

KENNETH B. STOREY PUBLICATION LIST (updated January 2021)

2020

Reviews and Chapters

963. Storey, K.B. and Storey, J.M. 2020. Mitochondria, metabolic control and microRNA: advances in understanding amphibian freeze tolerance. *BioFactors* 46(2), 220–228. [PMID: 31026112](#)
962. Al-Attar, R. and Storey, K.B. 2020. Suspended in time: Molecular responses to hibernation also promote longevity. *Exp. Gerontol.* 134, 11088. [PMID: 32114078](#)
961. Hawkins, L.J. and Storey, K.B. 2020. Advances and applications of environmental stress adaptation research. *Comp. Biochem. Physiol. A* 240, 110623. [PMID: 31778815](#)
960. Hadj-Moussa, H. and Storey, K.B. 2020. The OxymiR response to oxygen limitation: a comparative microRNA perspective. *J. Exp. Biol.* 223, jeb204594. [PMID: 32445797](#).
959. Hadj-Moussa, H. and Storey, K.B. 2020. Devils of the deep: how jumbo squids survive freezing cold, oxygen-deprived water. *The Conversation*, August 26, 2020. <https://theconversation.com/devils-of-the-deep-how-jumbo-squids-survive-freezing-cold-oxygen-deprived-waters-144168>
958. Hadj-Moussa, H., Ingelson-Filpula, W.A. and Storey, K.B. Hibernating lemurs may be the key to cryogenic sleep for human space travel. *The Conversation*, December 13, 2020. <https://theconversation.com/hibernating-lemurs-may-be-the-key-to-cryogenic-sleep-for-human-space-travel-148408>
957. Logan, S.M and Storey, K.B. 2020. Regrowth and neuronal protection are key for mammalian hibernation: Roles for metabolic suppression. (Perspective article) *Neural Regen. Res.* 15(11), 2027-2028. [PMID: 32394950](#)
956. Lushchak O., Strilbyska O.M., Koliada, A., Zayachkivska, A., Burdyliuk, N., Yurkevych, I., Storey, K.B. and Vaiserman, A. 2020. Nanodelivery of phytoactive compounds for treating aging-associated disorders (review). *Geroscience* 42(1), 117-139. [PMID: 31686375](#)
955. Piskovatska, V., Storey, K.B., Vaiserman, A.M. and Lushchak, O. 2020. The use of metformin to increase human healthspan. In: Guest P.C. (ed) *Reviews on New Drug Targets in Age-Related Disorders*. *Adv. Exp. Med. Biol.*, Springer, Cham., vol. 1260, pp. 319-332. [PMID: 32304040](#)
954. Lushchak, O., Strilbyska, O., Piskovatska, V., Koliada, A., Chebotarev, D.F. and Storey, K.B. 2020. Intermittent fasting. *In Encyclopedia of Biomedical Gerontology*, Elsevier, Vol. 2, pp. 279-290. <https://doi.org/10.1016/B978-0-12-801238-3.62133-5>
953. Piskovatska, V., Strilbyska, O., Storey, K.B., Vaiserman, A.M. and Lushchak, O. 2020. mTOR Pharmacology. *In Encyclopedia of Biomedical Gerontology*, Elsevier, Vol. 2, pp.4470454. <https://doi.org/10.1016/B978-0-12-801238-3.62134-7>
952. Giroud, S., Nord, A., Storey, K.B. and Nowack, J. 2020. Coping with environmental fluctuations: ecological and evolutionary perspectives (editorial). *Front. Physiol.* 11, 605186. [PMID: 33192622](#)

