

CURRICULUM VITAE

EHAB ABOUHEIF

PERSONAL INFORMATION:

Date & Place of Birth: 28 July 1971, Montreal, Quebec

Citizenship: Canadian

Address: Department of Biology
McGill University
1205 Avenue Dr. Penfield
Montreal, Quebec
Canada, H3A 1B1

Telephone: +514-398-7190

Email: ehab.abouheif@mcgill.ca

Webpage: <https://www.abouheiflab.org/>

APPOINTMENTS AND EDUCATION:

Full Professor. 2015–Present. McGill University, CA. Department of Biology

Associate Professor. 2010–2015. McGill University, CA. Department of Biology

Assistant Professor. 2004–2009. McGill University, CA. Department of Biology

Postdoctoral Fellow. 2002–2004.

- 2002–2003: University of Chicago, USA
- 2003–2004: University of California, Berkeley, USA

Ph.D. 2002. Duke University, NC, USA. Department of Biology.

M.Sc. 1995. Concordia University, QC, Canada. Department of Biology.

B.Sc. 1993. Concordia University, QC, Canada.

HONORS AND AWARDS:

Fellow of the Royal Society of Canada (Elected in 2022). The Fellowship of the Royal Society of Canada is comprised of Canadian scholars, artists, and scientists, peer elected as the best in their field. These distinguished men and women from all branches of learning who have made remarkable contributions in the arts, the humanities, and the sciences, as well as in Canadian public life. Founded in 1882, the Royal Society of Canada recognizes excellence, advises the government and the larger society, and promotes a culture of knowledge and innovation in Canada and with other national academies around the world.

Guggenheim Fellowship (USA, 2017). Guggenheim Fellowships are intended for individuals who have already demonstrated exceptional capacity for productive scholarship or exceptional creative ability in the arts. Many Guggenheim Fellows have burnished the roll of Nobel laureates, Field Medal recipients, and other prestigious awards.

James McGill Professorship (Canada, 2017 to present). The James McGill Professor is a named professorship that recognizes a senior scholar's status as an outstanding and original researcher of world-class caliber and an international leader in his or her field.

Member of the Royal Society of Canada's College of New Scholars, Artists and Scientists (Canada, 2016 to 2022). The College of New Scholars, Artists and Scientists is Canada's first national system of multidisciplinary recognition for the emerging generation of Canadian intellectual leadership. Members of the College, at an early stage in their career, have demonstrated a high level of achievement. The criteria for election is excellence.

NSERC E.W.R. Steacie Memorial Fellowship (Canada, 2014 to 2016). The Steacie Fellowship (now called the Arthur B. McDonald Fellowship) is the most prestigious award a young Canadian scientist can receive from Natural Sciences and Engineering Council of Canada. These Fellowships are awarded to enhance the career development of outstanding and highly promising university faculty who are earning a strong international reputation for original research.

Canada Research Chair (Tier II) in evolutionary developmental biology (Canada, 2004 to 2014). The Canada Research Chairs Program attract and retain some of the world's most accomplished and promising minds. Chairholders aim to achieve research excellence in engineering and the natural sciences, health sciences, humanities, and social sciences.

Canadian Arab To Watch (Canada, September 2014). Canadian Arab Institute. This honor highlights Canadian Arabs who are having a beneficial impact on society.

Alfred P. Sloan Research Fellowship in evolutionary and computational biology (USA, 2006). The Alfred P. Sloan Fellowship “seeks to recognize the achievements of outstanding young scholars in science, mathematics, economics and computer science. Past recipients of Sloan Research Fellowships have gone on to win 38 Nobel prizes, 14 Fields Medals (mathematics), and 8 John Bates Clark awards (economics).”

INTERNATIONAL CONTRIBUTIONS TO THE FIELD OF EVO-DEVO:

Editor-in-Chief *Journal of Experimental Zoology, Part B: Molecular Development and Evolution* (January 2019 to present)

Founding President (2013 to 2015) of Pan-American Society of Evolutionary Developmental Biology

Co-Organizer (2022) Plasticity Across Scales: from molecules to phenotypes. European Molecular Biology Labs (EMBL) Heidelberg.

Co-Organizer (2015) Inaugural Meeting Pan-American Society of Evolutionary Developmental Biology

RESEARCH CONTRIBUTIONS:

A. Citations: 7110 total citations (Google Scholar Citation Indices).

B. Peer reviewed publications:

(Abouheif lab students/postdocs are underlined, I have a * next to my name)

75. Abouheif E*. *In Press*. On Bridging Islam and Evolution through the Secret World of Ants: the Struggles of a Muslim Evolutionary Biologist. In: ***Islam and Evolution***, J. Wiles (ed.) McGill-Queen's University Press (book chapter)

74. Lilloco-Ouachour A, De Blasis G, Liebig J, and Abouheif E*. *Under Review*. Social and chemical regulation of soldier development in the ant *Pheidole dentata*. ***Proceedings of the Royal Society B: Biological Sciences***.

73. Rajakumar A, Pontieri L, Stenbak Larsen R, Vasquez-Correa A, Rafiqi AM, Abouheif E*, Zhang G. *Under Review*. From egg to adult: a developmental table of the ant *Monomorium pharaonis*. **JEZ-B: Molecular and Developmental Evolution**.
- *Shared senior authorship*
72. Lamouret T, Hanna L, Pocas G, Mirth CK, Moczek AP, Nijhout HF, Abouheif E*. 2022. Evaluating an old truth: final adult size in holometabolous insects is set by the end of larval development. **JEZ-B: Molecular and Developmental Evolution**. doi.org/10.1002/jez.b.23165
71. Hanna L and Abouheif E*. 2022. Deep conservation and repeated co-option of programmed cell death facilitates evolution of alternative phenotypes at multiple biological levels. In: Genetic and Developmental Basis of Phenotypic Diversification, L. Nagy and J. Bowsher (eds.). **Seminars in Cell and Developmental Biology**, <https://doi.org/10.1016/j.semcd.2022.05.024> (review)
70. Abouheif E*. 2022. My road to the ants: a model clade for eco-evo-devo. In: Emerging Model Systems in Developmental Biology, B. Goldstein and M. Srivastava (eds.). **Current Topics in Cell and Developmental Biology**, doi.org/10.1016/bs.ctdb.2022.01.005 (review)
69. La Richelière F, Muñoz G, Guénard B, Dunn RR, Economo E, Powell S, Sanders NJ, Weiser MD, Abouheif E* and Lessard JP. 2022. Warm and arid regions of the world are hotspots of superorganism complexity. **Proceedings of the Royal Society B: Biological Sciences**. doi.org/10.1098/rspb.2021.1899
- *Shared senior authorship*
68. Muller GB and Abouheif E*. 2021. Evolutionary Developmental Biology. In: **Evolutionary Biology**, [doi.10.1093/obo/9780199941728-0138](https://doi.org/10.1093/obo/9780199941728-0138) (review)
67. Abouheif E*. 2021. Ant caste evo-devo: It's not all about size. **Trends in Ecology and Evolution** 36: 668–670, [doi.10.1016/j.tree.2021.04.002](https://doi.org/10.1016/j.tree.2021.04.002) (letter to editor)
66. Koch S, Tahara R, Vasquez-Correa A, Abouheif E*. 2021. Nano-CT imaging of larvae in the ant *Pheidole hyatti* reveals coordinated growth of a rudimentary organ necessary for soldier development. **JEZ-B: Molecular and Developmental Evolution** 336: 1– 14. doi.org/10.1002/jez.b.23097
65. Hanna L and Abouheif E*. 2021. The origin of wing polyphenism in ants. In: Evolutionary Developmental Biology, S. Gilbert (ed.). **Current Topics in Cell and Developmental Biology** 141: 279-336 doi.org/10.1016/bs.ctdb.2020.12.004 (review)

