row. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.
- Frozen alive: molecular secrets of freeze tolerant animals. 17<sup>th</sup> MGC symposium, Rotterdam, Netherlands, September 18, 2007.

Freeze tolerance: its all in the genes. CRYO-2007, 44th Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.

### **CONFERENCE SCIENTIFIC COMMITTEES:**

Society for Cryobiology, 44th Annual Meeting, Ottawa, Ontario, July 23-27, 2016.

Sleeping beauties: Dormancy and resistance in harsh environments. Berlin, Germany, May 18-20, 2008.

Biological motility, Moscow, Russia, May 11-15, 2008.

Society for Cryobiology, 44th Annual Meeting, Lake Louise, Alberta, July 28-August 1, 2007.

### **SYMPOSIA ORGANIZED: 2007 - Present (24 others 2006 and earlier)**

Nature's way. Society for Cryobiology, Ottawa, July 23-27, 2016. (full day symposium, 13 speakers)

Life in the slow lane - depressed metabolism. Society for Experimental Biology, Manchester, UK. July 1-4, 2014. (co-organizer: R. James, Coventry University)

Translational hibernation. American College of Cryosurgery (ACCryo 2014), Key Largo, Florida, January 15-19, 2014.

Cryobiology. 13<sup>th</sup> International Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.

Herps in the Great White North: survival strategies for short summers and long winters. American Society of Ichthyologists and Herpetologists, Montreal, PQ, July 23-28, 2008.

Cryobiology: Yin and Yang. CRYO-2007, 44th Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.

### **INVITED LECTURES IN SYMPOSIA AT SCIENTIFIC MEETINGS: 2007 - Present**

**(79 others 2006 & earlier)**

Cold case files: molecular mechanisms of insect winter hardiness. XXV International Congress of Entomology, Orlando, FL. September 25-30, 2016.

Life on pause: epigenetic mechanisms underlie metabolic stasis in cold-adapted animals. 53<sup>rd</sup> annual meeting, Society for Cryobiology, Ottawa, July 23-27, 2016

Mammals on ice: molecular secrets of winter hibernation. Wenner-Gren Symposium -Brown Adipose Tissue and Eutheria. Wenner-Gren Center, Stockholm, May 25-28, 2016.

Frontiers in cold hardiness: an "omics" world. 9th International Congress of Comparative Physiology and Biochemistry, Kraków, Poland, August 23-28, 2015.

Decoding the molecular machinery controlling metabolic rate depression. 9th International Congress of Comparative Physiology and Biochemistry, Kraków, Poland August 23-28, 2015.

Controlling biological time: nature has the blueprint. Controlling Biological Time for Organs on Demand - A Vision-setting Workshop. West Point Military Academy, West Point, NY, August 5-6, 2015.

Metabolic arrest and the control of biological time. Controlling Biological Time for Organs on Demand - A Vision-setting Workshop. West Point Military Academy, West Point, NY, August 5-6, 2015.

Nature inspired cryopreservation of human organs. Controlling Biological Time for Organs on Demand - A Vision-setting Workshop. West Point Military Academy, West Point, NY, August 5-6, 2015.

Controlling biological time: Nature has the blueprint. Organ Bioengineering and Banking Roadmap Workshop, Organ Preservation Alliance and White House Office of Science and Technology Policy, Eisenhower Executive Office Building, Washington, DC, May 27-28, 2015.

Protecting cells and proteins in multiple organ systems. Organ Banking Summit, Palo Alto, CA, February 26-28, 2015.

Heat shock proteins in dormancy: life in the cold. 7<sup>th</sup> International Symposium on Heat Shock Proteins in Biology and Medicine, Washington, DC. November 1-5, 2014.

Metabolic rate depression: the heart in winter. 2<sup>nd</sup> Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators. Winnipeg, MB, September 4-6, 2014.

Oxidative stress and the marine environment - "radical" management. 8<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Carleton University, June 11-13, 2014.

Forever young: what turtles can tell us about aging. American Aging Association, San Antonio, Texas, May 30-June 2, 2014.

Mammalian hibernators - insight into disuse atrophy and insulin signaling. American College of Sports Medicine, Orlando, Florida. May 27-31, 2014.

Suspended animation and space travel. 3<sup>rd</sup> International Space Health Forum on Human Energy Conservation on Earth and in Space. Sponsored by Taksha Institute for Space Health and Aging, Old Dominion University, Hampton, Virginia, April 3-4, 2014.

- Epigenetics and the regulation of hypometabolism. Epigenetics in Comparative Physiology, JEB Symposium, Buffalo Mountain Lodge, Banff, Alberta, March 29 – April 2, 2014.
- A new molecular toolkit for the 21<sup>st</sup> century: hibernation and beyond. American College of Cryosurgery (ACCryo 2014), Key Largo, Florida, January 15-19, 2014.
- Living in the cold: a new molecular toolkit for cryobiology in the 21<sup>st</sup> century. CRYO2013, 50<sup>th</sup> Annual Meeting, Society for Cryobiology, Bethesda, Maryland, July 28-31, 2013.
- Metabolic depression: from the intertide to the open ocean. 1<sup>st</sup> International Conference on Oxidative Stress in Aquatic Ecosystems. Los Cabos, Mexico, November 20-24, 2012.
- Biochemical adaptation to freezing environments. 26<sup>th</sup> Annual meeting, Federação de Sociedades de Biologia Experimental (FeSBE), Rio de Janeiro, Brazil, August 24-27, 2011.
- How nature solves the problem of ischemia and reperfusion. Resuscitation Science Symposium, American Heart Association meeting, Chicago, Illinois, November 13-14, 2010.
- Hot and not bothered: Molecular rules for desert life. American Physiological Society Intersociety Meeting, Global Change & Global Science: Comparative Physiology in a Changing World, Westminster, Colorado, August 4-7, 2010.
- Animals, molecular adaptations and climate change: how will organisms cope? Memorial symposium for foundation of the Insect Biomedical Research Center, Kyoto Institute of Technology, Kyoto, Japan. March 26, 2010.
- Insect cold hardiness – the secret is in the genes. International Symposium on Drosophila Bio-Resources, Kyoto Institute of Technology and Enryakuji Temple, Kyoto, Japan. March 17-18, 2010.
- Free radicals in a “radical” stress: lessons from frozen vertebrates! 6<sup>th</sup> Canadian Oxidative Stress Conference, Winnipeg, Manitoba, May 7-10, 2009.
- Beyond gene chips: transcription factor profiling in freeze tolerance. 13<sup>th</sup> International Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.
- Frozen and alive: Canadian herps in winter. American Society for Ichthyology and Herpetology, Montreal, PQ, July 23-28, 2008.
- Dormancy to cell preservation: round table discussion. European Community project: Sleeping beauties – dormancy and resistance in harsh environments. Max Planck Institute, Berlin, Germany, May 18-21, 2008.
- Dealing with oxygen radicals: lessons from mammalian hibernators. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.

## **INVITED SEMINARS: UNIVERSITIES, RESEARCH STATIONS & PUBLIC LECTURES:**

### **2011 - Present (358 others 2010 & earlier)**

- The living dead: metabolic arrest and the control of biological time. College of Marine Science University of South Florida, St. Petersburg, FL. September 23, 2016.
- Insects: enzyme phosphorylation drives winter metabolism of cryoprotectants. Department of Zoology, Stockholm University, Stockholm, Sweden, May 25, 2016.
- Department of Biology, The living dead: metabolic arrest and the control of biological time. Trent University, Peterborough, ON, March 16, 2016.
- Metabolic stasis: hypometabolism and animal survival in extreme environments. Department of Biological Sciences, SUNY Binghamton, Binghamton, NY, November 13, 2015.
- The living dead: metabolic arrest and the control of biological time. Department of Mechanical Engineering and Engineering Sciences, University of North Carolina at Charlotte, Charlotte, NC, October 29, 2015.
- The living dead: metabolic arrest and the control of biological time. Department of Biological Sciences, Fordham University, New York, October 14, 2015.
- Survival strategies for life in extreme environments: biochemical mechanisms of metabolic rate depression. Department of Biochemistry and Biotechnology, Precarpathian National University, Ivano-Frankivsk, Ukraine, August 18, 2015.
- Epigenetics, gene regulation and hypometabolism. Department of Pathology, University of Washington, Seattle, WA. June 3, 2015.
- Epigenetics: gene regulation and hypometabolism. College of Science, Engineering and Mathematics, Bethune-Cookman University, Daytona Beach, Florida, February 2, 2015.
- The living dead: Metabolic arrest and the control of biological time. College of Science, Engineering and Mathematics, Bethune-Cookman University, Daytona Beach, Florida, February 2, 2015.
- Adaptations for life in the intertide: extreme invertebrates. Red Sea Research Center, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, March 23, 2014
- The living dead: metabolic arrest and animal survival in extreme environments. Department of Biology, University of Calgary, Calgary, Alberta, February 6, 2014.
- The living dead: metabolic arrest and animal survival in extreme environments. Department of Biological Sciences, Florida Atlantic University, Boca Raton, January 23, 2014.
- Extreme snails: biochemical adaptations for life in the intertide. Distinguished Speaker Series, Department of Life Sciences Texas A&M University-Corpus Christi, November 8, 2013.

- The living dead: metabolic arrest and the control of biological time. Department of Life Sciences Texas A&M University-Corpus Christi, November 7, 2013.
- Extreme snails: life at the seashore. EVE seminar & workshop. Institute of Evolution and Ecology, University of Tübingen, Tübingen, Germany, October 28, 2013.
- Mammals on ice: lessons for biomedicine. Research Center for Genetic Medicine, Children's National Medical Center, Washington DC, July 30, 2013.
- Life in an ice cube: a frozen Stor-e-y. USDA-ARS National Center for Genetic Resources Preservation, Fort Collins, Colorado, June 10, 2013.
- Mammals on ice: Biochemistry of winter hibernation. Science Café, Ottawa, ON, November 7, 2012.
- Freezing: frogs, organs, human? Almonte Lecture series, Almonte, ON, April 20, 2012.
- Frozen alive: winter survival in the Ottawa valley. MacNamara Field Naturalists Club, Arnprior, ON, March 6, 2012.
- The emerging field of epigenetic science. Dept. Microbiology, St. George's University, Grenada, February 23, 2012.
- Mammals on ice: biochemical regulation of winter hibernation. WIND REF center, St. George's University, Grenada, February 22, 2012.
- Life in an ice cube: a frozen Stor-e-y. School of Life Sciences, University of Nevada, Las Vegas NV, January 20, 2012.
- Mammals on ice: molecular secrets of winter hibernation. Department of Biology, Carleton University, Ottawa, November 25, 2011.
- Molecular secrets of winter hibernation by mammals. Department of Biology, St. Francis Xavier University, Antigonish, October 27, 2011.
- Mammals on ice: the molecular regulation of mammalian hibernation Department of Biology, Mt. Allison University, Sackville, NB, October 26, 2011.
- Frozen and alive: biochemistry of animal freeze tolerance. Department of Biology, Mt. Allison University, Sackville, NB, October 26, 2011.
- Mammals on ice: metabolic regulation of hibernation, Département de chimie et biochimie, Université de Moncton, NB, October 25, 2011.
- Molecular secrets of mammalian hibernation. Department of Biology, Dalhousie University, Halifax, NS, October 24, 2011.
- Molecular adaptations to climate change: how will animals cope. Ottawa Field Naturalists Club, Ottawa, October 11, 2011.
- Mammals on ice: epigenetics in mammalian hibernation. Department of Biology, St. George's University, Grenada, Feb. 10, 2011.

## **CONTRIBUTED COMMUNICATIONS AT SCIENTIFIC MEETINGS BY THE STOREY LAB: 2011 - Present (330 others 2010 & earlier)**

Following are recent poster presentations 2011-2015; most are by trainees from my lab but some (\*) report research with collaborators from other institutions.

### **2016**

#### **Brain Health Research Day, Carleton University, Ottawa, June 24, 2016**

- Gerber, A.E.M., Storey, K.B. Role of microRNA in innate neuroprotection during torpor stress in thirteen-lined ground squirrels, *Ictidomys tridecemlineatus*.
- Luu, B.E., Smolinski, M.B., Lamont, E.W., Abizaid, A., Storey, K.B. Chronic social stress alters microRNA expression in the amygdala, hippocampus, prefrontal cortex and cerebellum.

#### **Society for Cryobiology, Ottawa, July 23-27, 2016.**

- Wijenayake, S., Al-Attar, R., Tessier, S.N. Storey, K.B. Hibernation vs freezing: the tale of metabolic reorganization in winter. (oral)
- Luu, B., Biggar, K.K., Wu, C.-W., Storey, K.B. Cold sensitive novel microRNAs in the hibernating 13-lined ground squirrel, *Ictidomys tridecemlineatus*. (oral)
- Childers, C., Storey, K.B. Regulation of EGFR, MAPK, HSPs and anti-apoptosis pathways in the heart of the mammalian hibernator, *Ictidomys tridecemlineatus*. (oral)
- Zhang, Y., Tessier, S.N., Storey, K.B. Expression of nuclear factor of activated T cells (NFAT) and downstream muscle-specific proteins in ground squirrel skeletal and heart muscle during hibernation.
- Szerezewski, K., Storey, K.B. The importance of fats – PPAR regulation during hibernation.
- Al-Attar, R., Storey, K.B.. Surviving winter: NFATs regulate cryoprotection in freeze-tolerant *Rana sylvatica*. (oral)
- Watts, A., Storey, K.B. Lysine methylation regulates transcriptional control during hibernation in the 13-lined ground squirrel, *Ictidomys tridecemlineatus*.
- Hawkins, L., Storey, K.B. Changes in histone methyltransferases during freezing stress in the wood frog, *Rana sylvatica*.
- Williamson, Storey, K.B. Changes in DNA methyltransferase expression in *Epiblema scudderiana* and *Eurosta soliginis*.

- Logan, S., Storey, K.B. Response of the JAK-STAT pathway to mammalian hibernation in 13-lined ground squirrel striated muscle. (oral)
- Hadj-Moussa, H., Storey, K.B. Micromanaging freeze tolerance: the role of microRNAs in regulating brain cryoprotection. (oral)
- Green, S., Storey, K.B. Regulation of liver glutamate dehydrogenase activity in response to freezing in the wood frog (*Rana sylvatica*).
- Nguyen, T., Storey, K.B. Regulation of skeletal muscle glutamate dehydrogenase from the freeze tolerant *Rana sylvatica*.
- Mattice, J., Smolinski, M., Storey, K.B. Regulation of muscle pyruvate kinase during freezing in wood frogs, *Rana sylvatica*.
- \*Tomalty, H., Storey, K.B., Walker, V.K. Identification of ice-binding activity in the gall fly and its goldenrod host.

### **Ottawa-Carleton Institute of Biology, University of Ottawa, May 5-6, 2016**

- Luu, B.E., Biggar, K.K., Wu, C.W., Storey, K.B. Torpor-responsive expression of species-specific microRNA in the thirteen-lined ground squirrel, *Ictidomys tridecemlineatus*.
- Childers, C.L., Green, S., Dawson, N.J., Storey, K.B. Native denaturation differential scanning fluorimetry: a method for determining the kinetic effect of urea using a quantitative real-time thermocycler.
- Zhang, Y., Storey, K. Regulation of gene expression by NFAT transcription factors is dependent on the cellular environment in hibernating ground squirrels. BEST POSTER AWARD
- Hawkins, L., Storey, K. Histone methylation in the freeze-tolerant wood frog (*Rana sylvatica*).
- Watts, A., Storey, K.B. Regulation of lysine methylation during torpor cycle in 13-lined ground squirrel, *Ictidomys tridecemlineatus*.
- Rasha Al-Attar, Storey, K.B. Surviving diabetes: the tale of NFAT and the frozen frog.
- Williamson, S., Storey, K.B. Changes in DNA methylation mediate the physiological changes underpinning freeze tolerance and freeze avoidance in the overwintering insects *Eurosta solidaginis* and *Epiblema scudderiana*.
- Hadj-Moussa, H., Moggridge, J.A., Luu, B.E., Quintero-Galvis, J.F., Gaitán-Espitia, J., Nespolo, R.F., Storey, K.B. Torpor triggers differential microRNA expression in hibernating South American marsupials.
- Logan, S.M., Tessier, S.N., Tye, J., Storey, K.B. Response of the JAK-STAT pathway to mammalian hibernation in 13-lined ground squirrel striated muscle.
- Green, S.R., Storey, K.B. Regulation of liver glutamate dehydrogenase activity in response to freezing in the wood frog (*Rana sylvatica*).
- Nguyen, T.N., Storey, K.B. Regulation of muscle glutamate dehydrogenase from a freeze tolerant wood frog.
- Mattice, J., Storey, K. Regulation of liver glutamate dehydrogenase in response to dehydration in the African clawed frog, *Xenopus laevis*.
- Gerber, A.E.M., Storey, K.B. Torpor-induced regulation of the AGO2-microRNA complex in the brain of thirteen-lined ground squirrels, *Ictidomys tridecemlineatus*.

