

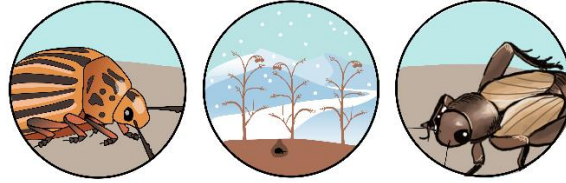
March 2022

CURRICULUM VITAE

Jacqueline Lebenzon, PhD

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Educationwestern

2022 PhD Biology, University of Western Ontario

2014 BScH Biology, University of Western Ontario

Current position

2022 Postdoctoral Scholar, University of California Berkeley, Berkeley, California, USA

Scholarships

2018 NSERC Post Graduate Scholarship – Doctoral, University of Western Ontario

2017 Ontario Graduate Scholarship, University of Western Ontario

2017 Journal of Experimental Biology Travelling Fellowship, Company of Biologists

2016 NSERC Canadian Graduate Scholarship – Master’s, University of Western Ontario

Awards

2021 Rene R. Roth Memorial Award, University of Western Ontario

2020 Ian Clarke Graduate Scholarship, University of Western Ontario

2019 President’s Prize, Entomological Society of Ontario

2019 DCPB Best Poster Award, Society for Integrative and Comparative Biology

2018 Malcom Ferguson Award in Life Sciences, University of Western Ontario

2017 Helen Battle Award, Canadian Society of Zoologists

Publications

Peer reviewed

*undergrad mentee

- 7) **Lebenzon, J.E.**, Denezis, P.W.*, Mohammad, L.*, Turnbull, K.F., Mathers, K.E., Staples J.F. and Sinclair, B.J. (2022) Reversible mitophagy drives metabolic suppression in diapausing beetles. *Proceedings of the National Academy of Sciences of the U.S.A.* doi: 10.1073/pnas.2201089119.
- 6) **Lebenzon, J.E.**, Torson, A., and Sinclair, B.J. (2021) Diapause differentially modulates the transcriptomes of fat body and flight muscle in the Colorado potato beetle. *Comparative Biochemistry and Physiology D: Genomics and Proteomics*, in press as of September 2021.
- 5) **Lebenzon, J.E.**, Toxopeus, J., Anthony, S.E and Sinclair, B.J. (2020) *De novo* assembly and characterisation of the Beringian pseudoscorpion transcriptome, *The Canadian Entomologist*
- 4) **Lebenzon, J.E.**, Des Marteaux, L.E. and Sinclair, B.J. (2020) Reversing sodium differentials between the hemolymph and hindgut speeds chill coma recovery, but reduces survival in the fall field cricket, *Gryllus pennsylvanicus*. *Comparative Biochemistry and Physiology A: Molecular and Integrative Physiology*, 244: 110699.
- 3) Karsten, M., **Lebenzon, J.E.**, Sinclair, B.J. and Terblanche, J.S. (2018) Does loss of ion homeostasis explain chill coma and impaired dispersal ability in false codling moth *Thaumatotobia leucotreta* (Lepidoptera: Tortricidae)? *Comparative Biochemistry and Physiology – Part a*, 229: 40-44.
- 2) Ferguson, L.V., Dhakal, P., **Lebenzon, J.E.**, Heinrichs, D.E., Bucking, C. and Sinclair, B.J. (2018) Seasonal shifts in the insect gut microbiome are concurrent with changes in cold tolerance and immunity. *Functional Ecology*, 32: 2357-2368.
- 1) Toxopeus, J., **Lebenzon, J.E.**, McKinnon, A.H. and Sinclair, B.J. (2016) Freeze tolerance of *Cyphoderris monstrosa* (Orthoptera: Prophalangopsidae). *Canadian Entomologist*, 148: 668–672.