64. Rafiqi AM, Rajakumar A and Abouheif E*. 2020. Origin and elaboration of a major evolutionary transition in individuality. *Nature* 585, 239–244.
doi.org/10.1038/s41586-020-2653-6
- *Perspective article published in Current Biology and Myrmecological News*
 - *Media coverage (see below)*
63. Crow JM and Abouheif E*. 2020. Workers and soldiers: sizing up diversity in ant species. *Nature* 585 (626), doi.org/10.1038/d41586-020-02683-w (*Where I Work* feature on research in the Abouheif Lab)
62. Ramsay C, Lasko P, and Abouheif E*. 2020. Evo-devo lessons from the reproductive division of labor in eusocial hymenoptera. In: *Evolutionary Developmental Biology*, L.Nuño de la Rosa, G.B. Müller (eds.), doi.org/10.1007/978-3-319-33038-9_173-1 (review)
61. Koch S and Abouheif E*. 2020. The Coordination of Insect Imaginal Discs and the Regulation and Evolution of Complex Worker Caste Systems of Ants. In: *Deferring Development: Setting aside cells for future use in development and evolution*, Bishop C and Hall BK (eds.) CRC Press. (review)
60. Rajakumar R, Koch S, Couture M, Fave MJ, Lilico-Ouachour A, Chen T, DeBlasis G, Rajakumar A, Ouellette D, and Abouheif E*. 2018. Social regulation of a rudimentary organ generates complex worker caste systems in ants. *Nature*, doi.org/10.1038/s41586-018-0613-1
- *Perspective published in Current Biology*
 - *Media coverage (see below)*
59. Armisén D, Rajakumar R, Friedrich M, Benoit JB, Robertson HM, Panfilio KA, Ahn S-J, Poelchau MF, Chao H, Dinh H, Doddapaneni H, Dugan S, Gibbs RA, Hughes DST, Han Y, Lee SL, Murali SC, Muzny DM, Qu J, Worley KC, Munoz-Torres M, Abouheif E*, Bonneton F, Chen T, Chiang L-M, Childers CP, Cridge AG; Crumière AJJ; Decaras A; Didion EM; Duncan E, Elpidina EN, Favé M-J, Finet C, Jacobs CGC, Jarvela A, Jennings EJ, Jones JW, Lesoway MP, Lovegrove M, Martynov A, Oppert B, Lilico-Ouachour A, Rajakumar A; Refki PN, Rosendale AJ, Santos ME, Toubiana W, van der Zee M, Vargas Jentsch IM, Vargas Lowman A, Viala S, Richards S, and Khila A. 2018. The genome of the water strider *Gerris buenoi* reveals expansions of gene repertoires associated with adaptations to life on the water. *BMC Genomics*, 19 (832): 1-16, doi.org/10.1186/s12864-018-5163-2
- *Result of an international genome project*

58. Oettler J, Platschek T, Schmidt C, Rajakumar R, Favé MJ, Khila A, Heinze J, and Abouheif E*. 2018. Alternative developmental routes to male and female wing polyphenism in *Cardiocondyla* ants. **JEZ-B: Molecular and Developmental Evolution**, doi.org/10.1002/jez.b.22834
57. Lillico-Ouachour A, Metscher B, Kaji, T and Abouheif E*. 2018. Internal head morphology of minor workers and soldiers in the hyperdiverse ant genus *Pheidole*. **Canadian Journal of Zoology** 96: 383–392, doi.org/10.1139/cjz-2017-0209
56. Behagues J, Fisher BL, Péronnet R, Rajakumar R, Abouheif E* and Molet M. 2018. Lack of interruption of the gene network underlying wing polyphenism in an early-branching ant genus. **JEZ-B: Molecular and Developmental Evolution**: 1-9, doi.org/10.1002/jez.b.22794
55. Metz C, Wheeler DE, Abouheif E*. 2018. Wilhelm Goetsch (1887 - 1960): pioneering studies on the development and evolution of the soldier caste in social insects. **Myrmecological News** 26: 81-96, doi.org/10.25849/myrmecol.news_026:081 (review)
54. Lillico-Ouachour A and Abouheif E*. 2017. The regulation, development and evolution of caste ratios in the hyperdiverse ant genus *Pheidole*. **Current Opinion in Insect Science** 19: 43–51, doi.org/10.1016/j.cois.2016.11.003 (review)
53. Lesoway MP, Collin R., Abouheif E*. 2017. Early activation of MAPK and apoptosis are associated with nutritive embryo development in the calyptraeid gastropods. **JEZ-B: Molecular and Developmental Evolution** 328: 449–461, doi.org/10.1002/jez.b.22745
52. Lesoway MP, Abouheif E*, Collin R. 2016. Comparative transcriptomics of alternative developmental phenotypes in a marine gastropod. **JEZ-B: Molecular and Developmental Evolution** 326: 151-16, doi.org/10.1002/jez.b.22674
51. Favé M-J, Johnson RA, Cover S, Handschuh S, Metscher B, Müller GB, Gopalan S, and Abouheif E*. 2015. Past climate change on Sky Islands drives novelty in a core developmental gene network and its phenotype. **BMC Evolutionary Biology** 15:183, doi.org/10.1186/s12862-015-0448-4
- *Perspective published in Science*
50. Moczek AP, Sears KE, Stollewerk A, Wittkopp PJ, Diggie P, Dworkin I, Ledon-Rettig C, Matus DQ, Roth S, Abouheif E*, Brown FD, Chiu C-H, Cohen CS, De Tomaso

AW, Gilbert SF, Hall BF, Love A, Lyons DC, Sanger T, Smith J, Specht C, Vallejo-Marín M, Extavour CG. 2015. The significance and scope of evolutionary developmental biology: a vision for the 21st century. (review) ***Evolution & Development*** 17: 198–219, doi.org/10.1111/ede.12125

- *Result of an international workshop*

49. Alvarado S, [Rajakumar R](#), Abouheif E*, Szyf M. 2015. Epigenetic control of *Egfr* generates quantitative variation of a complex trait in ants. ***Nature Communications*** 6 (6513), doi.org/10.1038/ncomms7513

