KENNETH B. STOREY www.kenstoreylab.com

NATIONALITY: Canadian

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 – 6/22	**Canada Research Chair** in Molecular Physiology (Tier 1), Carleton University, Ottawa
7/85 -	Professor, Institute of Biochemistry, Department of Biology and Department of 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:

2019	Research Excellence Award, Science Faculty, Carleton University
2017	Distinguished Editorial Board Member of the journal Genomics, Proteomics & Bioinformatics, cited for 2013−2015
2016	Carleton University Research Achievement Award (also 2008, 2003, 1998, 1992, 1989)
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
2001-2022	N.S.E.R.C. Canada Research Chair in Molecular Physiology, Tier I
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
1975-1977	Killam Research Fellowship
1971-1974	NRC Science Centennial Postgraduate Scholarship

PROFESSIONAL ACTIVITIES:

Total research publications: **963** (to end of 2020)

Plenary & keynote lectures: **65**
Conference scientific committees **6**
Symposia organized: **32**
Invited lectures at scientific meetings: **119**
Invited seminars (university, research stations, public lectures): **407**
Contributed communications with students at scientific meetings: **618**

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
N.S.E.R.C.: Member, Discovery grants evaluation group 1502 "Biological Systems and Functions", Nov. 2015-Feb. 2018.

Scientific advisor: a) Bio S&T Inc., Lachine, PQ, a biotechnology company, 1997-2005
b) Perkin Elmer Corp., Spectroscopy Demo site (1995-2000)
c) X-Therma Inc. (biomimetic nanotech), San Francisco, USA (since 2016)
https://x-therma.com/the-team/ "Biology Team"

Editor, Cell and Molecular Responses to Stress, Elsevier Press, 2000-2002 (3 volumes)
Co-Editor with K.K. Tanino. Temperature adaptation in a changing climate. CABI Publ., Wallingford, UK, 2012.
Guest editor, Research Topic "Coping with environmental fluctuations: ecological and evolutionary perspectives" Frontiers in Physiology, 2020.
Guest editor, Metabolic strategies in hypoxia. Special issue of "Metabolites", MDPI Publishers, 2021.

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

Metabolites (since 2021) MDPI publishers	Cells (since 2020)
PeerJ (since 2012)	Research and Reports in Biology (since 2010)

Past member: Genomics Proteomics and Bioinformatics (2014-2020), Cryo-Letters (1983-2000), Journal of Comparative Physiology B (1994-2018), Journal of Thermal Biology, American Journal of Physiology, Molecular Physiology, Journal of 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 (past)
American Society of Ichthyologists and Herpetologists (past)
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:

	Past	Current (2020-21)
Visiting researchers	22	-
Postdoctoral fellows	12	-
Ph.D. Students	45	6
M.Sc. Students	74	3
B.Sc. Honours Students	107	2
NSERC USRA	70	0
Dean of Science 1st yr summer scholars	31	0
Co-op, interns, other student researchers	38	-
Technicians	11	-

CURRENT RESEARCH FUNDING

N.S.E.R.C. Discovery grant: Mechanisms of metabolic rate depression: following nature's way. 4/20 - 3/25. $390,000

N.S.E.R.C. Canada Research Chair in Molecular Physiology, Tier I: 2001-2022: salary, benefits, administration, research. $200,000 per year.

N.S.E.R.C. Research Tools and Instruments: Extreme Life: Microvolume analytics to probe animal adaptation to environmental stress. 4/18-3/19. $100,499.

Carleton University Faculty of Science Research Achievement Award: $5000.

CanSeq 150 award: Genome sequencing of wood frog and grey tree frog. 2021. $5,185

PAST FUNDING

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

2014-20	Mechanisms of metabolic rate depression: following nature's lead. (6 years)
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:

2016-17	Biochemical adaptation: Analytics to drive next generation research on novel microRNAs and proteins responsive to environmental stress. $61,997.
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	^{32}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 Canada:

Suspended animation: hypometabolic hearts in a primate hibernator. #G-14-0005874; 7/14 – 6/17, $201,775
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 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:

1/18-2/18	Visiting researcher, Dept. Zoology, University of Pretoria, South Africa
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 courses:

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

Current & Recent Committees:

Carleton University Academic Staff Association (CUASA), Grievance Committee. from 2020
Curriculum committee, Biochemistry, ongoing
Search Committee, new Department Chair, Biology, 2015, 2016
Search committee for Director of the Biochemistry Institute, 2016
Search committee, animal physiology/biochemistry faculty position, Biology, 2015
Search committee, protein chemist faculty position, Biochemistry, 2015

KENNETH B. STOREY PUBLICATION LIST

SUMMARY:

CAREER TOTAL PUBLICATIONS	**963** (to end of 2020)
Primary journal articles	**788**
Invited review articles in journals	**59**
Invited articles in conference proceedings	**47**
Book chapters	**43**
Books edited	**7**
Magazine, encyclopedia, editorials, perspectives, popular articles	**18**