Journal Articles

951. Zhang, J., Hawkins, L.J. and Storey, K.B. 2020. DNA methylation and regulation of DNA methyltransferases in a freeze tolerant vertebrate. *Biochem. Cell Biol.* 98(2), 145-153. [PMID: 31116953](#)
950. Zhang, J., Hadj-Moussa, H. and Storey, K.B. 2020. Marine periwinkle stress-responsive microRNAs: a potential factor to reflect anoxia and freezing survival adaptations. *Genomics* 112(6), 4385-4398. [PMID: 32730984](#)
949. Wu, C.-W., Tessier, S.N. and Storey, K.B. 2020. Dehydration stress alters the mitogen-activated-protein kinase signaling and chaperone stress response in *Xenopus laevis*. *Comp. Biochem. Physiol. B* 246-247, 110461. [PMID: 32497588](#)
948. Wijenayake, S. and Storey, K.B. 2020. Dynamic regulation of histone H3 lysine (K) acetylation and deacetylation during prolonged oxygen deprivation in a champion anaerobe. *Mol. Cell. Biochem.* 474: 229-241. [PMID: 32729004](#)
947. Luu, B.E., Zhang, Y. and Storey, K.B. 2020. The regulation of Akt and FoxO transcription factors during dehydration in the African clawed frog (*Xenopus laevis*). *Cell Stress Chaperones* 25(8), 887-897. [PMID: 32451989](#)
946. Luu, B.E., Lefai, E., Giroud, S., Swenson, J.E., Chazarin, B., Gauquelin-Koch, G., Arnemo, J.M., Evans, A.L., Bertile, F. and Storey, K.B. 2020 MicroRNAs facilitate skeletal muscle maintenance and metabolic suppression in hibernating brown bears. *J. Cell. Physiol.* 235(4), 3984-3993. [PMID: 31643088](#)
945. Al-attar, R. and Storey, K.B. 2020. RAGE against the stress: mitochondrial suppression in hypometabolic hearts. *Gene* 761, 145039. [PMID: 2777527](#)
944. Al-attar, R., Wu, C.-W., Biggar, K.K. and Storey, K.B. 2020. Carb-loading: Freeze-induced activation of the glucose-responsive ChREBP transcriptional network in wood frogs. *Physiol. Biochem. Zool.* 93(1), 49-61. [PMID: 31742477](#)
943. Al-attar, R., Childers, C.C., Nguyen, V.C., Pamerter, M.E. and Storey, K.B. 2020. Differential protein phosphorylation is responsible for hypoxia-induced regulation of the Akt/mTOR pathway in naked mole rats. *Comp. Biochem. Physiol. A* 242, 110653. [PMID: 31926299](#)
942. Hawkins, L.J. and Storey, K.B. 2020. MicroRNA expression in the heart of *Xenopus laevis* facilitates metabolic adaptation to dehydration. *Genomics* 112(5), 3525-3536. [PMID: 32259572](#)
941. Hawkins, L.J., Wang, X., Xue, X., Wang, H. and Storey, K.B. 2020. Phosphoproteomic analysis of *Xenopus laevis* reveals expression and phosphorylation of hypoxia-inducible PFKFB3 during dehydration. *iScience.* 23(10):101598. [PMID: 33083755](#)
940. Watts, A.J., Logan, S.M., Kuebber-Heiss, A., Posautz, A., Stalder, G., Painer, J., Gasch, K., Giroud, S. and Storey, K.B. 2020. Regulation of peroxisome proliferator-activated receptor pathway during torpor in the garden dormouse, *Eliomys quercinus*. *Front. Physiol.* 11, 615025. [PMID: 33408645](#)