- *Shared senior authorship*
- *Perspective published in Science*
- *Media coverage (see below)*

48. [Lesoway MP](#), Abouheif E*, [Collin R](#). 2014. The development of viable and nutritive embryos in the direct developing gastropod *Crepidula navicella*. ***The International Journal of Developmental Biology*** 58: 601-611, doi.org/10.1387/ijdb.140136rc

47. [Khila A](#), Abouheif E*, and [Rowe L](#). 2014. Comparative functional analyses of *Ultrabithorax* reveal multiple paths to diversification of legs in the adaptive radiation of semi-aquatic insects. ***Evolution***, doi.org/10.1111/evo.12444

46. Abouheif E*. 2014. Phylogenies and the Evolution of Development. In: ***The Tree of Life: systematics and evolution of living things***. P. Vargas and R. Zardoya (Eds.) Sinauer. Sunderland. (book chapter)

45. Abouheif E*, [Favé MJ](#), [Ibarrarán-Viniegra AS](#), [Lesoway M](#), [Rafiqi AM](#), and [Rajakumar R](#). 2014. Eco-Evo-Devo: the time has come. Pgs 107-125 in C.R. Landry and N. Aubin-Horth (eds.), ***Ecological Genomics: Ecology and the Evolution of Genes and Genomes***, Advances in Experimental Medicine and Biology 781, doi.org/10.1007/978-94-007-7347-9_6. Springer (book chapter)

44. [Shbailat SJ](#) and Abouheif E*. 2013. The wing-patterning network in the wingless castes of myrmicine and formicine ant species is a mix of evolutionarily labile and non-labile genes. ***JEZ-B: Molecular and Developmental Evolution*** 9999B: 1–10, doi.org/10.1002/jez.b.22482

43. [Rajendhran R](#), [San Mauro D](#), [Dijkstra M](#), [Wang M](#), [Wheeler DW](#), [Hiou-Tim F](#), [Khila A](#), [Courneyea M](#), Abouheif E*. 2012. Ancestral developmental potential facilitates parallel evolution in ants. ***Science*** 335: 79-82, [doi.10.1126/science.1211451](https://doi.org/10.1126/science.1211451)

- *Perspective articles published in Nature, Current Biology and Genome Biology*

- *Media coverage (see below)*
42. Khila A, Abouheif E*, and Rowe L. 2012. Function, developmental genetics, and fitness consequences of a sexually antagonistic trait. *Science* 336: 585-589, [doi.10.1126/science.1217258](https://doi.org/10.1126/science.1217258)
- *Shared senior authorship*
 - *Media coverage (see below)*
41. Smith CD, Zimin A, Holt C, Abouheif E*, Benton R, Cash E, Croset V, Currie CR, Elhaik E, Elsik CG, Favé M-J, Fernandes V, Gadau J, Gibson JD, Graur D, Grubbs KJ, Hagen DE, Helmkampf M, Holley J, Huc H, Ibarraran Viniegra AS, Johnson BR, Johnson RM, Khila A, Kim JW, Laird J, Mathis KA, Moeller JA, Muñoz-Torres MC, Murphy MC, Nakamura R, Nigam S, Overson RP, Placek JE, Rajakumar R, Reese JT, Robertson HM, Smith CR, Suarez AV, Suen G, Suhr EL, Tao S, Torres CW, van Wilgenburg E, Viljakainen L, Walden KKO, Wild AL, Yandell M, Yorker JA, and Tsutsui ND. 2011. Draft genome of the globally widespread and invasive Argentine ant (*Linepithema humile*). *Proceedings of the National Academy of Sciences, USA* 108: 5673–5678, doi.org/10.1073/pnas.1008617108
- *Result of an international genome project*
 - *Perspective published in Science, Nature Genetics, Trends in Genetics*
 - *Media coverage (see below)*
40. Smith CR, Smith CD, Robertson HM, Helmkampf M, Zimin A, Yandell M, Holt C, Hu H, Abouheif E*, Benton R, Cash E, Croset V, Currie CR, Elhaik E, Elsik CG, Favé M-J, Fernandes V, Gibson JD, Graur D, Gronenberg W, Grubb KJ, Hagen DE, Ibarraran Viniegra AS, Johnson BR, Johnson RM, Khila A, Kim JW, Mathis KA, Munoz-Torres MC, Murphy MC, Mustard JA, Nakamura R, Niehuis O, Nigam S, Overson RP, Placek JE, Rajakumar R, Reese JT, Suen G, Tao S, Torres CW, Tsutsui ND, Viljakainen L, Wolschin F, and Gadau J. 2011. Draft genome of the red harvester ant *Pogonomyrmex barbatus*. *Proceedings of the National Academy of Sciences, USA* 108: 5667–5672, doi.org/10.1073/pnas.1007901108
- *Result of an international genome project*
 - *Perspective published in Science, Nature Genetics, Trends in Genetics*
 - *Media coverage (see below)*
39. Suen G, Teiling C, Li Lewyn, Holt C, Abouheif E*, Bornberg-Bauer E, Bouffard P, Caldera EJ, Cash E, Cavanaugh A, Denas O, Elhaik E, Favé M-J, Gadau J, Gibson JD, Graur D, Grubbs KJ, Hagen DE, Harkins TT, Helmkampf M, Hu H, Johnson BR, Kim J, Marsh SE, Moeller JA, Munoz-Torres MC, Murphy MC, Naughton MC, Nigam S, Overson R, Rajakumar R, Reese JT, Scott JJ, Smith CR, Tao S,

Tsutsui ND, Viljakainen L, Wissler L, Yandell MD, Zimmer F, Taylor J, Slater SC, Clifton SW, Warren WC, Elsik CG, Smith CD, Weinstock GM, Gerardo NM, Currie CR. 2011. The genome sequence of the leaf-cutter ant *Atta cephalotes* reveals insights into its obligate symbiotic lifestyle. *PLoS Genetics* 7, doi.org/10.1371/journal.pgen.1002007

- *Result of an international genome project*
- *Perspectives published in Science, Nature Genetics, Trends in Genetics*
- *Media coverage (see below)*

38. Lynch J, Özüak O, Khila A, Abouheif E*, Desplan C, Roth S. 2011. The phylogenetic origin of *oskar* coincided with the origin of maternally provisioned germ plasm and pole cells at the base of the Holometabola. *PLoS Genetics* 7, doi.org/10.1371/journal.pgen.1002029

- *Perspective article published in PLoS Genetics*

37. Moczek AP, Sultan S, Foster S, Ledón-Rettig C, Dworkin I, Nijhout HF, Abouheif E*, Pfennig DW. 2011. The role of developmental plasticity in evolutionary innovation. *Proceedings of the Royal Society B* 278: 2705-2713, doi.org/10.1098/rspb.2011.0971 (review)