2021

Reviews and Chapters

Storey, J.M., Wu, S. and Storey, K.B. 2021. Mitochondria and the frozen frog. Antioxidants 10(4),543. PMID: 33915853

Wu, C.-W. and Storey, K.B. 2021. mTOR signaling in metabolic stress adaptation. Biomolecules. 11, 681. PMID: 34062764

Wijenayake, S. and Storey, K.B. 2022. The role of humanin in natural stress tolerance: an underexplored therapeutic avenue. BBA Gen. Subj. 1866, 130022. PMID: 34626747

Luu, B.E., Hawkins, L.J. and Storey, K.B. 2021. Insights from a vertebrate model organism on the molecular mechanisms of whole-body dehydration tolerance. Mol. Cell. Biochem. 476, 2381-2392. PMID: 33595794

Hadj-Moussa, H., Hawkins, L.J. and Storey, K.B. 2021. Role of microRNAs in extreme animal survival strategies. in Almer, J. and Yousef, M. (Eds.), MiRNomics: MicroRNA Biology and Computational Analysis. Methods in Molecular Biology, Vol. 2257, Ch. 16, pp. 311-347, Humana Press.

Giroud, S., Habold, C., Nespolo, R.F., Mejías, C., Terrien, J., Logan, S.M., Henning, R.H. and Storey, K.B. 2021. The torpid state: recent advances in metabolic adaptations and protective mechanisms. Front. Physiol. 11, 623665. PMID: 33551846

Lushchak, V.I. l and Storey, K.B. 2020. Oxidative stress concept updated: definitions, classifications, and regulatory pathways implicated. EXCLI Journal 20, 956-967. PMID: 34267608

Lushchak, O., Piskovatska, V., Strilbytska, O., Kindrat, I., Stefanyshyn, N., Koliada, A., Bubalo, V., Storey, K.B., Vaiserman, A. 2021. Aspirin as a potential geroprotector: experimental data and clinical evidence. Adv. Exp. Med. Biol. 1286. 145-161. PMID: 33725352

Semaniuk, U., Piskovatska, V., Strilbytska, O., Strutynska, T., Burdyliuk, N., Vaiserman, A., Bubalo, V., Storey, K.B. and Lushchak, O. 2021. *Drosophila* insulin-like peptides: from expression to functions – a review. Entomol. Exp. Appl. 169: 195–208. https://doi.org/10.1111/eea.12981

Semaniuk, U., Strilbytska, O., Malinovska, K., Storey, K.B., Vaiserman, A., Lushchak, V. and Lushchak, O. Factors that regulate expression patterns of insulin-like peptides and their association with physiological and metabolic traits in *Drosophila*. Insect Biochem. Mol. Biol. 135, 103609. PMID: 34146686

Bayliak, B., Dmytriv, T.R., Melnychuk, A.V., Strilets, N.V., Storey, K.B. and Lushchak, V.I. 2021. Chamomile as a potential remedy for obesity and metabolic syndrome. EXCLI J. 20, 1261-1286. PMID: 34602925

Roufayel, R., Mezher, R. and Storey, K.B. 2021. The role of retinoblastoma protein in cell cycle regulation: an updated review. Curr. Mol. Med. 21(8) 620-629. PMID: 33397238 doi: 10.2174/1566524020666210104113003

Buffenstein, R. et al., Amoroso, V., Andziak, B., Avdieiev, S., Azpurua, J., Barker, A.J., Bennett, N.C., Brieño-Enríquez, M.A., Bronner, G.N., Coen, C., Delaney, M.A., Dengler-Crish, C.M., Edrey, Y.H., Faulkes, C.G., Frankel, D., Friedlander, G., Gibney, P.A., Gorbunova, V., Hine, C., Holmes, M.M., Jarvis, J.U.M., Kawamura, Y., Kutsukake, N., Kenyon, C., Khaled, W.T., Kikusui, T., Kissil, J., Lagestee, S., Larson, J., Lauer, A., Lavrenchenko, L.A., Lee, A., Levitt, J.B., Lewin, G.R., Lewis Hardell, K.N., Lin, T.D., Mason, M.J., McCloskey, D., McMahon, M., Miura, K., Mogi, K., Narayan, V., O'Connor, T.P., Okanoya, K., O'Riain, M.J., Park, T.J., Place, N.J., Podshivalova, K., Pamenter, M.E., Pyott, S.J., Reznick, J., Ruby, J.G., Salmon, A.B., Santos-Sacchi, J., Sarko, D.K., Seluanov, A., Shepard, A., Smith, M., **Storey, K.B.**, Tian, X., Vice, E.N., Viltard, M., Watarai, A., Wywial, E., Yamakawa, M., Zemlemerova, E.D., Zions, M., Smith, E.S.J.. 2020. The naked truth: busting the myths of naked mole-rat biology. Biol. Rev. Camb. Pilos. Soc., PMID: 34476892. Doi: 10.1111/brv.12791.