939. Logan, S.M and Storey, K.B. 2020. Cold-inducible RNA-binding protein Cirp, but not Rbm3, may regulate transcript processing and protection in tissues of the hibernating ground squirrel. *Cell Stress Chaperones*. 25(6), 857-868. [PMID: 32307648](#)
938. Logan, S.M. and Storey, K.B. 2020. 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](#)
937. Logan, S.M., Szereszewski, K.E., Bennett, N.C., Hart, D.W., van Jaarsveld, B., Pamerter, M.E. and Storey, K.B. 2020. The brains of six African mole-rat species show divergent responses to hypoxia. *J. Exp. Biol.* 223, jeb.215905. [PMID: 32041803](#)
936. Logan, S.M., Watts, A.J., Posautz, A., Kübber-Heiss, A., Painer, J., Stalder, G., Giroud, S. and Storey, K.B. 2020. The ratio of linoleic and linolenic acid in the pre-hibernation diet influences NFκB signaling in garden dormice during torpor. *Front. Mol. Biosci.* 7, 97. [PMID: 32528974](#)
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934. Hadj-Moussa, H., Zhang, J., Pifferi, F., Perret, M. and Storey, K.B. 2020. Profiling torpor-responsive microRNAs in muscles of the hibernating primate *Microcebus murinus*. *Biochim. Biophys. Acta - Gene Regul. Mech.* 1863(1):194473. [PMID: 31837470](#)
933. Green, S.R. and Storey, K.B. 2020. Regulation of the α-ketoglutarate dehydrogenase complex during hibernation in a small mammal, the Richardson's ground squirrel (*Urocitellus richardsonii*). *Biochim. Biophys. Acta - Proteins & Proteomics* 1868(9), 140448. [PMID: 32445798](#)
932. Green, S.R., Al-attar, R., McKechnie, A.E., Naidoo, S. and Storey, K.B. 2020. Role of Akt signaling pathway regulation in the speckled mousebird (*Colius striatus*) during torpor displays tissue specific responses. *Cellular Signaling* 75, 109763. [PMID: 32871209](#) [PMID: 32871209](#)
931. Gupta, A. and Storey, K.B. 2020. Regulation of antioxidant systems in response to anoxia and reoxygenation in *Rana sylvatica*. *Comp. Biochem. Physiol. B* 243–244, 110436. [PMID: 33080279](#)
930. Gupta, A., Brooks, C. and Storey, K.B. 2020. Regulation of NF-κB, FHC and SOD2 in response to oxidative stress in the freeze tolerant wood frog, *Rana sylvatica*. *Cryobiology* 87, 28-36. [PMID: 32528974](#)
929. Singh, G. and Storey, K.B. 2020. MondoA:MLX complex regulates glucose-dependent gene expression and links to circadian rhythm in liver and brain of the freeze-tolerant wood frog, *Rana sylvatica*. *Mol. Cell. Biochem.* 473(1), 203-216. [PMID: 32638259](#)
928. Smolinski, M.B., Green, S.R. and Storey, K.B. 2020. Characterizing the regulation of pyruvate kinase in response to hibernation in ground squirrel liver (*Urocitellus richardsonii*). *Comp. Biochem. Physiol. B*, 248-249, 110466. [PMID: 32592750](#)
927. Smolinski, M.B., Varma, A. and Storey, K.B. 2020. Purification and regulation of pyruvate kinase from the foot muscle of the anoxia and freeze tolerant marine snail, *Littorina littorea*. *Protein J.* 39(5), 531-541. [PMID: 33095404](#)
926. Thorne, M.A.S., Kočevar Britovšek, N., Hawkins, L.J., Lilley, K.S., Storey, K.B. 2020. Proteomics of intracellular freezing survival. *PLOS ONE* 15(5), e0233048. [PMID: 32453791](#). Corrigendum 2020 Sep 17;15(9), e0239641. [PMID: 32941543](#)
925. Ivy, C.M., Sprenger, R.J., Bennett, N.C., van Jaarsveld, B., Hart, D.W., Kirby, A.M., Yaghoubi, D., Storey, K.B., Milsom, W.K. and Pamerter, M.E. 2020. The hypoxia tolerance of 8 related African mole-rat species rivals that of naked mole-rats, despite divergent ventilatory and metabolic strategies in severe hypoxia. *Acta Physiologica* 228, e13436. [PMID: 31885213](#)
924. Bayliak, M.M., Demianchuk, O.I., Gospodaryov, D.V., Abrat, O.B., Lylyk, M.P., Storey, K.B. and Lushchak, V.I. 2020. Mutations in genes CncC or dKeap1 modulate stress resistance and metabolic processes in *Drosophila melanogaster*. *Comp. Biochem. Physiol. A*. 248, 110746. [PMID: 32579905](#)
923. Strilbytska, O.M., Zayachkivska, A., Koliada, A., Galeotti, F., Volpi, N., Storey, K.B., Vaiserman, A. and Lushchak, O. 2020. Anise hyssop *Agastache foeniculum* increases lifespan, stress resistance, and metabolism by affecting free radical processes in *Drosophila*. *Front. Physiol.* 11, 596729 .
922. Strilbytska, O.M., Storey, K.B. and Lushchak, O. 2020. TOR signaling inhibition in intestinal stem and progenitor cells affects physiology and metabolism in *Drosophila*. *Comp. Biochem. Physiol. B* Vol. 243-244, 110424. [PMID: 32088247](#)
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919. Koliada, A., Gavrilyuk, K., Burdyluk, N., Strilbytska, O., Storey, K.B., Kuharskii, V. Lushchak, O. and Vaiserman, A. 2020. Mating status affects *Drosophila* lifespan, metabolism and antioxidant system. *Comp. Biochem. Physiol. A*, 246, 110716. [PMID: 32339661](#)
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917. Peng, Q., Chen, Y., Ding, L., Zhao, Z., Yan, P., Storey, K.B., Shi, H. and Hong, M. 2020. Early-life intestinal microbiome in *Trachemys scripta elegans* analyzed using 16S rRNA sequencing. *Peer J* 8, e8501. [PMID: 32071814](#)
916. Ding, L., Li, W., Liang, L., Huang, Z., Li, N., Zhang, J., Shi, H., Storey, K.B. and Hong, M. 2020. Modulation of the intestine barrier adaptive functions in red-eared slider turtles (*Trachemys scripta elegans*) invading brackish water. *Sci. Total Environ.* 751, 141744. [PMID: 32890802](#)
915. Wang, S., Zheng, Y., Chen, M. and Storey, K.B. 2020. Ultrastructural variation and key ER chaperones response induced by heat stress in intestinal cells of sea cucumber *Apostichopus japonicus*. *J. Oceanol. Limnol.* DOI: <https://doi.org/10.1007/s00343-020-9265-8>