### **2015**

#### **18<sup>th</sup> Chemistry & Biochemistry Graduate Research Conference, Concordia Univ., Nov. 20, 2015**

- Luu, B.E. and Storey, K.B. Identification and characterization of species-specific novel microRNAs in the hibernating 13-lined ground squirrel, *Ictidomys tridecemlineatus*. (oral)
- Childers, C.L. and Storey, K.B. Post-translational regulation of creatine kinase function in the aestivating frog *Xenopus laevis*.
- Gerber, A.E.M. and Storey, K.B. Torpor response initiates brain microRNA expression in thirteen-lined ground squirrels, *Ictidomys tridecemlineatus*.
- Girgrah, R. and Storey, K.B. TGF- $\beta$  superfamily adaptive regulation in the dehydration-tolerant anuran, *Xenopus laevis*.
- Hadj-Moussa, H., Moggridge, J.A., Luu, B.E., Quintero-Galvis, J.F., Gaitán-Espitia, J., Nespolo, R.F., and Storey, K.B. Torpor triggers differential microRNA expression in hibernating South American marsupials, *Dromiciops gliroides*.
- Szerezewski, K. and Storey, K.B. Expression of PPARs in the hibernating ground squirrel.
- Watts, A. and Storey, K.B. Regulation of lysine methyltransferases and lysine methylation during torpor cycle in 13-lined ground squirrel, *Ictidomys tridecemlineatus*.
- Zhang, Y., Aguilar, O.A and Storey, K.B. Transcriptional activation of muscle atrophy promotes cardiac muscle remodeling during mammalian hibernation.
- Logan, S.M. and Storey, K.B. Turn down gene expression for WAT: anti-apoptotic signaling protects white adipose tissue in hibernating 13-lined ground squirrels.
- Nguyen, T.D. and Storey, K.B. Differential scanning fluorimetry to detect changes in protein stability under solvent alterations.
- Smolinski, M., Mattice, J., Storey, K.B. Purification and characterization of pyruvate kinase in the freeze tolerant wood frog, *Rana sylvatica*.
- Wijenayake, S. Tessier, S. N. and Storey, K.B. Metabolic arrest during hibernation! Cardiac regulation of pyruvate dehydrogenase (PDH) complex in hibernating ground squirrels (*Ictidomys tridecemlineatus*).

#### **Entomological Society of America annual meeting, Minneapolis, Minnesota, November 15-18, 2015.**

- \*Lyons' P.J., \*Crapoulet, N., Storey, K.B. and \*Morin, P. CryomiRs: Characterization of a cold-associated family of microRNAs in *E. solidaginis* and *E. scudderiana*.

**Canadian Cardiovascular Congress, Toronto, October 24-27, 2015.**

Zhang, Y. and Storey, K.B. Expression of the nuclear factor of activated T cells (NFAT) and downstream targets in ground squirrel cardiac muscle.

**9th International Congress of Comparative Physiology and Biochemistry, Kraków, Poland, August 23-28, 2015.**

Logan, S. and Storey, K.B. Turn down gene expression for WAT: Anti-apoptotic signaling protects white adipose tissue in hibernating ground squirrels.

**Learning from Cancer to Advance Neurodegeneration Drug Discovery and Development. The New York Academy of Sciences, June 11, 2015**

\*Nallaseth, F.S., Balch, C., Storey, K. B., Manuel, L., Tracey, M.L., and Lutz, P.L. Comparative evolutionary analysis of the neurophysiological and molecular basis of anoxia resistant turtle and hypoxia sensitive mammalian brains to identify targets for therapeutic intervention in neuropathologies.

**21<sup>st</sup> Canadian Connective Tissue Society conference, Université Laval, Quebec City, May 28-30, 2015.**

Zhang, Y. and Storey, K.B. Expression of the nuclear factor of activated T cells (NFAT) and the downstream targets in ground squirrel skeletal muscle.

**University of Ottawa Heart Institute Research Day, University of Ottawa, May 5, 2015**

Zhang, Y. and Storey, K.B. Expression of the nuclear factor of activated T cells (NFAT) and downstream targets in ground squirrel cardiac muscle.

Wijenayake, S., Tessier, S.N. and Storey, K.B. No need to diet → Just control your metabolism! Regulation of pyruvate dehydrogenase (PDH) in hibernating ground squirrels (*Ictidomys tridecemlineatus*). (Won the Innovation prize)

Luu, B. and Storey, K.B. The regulation of troponins I, C and ANP by GATA4 and Nkx2-5 in heart of hibernating 13-lined ground squirrels *Ictidomys tridecemlineatus*

**12<sup>th</sup> Ottawa-Carleton Institute for Biology research day, Carleton University, April 29-30, 2015.**

Hawkins, L. and Storey, K.B. Changes in histone methyltransferases during natural freezing in the wood frog.

Childers, C. and Storey, K.B. Regulation of skeletal muscle glycolysis during dehydration in the aestivating African clawed frog, *Xenopus laevis*.

Al-Attar, R. and Storey, K.B. Pyruvate dehydrogenase kinase (1-4) regulation under freezing, anoxia and dehydration in liver and muscle of *Rana sylvatica*.

Szerezewski, K. and Storey, K.B. Expression of PPARs in the hibernating ground squirrel *Spermophilus tridecemlineatus*.

Wijenayake, S. and Storey, K.B. No need to diet - Just control your metabolism! Metabolic regulation of pyruvate dehydrogenase (PDH) in hibernating ground squirrels (*Ictidomys tridecemlineatus*).

Ruberto, A. and Storey, K.B. Regulation of muscle lactate dehydrogenase in a hibernating mammal.

Zhang, Y. and Storey, K.B. Expression of nuclear factor of activated T cells (NFAT) and the downstream targets in ground squirrel cardiac muscle.

Hadj-Moussa, H. and Storey, K.B. Regulation of the central metabolic switch, PGC-1 $\alpha$ , and interacting transcription factors in frozen and anoxic *Rana sylvatica*.

Nguyen, T. and Storey, K.B. Differential scanning fluorimetry to detect changes in protein stability under solvent alterations.

Watts, A. and Storey, K.B. Hibernation in the 13-lined ground squirrel, *Ictidomys tridecemlineatus*, involves differences in lysine methyltransferases that are involved in transcriptional control.

Bansal, S. and Storey, K.B. Role of microRNAs in cardiac and skeletal muscles of the freeze-tolerant wood frog, *Rana sylvatica*.

Logan, S. and Storey, K.B. Turn down gene expression for WAT: Anti-apoptotic signaling protects white adipose tissue in hibernating ground squirrels.

**3<sup>rd</sup> Ottawa Heart Research Conference, April 24-25, 2015.**

Zhang, Y. and Storey, K.B. Expression of the nuclear factor of activated T cells (NFAT) and downstream targets in ground squirrel cardiac muscle.

**Society for Developmental Biology, Mid-Atlantic Regional Meeting, Princeton University, March 27-28, 2015.**

\*Nallaseth, F.S., Manuel, L., Balch, C., Storey, K., Tracey, M.L. Jr., and Lutz, P.L. Comparative evolutionary analysis of the neurophysiological and molecular basis of anoxia resistant turtle and hypoxia sensitive mammalian brains to identify oxygen responsive targets in neurodevelopment.

**Ontario Biology Day, Carleton University, March 21-22, 2015.**

Logan, S. and Storey, K.B. Turn down gene expression for WAT: anti-apoptotic signaling protect white adipose tissue in hibernating ground squirrels.

Bansal, S. and Storey, K.B. Role of microRNA in cardiac and skeletal muscles of the freeze-tolerant wood frog, *Rana sylvatica*.  
 Nguyen, T. and Storey, K.B. Differential scanning fluorometry to detect changes in protein stability under solvent alterations.  
 Hadj-Moussa, H. and Storey, K.B. Regulation of PPAR transcription factors in *Rana sylvatica* skeletal muscle and liver during freezing and anoxia.

#### **Ottawa- Carleton Student Northern Research Symposium, March 06, 2015**

Al-Attar, R. and Storey, K.B. Role of NFATC3 and NFAT5 transcription factors in molecular adaptation to stress in *Rana sylvatica*.

#### **Organ Banking Summit, Palo Alto, CA, Feb. 26-28, 2015.**

Tessier, S.N. and Storey, K.B. Modulating Nrf2 transcription factor activity by posttranslational modifications and protein-protein interactions: revealing the regulatory mechanisms of antioxidant defenses during hibernation.  
 Tessier, S.N., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation.  
 Hefler J., Tessier, S. and Storey, K.B. Role of antiapoptotic signaling in mammalian hibernation.  
 Rouble, A.N. and Storey, K.B. Wake me up with deacetylation: role of SIRT family members in the liver of hibernating thirteen-lined ground squirrels.  
 Rouble, A.N., Tessier, S.N. and Storey, K.B. Antiapoptotic signaling as a cytoprotection mechanism during mammalian hibernation.  
 Biggar, K.K., Dawson, N.J. and Storey, K.B. Real-time protein unfolding: A method for determining the kinetics of native protein denaturation using a quantitative real-time thermocycler.  
 Kornfeld, S., Biggar, K.K. and Storey, K.B. Suppression of muscle disuse atrophy during mammalian hibernation – microRNA regulation in the skeletal muscle of *Myotis lucifugus*.  
 Zhang, J. and Storey, K.B. DNA methylation and regulation of DNMTs in the freeze tolerant wood frog, *Rana sylvatica*.  
 Zhang, J. and Storey, K.B. Tissue-specific pattern of PI3K-Akt signaling during freezing in the wood frog, *Rana sylvatica*.  
 Wu, C.-W. and Storey, K.B. Roles of the mTOR signaling pathway in hibernating ground squirrels, a differential suppression of active protein synthesis.

#### **2014**

#### **17<sup>th</sup> Chemistry & Biochemistry Graduate Research Conference, Concordia Univ., Nov. 28, 2014.**

Wijenayake, S., Luu, B.E. and Storey, K.B. Heat shock protein response during dehydration in an African clawed frog (*Xenopus laevis*).  
 Gerber, V. and Storey, K.B. Apoptosis regulation promotes anoxia tolerance in wood frogs.  
 Szereszewski, K. and Storey, K.B. Translational regulation in anoxia tolerant turtles.  
 Childers, C. and Storey, K.B. Regulation of skeletal muscle glycolysis during dehydration in the aestivating African clawed frog, *Xenopus laevis*.  
 Ruberto, A. and Storey, K.B. Regulation of muscle lactate dehydrogenase in a hibernating mammal.  
 Smolinski, M. and Storey. Post-translational regulation of glucose-6-phosphate dehydrogenase in the larvae of the freeze-tolerant gall fly, *Eurosta solidaginis*.

#### **Society for Experimental Biology, Manchester University, Manchester, UK, July 1-4, 2014.**

Zhang, J. and Storey, K.B. DNA methylation and regulation of DNMTs in the freeze tolerant wood frog, *Rana sylvatica*.  
 Zhang, J. and Storey, K.B. Tissue-specific pattern of PI3K-Akt signaling during freezing in the wood frog, *Rana sylvatica*.  
 Wijenayake, S. and Storey, K.B. Epigenetic mechanisms of anoxia tolerance: a role for DNA methylation.  
 Biggar, K.K. and Storey, K.B. Life in the slow lane: microRNA regulation of cyclin D1 during anoxic stress in *Trachemys scripta elegans*.  
 Tessier, S.N., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation.  
 Rouble, A.N. and Storey, K.B. Wake me up with deacetylation: role of SIRT family members in the liver of hibernating thirteen-lined ground squirrels.  
 Wu, C.-W. and Storey, K.B. Roles of the mTOR signaling pathway in hibernating ground squirrels, a differential suppression of active protein synthesis.

#### **8<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Carleton Univ., Ottawa, June 11-13, 2014.**

Dawson, N.J., Katzenback, B.A. and Storey, K.B. Free-radical first responders: the characterization of CuZnSOD and MnSOD regulation during freezing of the freeze-tolerant North American wood frog, *Rana sylvatica*.  
 Lama, J.L., Bell, R.A.V., Storey, K.B. Antioxidant defense in an anoxia-tolerant mollusc: The role of hexokinase and glucose-6-phosphate dehydrogenase regulation in increasing the potential for NADPH production.

#### **American Aging Association, San Antonio, Texas, May 30-June 2, 2014.**

Wu CW, Storey KB. FoxO3a-mediated activation of stress responsive genes during early torpor in a mammalian hibernator.  
 Rouble AN, Storey KB. Possible roles for the SIRT family of protein deacetylases in the regulation of mammalian hibernation.

Biggar, K.K. and Storey, K.B. Changes in the Rb-E2F pathway during anoxia stress in a turtle.

Biggar, K.K. and Storey, K.B. Life in the slow lane: microRNA regulation of cyclin D1 during anoxic stress in *Trachemys scripta elegans*.

Krivoruchko, A. and Storey, K.B. Expression of peroxiredoxins in an anoxia-tolerant turtle.

**Canadian Society of Zoologists, Montreal, Quebec, May 25-29, 2014.**

Katzenback BA, Holden HA, Falardeau J, Childers CL, Avis T and Storey KB. *Rana sylvatica* brevinin-1SY: regulation of an antimicrobial peptide in response to environmental stress.

**New York Academy of Sciences, New York, May 9, 2014.**

\*Nallaseth, F.S., Balch, C., Storey K.B., Manuel, L., Tracey, M.L. and Lutz, P.L. Comparative evolutionary analysis of the neurophysiological and molecular basis of anoxia resistant turtle and hypoxia sensitive mammalian brains to identify targets for therapeutic intervention in neuropathologies.

**3<sup>rd</sup> International Space Health Forum on Human Energy Conservation on Earth and in Space. Old Dominion University, Hampton, Virginia, April 3-4, 2014.**

Bell, R.A.V. and Storey, K.B. Posttranslational modification of glyceraldehyde-3-phosphate dehydrogenase from a hibernating mammal: Insight into cold-adaptation and structural diversity of a housekeeping enzyme.

Hefler J., Tessier, S. and Storey, K.B. Role of antiapoptotic signaling in mammalian hibernation.

Wu, C.-W. and Storey, K.B. Roles of the mTOR signaling pathway in hibernating ground squirrels, a differential suppression of active protein synthesis.

Rouble, A.N., Tessier, S.N. and Storey, K.B. Antiapoptotic signaling as a cytoprotection mechanism during mammalian hibernation.

Kornfeld, S., Biggar, K.K. and Storey, K.B. Suppression of muscle disuse atrophy during mammalian hibernation – microRNA regulation in the skeletal muscle of *Myotis lucifugus*.

Tessier, S. and Storey, K.B. Muscle disuse atrophy: the expression of myocyte enhancer factor 2 in the skeletal muscle of *Spermophilus tridecemlineatus* during hibernation.

Tessier, S.N., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation.

**Epigenetics in Comparative Physiology, JEB Symposium, Banff, Alberta, March 29-April 2, 2014.**

Zhang, J. and Storey, K.B. DNA methylation and regulation of DNMTs in freeze tolerant wood frog, *Rana sylvatica*.

Rouble, A.N. and Storey, K.B. Possible roles for the SIRT family of protein deacetylases in the regulation of mammalian hibernation.

**3<sup>rd</sup> World Molecular & Cell Biology Online Conference, February 25-28, 2014.**

Wu, C.-W. and Storey, K.B. Molecular adaptations of mammalian hibernation; regulation of energy dependent cellular processes during metabolic depression.

**ACCryo2014, Key Largo, Florida, January 15-19, 2014.**

Tessier, S.N., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation

Hefler J., Tessier, S. and Storey, K.B. Role of antiapoptotic signaling in mammalian hibernation.

Zhang, J. and Storey, K.B. Tissue-specific pattern of PI3K-Akt signaling during freezing in wood frog, *Rana sylvatica*.

Zhang, J. and Storey, K.B. Regulation of mTOR complex 1 in liver of freeze tolerant wood frogs, *Rana sylvatica*.

Biggar, K.K., Dawson, N.J. and Storey, K.B. Real-time protein unfolding: A method for determining the kinetics of native protein denaturation using a quantitative real-time thermocycler.

Biggar, K.K. and Storey, K.B. Life in the slow lane: microRNA regulation of cyclin D1 during anoxic stress in *Trachemys scripta elegans*.

Bell, R.A.V. and Storey, K.B. Posttranslational modification of glyceraldehyde-3-phosphate dehydrogenase from a hibernating mammal: Insight into cold-adaptation and structural diversity of a housekeeping enzyme

**Society for Integrative & Comparative Biology, Austin, Texas, January 3-7, 2014.**

\*Alvarado, S., Szyf, M., Rajakumar, R., Storey, K.B., Abouheif, E., Fernald, R. Dynamics of DNA methylation in continuous trait variation, seasonal change and social environment.

**2013**

**CRYO2013, 50<sup>th</sup> Annual Meeting, Society for Cryobiology, Bethesda, Maryland, July 28-31, 2013.**

Biggar, K.K., Dawson, N.J. and Storey, K.B. Real-time protein unfolding: A method for determining the kinetics of native protein denaturation using a quantitative real-time thermocycler.

Katzenback, B.A., Holden, H.A., Falardeau, J., Childers, C.L., Hadj-Moussa, H., Avis, T.J. and Storey, K.B. Regulation of the antimicrobial peptide brevinin-1SY in the skin of *Rana sylvatica* in response to environmental stress.

- Zhang, J. and Storey, K.B. DNA methylation and regulation of DNMTs in freeze tolerant wood frog, *Rana sylvatica*.
- Bell, R.A.V. and Storey, K.B. Posttranslational modification of glyceraldehyde-3-phosphate dehydrogenase from a hibernating mammal: Insight into cold-adaptation and structural diversity of a housekeeping enzyme.
- Tessier, S.N. and Storey, K.B. Modulating Nrf2 transcription factor activity by posttranslational modifications and protein-protein interactions: revealing the regulatory mechanisms of antioxidant defenses during hibernation.
- Dawson, N.J. and Storey, K.B. Threonine phosphorylation of catalase from the freeze tolerant frog, *Rana sylvatica*; A preparatory mechanism.
- Rouble, A.N. and Storey, K.B. Wake me up with deacetylation: role of SIRT family members in the liver of the hibernating thirteen-lined ground squirrel, *Ictidomys tridecemlineatus*.
- Tessier, S.N., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation.