Journal Articles

Abnous, K. and Storey, K.B. 2021. 5'-Adenosine monophosphate deaminase regulation in ground squirrels during hibernation. Comp. Biochem. Physiol. B 253, 110543. PMID: 33301876

Bell, R.A.V. and Storey, K.B. 2021. Stable suppression of skeletal muscle fructose-1,6-bisphosphatase during ground squirrel hibernation: Potential implications of reversible acetylation as a regulatory mechanism. Cryobiology 102, 97-103. PMID: 34274341

Tessier, S.N., Ingelson-Filpula, W.A. and Storey, K.B. 2021, Epigenetic regulation by DNA methyltransferases during torpor in the thirteen-lined ground squirrel *Ictidomys tridecemlineatus.* Mol. Cell. Biochem. 476, 3975-3985. PMID: 34191233

Tessier, S.N., Breedon, S.A. and Storey, K.B. 2021. Modulating Nrf2 transcription factor activity: revealing the regulatory mechanisms

of antioxidant defenses during hibernation in thirteen-lined ground squirrels. Cell. Biochem. Funct. 39(5), 623-635. PMID: 33624895

Zhang, J., Gupta, A. and Storey, K.B. 2021. Freezing stress adaptations: critical elements to activate Nrf2-related antioxidant defense in liver and skeletal muscle of freeze tolerant wood frogs. Comp. Biochem. Physiol. B 254, 110573. PMID: 33548505

Wijenayake, S. and Storey, K.B. 2021. Oxidative damage? Not a problem! The characterization of humanin-like mitochondrial peptide in anoxia tolerant freshwater turtles. Protein J. 40, 87-107. PMID: 33387248

Logan, S.M. and Storey, K.B. 2021. Inflammasome signaling could be used to sense and respond to endogenous damage in brown but not white adipose tissue of a hibernating ground squirrel. Devel. Comp. Immunol. 114, 103819. PMID: 32781003

Logan, S.M and Storey, K.B. 2021. MicroRNA expression patterns in the brown fat of hibernating 13-lined ground squirrels. Genomics. 113(2), 769-781. PMID: 33529780

Logan, S.M. and Storey, K.B. 2021. Markers of tissue remodeling and inflammation in the white and brown adipose tissues of a model hibernator**.** Cell. Signal. 82, 109975. PMID: 33711429

Logan, S.M., Gupta, A., Wang, A., Levy, R.J. and Storey, K.B. 2021. Isoflurane and low-level carbon monoxide exposures increase expression of pro-survival miRNA in neonatal mouse heart. Cell Stress Chaperones 26(3), 541-548. PMID: 33661504

Hadj-Moussa, H., Wade, S.C., Childers, C. L. and Storey, K.B. 2021. Mind the GAP: purification and characterization of urea resistant GAPDH during extreme dehydration. Proteins 89,544–557. PMID: 33368595.

Hadj-Moussa, H., Pamenter, M.E. and Storey, K.B. 2021. Hypoxic naked mole-rat brains use microRNA to coordinate hypometabolic fuels and neuroprotective defenses. J. Cell. Physiol. 236(7), 5080-5097. PMID: 33305831

Hadj-Moussa, H., Chiasson, S., Cheng, H., Eaton, L., Storey, K.B. and Pamenter, M.E. 2021. MicroRNA-mediated inhibition of AMPK coordinates tissue-specific downregulation of skeletal muscle metabolism in hypoxic naked mole-rats. J. Exp. Biol. 224, jeb242968. PMID: 34374781

Green, S.R. and Storey, K.B. 2021. Skeletal muscle of torpid Richardson's ground squirrels (*Urocitellus richardsonii*) exhibits a less active form of citrate synthase associated with lowered lysine succinylation. Cryobiology 101, 28-37. PMID: 34186087

Green, S.R. and Storey, K.B. 2021. Functional and post-translational characterization of pyruvate dehydrogenase demonstrates repression of activity in the liver but not skeletal muscle of the Richardson's ground squirrel (*Urocitellus richardsonii*) during hibernation. J. Thermal Biol. 99, 102996. PMID: 34420628

Gupta, A. and Storey, K.B. 2021. Coordinated expression of Jumonji and AHCY under OCT transcription factor control to regulate gene methylation in wood frogs during anoxia. Gene 19, 145671. PMID: 33887369

Gupta, A., Hadj-Moussa, H., Al-attar, R., Seibel, B.S. and Storey, K.B. 2021. Hypoxic jumbo squid activate neuronal apoptosis but not MAPK or antioxidant enzymes during oxidative stress Physiol. Biochem. Zool. 94(3):171-179. PMID: 33830886.