914. Huo, D., Sun, L., Storey, K.B., Zhang, L., Liu, S., Sun, J.-S., Yang, H.-S. 2020. The regulation mechanism of lncRNAs and mRNAs in sea cucumbers under global climate changes: defense against thermal and hypoxic stresses. *Sci. Total Environ.* 709, 136045. [PMID: 31905562](#)
913. Zhang, W.-Y., Dong, Y.-W. and Storey, K.B. 2020. Adaptations to the mudflat: Insights from physiological and transcriptional responses to thermal stress in a burrowing bivalve *Sinonovacula constricta*. *Sci. Total Environ.* 710, 136280. [PMID: 31911257](#)
912. Cai, Y.-T., Li, Q., Zhang, J.-Y., Storey, K.B., Yu, D.-N. 2020. Characterization of the mitochondrial genomes of two toads, *Anaxyrus americanus* (Anura: Bufonidae) and *Bufo peszewi* (Anura: Bufonidae), with phylogenetic and selection pressure analyses. *PeerJ*, 8, e8901. [PMID: 32328346](#).
911. Cao, S.-S., Xu, X.-D., Jia, Y.-Y., Guan, J.-Y., Storey, K.B., Yu, D.-N. and Zhang, J.-Y. 2020. The complete mitochondrial genome of *Choroterpides apiculata* (Ephemeroptera: Leptophlebiidae) and its phylogenetic relationships. *Mitochondrial DNA Part B* 5(2), 1159-1160.
910. Xu, X.-D., Jia, Y.-Y., Cao, S.-S., Zhang, Z.-Y., Storey, K.B., Yu, D.-N. and Zhang, J.-Y. 2020. Six complete mitochondrial genomes of mayflies from three genera of Ephemerellidae (Insecta: Ephemeroptera) with inversion and translocation of *trnI* rearrangement and their phylogenetic relationships. *PeerJ* 8, e9740. [PMID: 32879803](#)
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2019