**63<sup>rd</sup> Canadian Society of Microbiologists, Ottawa, Ontario, June 17-20, 2013.**

- Katzenback, B.A., Holden, H.A., Falardeau, J., Childers, C.L., Hadj-Moussa, H., Avis, T.J. and Storey, K.B. Regulation of the antimicrobial peptide brevinin-1SY in skin of *Rana sylvatica* under environmental stress.

**ACCryo 2013, Miami, Florida, USA. January 2-7, 2013.**

- Tessier, S. and Storey, K.B. Muscle disuse atrophy: the expression of myocyte enhancer factor 2 in the skeletal muscle of *Spermophilus tridecemlineatus* during hibernation.
- Wu, C.-W. and Storey, K.B. Roles of the mTOR signaling pathway in hibernating ground squirrels, a differential suppression of active protein synthesis.
- Wu, C.-W., Bell, R.A.V. and Storey, K.B. Regulation of PTEN function and structural stability in hibernating thirteen-lined ground squirrels.
- Rouble, A.N., Tessier, S.N. and Storey, K.B. Antiapoptotic signaling as a cytoprotection mechanism during mammalian hibernation.

**2012**

**1<sup>st</sup> International Conference on Oxidative Stress in Aquatic Ecosystems. Los Cabos, Mexico, November 20-24, 2012.**

- Zhang J. and Storey K.B. p53 transcription factor and cell cycle arrest during anoxia in turtles, *Trachemys scripta elegans*. Bell, R. and Storey, K.B. Regulation of liver glutamate dehydrogenase from an anoxia-tolerant freshwater turtle.
- Biggar, K.K. and K. B. Storey Life in the slow lane: microRNA regulation of cyclin D1 during anoxia stress in *Trachemys scripta elegans*.
- Biggar, K.K. and Storey, K.B. Changes in the Rb-E2F pathway during anoxic stress of an anoxia tolerant turtle
- Dawson, N.J. and Storey, K.B. An enzymatic bridge between carbohydrate metabolism and amino acid metabolism: Regulation of glutamate dehydrogenase by reversible phosphorylation in crayfish.
- Dawson, N.J. and Storey, K.B. An anoxic energy reserve: purification and properties of arginine kinase from the tail muscle of *Orconectes virilis*.
- Lant, B. and Storey, K.B. Anoxia induces autophagy in freshwater crayfish.
- Luu, B. and Storey, K.B. Akt extinguishes energy expensive activities in the estivating African clawed frog.
- Maistrovski, Y. and Storey, K.B. Posttranslational regulation of NFκB during metabolic rate depression in an estivating species, *Xenopus laevis*.

**19<sup>th</sup> Methods in Protein Structure Analysis & 2<sup>nd</sup> China Canada Systems Biology Conference, Ottawa, ON, June 25-28, 2012.**

- Luu, B. and Storey, K.B. Akt extinguishes energy expensive activities in the estivating African clawed frog. Maistrovski, Y. and Storey, K.B. Posttranslational regulation of NFκB during metabolic rate depression in an estivating species, *Xenopus laevis*.
- Wu, C.-W., Bell, R. and Storey, K.B. Regulation of PTEN function and structural stability in hibernating thirteen-lined ground squirrels.
- Bell, R. and Storey, K. Posttranslational modification of glyceraldehyde-3-phosphate dehydrogenase from a hibernating mammal.
- Dawson, N.J. and Storey, K.B. Serine or threonine phosphorylation of catalase from the freeze tolerant frog, *Rana sylvatica*; a preparatory mechanism.
- Zhang, J. and Storey, K.B. Regulation of mTOR complex 1 in liver of freeze tolerant wood frogs, *Rana sylvatica*.
- Tessier, S. and Storey, K.B. Modulating Nrf2 transcription factor activity by posttranslational modifications and protein-protein interactions: revealing the regulatory mechanisms of antioxidant defenses during hibernation.
- Biggar, K., Dawson, N.J. and Storey, K.B. Real-time protein unfolding: a method for determining the kinetics of native protein denaturation using a quantitative real-time thermocycler.
- Abboud, J. and Storey, K.B. 2012. An investigation of lactate dehydrogenase in the freeze-tolerant wood frog, *Rana sylvatica*.
- Hefler, J. and Storey, K.B. Cell cycle control via p53-mediated pathway in 13-lined ground squirrel (*Ictidomys tridecemlineatus*) during hibernation.

Rouble, A.N. and Storey, K.B. Wake me up with deacetylation: role of SIRT family members in the liver of the hibernating thirteen-lined ground squirrel, *Ictidomys tridecemlineatus*.

**Society for Experimental Biology, Salzburg, Austria, June 29-July 2, 2012.**

\*James, R.S., Staples, J.F., Tessier, S.N., and Storey, K.B. Storey. Does hibernation affect skeletal muscle performance in 13-lined ground squirrels?

**15th International Biochemistry of Exercise Congress, Stockholm, Sweden, June 17-21, 2012.**

\*Brooks, N.E., Myburgh, K.M. and Storey, K.B. Muscle satellite cells increase during hibernation in ground squirrels.

**Experimental Biology, San Diego, CA, April 21-25, 2012. FASEB J., March 29, 2012**

\*Hughey, C., Shearer, J., Storey, K.B. and Hittel, D.S. Reversible suppression of mitochondrial respiration in skeletal muscle of the freeze tolerant wood frog *Rana sylvatica*.

**Society for Integrative and Comparative Biology, Charleston, South Carolina, January 3-7, 2012.**

\*Sinclair, B.J., Stinziano, J.R., Williams, C.M., Marshall, K.E., MacMillan, H.A. and Storey, K.B. Real-time measurements of metabolism during freezing and thawing in wood frogs, *Rana sylvatica*.

**2011**

**14<sup>th</sup> Chemistry & Biochemistry Graduate Research Conference, Concordia Univ., Nov. 18, 2011.**

Maistrovski, Y. and Storey, K.B. The role of HIF-1 and its natural antisense transcript in mammalian hibernation.

Luu, B. and Storey, K.B. Role of myogenic regulatory factors in resistance to muscle disuse atrophy in anoxia tolerant turtles.

**1<sup>st</sup> Canadian Conference on Epigenetics, London, Ontario, May 4-7, 2011.**

\*Alvarado S., Mak T., Liu S., Storey K. and Szyf M. DNA methylation dynamics in the hibernating ground squirrel.

**26<sup>th</sup> Annual meeting, Federação de Sociedades de Biologia Experimental (FeSBE), Rio de Janeiro, Brazil, August 24-27, 2011.**

Lant, B. and Storey, K.B. Anoxia induces autophagy in freshwater crayfish. Biggar, K. and Storey, K.B. Life in the slow lane: microRNA regulation of cyclin D1 during anoxia stress in *Trachemys scripta elegans*.

Holden, H.A. and Storey, K.B. Impact of dehydration on the immune system in African clawed frog.

Zhang, J. and Storey, K.B. Tissue-specific pattern of PI3K-Akt signaling during freezing in wood frog, *Rana sylvatica*. 5<sup>th</sup> annual conference.

Sullivan, K. and Storey, K.B. Transcript expression patterns of the novel freeze responsive genes *li16*, *fr10* and *fr47* in the wood frog, *Rana sylvatica*.

Luu, B. and Storey, K.B. The role of the troponin-tropomyosin complex and dystrophin-related glycoproteins in the hibernating thirteen-lined ground squirrel.

Letourneau, A. and Storey, K.B. Glycerol-3-phosphate dehydrogenase regulation by reversible phosphorylation in hibernating *Spermophilus tridecemlineatus* liver.

Zhang, J. and Storey, K.B. Involvement of microRNA in the activation of Akt/PKB signaling in wood frog liver during freezing.

Rouble, A., Tessier, S. and Storey, K.B. Antiapoptotic signaling as a cytoprotection mechanism during mammalian hibernation.

Hefler J., Tessier, S. and Storey, K.B. Role of antiapoptotic signaling in mammalian hibernation.

Biggar, K. and Storey, K.B. Changes in the Rb-E2F pathway during anoxic stress of an anoxia tolerant turtle.

Holden, A. and Storey, K.B. Regulation of NADP<sup>+</sup>-dependent isocitrate dehydrogenase by state-dependent reversible phosphorylation in anoxia tolerant red-eared slider turtles, *Trachemys scripta elegans*.

Zhang, J. and Storey, K.B. p53 transcription factor and cell cycle arrest during anoxia in turtles, *Trachemys scripta elegans*.

Dawson, N.J. and Storey, K.B. An anoxic energy reserve: purification and properties of arginine kinase from the tail muscle of *Orconectes virilis*.

Tessier, S.N. and Storey, K.B. Muscle disuse atrophy: the expression of myocyte enhancer factor-2 in the skeletal muscle of *Spermophilus tridecemlineatus* during hibernation.

Dawson, N.J. and Storey, K.B. An enzymatic bridge between carbohydrate metabolism and amino acid metabolism: Regulation of glutamate dehydrogenase by reversible phosphorylation in *Orconectes virilis*.

**1st International Ice Binding Protein Conference, Kingston, ON, August 3-6, 2011.**

\*Tomalty, H., Storey, K.B. and Walker, V.K. Surviving winter in a frozen state: the search for ice-binding proteins in a freeze tolerant insect.

**4<sup>th</sup> Intl. Environmental Physiology of Ectotherms and Plants. Rennes, France, July 18-22, 2011.**

\*Sinclair, B.J., Williams, C.M., MacMillan, H.A. and Storey, K.B. Real-time measurements of metabolism during freezing and thawing in wood frogs, *Rana sylvatica*.

**Society for Experimental Biology, Glasgow, UK, July 1-4, 2011.**

\*James, R.S., Tallis, J., Seebacher, F., and Storey, K.B. Body mass specific muscle power output is maintained during daily torpor in the Djungarian hamster *Phodopus sungorus*.

**50<sup>th</sup> Canadian Society of Zoologists, University of Ottawa, May 16-20, 2011.**

Biggar, K.K. and Storey, K.B. Anoxia survival in turtles: possible roles of microRNAs in regulating metabolic rate. Lant, B.

Lessons in antioxidant defense from the anoxia tolerant crayfish.

Holden, A. and Storey, K.B. Surviving freezing: impacts on the immune system.

Wu, C-W. Hypometabolism in mammals: role of translational regulation in torpor survival.

Sullivan, K. and Storey, K.B. Expression patterns of the novel freeze responsive genes *li16*, *fr10* and *fr47* in the wood frog, *Rana sylvatica*.

Letourneau, A. and Storey, K.B. Regulation of glycerol-3-phosphate dehydrogenase during hibernation in Richardson's ground squirrels by reversible phosphorylation.

Bell, R. and Storey, K.B. Regulation of foot muscle glutamate dehydrogenase from an estivating land snail.

Dawson, N.J. and Storey, K.B. The allosteric regulation of glutathione reductase in the freezing frog, *Rana sylvatica*.

Zhang, J. and Storey, K.B. Involvement of microRNA in the activation of Akt/PKB signaling in wood frog liver during freezing.

Tessier S., Luu, B. and Storey, K.B. Adaptations of cardiac muscle function during mammalian hibernation.

Rouble, A., Tessier, S. and Storey, K.B. Antiapoptotic signaling as a cytoprotection mechanism during mammalian hibernation.

Kornfeld, S., Biggar, K.K. and Storey, K.B. Suppression of muscle disuse atrophy during mammalian hibernation – microRNA regulation in the skeletal muscle of *Myotis lucifugus*.

Hefler J., Tessier, S. and Storey, K.B. Role of antiapoptotic signaling in mammalian hibernation.

Luu, B., Biggar, K.K. and Storey, K.B. Role of myogenic regulatory factors in resistance to muscle disuse atrophy in anoxia tolerant turtles.

Maistrovski, Y., Biggar K. and Storey, K.B. Novel HIF-1 regulation by non-coding RNA in mammalian hibernators.

\*Sinclair, B.J., Williams, C.M., MacMillan, H.A. and Storey, K.B. Real-time measurements of metabolism during freezing and thawing in wood frogs, *Rana sylvatica*.

**KENNETH B. STOREY**  
**LECTURES AND CONFERENCE PRESENTATIONS**

**Older information about:**

Plenary lectures, keynote addresses and named lectures, **2006 & earlier**  
 Symposia organized, **2006 & earlier**  
 Invited lectures in symposia at scientific meetings, **2006 & earlier**  
 Invited seminars: universities, research stations & public lectures, **2010 & earlier**  
 Contributed communications at scientific meetings by the Storey lab, **2010 & earlier**

**PLENARY LECTURES, KEYNOTE ADDRESSES and NAMED LECTURES (1985 - 2006)**

Frozen alive: molecular secrets of vertebrate freeze tolerance. 24<sup>th</sup> annual meeting, European Society of Comparative Physiology and Biochemistry, Antwerp, Belgium, September 17-21, 2006.

Frozen alive: gene secrets of freeze tolerant animals show new directions for cryomedicine. Plenary lecture, 11<sup>th</sup> International Congress of Human Genetics, Brisbane, Australia, August 6-10, 2006.

Molecular adaptations for winter survival by insects. Keynote lecture, International Symposium for the Drosophila Research Center, Kyoto Institute of Technology, Kyoto, Japan, March 7, 2006.

Sustaining biosystems in a changing environment. Dedication lecture at the opening of the Center for Bioresources, Kyoto Institute of Technology, Kyoto, Japan, March 6, 2006.

Mammals on ice: the molecular secrets of winter hibernation. Julius Thomas Hansen Lecture, Department of Integrative Biology, UC Berkeley, San Francisco, February 23, 2006.

Natural freeze tolerance in amphibians and reptiles. Keynote lecture, CARCNET Annual meeting, Ottawa, ON, Sept. 16, 2005.

Natural freeze tolerance: its in the genes. CRYO-2005, 42<sup>nd</sup> Annual Meeting of the Society for Cryobiology, Minneapolis, Minnesota, July 24-27, 2005.

Gene hunting in hypoxia and exercise. 14<sup>th</sup> International Hypoxia Symposium, Lake Louise, Alberta, February 22-27, 2005. Freeze tolerance in nature: adaptations to ice. The Cruikshank lecture, Department of Biological Sciences, University of Rhode Island, April 23, 2004.

Adventures in comparative biochemistry: frogs and turtles and squirrels, oh my! The P.W. Hochachka Memorial Lecture, Department of Zoology, University of British Columbia, March 1, 2004.

Nature's frozen vertebrates: surviving as a solid! The Joan Marsden Lecture in Organismal Biology, McGill University, Montreal, February 19, 2004.

Life below zero: molecular strategies of freeze survival. CRYOBIOMOL 2003 – joint meeting of the Society for Low Temperature Biology and the Society for Cryobiology, Coimbra, Portugal, September 14-18, 2003.

Mammalian hibernation: transcriptional and translational control. 13<sup>th</sup> International Hypoxia Symposium, Banff, Alberta, February 19-22, 2003.

A biochemist's view of ecology. British Ecological Society, Birmingham, UK, January 3-5, 2001.

Nature's frozen vertebrates. Life in the Cold, 11<sup>th</sup> International Hibernation Symposium, Jungholz, Austria, August 13-18, 2000.

Mammals on ice: molecular secrets of hibernation. Frontiers in Science Distinguished Lecture Series, Florida Atlantic University, Boca Raton, Florida, February 10, 2000.

Life below zero: nature's frozen vertebrates. Keynote speaker, 23<sup>rd</sup> Annual Albert L. Tester Memorial Symposium, Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii, USA, April 9, 1998.

Survival under stress: molecular mechanisms of metabolic rate depression in animals. International Conference of Comparative Physiology and Biochemistry, Skukuza camp, Kruger National Park, South Africa, August 31 - September 5, 1997.

Frozen and alive: molecular secrets of freezing survival by vertebrates. The Kunio Yagi lecture, Australian Society for Biochemistry and Molecular Biology, Sydney, Australia, September 24-29, 1995.

Biochemistry below 0°C: nature's frozen vertebrates. Plenary lecture, Xth Annual Meeting, Federation of Societies of Experimental Biology, Serra Negra, Brazil, August 23-26, 1995.

Life below 0°C: strategies of winter freezing survival by animals. Distinguished Researcher Lecture, Canadian Association of Research Administrators, Ottawa, Ontario, May 8, 1995.

Frozen and alive: molecular secrets of freezing survival by amphibians and reptiles. *Keynote Address*. Hypothermic Medicine Symposium, Allegheny General Hospital, Pittsburgh, Pennsylvania, September 10-11, 1994.

Life below zero: nature's frozen vertebrates. *The Pharmacia Lecture*. Département de biochimie, Université de Montréal, Montréal, January 25, 1994.

Frozen and alive: molecular secrets of freezing survival by vertebrates. Australian Society for Biochemistry and Molecular Biology (satellite meeting), Perth, Australia, April 16, 1993.

Life below 0°C: Nature's frozen vertebrates. *The Irving-Scholander Memorial Lecture*, University of Alaska, Fairbanks, Alaska, September 14, 1992.

Frozen and alive: lessons in cryopreservation from freeze tolerant animals. *Convocation Series Address* at the inauguration of the new university president. Memorial University, St. John's, NFLD, February 6, 1991.