Gupta, A., Varma, A. and Storey, K.B. 2021. New insights to regulation of fructose 1,6 bisphosphatase during anoxia in red eared slider, *Trachemys scripta elegans.* Biomolecules 11, 1548. doi.org/10/3390/biom11101548.

Abboud, J., Green, S., Smolinski, M. and Storey, K.B. 2021. Regulation of an important glycolytic enzyme, pyruvate kinase through phosphorylation in the larvae of a species of freeze tolerant insect, *Eurosta solidaginis*. Insect Mol. Biol. 30(2), 176-1877.

Williamson, S.M., Ingelson-Filpula, W.A., Hadj-Moussa, H. and Storey, K.B. 2021. Epigenetic underpinnings of freeze avoidance in the goldenrod gall moth, *Epiblema scudderiana.* J. Insect Physiol.134, 104298. PMID: 34374781

Saleem, R., Al-attar, R. and Storey. K.B. 2021. The activation of pro-survival pathways in *Myotis lucifugus* during torpor. Physiol. Biochem. Zool. 94(3), 180–187. PMID: 33835909

English, S.G., Al-attar, R. and Storey, K.B. 2021. NFAT5-mediated transcriptional regulation during dehydration in the African clawed frog. Physiol. Biochem. Zool. Submitted May 16, 2021.

Breedon, S.A., Hadj-Moussa, H. and Storey, K.B. 2021. Nrf2 activates antioxidant enzymes in the anoxia-tolerant red-eared slider turtle, *Trachemys scripta elegans*. J. Exp. Zool. A. 335(4), 426-435. PMID: 33711429

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33. Storey, K.B., Fields, J.H.A. and Hochachka, P.W. 1978. Purification and properties of glutamate dehydrogenase from the mantle muscle of the squid, *Loligo pealeii*. Role of the enzyme in energy production from amino acids. J. Exp. Zool. 205, 111-118.
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28. Storey, K.B. 1977. Tissue specific isozymes of octopine dehydrogenase in the cuttlefish, *Sepia officinalis*. The roles of octopine dehydrogenase and lactate dehydrogenase in *Sepia*. J. Comp. Physiol. B 115, 159-169.

27. Storey, K.B. 1977. Lactate dehydrogenase in tissue extracts of the land snail, *Helix aspersa*: unique adaptation of LDH subunits in a facultative anaerobe. Comp. Biochem. Physiol. 56B, 181-187.

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25. Storey, K.B. 1976. Purification and properties of squid mantle muscle adenylate kinase. Role of NADH in control of the enzyme. J. Biol. Chem. 251, 7810-7815.

24. Storey, K.B. 1976. Purification and properties of adductor muscle phosphofructokinase from the oyster, *Crassostrea virginica*. The aerobic/anaerobic transition: role of arginine phosphate in enzyme control. Eur. J. Biochem. 70, 331-337.

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21. Fields, J.H.A., Guderley, H.E., Storey, K.B. and Hochachka, P.W. 1976. Octopus mantle citrate synthase. Can. J. Zool. 54, 886-891.

20. Guderley, H.E., Storey, K.B., Fields, J.H.A. and Hochachka, P.W. 1976. Pyruvate kinase from *Oplophorus gracilirostris*. Comp. Biochem. Physiol. 55B, 475-478.

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19. Storey, K.B. 1975. Purification and properties of turtle heart creatine kinase: role of the enzyme in glycolytic control. Int. J. Biochem. 6, 53-59.

18. Storey, K.B. and Hochachka, P.W. 1975. Redox regulation of muscle phosphofructokinase in a fast swimming squid. Comp. Biochem. Physiol. 52B, 159-164.

17. Storey, K.B. and Hochachka, P.W. 1975. Squid mantle muscle fructose diphosphatase and its role in the control of F6P-FDP cycling. Comp. Biochem. Physiol. 52B, 165-168.

16. Storey, K.B. and Hochachka, P.W. 1975. Alpha-glycerophosphate dehydrogenase: its role in the control of the cytoplasmic arm of the alpha-glycerophosphate cycle in squid mantle muscle. Comp. Biochem. Physiol. 52B, 169-174.

15. Storey, K.B. and Hochachka, P.W. 1975. The kinetic requirements of cytoplasmic alpha-glycerophosphate dehydrogenase in muscles with active alpha-glycerophosphate cycles. Comp. Biochem. Physiol. 52B, 175-178.

14. Storey, K.B. and Hochachka, P.W. 1975. Squid muscle glyceraldehyde-3-phosphate dehydrogenase: control of the enzyme in a tissue with an active alpha-glycerophosphate cycle. Comp. Biochem. Physiol. 52B, 179-182.