Reviews and Chapters

908. Logan, S., Watts, A. and Storey, K.B. 2019. Brain dead: The dynamic neuroendocrinological adaptations during hypometabolism in mammalian hibernators. In: Ludwig, M., Levkowitz, G. (eds) *Model Animals in Neuroendocrinology: From worm to mouse to man*. John Wiley & Sons Ltd., Ch. 9, pp. 207-231.
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905. Piskovatska, V., Stefanyshyn, N., Storey, K.B., Vaiserman, A.M., Lushchak, O.V. 2019. Metformin as geroprotector: experimental and clinical evidence. *Biogerontology* 20(1), 33-48. [PMID: 30255224](#)
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903. Giraud-Billoud, M., Rivera-Ingraham, G.A., Moreira, D.C., Burmester, T., Castro-Vazquez, A., Carvajalino-Fernández, J.M., Dafre, A., Niu, C., Tremblay, N., Paital, B., Rosa, R., Storey, J.M., Vega, I.A., Zhang, W., Yepiz-Plascencia, G., Zenteno-Savin, T., Storey, K.B., Hermes-Lima, M. 2019. Twenty years of the “Preparation for Oxidative Stress” (POS) theory: ecophysiological advantages and molecular strategies. *Comp. Biochem. Physiol. A* 234, 36-49. [PMID: 30978470](#)

Journal Articles

902. Storey, J.M. and Storey, K.B. 2019. In defense of proteins: chaperones respond to freezing, anoxia or dehydration stress in tissues of freeze tolerant wood frogs. *J. Exp. Zool.* 331(7), 392-402. [PMID: 31276323](#)
901. Tessier, S.N., Wu, C.-W. and Storey, K.B. 2019. Molecular control of protein synthesis, glucose metabolism, and apoptosis in the brain of hibernating thirteen-lined ground squirrels. *Biochem. Cell Biol.* 97(5), 536-544. [PMID: 30763120](#)
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899. Childers, C.L. and Storey, K.B. 2019. Purification and characterization of a urea sensitive lactate dehydrogenase from skeletal muscle of the African clawed frog, *Xenopus laevis*. *J. Comp. Physiol. B.* 189, 271-281. [PMID: 30631901](#)
898. Childers, C.L., Tessier, S.N. and Storey, K.B. 2019. The heart of a hibernator: EGFR and MAPK signaling in cardiac muscle during the hibernation of thirteen-lined ground squirrels, *Ictidomys tridecemlineatus*. *PeerJ* 7, e7587. [PMID: 31534849](#)
897. Le Tri, D., Childers, C.L., Adam, M.K., Ben, R.N., Storey, K.B. and Biggar, K.K. 2019. Characterization of ice recrystallization inhibition activity in the novel freeze-responsive protein Fr10 from freeze-tolerant wood frogs, *Rana sylvatica*. *J. Therm. Biol.* 84, 426-430. [PMID: 31466782](#)
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890. Logan, S.M. and Storey, K.B. 2019. Angiogenic signaling in the lungs of a metabolically suppressed hibernating mammal (*Ictidomys tridecemlineatus*). *PeerJ* 7, e8116. [PMID: 31763078](#)
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887. Smolinski, M.B., Green, S.R. and Storey, K.B. 2019. Glucose-6-phosphate dehydrogenase (G6PDH) is post-translationally regulated in the larvae of the freeze-tolerant gall fly, *Eurosta solidaginis*, in response to freezing. *Arch. Insect Biochem. Physiol.* 11, e21618. [PMID: 31512274](#)
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884. Bayliak, M.M., Lylyk, M.P., Gospodaryov, D.V., Kotsyubynsky, V.O., Butenko, N.V., Storey, K.B. and Lushchak, V.I. 2019. Protective effects of alpha-ketoglutarate against aluminum toxicity in *Drosophila melanogaster*. *Comp. Biochem. Physiol. C* 217, 41-53. [PMID: 30508642](#)
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