36. Yang A and Abouheif E*. 2011. Gynandromorphs as indicators of modularity and evolvability in ants. *JEZ-B: Molecular Developmental Evolution* 314B: 1-6, doi.org/10.1002/jez.b.21407

35. Shbailat SJ, Khila A, Abouheif E*. 2010. Correlations between spatiotemporal changes in gene expression and apoptosis underlie wing polyphenism in the ant *Pheidole morrisi*. *Evolution & Development* 12: 580-581, doi.org/10.1111/j.1525-142X.2010.00443.x

34. Khila A and Abouheif E*. 2010. Evaluating the role of reproductive constraints in ant social evolution. *Philosophical Transactions of the Royal Society of London Series B* 365: 617-630, doi.org/10.1098/rstb.2009.0257

33. Kilfoil M, Lasko P, and Abouheif E*. 2009. Stochastic variation: from single cells to superorganisms. *HFSP Journal* (1), doi.org/10.2976/1.3223356 (review)

32. Khila A, Abouheif E*, and Rowe L. 2009. Evolution of a novel appendage ground plan in water striders is driven by changes in the *Hox* gene *Ultrabithorax*. *PLoS Genetics* 5, doi.org/10.1371/journal.pgen.1000583

- *Shared senior authorship*
- *Media coverage (see below)*

31. Khila A and Abouheif E*. 2008. Reproductive constraint is a developmental mechanism that maintains social harmony in ants. ***Proceedings of the National Academy of Sciences, USA*** 105:17884-17889, doi.org/10.1073/pnas.0807351105
- *Media coverage (see below)*
30. Nahmad M, Glass L, and Abouheif E*. 2008. The dynamics of developmental system drift in the gene network underlying wing polyphenism in ants: a mathematical model. ***Evolution & Development*** 10: 360-374, doi.org/10.1111/j.1525-142X.2008.00244.x
- *Highlighted by Faculty of 1000*
29. Abouheif E*. 2008. Parallelism as the pattern and process of mesoevolution. ***Evolution & Development*** 10: 3-5, doi.org/10.1111/j.1525-142X.2007.00208.x
28. Bowsher J, Wray G.A., and Abouheif E*. 2007. Growth and patterning are evolutionarily dissociated in the vestigial wing discs in workers of the red imported fire ant, *Solenopsis invicta*. ***JEZ-B: Molecular Developmental Evolution*** 308B: 769-776, doi.org/10.1002/jez.b.21200
27. Oakley TH, Zhenglong G., Abouheif E*., Patel N.H., Li W-H. 2005. Comparative methods for the analysis of gene expression evolution: an example using functional genomic data. ***Molecular Biology and Evolution*** 22: 40-50, doi.org/10.1093/molbev/msh257
26. Rheindt FE, Grafe TU, Abouheif E*. 2004. Rapidly evolving traits and the comparative method: how important is testing for phylogenetic independence? ***Evolutionary Ecology Research*** 6: 377-396, doi.org/10.1111/j.1525-142X.2007.00208.x
25. Wray GA, Hahn MW, Abouheif E*, Balhoff JP, Pizer M, Rockman MV, Romano L. 2003. The evolution of transcriptional regulation in eukaryotes. ***Molecular Biology and Evolution*** 20: 1377-1419, doi.org/10.1093/molbev/msg140
- *Cited 1277 times*
24. Abouheif E* and Wray GA. 2002. Evolution of the gene network underlying wing polyphenism in ants. ***Science*** 297: 249-252, [doi.10.1126/science.1071468](https://doi.org/10.1126/science.1071468)
- *Appeared in general biology textbooks*
 - *Highlighted by Faculty of 1000*
 - *Cited 423 times*

23. Abouheif E*. 2003. A framework for studying the evolution of gene networks underlying polyphenism: insights from winged and wingless ant castes. In ***Environment, Development, and Evolution: Towards a Synthesis***. Hall Bk, Pearson R, and Muller G, eds. **MIT Press** (book chapter)
22. Abouheif E* and Wray GA. 2001. Evolution of development, version 1.0. In: *Encyclopedia of Life Sciences*. London: **Nature Publishing Group** (review)
21. Abouheif E*. 1999. Establishing homology criteria for regulatory gene networks: prospects and challenges. In *Homology*. Wiley, Chichester. **Novartis Foundation Symposium** 222: 207-225 (book chapter)
20. Wray GA and Abouheif E*. 1998. When homology is not homology. ***Current Opinions in Genetics and Development*** 8: 675-680, [doi.org/10.1016/S0959-437X\(98\)80036-1](https://doi.org/10.1016/S0959-437X(98)80036-1) (review)
19. Abouheif E*, Zardoya R, and Meyer A. 1998. Limitations of metazoan 18S rRNA sequence data: implications for reconstructing a phylogeny for the animal kingdom, and inferring the existence of the Cambrian explosion. ***Journal of Molecular Evolution*** 47: 394-405, doi.org/10.1007/PL00006397
18. Abouheif E*. 1998. Random trees and the comparative method: a cautionary tale. ***Evolution*** 52: 1197-1204, doi.org/10.1111/j.1558-5646.1998.tb01845.x
17. Abouheif E*, Akam M, Dickinson WJ, Holland PWH, Meyer A, Patel NH, Raff RA, Roth VL, and Wray GA. 1997. Homology and developmental genes. ***Trends In Genetics*** 13:432-433, [doi.org/10.1016/S0168-9525\(97\)01271-7](https://doi.org/10.1016/S0168-9525(97)01271-7) (review)
16. Abouheif E*. 1997. Developmental genetics and homology: a hierarchical approach. ***Trends In Ecology and Evolution*** 12: 405-408, [doi.org/10.1016/S0169-5347\(97\)01125-7](https://doi.org/10.1016/S0169-5347(97)01125-7) (review)
15. Abouheif E* and Fairbairn DJ. 1997. A comparative analysis of allometry for sexual size dimorphism. ***American Naturalist*** 149: 540-562, doi.org/10.1086/286004
14. Zardoya R, Abouheif E* and Meyer A. 1996a. Evolutionary analyses of hedgehog and Hoxd-10 genes in fish species closely related to the zebrafish. ***Proceedings of the National Academy of Sciences USA*** 93: 13036-13041, doi.org/10.1073/pnas.93.23.13036

13. Zardoya R, Abouheif E*, and Meyer A. 1996b. Evolution and orthology of hedgehog genes. *Trends In Genetics* 12: 489-536, [doi.org/10.1016/S0168-9525\(96\)20014-9](https://doi.org/10.1016/S0168-9525(96)20014-9) (review)

C. Development of new methodologies (peer reviewed):

12. Abouheif E*. 1999. A method for testing the assumption of phylogenetic independence in comparative data. *Evolutionary Ecology Research* 1: 895-909
- This method is now called the “Abouheif test”
 - Led to a general statistical matrix called the “Abouheif proximity”