13. Storey, K.B. and Hochachka, P.W. 1975. Squid muscle pyruvate kinase: control properties in a tissue with an active alpha-glycerophosphate cycle. Comp. Biochem. Physiol. 52B, 187-192.

12. Storey, K.B., Mustafa, T. and Hochachka, P.W. 1975. Squid muscle malic enzyme. Comp. Biochem. Physiol. 52B, 183-186.

11. Hochachka, P.W. and Storey, K.B. 1975. Metabolic consequences of diving in animals and man. Science 187, 613-621.

10. Hochachka, P.W., Moon, T.W., Mustafa, T. and Storey, K.B. 1975. Metabolic sources of power for mantle muscle of a fast swimming squid. Comp. Biochem. Physiol. 52B, 151-158.

9. Hochachka, P.W., Storey, K.B. and Baldwin, J. 1975. Squid muscle citrate synthase: control of carbon entry into the Krebs cycle. Comp. Biochem. Physiol. 52B, 193-199.

8. Hochachka, P.W., Storey, K.B. and Baldwin, J. 1975. Design of acetylcholinesterase for its physical environment. Comp. Biochem. Physiol. 52B, 13-18.

7. Hochachka, P.W., Storey, K.B. and Baldwin, J. 1975. Gill citrate synthase from an abyssal fish. Comp. Biochem. Physiol. 52B, 43-50.

6. Baldwin, J., Storey, K.B. and Hochachka, P.W. 1975. Lactate dehydrogenase M4 of an abyssal fish: strategies for function at low temperatures and high pressures. Comp. Biochem. Physiol. 52B, 19-24.

5. Moon, T.W. and Storey, K.B. 1975. The effects of temperature and hydrostatic pressure on enzymes of an abyssal fish, *Antimora rostrata*: liver NADP-linked isocitrate dehydrogenase. Comp. Biochem. Physiol. 52B, 51-57.

1974

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.

3. Storey, K.B. and Hochachka, P.W. 1974. Enzymes of energy metabolism in a vertebrate facultative anaerobe, *Pseudemys scripta*: turtle heart pyruvate kinase. J. Biol. Chem. 249, 1423-1427.

2. Storey, K.B. and Hochachka, P.W. 1974. Activation of muscle glycolysis: a role for creatine phosphate in phosphofructokinase regulation. FEBS Lett. 46, 337-339.

1. Storey, K.B. and Hochachka, P.W. 1974. Glycolytic enzymes in muscle of the pacific dolphin: role of pyruvate kinase in aerobic-anaerobic transition during diving. Comp. Biochem. Physiol. 49B, 119-128.

KENNETH B. STOREY

LECTURES AND CONFERENCE PRESENTATIONS

CAREER SUMMARY

Invited Plenary, Keynote or Named Lectures:	**65**
Member of Conference Scientific Committees	**6**
Conference Symposia Organized	**32**
Invited Lectures in Symposia at Scientific Meetings	**119**
Invited Seminars (at universities, research stations, public lectures)	**407**
Contributed Communications with Students at Scientific Meetings	**618**

PLENARY LECTURES, KEYNOTE ADDRESSES & NAMED LECTURES 2009 - Present (46 others 2008 and earlier):

Evolutionary adaptions to stress: lessons from animals in extreme environments. Keynote address. Lung health and disease across age, environment and species, Gordon Research Conference, Colby-Sawyer College, New London, NH, Aug. 20-24, 2017.

Peter Hochachka: roots and branches. Satellite Symposium: 50 years of comparative biochemistry: the legacy of Peter Hochachka. Canadian Society of Zoologists, Winnipeg, Manitoba, May 13-14, 2017.

Life on pause: Epigenetic mechanisms underlie global metabolic rate depression. Ottawa-Carleton Institute of Biology Conference, Graduate Research Day, 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 21st century. 1st International Conference on Oxidative Stress in Aquatic Ecosystems. Los Cabos, Mexico, November 20-24, 2012.

Metabolic mechanisms of mammalian hibernation. Keynote speaker, 14th 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, 50th annual Canadian Society of Zoologists, University of Ottawa, May 16-20, 2011.

Frozen alive: Molecular mechanisms of vertebrate freeze tolerance. Keynote lecture, 11th Extreme Cryo meeting, Edmonton, Alberta, January 29-30, 2010.

Life in the cold: a biochemist's perspective on animals in winter. Keynote lecture, 39th Annual meeting, German Ecological Society, Bayreuth, Germany, September 14-18, 2009.

Life in the cold: molecular mechanisms of mammalian hibernation. Keynote lecture, 34th 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 (Graduate Research day), University of Alberta, Edmonton, AB, March 5-6, 2009.