Invited Symposium Talks

- 2022 **Lebenzon, J.E.** Induced state of mind: Understanding insect overwintering physiology through diapause induction. *Canadian Society of Zoologists Virtual 2022, CPB Section Symposium*
- 2022 **Lebenzon, J.E.** Regulation of mitochondrial homeostasis during insect dormancy. *American Physiological Society 2022, San Diego, California, U.S.A.*

Conference presentations

*Presentation award given, †Undergrad mentee

- 2021** **Lebenzon, J.E.**, and Sinclair, B.J. Suppress to impress: Mechanisms underlying diapause and metabolic suppression during diapause in the Colorado potato beetle, *Society for Integrative and Comparative Biology Virtual 2021*.
- 2021** **Lebenzon, J.E.**, and Sinclair, B.J. How to lock down without even trying: Mechanisms underlying diapause in the Colorado potato beetle (Hoar Award Symposium talk) *Canadian Society of Zoologists Meeting, Virtual 2021**.
- 2019** **Lebenzon, J.E.**, Sinclair, B.J. Beetle, it's cold outside! The metabolomic and transcriptomic changes that drive cold tolerance in the Colorado potato beetle. (Oral) *Entomological Society of Ontario, Bark Lake, ON, Canada 2019**.
- 2019** **Lebenzon, J.E.**, Denezis, P.W.†, Mohammad, L.†, Turnbull, K.F., Mathers, K.E., Staples, J.F. and Sinclair, B.J. Burning down the powerhouse: Does mitophagy drive metabolic suppression during diapause in the Colorado potato beetle? (Hoar Award Symposium talk) *Canadian Society of Zoologists Meeting, Windsor, ON, Canada 2019**.
- 2019** **Lebenzon, J.E.**, Denezis, P.W.†, Mohammad, L.†, Turnbull, K.F., Mathers, K.E., Staples, J.F. and Sinclair, B.J. Reversible mitophagy drives metabolic suppression during diapause in the Colorado potato beetle (*Leptinotarsa decemlineata*), *International Congress of Comparative Physiology and Biochemistry 2019, Ottawa, ON, Canada**.
- 2019** **Lebenzon, J.E.**, Mohammad, L.†, Turnbull, K.F., Mathers, K.E., Staples, J.F. and Sinclair, B.J. Burning down the powerhouse: Does mitophagy drive metabolic suppression during diapause in the Colorado potato beetle? *Society of Integrative and Comparative Biology, Tampa, FL, USA, 2019**.

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- 2018 Lebenzon, J.E.,** Toxopeus, J. and Anthony, S.E. Not just another cute chelicerate: *De novo* assembly of the Beringian pseudoscorpion transcriptome reveals putative venom proteins. *Entomological Society of Ontario*, Bark Lake, ON, Canada 2018.
- 2018 Lebenzon, J.E.** and Sinclair, B.J. Some like it cold: The functional role of heat shock proteins in diapause and cold tolerance in the Colorado potato beetle. (Oral Presentation) *Canadian Society of Zoologists Meeting*, St. John's, NF, Canada 2018.
- 2017 Lebenzon, J.E.,** Turnbull, K.F., Mathers, K.E., Staples, J.F. and Sinclair, B.J. Does mitophagy drive metabolic suppression during diapause in the Colorado potato beetle? (Oral presentation) *International Symposium on the Environmental Physiology of Ectotherms*, Tartu, Estonia, 2017.
- 2017 Lebenzon, J.E.,** Turnbull, K.F., Mathers, K.E., Staples, J.F. and Sinclair, B.J. Let's break it down: Mitophagy drives metabolic suppression during diapause in the Colorado potato beetles. *Canadian Society of Zoologists Meeting*, Winnipeg, MB, Canada 2017*.
- 2016 Lebenzon, J.E.** and B.J. Sinclair. Manipulating cryoprotectants to investigate cold tolerance in the Colorado potato beetle. *Canadian Society of Zoologists Meeting*, London, ON, Canada 2016.
- 2015 Lebenzon, J.E.,** Des Marteaux, L.E. and Sinclair, B.J. Pass the salt: Sodium gut loading affects cold tolerance in the fall field cricket, *Gryllus pennsylvanicus*. *Canadian Society of Zoologists Meeting*, Calgary, AB, Canada 2015.