D. Editorials, Perspectives Articles, and Book Reviews (non-peer reviewed):

11. Abouheif E*_ 2019. JEZ-B and the future of developmental evolution. *JEZ-B: Molecular and Developmental Evolution* 1: 2, [doi.10.1002/jez.b.22844](https://doi.org/10.1002/jez.b.22844), doi.org/10.1002/jez.b.22844 (editorial)
10. Doebeli M. and Abouheif E*. 2015. Modeling evolutionary transitions in social insects. *eLife* 5: e12721, [doi.10.7554/eLife.12721](https://doi.org/10.7554/eLife.12721) (perspective)
9. Abouheif E* and Sears K. 2015. It's time to get together: Announcing the new society for evolutionary developmental biology in the Americas. *Evolution & Development* 17 (1): 1, [doi.10.1111/ede.12114](https://doi.org/10.1111/ede.12114) (editorial)
8. Abouheif E* and Rafiqi AM. 2014. Sex combs find middle ground in evolution debate. *Proceedings of the National Academy of Sciences, USA*, doi.org/10.1073/pnas.1415189111 (perspective)
7. Abouheif E*_ 2013. Evolution: *oskar* reveals missing link in co-optive evolution. *Current Biology* 23 (1): R24-R25, doi.org/10.1016/j.cub.2012.11.028 (perspective)
6. Abouheif E* and Larsson H. 2009. Synthesis Version 4.1beta. *Evolution & Development* 11: 456–457 (book review)
5. Abouheif E*. 2004. Comprehensive reference for Evo-Devo or collective challenge to neo-Darwinism? *Evolution* 58: 2837-2839. (book review)

E. Smart Phone Apps, Computer Programs and Protocols (non-peer reviewed):

4. [Rudski B](#) and Abouheif E*. 2022. AntNupTracker: a mobile app for tracking ant nuptial flights to fight climate change. Version 1.0. (smart phone app)

3. Rajakumar R and Abouheif E*. 2013. **Ancestral developmental potential: a new tool for animal breeding?** In N. O'Sullivan, M. Cooper, & F. Siewerdt (Eds.), *Proceeding of the 62nd Annual National Breeders Roundtable*. Paper presented at The 2013 National Breeders Roundtable, St. Louis, Missouri, 2-3 May (pp. 5-18). Tucker, GA: US Poultry & Egg (protocol)
2. Khila A and Abouheif E*. 2009. In situ hybridization on ant ovaries and embryos. **CSH Protocols**, 4(7), doi.10.1101/pdb.prot5250 (protocol)
1. Reeve J and Abouheif E*. 2003. Phylogenetic Independence. Version 2.0. (computer program)

MEDIA AND OUTREACH

- **TV coverage:** *Global National News, Discovery Channel (Daily Planet), TV documentary show Le Code Chastenay on TV5 and Tele Quebec*
- **Radio coverage:** *CNN Radio, CBC Radio (Canada: Quirks & Quarks, As it Happens, Home Run, CBC International), Radio Canada (French Canada), John Gormley Show (Canada), NPR (USA, Academic Minute), National Radio of Ireland (RTE Radio 1).*
- **Print news coverage:** *The Montreal Gazette, Washington Post, Toronto Star, La Presse (Montreal, French), National Post, Huffington Post, The Ottawa Citizen, The Winnipeg Free Press, The Vancouver Sun, and The Calgary Herald, London Times, Guardian, The Economist magazine, Forbes magazine, USA today, Quebec Science, Nature, Forbes*
- **Online news coverage:** *Over 2.5 million hits on Google Chinese & over half million hits on Google English, including Nature news, BBC news, CBC news, PBS, MSNBC, Discover, Scientific American, Der Spiegel, Le Monde, Quanta Magazine, Nature, Science,*

INVITED TALKS, WORKSHOPS AND PUBLIC LECTURES:

- 2022. Organizer. Symposium Plasticity Across Scales, EMBL, Heidelberg, Germany
- 2022. Invited Talk. International Society for Developmental Biology, Portugal.
- 2022. Invited Talk (online): Conference, IUSSI, San Diego, USA
- 2022. Invited Talk (online): Symposium, University of Konstanz, Germany
- 2022. Public Lecture (online) Cutting Edge Lecture Series, McGill University, Canada
- 2022. Invited Talk (online): Dept. Seminar, Swarthmore College, USA
- 2021. Invited Talk (online): Dept. Seminar, University of Gottingen, Germany
- 2021. Invited Talk (online): Public Outreach, Ontario Entomologists, Canada
- 2021. Invited Talk (online): Dept. Seminar, University of Alberta, Canada

2021. Invited Talk (online): Lecture, University of Isfahan, Iran
2021. Invited Talk (online): Lecture, SciLifeLab Svedberg Lecture Series, Sweden
2021. Invited Talk (online): Dept. Seminar, Northwestern University, Chicago USA
2021. Invited Talk (online): Conference, Canadian Society of Zoology
2021. Invited Talk (online): Dept. Seminar, University of Bath, UK
2021. Invited Talk (online): Dept. Seminar, University Mainz & Max Planck Inst., Germany
2021. Invited Talk (online): Dept. Seminar, University of Madison, Wisconsin, USA
2021. Invited Talk (online): Conference, Socio-Genomics, Cold Spring Harbour Labs
2021. Invited Talk (online): Lecture. Euro Evo Devo Lecture Series
2021. Invited Talk (online): Distinguished Lecture at Duke University, Durham, USA
2020. Invited Talk (online): Lecture, Pakistan National STEM School (High School Students)
2020. Invited Talk (online): Dept. Seminar, University of Texas A&M, USA
2020. Invited Talk (online): Dept. Seminar, UC Merced, California, USA
2020. Invited Talk (online): Dept. Seminar, University of Copenhagen, Denmark
2020. Invited Talk (online): Dept. Seminar, University of Miami, USA
2020. Keynote Address (online): Conference, Society of Developmental Biology
2020. Keynote Address (online): Conference, Entomological Society of America
2020. Invited Talk (online): Dept. Seminar, McGill University Health Centre, Canada
2020. Invited Talk (online): Dept. Seminar, Punjabi University, India
2020. Invited Talk: Dept. Seminar, Michigan State University, Lansing, USA
2019. Public Lecture: Qatar National Library, Doha, Qatar
2019. Public Lecture: Rare Books Library, McGill University, Canada
2019. Keynote Address: Graduate Student Symposium, Queens University, Kingston, CA
2019. Invited Talk: Dept. Seminar, University of Copenhagen, Denmark
2019. Invited Talk: Dept. Seminar, University of California San Diego, USA
2019. Invited Talk: Conference, Gordon Research Conference Developmental Biology, USA
2019. Invited Talk: Symposium, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy
2019. Invited Talk: Dept. Seminar, Instituto Politécnico Nacional, Mexico
2019. Invited Talk: Workshop, Bellairs Research Station, Barbados
2019. Invited Talk: Dept. Seminar, Wayne State University, Detroit, USA
2019. Invited Talk: Dept. Seminar, University of Vermont, USA
2019. Invited Talk: Dept. Seminar, McGill University, Redpath Museum, Canada
2019. Keynote Address: Symposium, Molecular Cell Group, McGill, Canada
2018. Invited Talk: Dept. Seminar, Stowers Institute, Kansas, USA
2018. Invited Talk: Dept. Seminar, Institute of Science and Technology, Austria
2018. Invited Talk: Dept. Seminar, Museum of Natural History, Madrid, Spain
2018. Invited Talk: Dept. Seminar, American University of Cairo, Cairo, Egypt
2018. Invited Talk: Dept. Seminar, Université de Lyon (IGFL) Lyon, France
2018. Invited Talk: Workshop, University of Vienna, Vienna, Austria
2018. Invited Talk: Dept. Seminar, Konrad Lorenz Institute, Klosterneuberg, Austria
2018. Invited Talk (Skype): Summer School, Sharif University of Technology, Iran.
2018. Public Lecture. Islam and Evolution. McGill Alumni in Abu Dhabi, Abu Dhabi, UAE
2017. Invited Talk: Mustafa Prize Nomination, Tehran, Iran
2017. Invited Talk: Dept. Seminar, McGill University, QC, CA