CONFERENCE SCIENTIFIC COMMITTEES:

International Congress of Comparative Physiology and Biochemistry, 10th meeting, Ottawa, Ontario, August 5-9, 2019.
Society for Cryobiology, 56th Annual Meeting, San Diego, CA, July 22-25, 2019
Society for Cryobiology, 53rd 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: 2014 - Present (27 others 2008 and earlier)

Living at low pace: From the whole organism to the molecule. (co-organizer S. Giroud) International Congress of Comparative Physiology and Biochemistry, 10th meeting, Ottawa, Ontario, August 5-9, 2019.
Nature's way. Society for Cryobiology, San Diego, July 22-25, 2019. (full-day symposium)
Nature's way. Society for Cryobiology, Ottawa, July 23-27, 2016.
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.

INVITED LECTURES AT SCIENTIFIC MEETINGS: 2010 - Present

(84 others 2009 & earlier)

Hibernation and metabolic rate regulation. The Science of Suspended Animation in Deep Space, online conference organized by Translational Research Institute for Space Health (TRISH), Baylor College of Medicine, Aug. 7, 2020.
Oxidative stress: mitochondria and strategies of biochemical adaptation. International Congress of Comparative Physiology and Biochemistry, 10th meeting, Ottawa, Ontario, August 5-9, 2019.
Epigenetics: mechanisms and the control of metabolism. International Congress of Comparative Physiology and Biochemistry, 10th meeting, Ottawa, Ontario, August 5-9, 2019.
Bringing Nature back – can human organs learn from animal adaptatations? Society for Cryobiology, San Diego, July 22-25, 2019.
Hypoxia/anoxia adaptation: extremeophiles point to new high altitude experiments. 13th International Conference on Genomics, Shenzhen, China. October 25-28, 2018.
The living dead: mitochondria and metabolic arrest. 4th International Congress of the Serbian Society for Mitochondrial and Free Radical Physiology, Belgrade, Serbia, September 28-29, 2018.
The living dead: Metabolic arrest for survival during winter hibernation. Conference: Bats – A New Model for Healthy Aging. Banbury Conference Center, Cold Spring Harbor Laboratory, March 11-14, 2018.
Turning the switch to OFF: hypometabolism of organs at any temperature. Organ Banking Summit, Boston, August 3-6, 2017.
What do hibernating mammals tell us about the elastic limits of tissue function. American Society for Nutrition, Experimental Biology 2017, Chicago, IL. April 22-26, 2017.
The living dead: mitochondria and metabolic arrest. 115th International Titisee Conference "Evolutionary mitochondrial biology: molecular, biochemical, and metabolic diversity" Titisee, Germany, March 29 - April 2, 2017.
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. 53rd annual meeting, Society for Cryobiology, Ottawa, July 23-27, 2016. Cryobiology 73, 429 (2016)
Mammals on ice: molecular secrets of winter hibernation. Wenner-Gren Symposium -Brown Adipose Tissue and Euthermia. 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. 7th International Symposium on Heat Shock Proteins in Biology and Medicine, Washington, DC. November 1-5, 2014.
Metabolic rate depression: the heart in winter. 2nd Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators. Winnipeg, MB, September 4-6, 2014.

Oxidative stress and the marine environment - "radical" management. 8th 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. 3rd 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 21st 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 21st century. CRYO2013, 50th Annual Meeting, Society for Cryobiology, Bethesda, Maryland, July 28-31, 2013.
Metabolic depression: from the intertide to the open ocean. 1st International Conference on Oxidative Stress in Aquatic Ecosystems. Los Cabos, Mexico. November 20-24, 2012.
Biochemical adaptation to freezing environments. 26th 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.

INVITED SEMINARS: UNIVERSITIES, RESEARCH STATIONS & PUBLIC LECTURES: 2015 - Present (378 others 2014 & earlier)