Life in limbo: nature's frozen vertebrates. *The Davidson Dunton Research Lecture*, Carleton University, Ottawa, November 26, 1990.

Frozen and alive: biochemistry of freezing survival in vertebrate animals. *Plenary Lecture*, Pan-American Association of Biochemical Societies, VI Congress. Sao Paulo, Brazil, February 18-23, 1990.

Biochemistry of natural freezing tolerance in vertebrates. *The Ayerst Award Lecture*, Canadian Biochemical Society, Calgary, Alberta, June 14-17, 1989.

Freeze tolerance in nature: variations on the theme and applications for cryopreservation. *Plenary Lecture*, Society for Cryobiology, 26th annual meeting, Charleston, South Carolina, USA, June 11-16, 1989. [Cryobiology 26: 537-8, 1989]

Integrated control of metabolic rate depression via reversible phosphorylation of enzymes in hibernating mammals. *Keynote Address*, Living in the Cold, 2nd International Symposium, Le Hohwald, France, April 23-29, 1989.

Biochemical adaptations for life in a frozen state. *Keynote Address*, Scholander Session, FASEB 73rd annual meeting, New Orleans, Louisiana, March 19-23, 1989.

Natural freezing tolerance in animals. *Plenary Lecture*, Northeast Regional Animal Behaviour Society & La Societe Quebecoise pour l'Etude Biologique du Comportement, Montreal, PQ, November 4-6, 1988.

Freeze tolerant animals. *Keynote Address*: Special session on Low Temperature Biology. Canadian Society of Zoologists, Halifax, Nova Scotia, May 15-18, 1988.

Natural resistance to subzero temperatures in animals. *Plenary Lecture*, Society for Cryobiology, 24th annual meeting, Edmonton, Alberta, June 22-26, 1987.

Strategies of winter survival: Natural freeze tolerance in animals. *Plenary Lecture*, German Zoological Society, Ulm, West Germany, June 8-13, 1987.

Department of Mechanical Engineering, University of Alberta, Edmonton, Alberta: Freeze tolerance in animals. *The Robert R. Gilpin Memorial Lecture*. November 9, 1987.

Department of Chemical Engineering, Clarkson University, Potsdam, New York: Freeze tolerance in animals. *The Robert R. Gilpin Memorial Lecture*. March 3, 1987.

Department of Zoology, University of Toronto, Toronto, Ontario: *The George F. Holeton Memorial Lecture*: The Pasteur effect: new mechanisms in anaerobic metabolism. April 10, 1986.

Insect adaptations for cold hardiness in the boreal zone. *Plenary Lecture*, Canadian Society of Entomologists. Ottawa, Ontario. September 23-25, 1985.

**SYMPOSIA ORGANIZED (2006 and earlier)**

- Genomics and proteomics: the Full Monty. Third International Conference of Comparative Physiology and Biochemistry in Africa, Ithala Game Reserve, KwaZulu-Natal, South Africa, August 7-13, 2004.
- Linking molecular physiology to ecological realities. Third International Conference of Comparative Physiology and Biochemistry in Africa, Ithala Game Reserve, KwaZulu-Natal, South Africa, August 7-13, 2004 (co-organizer S. Chown).
- Cold, ischemic injury of organs for transplantation: devastation, mechanisms and protection. Experimental Biology, Washington, D.C., April 17-21, 2004 (co-organizer A. Salahudeen)
- Depressed metabolism and desert animals. Second International Conference of Comparative Physiology and Biochemistry in Africa, Chobe National Park, Botswana, August 18-24, 2001
- Cell stress and protein kinases: integrated signaling in vivo. Experimental Biology 2001, Orlando, Florida, March 31 - April 4, 2001.
- Life in limbo: molecular mechanisms of metabolic arrest in nature. Society for Experimental Biology, Cambridge, UK, July 31-August 2, 2000.
- The big chill: life at and below zero. European Society for Comparative Physiology and Biochemistry, Liege, Belgium, July 23-28, 2000.
- Gene regulation by environmental stress. 5<sup>th</sup> Intl. Congress of Comparative Physiology & Biochemistry, Calgary, Alberta, August 23-28, 1999.
- Chair of the Cell Biology session, INABIS '98 - 5th Internet World Congress on Biomedical Sciences at McMaster University, Canada, Dec 7-16th. Available at URL <http://www.mcmaster.ca/inabis98/>.
- To freeze or not to freeze: amphibian and reptile strategies in the cold. American Society of Ichthyologists and Herpetologist, Guelph, Ontario, July 16-22, 1998.
- The big chill: gene regulation in the cold. 35<sup>th</sup> Annual meeting, Society for Cryobiology, Pittsburgh, USA, July 11-16, 1998.
- Molecular approaches to understanding cellular responses to stress. Experimental Biology '98, American Physiological Society, San Francisco, CA, April 18-22, 1998.
- Environmental Stress and Gene Regulation. Society for Experimental Biology, York, England, March 23-27, 1998.
- Animal Biochemical Adaptations. International Conference of Comparative Physiology and Biochemistry, Skukuza camp, Kruger National Park, South Africa, August 31 - September 5, 1997.
- Molecular biology and cold adaptation. 34<sup>th</sup> Annual meeting, Society for Cryobiology, Barcelona, Spain, June 8-12, 1997.
- Metabolic depression in nature. 4th International Congress of Comparative Physiology and Biochemistry, Birmingham, UK, August 6-11, 1995.
- Hibernation in mammals. 4th International Congress of Comparative Physiology and Biochemistry, Birmingham, UK, August 6-11, 1995. (co-organizer A. Malan).
- Freeze tolerance in Nature. International Union of Physiological Sciences, 32nd Congress, Glasgow, UK, August 1-6, 1993.
- Insect cold hardness and diapause. 3rd International Congress of Comparative Physiology and Biochemistry, IUBS, Tokyo, Japan, August 25-30, 1991. (co-organizer O. Yamashita).
- Biochemistry of and at low temperatures. Society for Cryobiology, 27th annual meeting, Binghamton, New York, USA, June 17-24, 1990.
- Proteins at low temperature. Society for Cryobiology, 27th annual meeting, Binghamton, New York, USA, June 17-24, 1990 (co-organizer J. Wolanczyk).
- Metabolic transitions. 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana, August 1-5, 1988.
- Cryobiology: low temperatures and freezing. 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana, August 1-5, 1988, Co-organizer Dr. L.C.H. Wang.
- Hypometabolism and its metabolic control. American Physiological Society, San Diego, California, October 11-15, 1987, Co-organizer Dr. J.H.A. Fields.

**INVITED LECTURES IN SYMPOSIA AT SCIENTIFIC MEETINGS (2006 & earlier)**

- Freeze tolerance: it's all in the genes. American Physiological Society, Virginia Beach, Virginia, October 8-11, 2006.
- Muscle disuse atrophy: lessons from mammalian hibernators. 6<sup>th</sup> International Muscle Energetics Conference, Banff, Alberta, July 22-27, 2006.
- Anoxia tolerance in turtles: it's in the genes. Society for Experimental Biology, Canterbury, UK, April 2-7, 2006.
- Molecular secrets of anoxia tolerance in turtles. Lutz Memorial Symposium, Florida Atlantic University, Boca Raton, FL, September 23, 2005.
- Molecular secrets of natural freeze tolerance. Society for Experimental Biology, Barcelona, Spain, July 11-15, 2005.
- Natural freeze tolerance: it's in the genes. Inaugural CAREG symposium. University of Ottawa, Ottawa, May 27, 2005.
- Life below 0°C: how animals use genes to survive in a frozen state. XXXV International Congress of Physiological Sciences, San Diego, CA, March 31-April 5, 2005.
- Gene regulation in physiological stress. Symposium: Genomics and proteomics: the Full Monty. 3<sup>rd</sup> International Conference of Comparative Physiology and Biochemistry in Africa, Ithala Game Reserve, KwaZulu-Natal, S. Africa, Aug. 7-13, 2004.
- Molecular mechanisms of anoxia tolerance. Symposium: Linking molecular physiology to ecological realities. Third International Conference of Comparative Physiology and Biochemistry in Africa, Ithala Game Reserve, KwaZulu-Natal, South Africa, August 7-13, 2004.
- Vertebrate freeze tolerance: role of freeze-responsive gene expression. Symposium: Overwintering in ectothermic vertebrates. Life in the Cold, 12<sup>th</sup> International Symposium, Vancouver, BC - Seward, Alaska. July 25-August 1, 2004.
- Insect cold-hardiness: new advances using gene screening technology. Symposium: Overwintering and cryobiology of insects. Life in the Cold, 12<sup>th</sup> International Symposium, Vancouver, BC - Seward, Alaska. July 25-August 1, 2004.
- Burn fat while you sleep: mammalian hibernators and the molecular secrets of functional obesity. Symposium: The genetic basis of body weight. Canadian Federation of Biological Societies, Vancouver, B.C., June 16-19, 2004.
- Hypothermic organ preservation: lessons from nature. Symposium: Cold, ischemic injury of organs for transplantation: devastation, mechanisms and protection. Experimental Biology, Washington, D.C., April 17-21, 2004.
- Can natural cryoprotective mechanisms help prolong lifetimes of transplantable organs? German Society of Gerontology and Geriatrics, Hamburg, Sept.24-26, 2003.
- Extremely cold mammals: mechanisms of winter hibernation. Symposium: Metabolic plasticity in animal adaptation. Canadian Society of Zoologists, Waterloo, Ontario, May 6-10, 2003.
- Peter Hochachka and oxygen. 13<sup>th</sup> International Hypoxia Symposium, Banff, Alberta, February 19-22, 2003.
- Anoxia and hypoxia: oysters, turtles and beyond. Symposium: 30 Years of biochemical adaptation - a symposium in memory of Peter W. Hochachka. Society for Integrative and Comparative Biology, Toronto, January 4-8, 2003.
- How do insects and intertidal invertebrates survive cold? Symposium: Genetic adaptation to cold. Experimental Biology 2002, New Orleans, Louisiana, April 20-24, 2002.
- Gene expression and the environment: the non-toxic view. Wildlife Toxicology Program Science meeting 2001, Ottawa, October 24-26, 2001.
- Life in the slow lane: molecular mechanisms of metabolic rate depression. Second International Conference of Comparative Physiology and Biochemistry in Africa, Chobe National Park, Botswana, August 18-24, 2001.
- Biodiversity: a molecular perspective. Second International Conference of Comparative Physiology and Biochemistry in Africa, Chobe National Park, Botswana, August 18-24, 2001.
- Novel adaptations of protein kinases in unique animal systems: freezing, anoxia and hibernation. Experimental Biology 2001, Orlando, Florida, March 31 - April 4, 2001.
- Gene expression and protein adaptations in mammalian hibernation. Life in the Cold, 11th International Hibernation Symposium, Jungholz, Austria, August 13-18, 2000.
- Turning down the fires of life: metabolic regulation of hibernation and estivation. Society for Experimental Biology, Cambridge, UK, July 31-August 2, 2000.
- Life in the freezer: Molecular mechanisms of freeze tolerance in vertebrates. European Society for Comparative Physiology and Biochemistry, Liege, Belgium, July 23-28, 2000.

- Animal models in the study of oxidative stress. Oxidative Stress Consortium, 1<sup>st</sup> annual meeting. Hamilton, Ontario, May 12-14, 2000.
- Surviving oxygen lack: Intracellular signaling and gene expression in facultative anaerobes. 5<sup>th</sup> Intl. Congress of Comparative Physiology & Biochemistry, Calgary, Alberta, August 23-28, 1999.
- Getting to the heart of the matter: gene and protein adaptations in metabolic arrest. Hibernation and Adaptations to the Cold (conference sponsored by the U.S. Army Research Office), Aspen, Colorado, May 20-22, 1999.
- Life below zero: gene up-regulation in freeze tolerant animals. Symposium: Molecular Aspects of Environmental Physiology, Canadian Society of Zoologists, 38<sup>th</sup> annual meeting, Ottawa, Ontario, May 5-8, 1999.
- Molecular adaptations for freeze tolerance in amphibians and reptiles. 78<sup>th</sup> annual meeting, American Society of Ichthyologists and Herpetologist, Guelph, Ontario, July 16-22, 1998.
- Freeze-induced gene expression in vertebrates. 35<sup>th</sup> Annual meeting, Society for Cryobiology, Pittsburgh, USA, July 11-16, 1998.
- Living in the cold: freeze-induced gene responses in freeze-tolerant animals. Experimental Biology '98, American Physiological Society, San Francisco, CA, April 18-22, 1998.
- Chill out: freeze induced gene expression. Society for Experimental Biology, York, England, March 23-27, 1998.
- Freeze-induced up-regulation of genes in freeze tolerant animals: novel adaptations identified by molecular biology. 34<sup>th</sup> Annual meeting, Society for Cryobiology, Barcelona, Spain, June 8-12, 1997.
- The elastic limits of biochemistry. Biomedical Sciences and Engineering Research Conference, Carleton University, Ottawa, April 24, 1997.
- Frozen and alive: biochemical adaptations for freezing survival in animals. XXV Reunião Anual, Sociedade Brasileira de Bioquímica e Biologia Molecular, Caxambu, Brazil, May 4-7, 1996.
- Life in the slow lane: biochemistry of metabolic depression. Satellite symposium "Metabolism at the Edge", Australian Society for Biochemistry and Molecular Biology, University of Wollongong, Wollongong, Australia, September 23, 1995.
- Oxidative stress: natural animal models. Workshop in comparative animal physiology, August 21, 1995. Xth Annual Meeting, Federation of Societies of Experimental Biology, Serra Negra, Brazil, August 23-26, 1995.
- Mammalian hibernation: metabolic arrest and biochemical adaptation. Xth Annual Meeting, Federation of Societies of Experimental Biology, Serra Negra, Brazil, August 23-26, 1995.
- Biochemical adaptations supporting estivation in animals. Xth Annual Meeting, Federation of Societies of Experimental Biology, Serra Negra, Brazil, August 23-26, 1995.
- Metabolic regulation in hibernation. 4th International Congress of Comparative Physiology and Biochemistry, Birmingham, UK, August 6-11, 1995 (Physiol. Zool. 68:115, 1995).
- Biochemical controls in metabolic arrest. (with S.P.J. Brooks) 4th International Congress of Comparative Physiology and Biochemistry, Birmingham, UK, August 6-11, 1995 (Physiol. Zool. 68:118, 1995).
- Organic solutes in freezing tolerance. 1st International Congress, Life in Extreme Environments, European Society for Comparative Physiology and Biochemistry, La Seyne sur Mer, France, June 8-11, 1995.
- Natural freezing survival by amphibians and reptiles. Symposium: Subzero temperature adaptations of poikilothermic organisms. American Physiological Society, San Diego, CA, October 29-November 2, 1994. Abstract published in *The Physiologist*, October 1994.
- Biochemical mechanisms of metabolic arrest in response to limiting oxygen availability. Symposium "Comparative adaptations to environmental hypoxia: New perspectives on accommodations and compensations". Experimental Biology 94, Anaheim, CA, April 24-28, 1994.
- Life below zero: nature's frozen vertebrates. Symposium "Freeze tolerance in Nature". International Union of Physiological Sciences, 32nd Congress, Glasgow, August 1-6, 1993.
- Life in the frozen state: natural freeze tolerance in vertebrates. Symposium "Biochemical aspects of low temperature stress", Federation of European Biochemical Societies, Dublin, Ireland, Aug. 9-14, 1992.
- Insect models for studies of stress and adaptation. Symposium "Insect cells for the study of general problems in biology", XIX International Congress of Entomology, Beijing, China, June 28-July 4, 1992.
- Molecular and cellular adaptations for natural freeze tolerance in frogs and turtles. Society for Cryobiology, 29th annual meeting, Ithaca, New York, June 14-19, 1992.
- Biochemical aspects of insect cold-hardiness. Symposium "Insect cold-hardiness", Entomological Society of Canada, Montreal, PQ, October 21-23, 1991.
- Biochemistry of overwintering in insects. Symposium "Insect cold hardiness and diapause". 3rd International Congress of Comparative Physiology and Biochemistry, IUBS, Tokyo, Japan, August 25-30, 1991.
- Molecular mechanisms of metabolic arrest in molluscs. Satellite symposium of the International Union of Biochemistry "Cellular defense strategies to hypoxia", Noordwijkerhout, The Netherlands, July 31 - August 2, 1991.
- The glycolytic enzyme complex in nature: lessons from diverse animal systems. Discussion leader at Gordon conference "Enzyme organization and cell function" Ventura, California, January 20-24, 1991.
- Downshifting metabolism: metabolic arrest in nature. American Physiological Society, Orlando, Florida, October 6-10, 1990.
- Metabolic arrest and enzyme control by reversible phosphorylation in hibernating mammals. Society for Cryobiology, 27th annual meeting, Binghamton, New York, USA, June 17-24, 1990; *Cryobiology* 27, 662.
- Depressed metabolism: consequences of the arrested state. Society for Cryobiology, 27th annual meeting, Binghamton, New York, USA, June 17-24, 1990.
- Frozen vertebrates: life in the slow lane. (with T.A. Churchill) Society for Cryobiology, 27th annual meeting, Binghamton, New York, USA, June 17-24, 1990; *Cryobiology* 27, 662-663.
- Freeze tolerance and winter survival in terrestrially hibernating reptiles and amphibians. American Society for Ichthyology and Herpetology annual meeting, San Francisco, USA, June 17-23, 1989.
- Biochemical adaptation for cold hardiness in insects. Life at Low Temperatures, a discussion meeting, The Royal Society, London, UK, June 1-2, 1989.
- Depressed metabolism: the metabolic "off" switch. 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana, Aug.1-5, 1988.
- Freezing tolerance in terrestrial animals. 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana, August 1-5, 1988.
- Biochemistry of cold hardiness in invertebrates. 3rd Symposium on invertebrate and plant cold hardiness of the British Antarctic Survey. Cambridge, UK, July 17-22, 1988.
- Freeze tolerance and metabolic depression in animals - implications for organ cryopreservation. Society for Cryobiology, 25th annual meeting, Aachen, West Germany, July 11-15, 1988.
- Regulation of metabolic depression in facultative anaerobes. American Physiological Society, San Diego, CA, October 11-15, 1987.
- Metabolic design for freeze tolerance versus freeze avoidance. Satellite symposium of the Arctic Institute of North America Hypoxia Symposium, Lake Louise, Alberta, February 8-9, 1987.
- Control and adaptation of phosphofructokinase in animals. Satellite symposium of the Arctic Institute of North America Hypoxia Symposium, Lake Louise, Alberta, February 8-9, 1987.
- Glycolytic complex in muscle. Gordon Conference: Organization of Metabolic Sequences. Santa Barbara, California, January 17-23, 1987.
- Suspended animation: The molecular basis of metabolic depression. International Union of Physiological Sciences, 30th congress, Satellite symposium: Diving physiology and hypometabolism. Cowichan Bay, B.C. July 20-24, 1986.
- Freeze tolerance in animals. International Union of Physiological Sciences, 30th congress, Symposium: Physiology of extreme environments, Cold. Vancouver, B.C. July 13-19, 1986.
- Natural freezing tolerance: An adaptation for winter survival in terrestrially hibernating frogs. American Society of Ichthyologists and Herpetologists. Victoria, B.C. June 15-21, 1986.