2017. Invited Talk: Dept. Seminar, Arizona State University, AZ, USA
2017. Invited Talk: Dept. Seminar, New York University, Abu Dhabi, UAE
2017. Public Lecture: New York University, Abu Dhabi, UAE
2017. Invited Talk: Conference, Pan-American Society for EvoDevo, Calgary, CA
2017. Invited Talk: Conference, ICCE18, Lake Louise, CA
2017. Invited Talk: Workshop, University of Muenster, Germany
2017. Keynote Address: University of Massachusetts, Amherst, MA, USA
2017. Invited Talk: Dept. Seminar, Wesleyan University, CT, USA
2017. Keynote Address: Stony Brook University, USA
2016. Invited Talk: Symposium, RIKEN Institute, Kobe, Japan,
2016. Keynote Address, Conference, EuroEvoDevo, Uppsala, Sweden
2016. Invited Talk: Dept. Seminar, STRI, Panama City, Panama
2015. Invited Talk: Conference, ISHPSSB, Montreal, CA
2015. Invited Talk: Conference, ISNA, Chicago, USA
2015. Invited Talk: Dept. Seminar, University of Illinois, Chicago, USA
2015. Public Lecture: Hampshire College, MA, USA
2015. Invited Talk: Symposium, University of Florida, FL, USA
2015. Invited Talk: Dept. Seminar, Western University, Ontario, CA
2015. Invited Talk: Conference, Cold Spring Harbor, NY, USA
2015. Invited Talk: Dept. Seminar, University of Illinois at Chicago, USA
2015. Invited Talk: Dept. Seminar, University of Oklahoma, Ok, USA
2014. Public Lecture: RSC Cutting Edge Lecture, McGill University, Montreal, Quebec, CA
2014. Invited Talk: Dept. Seminar, University of Pittsburgh, PA, USA
2014. Invited Talk: Dept. Seminar, University of Dayton, Ohio, USA
2014. Invited Talk: Dept. Seminar, Arizona State University, Tempe, Arizona, USA
2014. Invited Talk: Dept. Seminar, University of Jordan, Amman, Jordan
2014. Invited Talk: Dept. Seminar, Washington University, St. Louis, Missouri, USA
2014. Invited Talk: Dept. Seminar, University of Alberta, Edmonton, Canada
2013. Invited Talk: Dept. Seminar, Rockefeller University, NY, USA
2013. Invited Talk: Dept. Seminar, Max Planck Institute, Tubigen, Germany
2013. Invited Talk: Dept. Seminar, Harvard University, USA
2013. Invited Talk: Conference, Gordon Research Conference, Texas, USA
2013. Televised Public Debate: Islam and Evolution. Deen Institute. London, UK
2013. Invited Talk: Conference, National Breeders Roundtable, St. Louis, USA
2013. Invited Talk: Dept. Seminar, New York University, Abu Dhabi, UAE
2013. Invited Talk: Dept. Seminar, Univ. Colorado, Boulder, Denver, USA
2013. Invited Workshop Participant: Concordia University, Montreal, QC, CA
2013. Televised lecture: McGill Mini Science, Montreal, QC, CA
2013. Invited Talk: Dept. Seminar, McGill, Macdonald Campus, QC, CA
2013. Public outreach lecture at Marionopolis College, QC, CA
2012. Invited Talk: Dept. Seminar, New York University, NY, USA
2012. Invited Talk: Dept. Seminar, Botanical Gardens, University of Montreal, CA
2012. Invited Talk: Public outreach, Webcast Public lecture, McGill Univ., Montreal, CA
2012. Invited Talk: Conference, European Society of EvoDevo, Lisbon, Portugal

2012. Invited Talk: Public outreach, DNA day, Vanier College, Montreal, CA
2012. Invited Talk: Dept. Seminar, Michigan State University, Michigan, USA
2012. Invited Talk: Dept. Seminar, Arizona State University, SIRG, USA
2012. Invited Talk: Dept. Seminar, Univ. of Manitoba, Dept. of Biol, Winnipeg, CA
2011. Invited Talk: Dept. Seminar, McGill Univ., Dept of Physiology, Quebec, CA
2011. Invited Talk: Conference, Society for Developmental Biology, Chicago, USA
2011. Invited Talk: Dept. Seminar, Gulbankien Institute, Carcavelos, Portugal
2011. Invited Talk: Dept. Seminar, Univ. of Vienna, Dept Theoretical Biol, Austria
2011. Invited Talk: Dept. Seminar, Univ. of Jordan, Dept Biology, Amman, Jordan
2011. Invited Talk: Dept. Seminar Konrad Lorenz Institute, Altenberg, Austria
2011. Invited Talk: Conference, Keynote Speaker at IUSSI, Banuyls-Sur-Mer, France
2011. Invited Talk: Dept. Seminar, University of Vienna, Dept of Biology, Austria
2010. Invited Talk: Conference, Canadian Soc. for Dev. Biol., Mt Tremblant, CA
2010. Invited Workshop Participant: WissenschaftKolleg. Berlin, Germany
2010. Invited Talk: Dept. Seminar, University of Guelph, Dept. Integ. Biology, CA
2010. Invited Talk: Dept. Seminar, York University, Dept. of Biology, CA
2010. Invited Talk: Dept. Seminar, UQAM, Dept. Biology, Montreal, Quebec, CA
2010. Invited Talk: Dept. Seminar, Vanderbilt University, Dept. Biol, Tennessee, USA
2009. Invited Public Lecture-Debate: Islam & Evolution, Hampshire College, USA
2009. Invited Workshop Participant: Organized by NESCent, Durham, NC, USA
2009. Invited Talk: Darwin Lecture Series: University of Calgary, Dept. Biology, CA
2009. Invited Public Lecture: Darwin Lecture, Lake Head Univ., Thunderbay, CA
2009. Invited Public Lecture: Conference on Islam & Evolution, McGill Univ., CA
2009. Invited Workshop Participant: Arizona State University, Arizona, USA
2009. Invited Workshop Participant: NESCent, NC, USA
2008. Invited Talk: Conference, Konstanz University, Konstanz, Germany
2008. Invited Talk: Conference, European EvoDevo Society, Gent, Belgium
2008. Invited Talk: Conference, Animal Behaviour Society, Salt Lake City, UT, USA
2007. Invited Talk: Conference, Canadian Society of Zoologists, Montreal, Canada
2007. Keynote Address: Conference, Canadian Society Ecology & Evolution, Canada
2007. Invited Talk: Conference, Society of Molecular Biology and Evolution, Halifax.
2007. Invited Talk: Dept. Seminar, Arizona State University, SIRG, AZ, USA
2007. Invited Talk: Dept. Seminar, University of Iowa, Iowa, USA
2007. Invited Talk: Dept. Seminar, University of Ottawa, Ottawa, Canada
2007. Invited Talk: Dept. Seminar, Universite de Laval, Quebec City, Canada
2006. Invited Talk: Dept. Seminar, Cornell University, NY, USA
2006. Invited Talk & Workshop Participant: Organized by CIHR, held in Ontario, CA
2006. Invited Talk: Conference, Canadian Society Zoologists, CMD section, CA
2006. Invited Workshop Participant: Arizona State University, USA
2006. Invited Workshop Participant: NESCent, Florida Keys, USA
2005. Invited Talk: Dept. Seminar, Syracuse University, Dept of Biol., NY, USA
2005. Invited Talk: Dept. Seminar, University of Indiana, Dept. of Biol., USA
2005. Invited Talk: Conference, Phenotypic Diversity and Evolution, Sweden.
2005. Invited Talk: Dept. Seminar, Univ. of Copenhagen, Dept. Pop. Biol, Denmark