Life in limbo: Mechanisms of mammalian hibernation. Shaanxi Key Laboratory for Animal Conservation, College of Life Sciences, Northwest University, Xi'an, China, April 16, 2021. (video lecture)
The living dead: metabolic arrest and the biochemistry of hibernation. University of the Sunshine Coast, Queensland, Australia, December 11, 2020. (video lecture)
The living dead: the biochemistry of stress-induced torpor across the animal kingdom. Carleton Chemistry & Biochemistry Society October 22, 2020.
The living dead: metabolic arrest in marine animals. Department of Biology, Carleton University, Ottawa, October 2, 2020.
Metabolic arrest – a key adaptation for animal survival in changing marine environments. Center for Coastal Oceans Research and Dept. Biological Sciences, Florida International University, Biscayne Bay Campus, North Miami, March 4, 2020.
The living dead: metabolic arrest and the control of biological time. Department of Biological Sciences, Florida Atlantic University, Boca Raton, March 2, 2020.
The living dead: metabolic arrest and animal adaptation for survival in changing environments Department of Biological and Marine Sciences, University of Hull, Hull, UK, October 22, 2019.
Survival in extreme environments: mammalian torpor and hibernation. Honours Research day, Department of Biology, Queen's University, Kingston, Ontario, March 8, 2019.
Living dead: metabolic arrest and survival in marine environments. School of Biological Sciences, The University of Hong Kong, October 22, 2018.
Metabolic arrest in mammals. Department of Zoology, University of Pretoria, South Africa, February 9, 2018.
Strategies for expanding international partnerships from NSERC funding. Invited panel speaker. Science and Research Sector, Innovation, Science and Economic Development Canada. Ottawa, January 18, 2018.
Living dead: metabolic arrest and the control of biological time. Department of Medicine, University of Illinois at Chicago, Chicago, IL, April 26, 2017.
The living dead: metabolic arrest and the control of biological time. School of Biological Sciences, Royal Holloway University of London, Egham, UK, March 22 2017.
Metabolic arrest, estivation and survival strategies in the marine environment. Evenings at Whitney, Whitney Laboratory for Marine Bioscience, St. Augustine, FL. February 9, 2017.
Hypometabolism and survival of environmental extremes. Department of Biology, University of Florida, Gainsville, FL. February 7, 2017.
The living dead: metabolic arrest and the control of biological time. Department of Biology, University of Ottawa, Ottawa, ON. November 28, 2016.
Survival strategies for life in extreme environments. Department of Biology, Queen's University, Kingston, ON. November 22, 2016.
The living dead: metabolic arrest and the control of biological time. Department of Biology, University of Waterloo, Waterloo, ON. October 21, 2016.

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.
The living dead: estivation and survival strategies in a marine environment. Trent University, Department of Biology, 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: natural metabolic arrest and implications for organ preservation. Department of Mechanical Engineering and Engineering Sciences, University of North Carolina at Charlotte, Charlotte, NC, October 29, 2015.
The living dead: torpor and hibernation as mammalian strategies of winter survival. 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.

CONTRIBUTED COMMUNICATIONS AT SCIENTIFIC MEETINGS BY THE STOREY LAB: 2018 - Present (558 others 2016 & earlier)

Following are recent presentations 2018-2020; most are by trainees from my lab but some (*) report research with collaborators from other institutions.

2021

Institute of Engineering and Medicine BioSciTech Symposium, University of Minnesota. Apr 12, 2021.
Hadj-Moussa, H. and Storey, K.B. The answer to all of your questions is: MicroRNA. (online oral presentation).

2020

No student conference presentations in 2020 due to covid-19

2019

Chemistry and Biochemistry Graduate Research Conference, Concordia University, Montreal, Nov. 15, 2019
Logan, S. and Storey, K.B. Brown and white adipose from hibernators sense and respond to inflammatory triggers differently. (oral)
Logan, S. and Storey, K.B. Fat but fit: how hibernating ground squirrel adipose tissue regulates pro-inflammatory signaling pathways. (poster)
Gupta, A. and Storey, K.B. NRF2 transcriptional network in anoxia-tolerant vertebrates. (oral)
Gupta, A. and Storey, K.B. Holding back Jumonji: OCT-1 induced epigenetic changes combat oxidative stress. (poster)
Singh, G. and Storey, K.B. MondoA is a master regulator of sugar-induced gene expression and link to circadian rhythms in frozen wood frog. (poster)

International Congress of Comparative Biochemistry and Physiology, Ottawa, ON, August 5-9, 2019.
Szereszewski, K. and Storey, K.B. Hibernating squirrels regulate inflammation in a tissue-specific manner. (oral)
Al-Attar, R. and Storey, K.B. Multifaceted regulation of autophagy and lysosomal biogenesis supports environmental stress-tolerance in wood frogs. (oral)
Al-Attar, R. and Storey, K.B. RAGE management: cyto-nuclear cross talk under oxidative stress. (oral)
Hawkins, L. and Storey, K.B. Phosphorylation of glycolysis and urea cycle enzymes in response to multiple stresses in a freeze tolerant vertebrate. (oral)
Watts, A. and Storey, K.B. Investigation of the molecular circadian clock during hibernation in the thirteen-lined ground squirrel. (oral)
Watts, A. and Storey, K.B. m6A RNA methylation modulates translational activity during hibernation in the 13-lined ground squirrel, *Ictidomys tridecemlineatus*. (poster)
Hadj-Moussa, H. and Storey, K.B. Genes of the undead: hibernation and death display different gene profiles. (oral)
Hadj-Moussa, H. and Storey, K.B. MicroRNAs facilitate metabolic rate depression in torpid primates: That's cool, now what? (oral)
Logan, S. and Storey, K.B. Hibernator state of mind: the molecular adaptations of torpid brains. (oral)
Green, S. and Storey, K.B. Regulation of the TCA cycle through modification of the α-ketoglutarate dehydrogenase complex in a mammalian hibernator, the Richardson's ground squirrel (*Urocitellus richardsonii*). (oral)
Gupta, A. and Storey, K.B. NRF2 transcriptional network in anoxia-tolerant vertebrates. (oral)