Freeze tolerance in terrestrial frogs. Living in the Cold: an International Symposium. Lake Tahoe, California. October 6-11, 1985.  
 A re-evaluation of the Pasteur effect: new mechanisms in anaerobic metabolism. International Union of Biochemistry, Symposium: Metabolic mechanisms in the protection of tissues against hypoxia. Nordwijk and Amsterdam, Holland. August 22-30, 1985.  
 Biochemistry of freeze tolerance in terrestrial frogs. TEMP'85, a symposium of the Society for Cryobiology. Victoria, B.C. August 5-10, 1985.  
 Biochemical principles of freeze tolerance in insects. TEMP'85, a symposium of the Society for Cryobiology. Victoria, B.C. August 5-10, 1985.  
 Freeze tolerance in animals. Canadian Congress of Biology. London, Ontario. June 1985.  
 Metabolic biochemistry of insect flight. 1st International Congress of the Society for Comparative Physiology and Biochemistry. Liege, Belgium. Aug. 27-31, 1984.  
 Cold adaptation in lower vertebrates. Society for Cryobiology. San Diego, California. August 21-24, 1984.  
 Control of flight muscle metabolism in insects. Canadian Society of Zoologists. Ottawa, Ontario. May 1983.  
 Metabolism and bound water in overwintering insects. Society for Cryobiology. Houston, Texas. June 1982.

#### INVITED SEMINARS: UNIVERSITIES, RESEARCH STATIONS & PUBLIC LECTURES (2010 & earlier)

Enzyme regulation in mammalian hibernation. Department of Chemistry, Carleton University, October 6, 2010.  
 Peter Hochachka and comparative biochemistry: a match made in science heaven. Department of Biology, University of Ottawa, September 20, 2010.  
 Molecular secrets of mammalian hibernation. Museum national d'histoire naturelle, CNRS, Brunoy, France. July 20, 2010.  
 Insect cold hardiness: changing priorities. Department of Zoology, Oregon State University, Corvallis, Oregon, April 20, 2010.  
 Freezing in frogs and turtles: Life in an ice cube. Department of Zoology, Oregon State University, Corvallis, Oregon, April 19, 2010.  
 Life in the frozen state. Postdoctoral Research Day, Faculty of Medicine, University of Ottawa, March 12, 2010.  
 Nature's frozen vertebrates. Department of Biology, University of New Mexico, Albuquerque, March 4, 2010.  
 Life in the cold: biochemistry of mammalian hibernation. Department of Biochemistry, Concordia University, Montreal, February 19, 2010.  
 Omics: the biochemist's toolbox. Department of Biochemistry, Concordia University, Montreal, February 19, 2010.  
 Sleeping beauties: molecular secrets of hibernation. Department of Biology, Queen's University, Kingston, November 27, 2009.  
 Time management skills for graduate student research and teaching. Department of Chemistry, Carleton University, Ottawa, November 12, 2009.  
 Mammals on ice: Hibernation. Department of Animal Ecology, University of Bayreuth, Bayreuth, Germany. September 18, 2009.  
 Frozen alive: biochemistry of animal life as a solid. Dept. Biology, Francis Xavier University, Antigonish, NS, May 15, 2009.  
 Mammals on ice: the biochemistry of hibernation. Departments of Biology and Chemistry, University of Manitoba, Winnipeg, MB, May 7, 2009.  
 Adaptations for life at the seashore. University of North Texas, Denton, TX, April 24, 2009.  
 Mammals on ice: metabolic regulation of hibernation. Florida Atlantic University, Boca Raton, FL, March 24, 2009.  
 Sleeping beauties: molecular secrets of hibernation. Department of Biological Sciences, University of Alberta, March 6, 2009.  
 Mammals on ice: molecular secrets of winter hibernation. Department of Pharmacology and Therapeutics, McGill University, Montreal, PQ, February 9, 2009.  
 Molecular mechanisms of mammalian hibernation. Department of Biology, Queen's University, Kingston, January 26, 2009.  
 Winter survival by cold-blooded animals in the Ottawa valley. Macoun Field Club, Ottawa, ON, January 10, 2009.  
 Forever Young: Cryopreservation, a secret weapon in the animal world? School of Biological Sciences, University of Sydney, Sydney, Australia, December 5, 2008.  
 Life in the cold: biochemistry of hibernation. Department of Biology, Ryerson University, October 23, 2008.  
 Mammals on ice: hibernation. Department of Biology, York University, October 22, 2008.  
 Mammals on ice: molecular secrets of hibernation. Department of Biology, University of Toronto, Scarborough, Oct. 20, 2008.  
 Frozen alive: secrets of natural cryopreservation. Department of Biology, Waterloo University, October 17, 2008.  
 Freeze tolerance: animal life as a solid. Department of Biology, University of Western Ontario, October 16, 2008.  
 Molecular cryobiology. Department of Animal Physiology, Humboldt University, Berlin, Germany, May 22, 2008.  
 Cryopreservation and organ protection. Department of Animal Sciences, In vitro fertilization section, Louisiana State University, New Orleans, LA, April 25, 2008  
 Natural freeze tolerance: vertebrate life as a solid ! Audubon Center for Research of Endangered Species, New Orleans, LA, April 24, 2008  
 Workshop on natural freeze tolerance. Department of Biology, McMaster University, Hamilton, ON, January 31, 2008.  
 Mammals on ice: hibernation. Department of Biology, McMaster University, Hamilton, ON, January 31, 2008.  
 Freeze tolerance: life as a solid. Department of Biology, Wilfred Laurier University, Waterloo, ON, January 30, 2008.  
 Workshop on hibernation - methods and approaches. Department of Biology, Sir Wilfred Laurier University, Waterloo, ON, January 30, 2008.  
 Mammals on ice: molecular secrets of hibernation. Department of Biological Sciences, University of Guelph, Guelph, ON, January 29, 2008.  
 Frozen alive: secrets of natural cryopreservation. Department of Biology, Brock University, St. Catharines, ON, January 28, 2008.  
 Workshop on hibernation - methods and approaches. Department of Biology, Brock University, ON, January 28, 2008.  
 Mammals on ice: hibernation. Department of Biological Sciences, Concordia University, Montreal, PQ, January 21, 2008.  
 Mammals on ice: molecular secrets of hibernation. Department of Biology, Mount Allison University, Sackville, NB, January 18, 2008.  
 Frozen alive: the secret's in the genes. Department of Biology, Acadia University, Wolfville, NS, January 17, 2008.  
 Frozen alive: secrets of natural cryopreservation. Department of Biology, University of New Brunswick, Fredericton, NB, January 16, 2008.  
 Mammals on ice: hibernation. Department of Biology, University of Prince Edward Island, PEI, January 14, 2008.  
 Frozen alive: secrets of natural cryopreservation. Department of Molecular and Medical Genetics, University of Toronto, November 5, 2007.  
 Biochemical adaptation. "What's In Your Lab" Carleton Biology Society, October 23, 2007.  
 Life in a frozen state: winter survival in Ottawa. MIT Club, Ottawa, October 16, 2007.  
 Molecular mechanisms of anoxia tolerance. Department of Zoology and Botany, University of Stellenbosch, Matieland, South Africa, February 7, 2007.  
 Muscle disuse atrophy: lessons from mammalian hibernators. Department of Zoology and Botany, University of Stellenbosch, Matieland, South Africa, Feb. 6, 2007.  
 The "how to's" of hibernation. Workshop in biochemical adaptation, Department of Biology, Queen's University, Kingston, ON, January 17, 2007.  
 Molecular secrets of nature's frozen vertebrates. Hormone and Metabolic Research Unit, University of Louvain Medical School, Brussels, Belgium, Sept. 22, 2006.  
 Sleeping muscles: how mammalian hibernators avoid atrophy. Griffith University, School of Medical Science, Gold Coast, Australia, August 11, 2006.  
 Life in a frozen state: winter survival strategy and model for cryopreservation. High School Mini-Course, Carleton University, May 4, 2006.  
 Freeze tolerance: its all in the genes. Department of Biological Sciences, Queen's University, Kingston, March 22, 2006.  
 Natural freeze tolerance: surviving the winter in the Ottawa valley. OCDSB Inservice Day, Merivale High School, Ottawa, February 10, 2006.  
 Natural freeze tolerance: life in a frozen state. Bruce Museum, Greenwich, CT, January 22, 2006.  
 Winter survival: to freeze or not to freeze. Ottawa Field Naturalists Society, Canadian Museum of Nature, December 13, 2005.  
 Vertebrate freeze tolerance: surviving the winter. Department of Biological Sciences, Clarkson University, Potsdam, NY, September 9, 2005.  
 Surviving winter: hibernation/freezing. Dept. of Biological Sciences, St. Olaf College, Northfield, Minnesota, July 25, 2005.  
 Mammals on ice. Physiologisches Institut, Universitat Zuerich-Irchel, Zurich, Switzerland, July 7, 2005.  
 Natural freeze tolerance: life as a solid. High School Mini-Course, Carleton University, May 6, 2005.  
 Freeze tolerance: life as a solid. Chemical Institute of Canada, Ottawa Chapter Annual General Meeting, Algonquin College, Ottawa, May 4, 2005.  
 Mammals on ice: molecular secrets of hibernation. Inaugural Pre-Pub lecture, Ottawa-Carleton Institute of Biology Research Day, Carleton University, April 15, 2005.  
 Genomics and cryogenics: lessons from natural freezing survival by wood frogs. Department of Biology, University of Ottawa, February 3, 2005.  
 Natural freezing tolerance: winter in Canada. Department of Biology, Trent University, Peterborough, January 26, 2005.  
 Molecular biology and biochemistry of frozen animals. Ottawa-Carleton Chemistry Institute, Ottawa, Dec. 13, 2004.

- Life in the cold: molecular mechanisms of vertebrate freezing survival. Department of Biology, Queen's University, Kingston, Ontario, November 25, 2004.
- Life in the cold: mechanisms of mammalian hibernation. Dept. Zoology, University of Western Ontario, Nov. 12, 2004.
- Mammals on ice. Division of Hematology, Brigham & Women's Hospital, Harvard University, Boston, Nov. 5, 2004.
- Mammals on ice. Dept. Anesthesia and Critical Care, Massachusetts General Hospital, Harvard Univ., Boston, Nov. 4, 2004.
- Surviving the winter in the Ottawa valley. VanKleek Hill and District Nature Society, Nov. 18, 2004.
- Mammals on ice. Department of Zoology and Botany, Univ. Stellenbosch, Matieland, South Africa, Aug. 25, 2004.
- Mammals on ice: molecular secrets of winter hibernation. Department of Biochemistry and Molecular Biology, University of Calgary, Calgary, Alberta, May 27, 2004.
- Nature's frozen vertebrates: Life as an icy solid. Spring Colloquium, Department of Biology, Colorado State University, Ft. Collins, Colorado, April 12, 2004.
- Mammals on ice: biochemistry of hibernation. Dept. Biological Sciences, Simon Fraser University, March 2, 2004.
- Mammals on ice. Loma Linda University School of Medicine, December 12, 2003.
- Natural freeze tolerance: life as a solid. Loma Linda University School of Medicine, December 11, 2003.
- Very cold mammals: molecular mechanisms of hibernation. Dept. Biology, Queen's Univ., Kingston, Ontario, Nov. 25, 2003.
- Nature's frozen vertebrates: biochemical adaptations for freezing survival. Department of Biology, Queen's University, Kingston, Ontario, November 25, 2003.
- Natural freeze tolerance: surviving the winter in the Ottawa valley. MacNamara Field Naturalists Club annual dinner, Arnprior, Ontario, November 22, 2003.
- Very cold mammals: molecular mechanisms of hibernation. Dept. Biology, Laval Univ., Quebec City, PQ, November 14, 2003.
- Nature's frozen vertebrates. Department of Biology, Laval University, Quebec City, Quebec, November 14, 2003.
- Molecular mechanisms of mammalian hibernation. Dept. Biology, Univ. Quebec at Rimouski, Rimouski, PQ, Nov. 13, 2003.
- Life in the cold: molecular mechanisms of vertebrate freezing survival. Department of Biology, University of Quebec at Rimouski, Rimouski, Quebec, Nov. 13, 2003.
- Mammals on ice: molecular mechanisms of hibernation. Dept. Biology, Mt. Allison Univ., Sackville, NB, Nov. 11, 2003.
- Natural freeze tolerance: life as a solid. Dept. Biology, Mt. Allison University, Sackville, New Brunswick, November 10, 2003.
- Signal transduction and gene expression controls in hibernation. Queen's Univ. Medical School, Kingston, ON, Oct. 20, 2003.
- Molecular biology of freeze tolerance. Carleton U - Delft University of Technology meeting, Ottawa, July 4, 2003.
- Natural freeze tolerance: life as a solid. Carleton University Day, Ottawa, May 7, 2003.
- Stress responses and signal transduction in freezing survival. Lady Davis Institute for Medical Research, McGill University, Montreal, January 14, 2003.
- Cascading into hibernation: kinase controls in mammals. Dept. Biology, Queen's University, Kingston, Nov. 22, 2002.
- Life as a solid: freezing in nature. Department of Biology, Queen's University, Kingston, November 22, 2002.
- The biotechnology promise of freezing: mining natural freeze tolerance for \$\$\$. Carleton Univ., Ottawa, Nov. 6, 2002.
- Life in the cold: molecular mechanisms of vertebrate freezing survival. Department of Biochemistry, University of Montana, Missoula, Montana, October 14, 2002.
- Mammals on ice: molecular secrets of winter hibernation. Department of Biological Sciences, University of Montana, Missoula, Montana, October 11, 2002.
- Nature's frozen vertebrates. Department of Biological Sciences, University of Calgary, Calgary, Alberta, Oct. 4, 2002.
- Nature's frozen vertebrates: molecular mechanisms of freeze tolerance. Brown Univ., Providence, Rhode Island, May 10, 2002.
- How freezing frogs may help organ preservation. Department of Biology, Mississippi Women's University, Columbus, Mississippi, April 25, 2002.
- Natural freeze tolerance: life as a solid. Opening lecture, Science Research Day, Univ. Ottawa, Ottawa, April 16, 2002.
- Freezing people and their organs: can frogs point the way? "Evenings at Whitney" public lecture series, The Whitney Laboratory, University of Florida, December 13, 2001.
- Mammals on ice. The Whitney Laboratory, University of Florida, December 14, 2001.
- Signal transduction and metabolic control in natural freezing survival. Dept. Chemistry, Acadia Univ., Wolfville, Nov. 1, 2001.
- Life in the cold: molecular mechanisms of vertebrate freezing survival. Department of Biology, Saint Francis Xavier University, Antigonish, Nova Scotia, Nov. 2, 2001.
- Nature's frozen vertebrates. Department of Biology, Mount Allison University, Sackville, November 5, 2001.
- Life in the cold: metabolic regulation and gene expression in mammalian hibernation. Department of Biology, Mount Allison University, Sackville, November 6, 2001.
- Signal transduction and metabolic control in adaptation to environmental stress. Department of Chemistry, Saint Francis Xavier University, Antigonish, Nova Scotia, November 7, 2001.
- Molecular mechanisms of freezing survival. Dept. Biochemistry, University of New Brunswick, Fredericton, November 8, 2001.
- Life in the cold: vertebrate freezing survival. Dept. Biology, University of New Brunswick, Fredericton, Nov. 9, 2001.
- Molecular mechanisms of mammalian hibernation. Dept. Biology, University of New Brunswick, Fredericton, Nov. 9, 2001.
- Transcriptional regulation of vertebrate freeze tolerance. Dept. Chemistry and Biochemistry, Univ. Guelph, Oct. 24, 2001.
- Winter freezing survival by ectothermic vertebrates. Dept. Zoology, University of Western Ontario, October 23, 2001.
- Winter freezing survival by ectothermic vertebrates. Dept. Biology, Nipissing University, North Bay, Oct. 17, 2001.
- Nature's frozen vertebrates. Department of Biology, Laurentian University, Sudbury, October 16, 2001.
- Molecular mechanisms of freezing survival. Department of Chemistry, Laurentian University, Sudbury, Oct. 15, 2001.
- Molecular mechanisms of freezing survival. Department of Chemistry, Concordia University, Montreal, Oct. 12, 2001.
- Freezing humans for fun and profit. Albert Street Community Center public lecture, Ottawa, October 4, 2001.
- Molecular mechanisms of mammalian hibernation. Department of Biology, Trent University, Trent, September 26, 2001.
- Physiology meets ecology: estivation in nature. Dept. Zoology, University of Pretoria, South Africa, August 15, 2001.
- Biomedical implications of freezing people. Opening Lecture, Carleton University Experience, May 11, 2001.
- Nature's frozen vertebrates. Mississippi Valley Naturalists Society, Almonte, Ontario, April 19th, 2001.
- Frozen noses, Frozen toes: Canada in Winter. CUE Program, Carleton University, April 18th, 2001.
- Freezing humans? Sleeping Beauties: winter survival by hibernation. OCDSB Inservice Day, Brookfield High School, Ottawa, February 23, 2001.
- Freeze tolerance in nature. Department of Biology, Waterloo University, Waterloo, Ontario, February 5, 2001.
- Nature's frozen vertebrates. Eastern Ontario Biodiversity Museum, Kemptonville, February 1, 2001.
- Mammalian hibernation: lessons for hypothermic organ preservation. Loeb Research Institute, Ottawa Hospital, Jan. 29, 2001.
- Molecular mechanisms of mammalian hibernation. Department of Biology, York University, Toronto, January 16, 2001.
- Nature's frozen vertebrates. Department of Zoology, University of Florida, Gainesville, Florida, December 12, 2000.
- Mammalian hibernation. Department of Zoology, University of Florida, Gainesville, Florida, December 11, 2000.
- Hibernation in mammals: life at zero degrees. Dept. Biological Sciences, Brock University, St. Catharines, Nov. 3, 2000.
- Nature's frozen vertebrates. Department of Biological Sciences, Brock University, St. Catharines, November 2, 2000.
- Strategies of anoxia and freezing tolerance in marine molluscs. Dept. Biology, Dalhousie University, Halifax, October 19, 2000.
- Nature's frozen vertebrates. Department of Biological Sciences, University of Alberta, Edmonton, October 6, 2000.
- Hibernation: mammals on ice. Department of Biological Sciences, University of Alberta, Edmonton, October 4, 2000.
- Anoxia tolerance in marine invertebrates. MRC Dunn Experimental Unit, Cambridge, England, August 4, 2000.
- Metabolic regulation in hibernating mammals. MRC Dunn Experimental Unit, Cambridge, England, August 3, 2000.
- Life extension - is freezing people the answer? CUE 2000, Carleton University, Ottawa, May 12, 2000.
- Genes and proteins as targets for toxins. Department of Biology, Carleton University, February 16, 2000.
- Anaerobiosis in marine invertebrates: genes and enzymes. Rosenstiel School of Marine Science, University of Miami, Miami, Florida, February 11, 2000.
- Metabolic depression: How animals live without oxygen. NIEHS Marine and Freshwater Biomedical Science Center, University of Miami, Miami, Florida, February 11, 2000.
- Life without oxygen: molecular adaptations in nature. Department of Biological Sciences, Florida Atlantic University, Boca Raton, Florida, February 9, 2000.