2005. Invited Talk: Dept. Seminar, Arizona State University, USA
 2005. Invited Talk: Dept. Seminar, Museum of Natural History, Madrid, Spain
 2004. Invited Talk: Dept. Seminar, McGill Centre for Non-Linear Dynamics, CA
 2004. Invited Talk: Dept. Seminar, Biotechnology Research Institute, Govt. of Canada
 2004. Invited Talk: Dept. Seminar, University of Toronto, Dept. Zoology, CA
 2004. Invited Talk: Dept. Seminar, Univ. Cal, Berkeley, Dept. Mol. Cell Biol., USA
 2003. Invited Talk: Dept. Seminar, Harvard University, Department of OEB, USA
 2003. Invited Talk: Dept. Seminar, UC Riverside, Dept. Ecol & Evol, USA
 2003. Invited Talk: Dept. Seminar, University of Chicago, Dept. Geophysical Sciences,
 2002. Invited Talk: Dept. Seminar, McGill Dept. of Biology, Canada
 2002. Invited Talk: Dept. Seminar, Concordia University, Dept. of Biology, Canada
 2002. Invited Talk: Conference, Society of Integ. & Comparative Biol, Anaheim, USA
 2001. Invited Talk: Dept. Seminar, Konrad Lorenz Institute, Altenberg, Austria
 2000. Invited Talk: Conference, North East Regional Dev. Biol., Woods Hole, USA
 1999. Invited Talk: Conference, Dev. Basis Evolutionary Change, Chicago, USA
 1998. Invited Talk: Conference, Novartis Foundation Symposium, London, UK

GRANTS:

FRQ (AUDACE; 2022-2023; \$100 000/year) CDN); *Explorer les phéromones des insectes sociaux en tant que nouveaux agents chimiothérapeutiques afin de lutter contre le cancer*

NSERC / CIHR / SSHRC (NFRF Explorations; 2022-2024; \$125 000/year CDN);
Exploring Social Insect Pheromones as a New Chemotherapeutic to Fight Cancer

NSERC (Discovery Grant; 2020-2025; \$95 000/year CDN); *Eco-Evo-Devo and the origins of novel phenotypes in complex biological systems*

NSERC (Discovery Accelerator Supplement; 2016-2018; \$40 000/year CDN); *The evolutionary and developmental genetic basis underling caste polyphenism in ants*

NSERC (Discovery Grant; 2015-2020; \$52 000/year CDN); *Eco-Evo-Devo and the origins of novelty in complex biological systems*

McGill University (Tomlinson Science Award; 2014-2017; \$16 666/year CDN); *The role of epigenetics in the regulation and evolution of social organization in ants*

NSERC (Research Tools and Instruments Grant; 2014-2016; \$132 000 CDN); *Eco-Evo-Devo and the origin of novelty in complex biological systems*

NSERC (Steacie Award; 2014-2016; \$125 000/year CDN); *Eco-Evo-Devo and the origin of novelty in complex biological systems*

NSERC (Discovery Grant; 2010-2015; \$46 000/year CDN); *The evolutionary and developmental genetic basis underling caste polyphenism in ants*

FQRNT (Team Grant; 2010-2013; \$198 000 CDN); *Microfluidic innovation platform for studying gene-environment interactions in fruit flies*

FQRNT (Nouveau Chercheurs grant; 2006-2008; \$20 000/year CDN); *The ecological basis of developmental change in the gene network underlying wing polyphenism in ants*

NSERC (Discovery Grant; 2005-2010; \$32 000/year CDN); *The evolutionary and developmental genetic basis underling wing polyphenism in ants*

Canadian Foundation for Innovation (equipment and infrastructure grant; 2004; \$685 452 CDN); *The evolutionary and developmental genetic basis underling wing polyphenism in ants*

OTHER EVIDENCE OF IMPACT AND CONTRIBUTIONS:

A. Editorial duties:

Editor-in-Chief, *Journal of Experimental Zoology, Part B: Molecular Development and Evolution* (January 2019 to present)

Guest Editor, *eLife* (2022)

Guest Editor, *Proceedings National Academy of Sciences, USA* (2019 & 2021)

Associate Editor and Editorial Board Member, *Journal of Experimental Zoology, Part B: Molecular Development and Evolution* (January 2012 to 2018)

Associate Editor, *BMC Evolutionary Biology* (2016 to 2017)

Associate Editor, *BMC Developmental Biology* (2011 to 2017)

Associate Editor, *Evolution* (2011 to 2014)

B. Contributions to scientific societies:

Past President (2015 to present) Pan-American Society of Evolutionary Developmental Biology

Chair (2022-2023) Comparative Morphology & Development section, Canadian Society of Zoology

Founding President (2013 to 2015) Established the Pan-American Society of Evolutionary Developmental Biology

Co-Organizer (2015) Inaugural Meeting Pan-American Society of Evolutionary Developmental Biology, UC Berkeley, USA.

Organizer of Symposia (2015) during Cold Spring Harbor meeting on Biology & Genomics of Social Insects.