Gupta, A. and Storey, K.B. Holding back Jumonji: OCT-1 induced epigenetic changes combat oxidative stress. (poster)

Singh, G. and Storey, K.B. MondoA is a key regulator of sugar-induced gene expression and link to circadian rhythms in frozen wood frogs. (poster)

Saleem, R. and Storey, K.B. Insight into the regulation of glutamate dehydrogenase in the wood frog liver. (poster)

*Nespolo, R., *Gaitan-Espitia, J.D., *Quintero-Galvis, J., *Fernandez, F., *Silva, A., *Molina, C., Storey, K., *Bozinovic, F. Endothermy, marsupials and hibernation: a tale from three continents. (oral)

RNA Enthusiast Day - TREnD 2019. Gilgan Centre for Research and Learning, University of Toronto, July 30, 2019

Hadj-Moussa, H. and Storey, K.B. Micromanaging freeze tolerance: The biogenesis and regulation of cytoprotective microRNAs in frozen brains and livers. (oral)

Watts, A., Storey, K.B. Methylation of RNA modulates translational activity during hibernation in the 13-lined ground squirrel (poster)

Society for Cryobiology, 56th annual meeting, San Diego, CA, July 22-25, 2019.

*Taylor, D., Germano, J., Marek-Iannucci, S., Hadj-Moussa, H., Storey, K, Gottlieb, R. Hypothermic regulation of cardiac mitochondrial dynamics.

Brain Health Research Day, Royal Institute of Mental Health Research, Ottawa, ON, May 9, 2019.

Watts, A.J., Hadj-Moussa, H. and Storey, K.B. Genes of the undead: hibernation and death display different gene profiles.

Ottawa-Carleton Biology Institute conference, Ottawa, ON, May4, 2019.

Hadj-Moussa, H. and Storey, K.B. Genes of the undead: Hibernators and zombies display different gene expression profiles.

Gupta, A. and Storey, K.B. OCT4 triggers a NRF2-mediated antioxidant response in anoxia-tolerant frogs.

Singh, G. and Storey, K.B. Mondo A: A key regulator of sugar-induced gene expression in frozen wood frogs *Rana sylvatica.*

Erman, A. and Storey, K.B. Biochemical adaptations to dehydration in the African clawed frog, *Xenopus laevis*, skeletal muscle.

Canadian Obesity Summit, Ottawa, April 23-26, 2019

Logan, S.M. and Storey, K.B. Fat but fit: How hibernating ground squirrel adipose tissue regulates pro-inflammatory signaling pathways.

2018

21st Chemistry & Biochemistry Graduate Research Conference (CBGRC 2018), Concordia Univ., Nov. 9, 2018

Hadj-Moussa, H. and Storey, K.B. Genes of the undead: Do hibernators and zombies display similar expression profiles. (oral)

Al-attar, R., Mahrous, S., Robert, J. and Storey, K.B. GATA4-mediated gene expression promotes muscle remodeling during stress in the freeze-tolerant wood frog *Rana sylvatica*. (poster)

Gupta, A. and Storey, K.B. OCT induced transcriptional network in the freeze-tolerant wood frog. (poster)

Lung, Z. and Storey, K.B. Peroxiredoxin expression in the wood frog, *Rana sylvatica* in response to freezing. (poster)

Watts, A. and Storey, K.B. m6A methylation alters translational activity during hibernation in a small mammal, the 13-lined ground squirrel. (poster)

Green, S. and Storey, K.B. Regulation of the TCA cycle through modification of the α-ketoglutarate dehydrogenase complex in a mammalian hibernator, the Richardson's grounds squirrel (*Urocitellus richardsonii*). (poster)

Singh, G. and Storey, K.B. Mondo A: a key regulator of sugar-induced gene expression in frozen wood frogs, *Rana sylvatica.*

Szereszewski, K. and Storey, K.B. Novel research – biochemistry and molecular biology of environmental stress. (poster)

Storey, K.B. Gene regulation during hypometabolism – coping with environmental stress. (poster)

13th International Conference on Genomics, Shenzhen, China. October 25-28, 2018.

English, S.G., Hadj-Moussa and Storey, K.B. The functional role of microRNAs in the anoxia tolerant northern crayfish, *Orconectes virilis*.

Hawkins, L.J. and Storey, K.B. Changes in histone methyltransferases during freezing stress in the wood frog, *Rana sylvatica.*

Hoyeck, M., Hadj-Moussa, H. and Storey, K.B. Regulation of MEF2 proteins and downstream targets in muscles of dehydrated and anoxic wood frogs.

Al-attar, R. and Storey, K.B. Regulation of autophagy-related proteins in the freeze-tolerant wood frog, *Rana sylvatica.*

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