Nature's frozen vertebrates. Faculty of Science, Mt. Allison University, Sackville, New Brunswick, November 26, 1999.

Hibernation in mammals. Dept. Biology, Mt. Allison University, Sackville, New Brunswick, November 26, 1999.

Freezing survival in invertebrates. Dept. Biology, University of New Brunswick, Saint John, New Brunswick, Nov. 25, 1999.

Nature's frozen vertebrates. Department of Biology, University of New Brunswick, Fredericton, November 24, 1999.

Anoxia survival in nature. Dept. Biology, St. Francis Xavier University, Antigonish, Nova Scotia, November 23, 1999.

Natural freezing tolerance in animals. Faculty of Science, Univ. Prince Edward Island, Charlottetown, P.E.I., Nov. 22, 1999.

Hibernation in mammals. Dept. Biology, University of Prince Edward Island, Charlottetown, P.E.I., November 22, 1999.

Anoxia tolerance in freshwater turtles. Dept. Biology, Acadia University, Wolfville, Nova Scotia. November 19, 1999.

Frozen frogs: principles of natural cryopreservation. Dept. Biology, Dalhousie University, Halifax, Nova Scotia. Nov. 18, 1999.

Sleeping beauties: metabolic control of mammalian hibernation. Dept. Biology, Queen's University, Kingston, Nov. 10, 1999.

The big chill: hibernation biochemistry. Kyoto Institute of Technology, Kyoto, Japan. October 29, 1999.

Molecular biology and metabolism in frozen insects. Kyoto Institute of Technology, Kyoto, Japan. October 29, 1999.

Frozen vertebrates: gene regulation in frogs. Okayama University (Research Presentation), Japan. October 26, 1999.

Insects below zero: biochemistry of freezing and supercooling. Okayama Univ. (Tsumuki), Japan. October 26, 1999.

Estivation biochemistry: genes and metabolic regulation. Life Sciences, Himeji Institute of Technology, Harima Science Garden City, Hyogo, Japan. October 25, 1999.

Frozen but alive: animals below zero. Biological Science, Kitasato University (Research presentation), Japan. October 21, 1999.

Sleeping beauties: mammalian hibernation. School of Science, Kitasato University, Japan. October 21, 1999.

Biochemistry of mammalian hibernation. Mitsubishi Life Science Institute, Machida, Japan. October 20, 1999.

Nature's frozen vertebrates: molecular biology and biochemistry. Institute of Low Temperature Science, Hokkaido University, Sapporo, Japan. October 15, 1999.

Insects below zero: molecular biology and biochemistry. Laboratory of Applied Entomology, Iwate University (Research Presentation), Iwate, Japan. October 13, 1999.

Hibernation in mammals: mammals at zero degrees. Laboratory of Cold Hardiness. Iwate Univ., Morioka, Japan. Oct. 13, 1999.

Molecular adaptations in marine invertebrates: Freezing and anoxia. Japan Marine Science and Technology Center (JAMSTEC), Kanagawa, Japan. October 7, 1999.

Insects below zero: freezing and supercooling. Dept. Biology, Nagoya University, Nagoya, Japan. October 6, 1999.

Biochemistry in Canada: Comparative biochemistry. Kyoto Institute of Technology, Kyoto, Japan. October 3, 1999.

Life without oxygen: intracellular signaling. Dept. Zoology, University of Guelph, Guelph, September 22, 1999.

Some like it cold: molecular physiology of hibernation in mammals. Dept. Biology, McMaster Univ., Hamilton, Sept. 21, 1999.

Sleeping beauties: molecular secrets in mammalian hibernation. Dept. Zoology, Univ. Western Ontario, London, Sept. 20, 1999.

Sleeping beauties: molecular secrets of hibernating animals. Stroke Branch, National Institute of Neurological disorders and Stroke, NIH, Bethesda, Maryland, September 9, 1999.

Preserving human organs: nature's lessons. CUE'99, Carleton University, Ottawa, May 14, 1999.

Life in the slow lane: hibernation in mammals. Department of Biology, Queen's University, Kingston, March 26, 1999.

Freezing people 101: scientific reductionism vs journalism. School of Journalism, Carleton Univ., Ottawa, November 12, 1998.

Freezing survival by terrestrial amphibians and reptiles. Dept. Biology, Clarkson Univ., Potsdam, New York, Sept. 16, 1998.

Life in the slow lane: circulating factors and their role in metabolic rate depression. Zymogenetics, Seattle, WA, July 10, 1998.

Metabolic regulation and freeze tolerance. (lab or Dr. D. Brown) Renal Unit, Department of Medicine, Massachusetts General Hospital, Charleston, Massachusetts, June 19, 1998.

Life below zero: biochemistry of cold adaptation. (lab of Dr. F. Bunn) Division of Hematology, Department of Medicine, Brigham and Women's Hospital, Boston, Massachusetts, June 17, 1998.

Life without oxygen: marine invertebrates hold their breath. Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii, USA, April 16, 1998.

Life below 0°C: how to freeze without really dying! Royal Canadian Institute, Toronto, Ontario, January 25, 1998.

Life in the slow lane: how mammals hibernate. Sigma Xi society, Ottawa-Kingston chapter, November 12, 1997.

Frozen and alive: molecular secrets of freezing survival by vertebrates. Department of Biology, Hofstra University, Hempstead, New York, October 10, 1997.

Insect cold hardiness: strategies for living below 0°C. Dept. Zoology, Univ. Pretoria, Pretoria, South Africa, August 25, 1997.

Life in the freezer: nature's frozen vertebrates. Dept. Zoology, Univ. Witswatersand, Johannesburg, South Africa, Aug. 23, 1997.

Nature's frozen vertebrates: molecular biology and biochemistry. Dept. Biologie, Univ Laval, Quebec, April 8, 1997.

Freezing tolerance in life forms. Macoun Naturalists Club, Canadian Museum of Nature, Ottawa, January 17, 1997.

Frozen and alive: biochemical adaptations for freezing survival in animals. STEP Lecture Series, Wilfred Laurier University, Waterloo, ON. October 21, 1996.

Anaerobic life: biochemistry of life without oxygen. Institute of General Pathology and Pathophysiology, Russian Academy of Medical Sciences, Moscow, Russia. September 25, 1996.

Biochemistry below 0°C: frozen vertebrates. Dept. Biochemistry, Moscow State University, Moscow, Russia. Sept. 23, 1996.

Freeze tolerance in animals. Sechenov Institute of Evolutionary Physiology and Biochemistry, Russian Academy of Science, St. Petersburg, Russia. September 16, 1996.

Life in limbo: metabolic depression in nature. Department of Biochemistry, Univ. California, Santa Barbara, CA. May 21, 1996.

Freeze tolerance in animals. Department of Biology, University of California, Santa Barbara, CA. May 20, 1996.

Life in limbo: metabolic depression in nature. Bodega Bay Marine Laboratory, University of California at Davis, Bodega Bay, CA. May 16, 1996.

Metabolic depression in nature. Instituto Nacional de Pesquisas da Amazônia, Manaus, Brasil. May 2, 1996

Metabolic depression in nature. Department of Biochemistry, University of Campinas, Campinas, Brasil. May 2, 1996

Life below zero: nature's frozen vertebrates. Department of Biology, University of Michigan, Ann Arbor, MI. March 21, 1996.

Life below zero: nature's frozen vertebrates. Department of Biology, Michigan State Univ., East Lansing, MI. March 20, 1996.

Life in limbo: metabolic rate depression. Department of Biology, Queen's University, Kingston, ON. March 12, 1996.

Metabolic biochemistry of freeze tolerant vertebrates. Dept. Biochemistry, Queen's University, Kingston, ON. March 12, 1996.

Life in the slow lane: anoxic animals. Department of Biochemistry, Laval University, Quebec, PQ. March 8, 1996.

Life below zero: nature's frozen vertebrates. Department of Biochemistry, Laval University, Quebec, PQ. Mar 8, 1996.

Life below 0°C - nature's frozen vertebrates. Dept. Biology, University of Regina, Regina, Saskatchewan: Feb. 9, 1996.

Department of Biology, Carleton University, Ottawa: A hard day's night: research in Antarctica. January 19, 1996.

Life below 0°C: Nature's frozen vertebrates. Div. Natural Sciences & Mathematics, Colgate Univ., Hamilton, NY. Dec. 1, 1995.

Life in the freezer: nature's frozen vertebrates. Dept. Zoology, University of New England, Armidale, Australia. October 4, 1995.

Life in the slow lane: metabolic arrest in nature. Dept. Zoology, Univ. New England, Armidale, Australia. October 3, 1995.

Mammalian hibernation: metabolic arrest. Department of Cellular Biology, University of Brasilia, Brasilia, Brasil. Sept. 1, 1995.

Oxidative stress: natural animal models. Department of Cellular Biology, University of Brasilia, Brasilia, Brasil. Aug. 31, 1995.

Biochemical adaptations in estivation. Department of Cellular Biology, University of Brasilia, Brasilia, Brasil. August 30, 1995.

Biochemistry below 0°C: nature's frozen vertebrates. Dept. Cellular Biology, Univ. Brasilia, Brasilia, Brasil. August 29, 1995.

Glycolysis rampant: the frozen frog. Department of Biology, Queen's University, Kingston, ON. March 24, 1995.

Frozen and alive: Freezing Vertebrates! Freezing People? McMurdo Station, Antarctica. November 28, 1994.

Metabolic regulation of hibernation in mammals. Dept. Biology, Mt. Allison Univ., Sackville, NB. October 3, 1994.

Freeze tolerance in nature. Department of Biology, Mt. Allison University, Sackville, NB. October 4, 1994.

Life below 0°C: nature's frozen vertebrates. Department of Physiology, McGill University, Montreal. Sept 23, 1994.