Chair (2009-2010) Comparative Morphology & Development section, Canadian Society of Zoology

Vice Chair (2008-2009) Comparative Morphology & Development section, Canadian Society of Zoology

Organizer (2010) "Importance of Parallelism to Evolutionary Theory" symposium, Canadian Society of Zoology

Organizer (2006) "Molecular Approaches to EvoDevo" symposium, Canadian Society of Zoology

C. Co-founder and Co-Director of Centre of Islam and Science, McGill University (2015 to 2022):

This Centre represented one of the first attempts to bring together experts from modern science, Islamic studies, and science education, as well as policy makers, to enhance understanding of the conflict and harmony between science, Islam, and society. The Centre was based on a tripartite structure consisting of inter-related research, teaching, and outreach components: (1) Science Policy in Islamic countries: instituting pathways to innovation; (2) The Rational Sciences in Islam: historical perspectives; (3) Scientific Literacy in Muslim Societies. By allowing modern scientists, policy makers, educators, and Islamic Studies specialists to interact, the Centre provided opportunities for new and creative approaches to the vexing problems facing the development of science in modern Islamic societies. Key Centre activities included: sponsoring postdoctoral researchers and doctoral students, organizing local reading groups, developing an interdisciplinary graduate seminar, inviting scholars and policy makers to speak at McGill and organizing an international conference that brings together an interdisciplinary panel of scholars and policy makers.

D. International workshops and working groups:

Co-organized workshop (2019) "Epigenetics, Development, & Evolution" Bellairs, Barbados

E. Service as a Reviewer:

Journals:

Nature; Science; eLife; PLoS Biology; PLoS Genetics; PLoS One; American Naturalist; American Zoologist; BioEssays; Bioinformatics; Frontiers in Zoology; Development Genes and Evolution; Evolution; Evolution and Development; Insect Molecular Biology; Journal of Evolutionary Biology; Journal of Molecular Evolution; McGill University; Molecular Phylogenetics and Evolution; Systematic Biology; Trends In Genetics; National Science Foundation; Proceedings of the Royal Society, Series B; Zoological Studies; Journal of Insect Science; Insect Biochemistry and Molecular Biology; Biological Reviews.

Granting Agencies:

NSERC, Canada; National Science Foundation, USA; Natural Environment Research Council, UK; Canadian Space Agency, Canada; Konrad Lorenz Institute, Austria; Human Frontiers Science Program, Japan; Research Council for Biosciences and Environment of the Academy of Finland.

F. Teaching Awards:

BGSA/MBSU Biology Department Teaching Award (2013). This teaching award is particularly meaningful because it comes directly from graduate (BGSA: Biology Graduate Student Association) and undergraduate (MBSU: McGill Biology Students Union) students.

CONTRIBUTIONS TO THE TRAINING OF HIGHLY QUALIFIED PERSONNEL:

A. Training ongoing:

Sol Carolina Parra Santos, **PhD** (2022-present, co-supervised with Owen McMillan, STRI)

Jamie Musgrove, **PhD** (2021-present)

Mariam Anwar, **PhD** (2021-present, co-supervised with Paul Lasko, McGill University)

Claire Ramsay **PhD** (2020-present, co-supervised with Paul Lasko, McGill University)

- Doctoral fellowship from FRQNT (Quebec)

Lisa Hanna, PhD (2019-present)

- Doctoral fellowship from FRQNT (Quebec)

Angelly Vasquez Correa, PhD (2017-present)

- Doctoral fellowship from NEO-BESS program (NSERC)

Travis Chen, PhD (2015-present).

Erik Plante MSc (2020-present, co-supervised with JP Lessard, Concordia University)

- Doctoral fellowship from Concordia (Quebec)

B. Training Completed:

Yasmine Haddad, PhD (2017-2022)

- Currently Post Doc at Dalhousie University, CA

Arjuna Rajakumar, PhD (2014-2022).

- Doctoral fellowship from FRQNT (Quebec)
- Currently Post Doc in Ruth Lehman's lab at MIT, USA

Giovanna De Blassis, MSc (2017-2020)

- MSc fellowship from FRQNT (Quebec)
- Currently Junior Research Scientist at Protix, Netherlands

Sophie Koch, MSc (2016-2019).

- MSc fellowship from NSERC
- Currently a Research Technician in Marc Johnston's lab at University of Toronto.

Frédérique Larichelière, MSc (2016-2018)

- Currently BSc in Actuarial Mathematics

Angelica Lillico-Ouachour, MSc (2014-2017).

- MSc fellowship from NSERC
- Currently an Instructor at Langara College, Canada

Abdul-Matteen Rafiqi, Postdoc (2011-2016)

- Currently a Professor at Beykoz Institute of Life Sciences and Biotechnology, Turkey.

Melanie Couture, Research Technician (2014-2016)

- Currently a field Assistant at Rockefeller University, USA

Maryna Lesoway, PhD (2009-2015, co-supervised Rachel Collin at STRI)

- Doctoral fellowship from FRQNT (Quebec)
- Currently a Postdoc at the University of California, San Diego, USA

Ana Sofia Ibararran, PhD (2008-2014)

- Doctoral Fellowship from CONACYT (Mexico)
- Currently Director Center for Chemical Currencies of a Microbial Planet at Woods Hole Oceanographic Institution, USA

Rajendhran Rajakumar, PhD (2006-2013)

- Doctoral fellowship from FRQNT (Quebec)
- Currently an Assistant Professor at the University of Ottawa

Marie-Julie Fave, PhD (2007-2012)

- Doctoral fellowship from FRQNT (Quebec)
- Currently a Research Associate at Universite de Montreal (St. Justine Hospital), Canada

Abderrahman Khila. Postdoc (2006 - 2011)

- Currently a Professor and CNRS Group Leader at the University of Lyon, France.

Seba Shbailat. PhD (2005 - 2010)

- Doctoral fellowship from Jordanian Government
- Currently an Associate Professor at the Hashemite University, Jordan.

Mikhiel Dijkstra. Postdoc (2006 - 2007).

- Currently an Editor at *Frontiers* journals (*Nature* publishing group), Switzerland

Francois Hioutim. Technician (2006-2008).

- Currently a Bioinformatician at McGill University.

Marcos Nahmad. MSc (2003-2005)

- Currently a Professor at the National Polytechnic Institute IPN, Mexico

C. Undergraduates:

- I have trained more than 30 Summer NSERC, Honor's Thesis, and Independent Studies students.
- Many of these students have continued into graduate school and are/will be included on Abouheif Lab publications. Here are some highlights:

- Shyamlika Gopalan (Independent Studies students 2010-2011) is a Post Doc at Duke University, USA
 - TingJia Loregiano (Summer NSERC 2012, Independent Studies 2012), is Medical Doctor at Johns Hopkins Medical School, USA
 - Jane Ding (Summer NSERC 2018) is a Medical Student at the University of Ottawa, Canada
 - Kevin Wei (Summer NSERC, 2008, 2009) Professor at the University of British Columbia
-