Teaching

Department of Biology, University of Western Ontario

- 2021 Guest lecturer, Biology 4602 (Thermal physiology)
- 2020 Lead administrative teaching assistant, Biology 2601 (Organismal physiology)
- 2019 Guest lecturer, Biology 3602 (Animal physiology)
- 2018 Guest lecturer, Biology 3602
- 2016-2019 Teaching assistant, Biology 3602
- 2015 Teaching assistant, Biology 2601
- 2015 Teaching assistant, Biology 1001 (Introductory biology)

Beat Your Course, London, Ontario, Canada

- 2016-2017 Biology exam prep course developer and instructor

Mentoring

Honour's student mentees

University of Western Ontario

- 2019-2020 Claire Baragar, now an MSc student at McMaster University
thesis: "Mitochondrial function after freezing in freeze-tolerant crickets"
- 2018-2019 Peter Denezis, now an MD student at the University of Western Ontario
Thesis: "Does knocking down *Parkin* affect metabolic suppression and mitochondrial breakdown during diapause in the Colorado potato beetle?"
- 2017-2018 Lamees Mohammad, now a PhD student at the University of Western Ontario
Thesis: "Expression of mitophagy-related genes during diapause in the Colorado potato beetle"

Honour's student advisory committees

University of Western Ontario

- 2018-2019 Emma Barbu, now a consultant
Thesis: "The effects of a western diet *in utero* and post-natally on hepatic mitochondrial function in guinea pigs"
- 2019-2020 Jameela Joseph, now an MSc student at the University of Western Ontario
Thesis: "Investigating the role of has-miR-378a-3p in endothelial autophagy, apoptosis and endothelial function"
- 2019-2020 Carol Xin
Thesis: "Modelling the effects of orientation and vibration transmission within a spider's body"
- 2020-2021 Anastasia Mena
Thesis: "Modelling the temperature-dependent changes in spider leg extension forces"

Undergraduate student intern mentees

University of Western Ontario

- 2017-2018 Adam Smith, now works as a lab technician

Media

- 2019 Interview on CBC London about organizing "London Bug Day" and insect outreach, <https://www.facebook.com/CBCLondonOnt/videos/496410261153765>
- 2019 Interview on insect diapause and cold tolerance featured in the "Western Gazette", https://westerngazette.ca/culture/science-behind-hibernation-diapause-and-climate-change/article_192f1d1e-1a72-11e9-93ee-2fba207a281a.html
- 2018 Interview on research and communicating science featured on "Gradcast" podcast, <http://gradcastradio.podbean.com/e/episode-156-jackie-title/>
- 2018 3 Minute Thesis competitor at University of Western Ontario
<https://www.youtube.com/watch?v=uM63tGuj7ZU&t=123s>

Service

Peer Reviewing

Comparative Biochemistry and Physiology A, European Journal of Entomology, Scientific reports, Peer J, Journal of Thermal Biology, Proceedings of the Royal Society B, Journal of Experimental Biology

University Service

Society of Biology Graduate Students committees, University of Western Ontario

2017-2018 Biology Graduate Education Committee

2016-2017 Social Committee

2015-2016 Seminar Committee

Society of Graduate Students committees, University of Western Ontario

2018-2018 Principal biology student councilor

2017-2019 Social Committee

Conference organizing

2015-2016 Biology Graduate Research Forum conference organizing committee

2015-2016 Canadian Society of Zoologists conference local organizing committee

Leadership & outreach

Chairing committees and clubs

2018, 2019 London Bug Day Chair, Entomological Society of Ontario

2016-2017 Mustang bioinformatics club Co-chair, University of Western Ontario

2015-2016 Society of Biology Graduate Students Chair, University of Western Ontario

Outreach

2019 Toronto junior naturalists field guide, Toronto, Ontario, Canada

2016-2018 “Boo-seum” insect outreach coordinator, London Children’s Museum, London, Ontario, Canada

2016-2017 Virtual researcher on call, VROC, London, Ontario, Canada

2016 Women in STEM expo volunteer, University of Western Ontario

2015 Let’s Talk Science volunteer, London, Ontario, Canada

Professional membership

Canadian Society of Zoologists

Entomological Society of Ontario

Society for Integrative and Comparative Biology

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American Physiological Society
Entomological Society of America & Canada