- Suspended animation: principles of metabolic arrest. Dept. Biology, Univ. San Diego, San Diego, CA. May 2, 1994.
- Protein kinases in metabolic regulation. Département de biochimie, Université de Montréal, Montréal. Jan 25, 1994.
- How to freeze without really dying. Sigma Xi of Canada, Ottawa, Ottawa. January 12, 1994.
- Frozen and alive: molecular secrets of freezing survival by vertebrates. Agriculture Canada, Centre for Food and Animal Research, Ottawa. January 6, 1994.
- Organ preservation. English Second Language program, Carleton University, Ottawa. November 21, 1993.
- Winter in Canada: to freeze or not to freeze. Canadian Chairmen of Departments of Biology conference, Lord Elgin Hotel, Ottawa. November 6, 1993.
- Life below zero: nature's frozen vertebrates. Dept. Biological Sciences, Univ. Wollongong, Wollongong, Australia. May 5, 1993.
- Suspended animation: molecular mechanisms of metabolic arrest in nature. Department of Biological Sciences, University of Wollongong, Wollongong, Australia. May 5, 1993.
- Frozen vertebrates. School of Biological Sciences, University of Sydney, Sydney, Australia. May 4, 1993.
- Natural freezing tolerance in animals. Dept. Zoology, Univ. New South Wales, Sydney, Australia. May 3, 1993.
- Down-shifting metabolism: the biochemistry of metabolic arrest. School of Biological Sciences, University of Sydney, Sydney, Australia. April 30, 1993.
- Life in the slow lane: biochemistry of metabolic arrest. Division of Biochemistry and Molecular Biology, Australian National University, Canberra, Australia. April 28, 1993.
- Frozen and alive: biochemistry of freezing tolerance in vertebrates. Department of Biology, Monash University, Melbourne, Australia. April 27, 1993.
- Biochemical experimental designs: cryobiology. Dept. Biochemistry, Univ. Western Australia, Perth, Australia. April 22, 1993.
- Life below 0°C: nature's frozen vertebrates. Department of Zoology, Univ. Western Australia, Perth, Australia. April 21, 1993.
- Suspended animation: molecular mechanisms of metabolic depression. Department of Biochemistry, University of Western Australia, Perth, Australia. April 20, 1993.
- Principles of freeze tolerance. Shriners Burn Hospital, Boston, MA. February 10, 1993.
- Life below zero: nature's frozen vertebrates. In Vitro Fertilization Group, Loeb Research Institute, Ottawa Civic Hospital, Ottawa, ON. November 18, 1992.
- Frozen and alive: molecular secrets of freezing survival by vertebrates and invertebrates. Institute of Marine Sciences, University of Alaska, Fairbanks, Alaska. September 16, 1992.
- Biochemistry and molecular biology of freeze tolerance. Dept. Biology, University of Alaska, Fairbanks, Alaska: Sept. 15, 1992.
- Down-shifting metabolism: the biochemistry of metabolic arrest. Institute of Arctic Biology, University of Alaska, Fairbanks, Alaska. September 11, 1992.
- Biochemistry of metabolic arrest. Department of Physiology, University of Saskatchewan, Saskatoon, Sask. March 27, 1992.
- Freeze tolerance in vertebrates. Department of Physiology, University of Saskatchewan, Saskatoon, Sask. March 26, 1992.
- Life in the slow lane: vertebrates which survive in a frozen state. Department of Mechanical Engineering, University of California, Berkeley, CA. March 3, 1992.
- Life below zero: nature's frozen vertebrates. Dept. Biochemistry and Microbiology, Univ. Victoria, Victoria, BC, Nov. 26, 1991.
- Frozen and alive: strategies of winter survival by cold-blooded animals. Deep River Science Association, Deep River, ON: October 24, 1991.
- Downshifting metabolism: mechanisms of metabolic rate depression. Dept. Biochemistry, Univ. Western Ontario, London, ON: October 18, 1991.
- Biochemistry of metabolic arrest in animals. Dept. Chemistry, University of Waterloo, Waterloo, ON: October 17, 1991.
- Nature's frozen vertebrates. Department of Biology, University of Waterloo, Waterloo, ON: October 16, 1991.
- Biochemical mechanisms of freeze tolerance in amphibians and reptiles. Dept. Biology, Univ. Guelph, Guelph. Oct. 15, 1991.
- Natural freeze tolerance by terrestrially-hibernating amphibians and reptiles. Dept. Biology, York Univ. Toronto. March 4, 1991.
- To freeze or not to freeze: insects in winter. Department of Entomology, McDonald College, Montreal, PQ. Feb. 14, 1991.
- Life in limbo: metabolic rate depression in nature. Dept. Biochemistry, Memorial University, St. John's, NFLD. Feb. 5, 1991.
- Biochemistry of natural freezing tolerance in vertebrate animals. Dept. Biology, Concordia Univ., Montreal, PQ. Jan. 28, 1991.
- Nature's frozen animals. Department of Biology, Laurentian University, Sudbury, ON. January 18, 1991.
- Biochemistry of nature's frozen vertebrates. Department of Zoology, University of Western Ontario, London, ON. Oct 29, 1990.
- Life in limbo: biochemistry of suspended animation. (25th anniversary celebrations, Steacie Chemistry building) Department of Chemistry, Carleton University, Ottawa, ON. October 26, 1990.
- Freeze tolerant animals: models for organ preservation? Allegheny-Singer Research Institute, Pittsburgh, PA. October 22, 1990.
- Frozen but alive. Science Day Lecture, Faculty of Science, Carleton University. March 13, 1990.
- Biochemistry of insect cold hardiness. Dept. Entomology, Cornell Univ., Ithaca, NY. The JUGATAE Lecture. March 12, 1990.
- Metabolic control of insect flight. Department of Entomology, Cornell University, Ithaca, NY. March 12, 1990.
- Life in a frozen state. Department of Physiology, University of Saskatchewan, Saskatoon, Sask. February 27, 1990.
- Living below zero. Department of Biology, Trent University, Peterborough, Ontario. January 17, 1990.
- To freeze or not to freeze: insects in winter. Ottawa Entomology Society, Ottawa, Ontario. January 18, 1990.
- Biochemistry of freezing survival. Ottawa-Carleton Institute of Chemistry, Carleton Univ., Ottawa, Ontario: January 26, 1990.
- Winter freezing survival in reptiles and amphibians. Dept. Biology, Univ. Nebraska, Lincoln, Nebraska. November 16, 1989.
- Natural freezing tolerance in vertebrates. Department of Biology, University of Nebraska, and Biology Department, Creighton University, Omaha, Nebraska. November 15, 1989.
- The biochemistry of freezing tolerance in vertebrates: naturally frozen vertebrates in winter. Department of Biochemistry, McMaster University, Hamilton, Ontario. October 24, 1989.
- Freeze tolerance and winter survival of terrestrial ectotherms. Dept. Biology, Connecticut College, New London, Connecticut. September 7, 1989.
- Molecular mechanisms of metabolic rate depression in vertebrates. Dept. Biology, Queen's Univ., Kingston, ON. May 24, 1989.
- Natural freezing tolerance as a winter survival strategy in reptiles and amphibians. Chaffey's Locks Biological Station, Queen's University, Opinicon Lake, Ontario. May 23, 1989.
- Molecular mechanisms of anaerobiosis in marine invertebrates. Bodega Marine Laboratory, University of California at Davis, Bodega Bay, CA. May 12, 1989.
- The biochemistry of freeze tolerance in animals. Bodega Marine Laboratory, University of California at Davis, Bodega Bay, CA. May 11, 1989.
- Natural freezing tolerance in vertebrates: frozen frogs and turtles in winter. Department of Zoology, University of Vermont, Burlington, VT. The Paul A. Moody Lecture. March 6, 1989.
- Natural freezing tolerance and winter survival of amphibians and reptiles. Dept. Biology, Dalhousie Univ., Halifax, NS. February 24, 1989.
- Biochemical adaptations for freeze tolerance in terrestrially hibernating reptiles and amphibians. Department of Biology, Mount Allison University, Sackville, NB. February 23, 1989.
- Natural freezing and winter survival of reptiles and amphibians. Dept. Biology, Moncton Univ., Moncton, NB. Feb. 22, 1989.
- Biochemical adaptations Natural freezing tolerance in terrestrially hibernating reptiles and amphibians. Department of Biology, St. Francis Xavier University, Antigonish, Nova Scotia. February 21, 1989.
- Biochemistry of natural freezing survival in animals. Dept. Biological Sciences, Stanford University, Stanford, CA. Feb. 3, 1989.
- Biological ice: physical and physiological implications. Department of Mechanical Engineering, University of California, Berkeley, San Francisco, CA. February 2, 1989.
- Suspended animation: the biochemistry of metabolic rate depression. Department of Physiology, Wright State University, Dayton, Ohio. January 20, 1989.
- Winter survival of animals by natural tolerance of freezing. Dept. Biology, Wright State University, Dayton, Ohio. Jan. 20, 1989.
- Natural freezing tolerance in animals. Department of Biology, Ohio State University, Columbus, Ohio. January 19, 1989.
- Department of Biology, University of Sherbrooke, Sherbrooke, PQ: How to survive winter. November 7, 1988.
- Metabolic depression and anaerobiosis: metabolic regulation in the marine whelk. Institute of Zoology, University of Dusseldorf, Dusseldorf, FRG. July 11, 1988.
- Natural freezing tolerance and winter survival of poikilotherms. Dept. Zoology, Univ. Guelph, Guelph, Ontario. June 15, 1988.

- Freeze tolerance in animals. Department of Zoology, University of Toronto, Toronto, Ontario. June 13, 1988.
- Freeze tolerance in animals. Department of Biology, Laval University, Quebec City, PQ. April 5, 1988.
- Freeze tolerance in animals. Department of Physiology and Biophysics, University of Illinois, Urbana, IL. Feb. 26, 1988.
- Freeze tolerant frogs - a model for organ cryopreservation. Dept. Anatomy, Univ. Chicago, Chicago, IL. Feb. 25, 1988.
- Natural freeze tolerance in animals: biochemical adaptations. Dept. Biology, Notre Dame Univ., South Bend, IN. Feb. 23, 1988.
- Biochemistry of metabolic rate depression. Department of Biology, Notre Dame University, South Bend, Indiana. Feb. 22, 1988.
- Freeze tolerance in animals. Department of Biology, Queen's University, Kingston, Ontario. December 3, 1987.
- Life in limbo: the molecular basis of suspended animation. Dept. Zoology, Univ. Alberta, Edmonton, Alberta. Nov. 10, 1987.
- Natural freezing tolerance in animals. Department of Chemistry, University of Arizona, Flagstaff, Arizona. October 23, 1987.
- Freezing tolerance in hibernating amphibians. Department of Physiology, Health Sciences Center, University of Arizona, Tucson, Arizona. October 21, 1987.
- Freezing tolerance and winter survival in terrestrial ectotherms. Dept. Zoology, Arizona State Univ., Tempe, AZ. Oct. 20, 1987.
- Biochemical regulation of metabolic rate depression. Dept. Zoology, Arizona State University, Tempe, Arizona. Oct. 19, 1987.
- Natural freeze tolerance in animals. Department of Biology, University of San Diego, San Diego, CA. October 9, 1987.
- Biochemical basis of natural metabolic rate depression in animals. Dept. Biology, Univ. California, Riverside, CA. Oct. 8, 1987.
- Biochemistry of freezing tolerance in animals. Physiological Research Laboratory, Scripps Institute of Oceanography, La Jolla, CA. October 6, 1987.
- Natural freeze tolerance in animals. Department of Biology, San Diego State University, San Diego, CA. October 5, 1987.
- Molecular basis of adaptation to hard times. Dept. Biological Sciences, State Univ. New York, Binghamton. Aug. 26, 1987.
- The biochemistry of suspended animation: depressed metabolism in animals. Department of Biology, University of Konstanz, Konstanz, West Germany. June 15, 1987.
- Freeze tolerance in animals. Zoology Institute, University of Munich, Munich, West Germany. June 16, 1987.
- Biochemistry of natural freeze tolerance. Department of Biology, University of Innsbruck, Innsbruck, Austria. June 18, 1987.
- Metabolic depression in animals. Dept. Biology, State University of New York, Binghamton, New York. March 10, 1987.
- Biochemical adaptations for freeze tolerance in terrestrial frogs. Department of Biology, State University of New York, Binghamton, New York. March 9, 1987.
- Biochemistry of freeze tolerance in insects. Department of Biology, Laurentian University, Sudbury, Ontario. February 24, 1987.
- Natural freeze tolerance in animals. Department of Biology, Colorado State University, Ft. Collins, Colorado. February 4, 1987.
- Biochemistry of freeze tolerance in animals. Dept. Biology, University of Colorado, Boulder, Colorado. February 3, 1987.
- Metabolic rate depression and adaptation to environmental stress. Dept. Biological Sciences, Stanford Univ., CA. Feb. 2, 1987.
- Natural freeze tolerance in animals. Department of Zoology, University of California, Berkeley, California. January 30, 1987.
- Biochemical adaptations for anoxia tolerance in marine invertebrates. Marine Laboratory, University of California at Davis, Bodega Bay, California. January 29, 1987.
- Biochemistry of anaerobiosis in marine invertebrates. Dept. Marine Sciences, Univ. California, Santa Cruz, CA. Jan. 28, 1987.
- Biochemistry of freeze tolerance in animals. Dept. Biology, University of California, Santa Cruz, California. January 28, 1987.
- Biochemical adaptations for anoxia tolerance in marine invertebrates. Marine Laboratory, California State University, Moss Landing, California. January 26, 1987.
- Freezing tolerance and winter survival of cold-blooded animals. National Museum of Natural History, Ottawa, Ontario. November 28, 1986.
- How animals survive winters. Faculty of Science, Carleton University, Ottawa, Ontario. March 19, 1986.
- Depressed metabolism: prospects and problems. Department of Biology, University of Calgary, Alberta. March 10, 1986.
- Biochemistry of insect flight. Department of Biology, University of Calgary, Alberta. March 11, 1986.
- Freezing tolerance in frogs and insects. Department of Biology, Erindale Campus, Univ. Toronto, Toronto, ON. Jan. 23, 1986.
- Metabolic biochemistry of freeze tolerance: the overwintering frog. Dept. Biology, Univ. Calgary, Alberta. Dec. 11, 1985.
- The Pasteur effect: new mechanisms in anaerobic metabolism. Dept. Biology, University of Calgary, Alberta. Dec. 13, 1985.
- How animals survive freezing. Ottawa Biological and Biochemical Society, Ottawa, Ontario. November 13, 1985.
- Animals of the deep sea: the Kona expedition of the R/V Alpha Helix. The Explorers Club, New York City, NY. Oct. 17, 1985.
- Freezing tolerance in animals. Department of Biology, Simon Fraser University, Vancouver, B.C. August 10, 1985.
- Biochemistry of freezing tolerance. Department of Chemistry, Waterloo University, Waterloo, Ontario. April 4, 1985.
- Biochemistry of freeze tolerance in animals. Dept. Biochemistry, Queen's University, Kingston, Ontario. March 13, 1985.
- Natural freezing tolerance in animals. Department of Zoology, University of Toronto, Toronto, Ontario. March 4, 1985.
- Principles of freeze tolerance in vertebrates and invertebrates. Dept. Biology, York University, Toronto, Ontario. March 2, 1985.
- Natural freezing tolerance in animals. Department of Biology, Dalhousie University, Halifax, Nova Scotia. February 1, 1985.
- Natural freezing in animals. Department of Biology, Acadia University, Wolfville, Nova Scotia. January 31, 1985.
- Natural freezing tolerance in animals. Dept. Biology, St. Francis Xavier University, Antigonish, Nova Scotia. January 30, 1985.
- Natural freezing tolerance in animals. Dept. Biology, Mount Allison University, Sackville, New Brunswick. January 29, 1985.
- Natural freezing tolerance in animals. Dept. Biology, University of New Brunswick, Fredericton, New Brunswick. Jan. 28, 1985.
- Winter survival of animals. The Explorers Club, New York City, New York. January 16, 1985.
- Tissue cryopreservation. Clinical correlates of natural freezing tolerance. Helen Hayes Hospital, Nyack, NY. Jan. 14, 1985.
- Metabolic biochemistry of insect flight. Department of Biology, University of Waterloo, Waterloo, Ontario. December 13, 1984.
- Insect freeze tolerance. Department of Entomology, MacDonald College, McGill University, Montreal, Quebec. Oct. 16, 1984.
- Metabolic adaptations for freezing tolerance in animals. Dept. Zoology, Univ. Manitoba, Winnipeg, Manitoba. July 12, 1984.
- Biochemical adaptations for freezing tolerance. Department of Zoology, University of Ulm, Ulm, West Germany. May 17, 1984.
- Anaerobiosis and imino acid metabolism in marine invertebrates. Dept. Zoology, Univ. Ulm, Ulm, W. Germany. May 16, 1984.
- Biochemical adaptations for freeze tolerance in frogs. Intl. Institute of Cellular and Molecular Pathology, University of Louvain, Brussels, Belgium. May 3, 1984.
- Freezing tolerance in animals. Laboratory of Chemical Animal Physiology, State University of Utrecht, Utrecht, The Netherlands. April 26, 1984.
- Anaerobiosis and imino acid metabolism in marine invertebrates. Laboratory of Chemical Animal Physiology, State University of Utrecht, Utrecht, The Netherlands. April 24, 1984.
- Biochemistry of freezing tolerance in animals. Instituto de Enzimologia, Universidad Autonoma, Madrid, Spain. Feb. 24, 1984.
- Biochemistry of insect flight. Department of Biology, Concordia University, Montreal, Quebec. November 25, 1983.
- Cephalopod biochemistry. the imino acids. Galveston Marine Laboratory, Univ. Houston, Galveston, Texas. Nov. 11, 1983.
- Freezing tolerance in animals. Department of Biology, Rice University, Houston, Texas. November 10, 1983.
- Octopine metabolism in marine invertebrates. Department of Biology, University of Houston, Texas. November 9, 1983.
- Freezing tolerance in animals. Department of Biology, McMaster University, Hamilton, Ontario. October 31, 1983.
- Overwintering and freezing tolerance in animals. Dept. Biology, University of Guelph, Guelph, Ontario. October 26, 1983.
- Overwintering survival of insects. Department of Biology, University of Victoria, Victoria, BC. October 5, 1983.
- How insects fly. Department of Biology, Simon Fraser University, Vancouver, BC. September 29, 1983.
- Biochemistry of freezing tolerance in animals. Dept. Zoology, University of British Columbia, Vancouver, BC. Sept. 28, 1983.
- Freezing tolerance in animals. Dept. Biochemistry, University of Texas Health Science Center, Dallas, Texas. August 1983.
- Imino acid metabolism. Veterans Administration Hospital, Dallas, Texas. August 1983.
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- Metabolism below 0°C. Overwintering strategies in freezing tolerant insects. Department of Biology, Queen's University, Kingston, Ontario. February 4, 1982.
- Travels on the Amazon river and the biology of Amazon fishes. The Explorers Club, New York City, New York. Jan. 19, 1982.

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- Octopine metabolism. Department of Biochemistry, Memorial University, Newfoundland. April 1981.
- Overwintering in the freezing tolerant gall fly larva. Ottawa Entomology Society, Ottawa, Ontario. January 1981.
- Biochemical basis of overwintering in insects. Agriculture Canada, Ottawa, Ontario. October 1980.
- Octopine metabolism. Institute of Marine Biochemistry, Aberdeen, Scotland. June 1980.
- Insect metabolism. Department of Biology, University of Laval, Quebec City, Quebec. March 1980.
- Cephalopod metabolism. Department of Biology, University of Ottawa, Ottawa, Ontario. February 1980.
- Insect flight muscle and fat body metabolism. Ottawa Biology & Biochemistry Society, Ottawa, Ontario. January 1980.

## CONTRIBUTED COMMUNICATIONS AT SCIENTIFIC MEETINGS BY THE STOREY LAB (2010 & earlier)

### 2010

- Holden, H. and Storey, K.B. The role of the antimicrobial peptide brevinin-1SY as an immune effector during environmental stress and development. 5<sup>th</sup> annual conference, Canadian Society for Life Science Research, McGill University, Montreal, August 13-14, 2010.
- Bell, R. and Storey, K.B. Regulation of foot muscle glutamate dehydrogenase from an estivating land snail. 5<sup>th</sup> annual conference, Canadian Society for Life Science Research, McGill University, Montreal, August 13-14, 2010.
- Zhang, J. and Storey, K.B. Tissue-specific pattern of PI3K-Akt signaling during freezing in wood frog, *Rana sylvatica*. 5<sup>th</sup> annual conference, Canadian Society for Life Science Research, McGill University, Montreal, August 13-14, 2010.
- Wu, C.-W. and Storey, K.B. Roles of the mTOR pathway in hibernating ground squirrels, a differential suppression of active protein synthesis. 5<sup>th</sup> annual conference, Canadian Society for Life Science Research, McGill University, Montreal, August 13-14, 2010.
- Letourneau, A. and Storey, K.B. Glycerol-3-P dehydrogenase regulation by reversible phosphorylation in hibernating *Spermophilus richardsonii* liver. 5<sup>th</sup> annual conference, Canadian Society for Life Science Research, McGill University, Montreal, August 13-14, 2010.

### 2009

- Wu, C.-W. and Storey, K.B. Characterization of type-2 protein phosphatase PP2A and PP2C in skeletal muscle of hibernating Richardson's ground squirrel, *Spermophilus richardsonii*. 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, November 20-21, 2009.
- Holden, A. and Storey, K.B. Regulation of NADP<sup>+</sup>-dependent isocitrate dehydrogenase by state-dependent reversible phosphorylation in anoxia tolerant red-eared slider turtles, *Trachemys scripta elegans*. 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, November 20-21, 2009.
- Biggar, K. and Storey, K.B. K. MicroRNAs: small RNAs with a big impact in metabolic rate depression 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, Nov. 20-21, 2009.
- Lant, B. and Storey, K.B. The critical role of autophagy in cellular rescue under extreme conditions. 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, November 20-21, 2009.
- Zhang, J. and Storey, K.B. p53 Transcription factor and cell cycle arrest during anoxia in turtles, *Trachemys scripta elegans*. 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, November 20-21, 2009.
- Dawson, N.J. and Storey, K.B. Purification and properties of arginine kinase from the freshwater crayfish, *Orconectes virilis*; Regulation of muscle energetic during anoxia by reversible phosphorylation. 12<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, November 20-21, 2009.
- Brooks, N.E., Storey, K.B., Myburgh, K.H. Unexpected myostatin suppression during ground squirrel hibernation may explain lack of muscle atrophy. 14<sup>th</sup> International Biochemistry of Exercise Conference, Guelph, ON, June 1-4, 2009.
- Malik, A. and Storey, K.B. Expression of heat shock proteins and heat shock factor-1 in response to dehydration in *Xenopus laevis*. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Krivoruchko, A. and Storey, K.B. Differential expression of peroxiredoxins in an anoxia-tolerant turtle. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Abnous, K., Dieni, C.A. and Storey, K.B. Regulation of AKT in Richardson's ground squirrels during hibernation. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Biggar, K. and Storey, K.B. Changes in the Rb-E2F pathway during anoxic stress of an anoxia tolerant turtle. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Bell, R. and Storey, K.B. Regulation of glutamate dehydrogenase by reversible phosphorylation in liver of Richardson's ground squirrels. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Lama, J. and Storey, K.B. Regulation of G6PDH by reversible phosphorylation in the hepatopancreas of the anoxia-tolerant common periwinkle, *Littorina littorea*. 34<sup>th</sup> annual APICS/CIC Student Chemistry Conference, Antigonish, N.S., May 14<sup>th</sup> -16<sup>th</sup>, 2009.
- Tessier, S.N. and Storey, K.B. Muscle disuse atrophy: the expression of myocyte enhancer factor-2 in the skeletal muscle of *Spermophilus tridecemlineatus* during hibernation. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Brooks, C. and Storey, K.B. Expression levels of p53 and its downstream genes in the wood frog, *Rana sylvatica*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Roufayel, R. and Storey, K.B. The Rb-E2F pathway and its effect on the freeze tolerant wood frog, *Rana sylvatica*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Zhang, J. and Storey, K.B. p53 transcription factor and cell cycle arrest during anoxia in turtles, *Trachemys scripta elegans*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Letourneau, A. and Storey, K.B. Glycerol-3-phosphate dehydrogenase regulation by reversible phosphorylation in hibernating *Spermophilus richardsonii* liver. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Biggar, K. and Storey, K.B. Changes in the Rb-E2F pathway during anoxic stress of an anoxia tolerant turtle. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Krivoruchko, A. and Storey, K.B. Activation of ChREBP in response to anoxia in the anoxia tolerant turtle, *Trachemys scripta elegans*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Krivoruchko, A. and Storey, K.B. Molecular mechanisms of anoxia tolerance in turtles: a role for NF- $\kappa$ B. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Lant, B. and Storey, K.B. Anoxia induces autophagy in the freshwater crayfish (*Orconectes virilis*). 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Dawson, N.J. and Storey, K.B. An enzymatic bridge between carbohydrate metabolism and amino acid metabolism: Regulation of glutamate dehydrogenase by reversible phosphorylation in *Orconectes virilis*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.

- Aguilar, O. and Storey, K.B. Regulation of the myocyte enhancer factor-2 (MEF2) in the wood frog, *Rana sylvatica* during freeze exposure. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Allan, M. and Storey, K.B. Activation of NF- $\kappa$ B by oxidative stress in the hibernating 13-lined ground squirrel, *Spermophilus tridecemlineatus*. 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Malik, A. and Storey, K.B. Activation of extracellular signal-regulated kinases during dehydration in the African clawed frog, *Xenopus laevis* 48<sup>th</sup> annual Canadian Society of Zoologists, Toronto, May 12-16, 2009.
- Aguilar, O. and Storey, K.B. Expression of transcription factors FOXO1 and FOXO3A and their downstream genes in liver of hibernating ground squirrels. 6<sup>th</sup> Canadian Oxidative Stress Conference, Winnipeg, Manitoba, May 7-10, 2009.
- Lama, J. and Storey, K.B. Regulation of G6PDH by reversible phosphorylation in the hepatopancreas of the anoxia-tolerant common periwinkle, *Littorina littorea*. 6<sup>th</sup> Canadian Oxidative Stress Conference, Winnipeg, Manitoba, May 7-10, 2009.
- Malik, A. and Storey, K.B. Expression of antioxidant proteins and NF-E2-related factor in response to dehydration in *Xenopus laevis*. 6<sup>th</sup> Canadian Oxidative Stress Conference, Winnipeg, Manitoba, May 7-10, 2009.
- Anozie O. and Storey, K.B. Protein expression of glutathione S-transferases during anoxia in the marine snail *Littorina littorea*. 6<sup>th</sup> Canadian Oxidative Stress Conference, Winnipeg, Manitoba, May 7-10, 2009.

## **2008**

- Aguilar, O. and Storey, K.B. Transcriptional regulation of antioxidant enzymes in the muscle of the freeze-tolerant wood frog, *Rana sylvatica*. 11<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Quebec, Canada November 21- 22, 2008.
- Tessier, S. and Storey, K.B. Muscle disuse atrophy: the expression of myocyte enhancer factor-2 in the skeletal muscle of *Spermophilus tridecemlineatus* during hibernation. 11<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 21- 22, 2008.
- Krivoruchko, A. and Storey, K.B. Activation of ChREBP in response to anoxia in the anoxia tolerant turtle, *Trachemys scripta elegans*. 11<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 21- 22, 2008.
- Bouffard, M., Abd El Halim, T. and Storey, K.B. Analysis of mRNA and protein levels of PPAR $\alpha$  and H-FABP in heart during hibernation of 13-lined ground squirrels. 13<sup>th</sup> Intl. Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.
- Mathialagan, M. and Storey, K.B. Changes in the Rb-E2F pathway in thirteen-lined ground squirrels during hibernation. 13<sup>th</sup> International Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.
- Malik, A. and Storey, K.B. Expression of antioxidant proteins and NF-E2-related factor in response to dehydration in *Xenopus laevis*. 13<sup>th</sup> International Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.
- Abnous, K., Dieni, C.A. and Storey, K.B. Regulation of AKT in Richardson's ground squirrels during hibernation. 13<sup>th</sup> International Hibernation Symposium, Swakopmund, Namibia, August 6-12, 2008.
- Malik, A. and Storey, K.B. Expression of heat shock proteins and heat shock factor-1 in response to dehydration in *Xenopus laevis*. American Society of Ichthyologists and Herpetologists, Montreal, PQ, July 23-28, 2008.
- Krivoruchko, A. and Storey, K.B. Differential expression of peroxiredoxins in an anoxia-tolerant turtle. American Society of Ichthyologists and Herpetologists, Montreal, PQ, July 23-28, 2008.
- Bouffard, M., Abd El Halim, T. and Storey, K.B. Analysis of mRNA and protein levels of PPAR $\alpha$  and H-FABP in heart during hibernation of 13-lined ground squirrels. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.
- Mathialagan, M. and Storey, K.B. Changes in the Rb-E2F pathway in thirteen-lined ground squirrels during hibernation. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.
- Malik, A. and Storey, K.B. Expression of antioxidant proteins and NF-E2-related factor in response to dehydration in *Xenopus laevis*. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.
- Abnous, K., Dieni, C.A. and Storey, K.B. Regulation of AKT in Richardson's ground squirrels during hibernation. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.
- Dubuc, A.M. and Storey, K.B. Identification of microRNA (miRNA) expression in the hibernating 13-lined ground squirrel, *Spermophilus tridecemlineatus*. Comparative Biology of Aging, Round Top, Texas, March 6-8, 2008.

## **2007**

- Aguilar, O. and Storey, K.B. Expression of transcription factors FOXO1 and FOXO3A and their downstream genes in liver of hibernating ground squirrels. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Krivoruchko, A. and Storey, K.B. Differential expression of peroxiredoxins in an anoxia-tolerant turtle. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Lant, B. and Storey, K.B. Regulation of the unfolded protein response in the anoxia tolerant marine periwinkle, *Littorina littorea*, contributes to cellular survival during winter. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Malik, A. and Storey, K.B. Expression of antioxidant proteins and NF-E2 related factor in response to dehydration in *Xenopus laevis*. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Bell, R. and Storey, K.B. Regulation of glutamate dehydrogenase by reversible phosphorylation in liver of Richardson's ground squirrels. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Lama, J. and Storey, K.B. Regulation of G6PDH by reversible phosphorylation in the hepatopancreas of the anoxia-tolerant common periwinkle, *Littorina littorea*. 10<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 23-24, 2007.
- Dubuc, A.M. and Storey, K.B. Identification of microRNA (miRNA) expression in the hibernating 13-lined ground squirrel, *Spermophilus tridecemlineatus*. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Abd El Halim, T., Bouffard, M. and Storey, K.B. Regulation of PPAR $\alpha$  and PGC-1 $\alpha$  transcription factors during hibernation in heart of thirteen-lined ground squirrels. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Aguilar, O. and Storey, K.B. Expression of transcription factors FOXO1 and FOXO3A and their downstream genes in liver of hibernating ground squirrels. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Niles, J. and Storey, K.B. Role of ATF4 in mediating endoplasmic reticulum stress in freeze tolerant wood frogs, *Rana sylvatica*. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Mathialagan, M. and Storey, K.B. The role of ETS (avian erythroblastosis virus E26 oncogene homolog 1) and Rb (Retinoblastoma) protein in 13-lined ground squirrels (*Spermophilus tridecemlineatus*) during hibernation. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Bouffard, M., Abd El Halim, T. and Storey, K.B. Analysis of mRNA and protein levels of PPAR $\alpha$  and H-FABP in heart during hibernation of 13-lined ground squirrels. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Yao, L. and Storey, K.B. Gene activation in a freeze tolerant insect in response to endoplasmic reticulum stress. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Diene, C.A. and Storey, K.B. Creatine kinase regulation by reversible phosphorylation in a freeze tolerant frog. CRYO-2007, 44<sup>th</sup> Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.

- Abnous, K., Dieni, C.A and Storey, K.B. Regulation of AKT in Richardson's ground squirrels during hibernation. CRYO-2007, 44th Annual Meeting of the Society for Cryobiology, Lake Louise, Alberta, July 28-August 1, 2007.
- Dubuc, A.M. and Storey, K.B. Identification of microRNA (miRNA) expression in the hibernating 13-lined ground squirrel, *Spermophilus tridecemlineatus*. 46<sup>th</sup> annual Canadian Society of Zoologists, Montreal, PQ, May 21-25, 2007.
- Abd El Halim, T., Bouffard, M. and Storey, K.B. Regulation of PPAR $\alpha$  and PGC-1 $\alpha$  transcription factors during hibernation in heart of thirteen-lined ground squirrels. 46<sup>th</sup> annual Canadian Society of Zoologists, Montreal, PQ, May 21-25, 2007.
- Aguilar, O. and Storey, K.B. Expression of transcription factors FOXO1 and FOXO3A and their downstream genes in liver of hibernating ground squirrels. 46<sup>th</sup> annual Canadian Society of Zoologists, Montreal, PQ, May 21-25, 2007.
- Diene, C.A. and Storey, K.B. Glucose-6-phosphate dehydrogenase regulation by reversible phosphorylation. 46<sup>th</sup> annual Canadian Society of Zoologists, Montreal, PQ, May 21-25, 2007.
- Malik, A. and Storey, K.B. Expression of heat shock proteins and heat shock factor 1 in response to dehydration in *Xenopus laevis*. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Krivoruchko, A. and Storey, K.B. Differential expression of peroxiredoxins in an anoxia-tolerant turtle. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Mathialagan, M. and Storey, K.B. Changes in the Rb-E2F pathway in thirteen-lined ground squirrels during hibernation. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Xie, L. and Storey, K.B. Up-regulation of glutathione S-transferases in anoxia-tolerant turtles. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Niles, J. and Storey, K.B. Role of ATF4 in mediating endoplasmic reticulum stress in freeze tolerant wood frogs, *Rana sylvatica*. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Ni, Z. and Storey, K.B. Antioxidant enzyme expression in the hibernating ground squirrel, *Spermophilus tridecemlineatus*. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Du, J. and Storey, K.B. Glutathione S-transferase and antioxidant defense in freeze tolerant wood frogs. 5<sup>th</sup> meeting, Canadian Oxidative Stress Consortium, Montreal, PQ, May 3-6 2007.
- Abnous, K., Diene, C.A and Storey, K.B. Regulation of AKT in Richardson's ground squirrels during hibernation. Experimental Biology, Washington, DC, April 28-May 2, 2007.

## **2006**

- Mathialagan, M. and Storey, K.B. Role of carbohydrate response element binding protein (ChREBP) during hibernation in 13-lined ground squirrels (*Spermophilus tridecemlineatus*). 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Mathialagan, M. and Storey, K.B. The role of ETS (avian erythroblastosis virus E26 oncogene homolog 1) and Rb (Retinoblastoma) protein in 13-lined ground squirrels (*Spermophilus tridecemlineatus*) during hibernation. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Niles, J. and Storey, K.B. Role of ATF4 in mediating endoplasmic reticulum stress in freeze tolerant wood frogs, *Rana sylvatica*. 9<sup>th</sup> Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Nov. 24-25, 2006.
- Xie, L. and Storey, K.B. Up-regulation of glutathione S-transferases in anoxia-tolerant turtles. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Yao, L. and Storey, K.B. Gene activation in a freeze tolerant insect in response to ER stress. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Malik, A. and Storey, K.B. Expression of heat shock proteins and heat shock factor 1 in response to dehydration in *Xenopus laevis*. 9<sup>th</sup> Ann. Chemistry and Biochemistry Graduate Research Conf., Concordia University, Montreal, Nov. 24-25, 2006.
- Bouffard, M., Abd El Halim, T. and Storey, K.B. Analysis of mRNA and protein levels of PPAR $\alpha$  and H-FABP in heart during hibernation of 13-lined ground squirrels. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Abd El Halim, T., Bouffard, M. and Storey, K.B. Regulation of PPAR $\alpha$  and PGC-1 $\alpha$  transcription factors during hibernation in heart of thirteen-lined ground squirrels. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Diene, C. and Storey, K.B. Glucose-6-phosphate dehydrogenase regulation by reversible phosphorylation. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Krivoruchko, A. and Storey, K.B. Expression of heat shock proteins in an anoxia-tolerant turtle, *Trachemys scripta elegans*. 9<sup>th</sup> Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Lant, B. Metabolic regulation of the crayfish (*Orconectes virilis*): a tale of anoxia and reversible phosphorylation. 9<sup>th</sup> Annual Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Bell, R. and Storey, K.B. Regulation of G6PDH in the freshwater crayfish and marine lobster during low-oxygen stress. 9<sup>th</sup> Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Lama, J. and Storey, K.B. Regulation of hexokinase in response to hypoxia stress in freshwater crayfish and marine lobsters. 9<sup>th</sup> Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, November 24-25, 2006.
- Mathialagan, M. and Storey, K.B. Role of carbohydrate response element binding protein (ChREBP) during hibernation in 13-lined ground squirrels (*Spermophilus tridecemlineatus*). 2<sup>nd</sup> Annual Biotech Symposium, Lakehead University, Thunder Bay, September 27-28, 2006.
- Mathialagan, M. and Storey, K.B. The role of ETS (avian erythroblastosis virus E26 oncogene homolog 1) and Rb (Retinoblastoma) protein during hibernation in 13-lined ground squirrels (*Spermophilus tridecemlineatus*). 2<sup>nd</sup> Annual Biotech Symposium, Lakehead University, Thunder Bay, September 27-28, 2006.

## **2005**

- Diene, C.A. and Storey, K.B. Regulation of 5'-adenosine monophosphate deaminase in the freeze-tolerant wood frog, *Rana sylvatica*. 8th Annual Chemistry and Biochemistry Graduate Research Conference, November 18-19, 2005.
- Diene, C.A. and Storey, K.B. Creatine kinase regulation by reversible phosphorylation. 8th Annual Chemistry and Biochemistry Graduate Research Conference, November 18-19, 2005.
- Hapsatou, M. and Storey, K.B. Expression of the activating transcription factor 4, ATF4, and its downstream genes in hibernating ground squirrels. CRYO-2005, 42<sup>nd</sup> Ann. Meeting of the Society for Cryobiology, Minneapolis, MN, July 24-27, 2005
- Abnous, K. and Storey, K.B. Creatine kinase regulation during hibernation in Richardson's ground squirrels. CRYO-2005, 42<sup>nd</sup> Annual Meeting of the Society for Cryobiology, Minneapolis, Minnesota, July 24-27, 2005
- Morin, P. and Storey, K.B. Cloning and expression of hypoxia-inducible factor 1 $\alpha$  from the hibernating ground squirrel, *Spermophilus tridecemlineatus*. CRYO-2005, 42<sup>nd</sup> Annual Meeting of the Society for Cryobiology, Minneapolis, Minnesota, July 24-27, 2005
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