

Matthew D. Herron
Senior Research Scientist
School of Biology, Georgia Institute of Technology
North Avenue, Atlanta, GA 30332
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EDUCATION

- Ph.D. Ecology and Evolutionary Biology, University of Arizona, 2009. Dissertation title: Evolution of multicellularity and cellular differentiation in the volvocine algae.
- M.S. Biology, University of Central Florida, 2003. Thesis title: Sciurid phylogeny and the evolution of African ground squirrels.
- B.A. Political Science, University of Central Florida, 1993.
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PUBLICATIONS

PEER-REVIEWED (* indicates undergraduate author)

- Herron, M.D.**, P.L. Conlin, & W.C. Ratcliff, eds. 2022. *The Evolution of Multicellularity*. CRC Press, Boca Raton. Evolutionary Cell Biology series, B.K. Hall & S.A. Moody, series eds. doi: 10.1201/9780429351907
- Herron, M.D.**, P.L. Conlin, & W.C. Ratcliff. 2022. Introduction: the evolution of multicellularity in context. pp. 1-6 in Herron, M.D., P.L. Conlin, & W.C. Ratcliff, eds. *The Evolution of Multicellularity*. CRC Press, Boca Raton. Evolutionary Cell Biology series, B.K. Hall & S.A. Moody, series eds. doi: 10.1201/9780429351907-1
- Ratcliff, W.C., P.L. Conlin, & **M.D. Herron**. 2022. Conclusion: the future of multicellularity research. pp. 359-372 in Herron, M.D., P.L. Conlin, & W.C. Ratcliff, eds. *The Evolution of Multicellularity*. CRC Press, Boca Raton. Evolutionary Cell Biology series, B.K. Hall & S.A. Moody, series eds. doi: 10.1201/9780429351907-23
- Lindsey, C.R., F. Rosenzweig, & **M.D. Herron**. 2021. Phylotranscriptomics points to multiple independent origins of multicellularity and cellular differentiation in the volvocine algae. *BMC Biology* 19:182, part of the In the Light of Evolution series. doi: 10.1186/s12915-021-01087-0
- Umen, J. & **M.D. Herron**. 2021. The evolution of multicellularity in green algae. *Annual Review of Genetics* 55:603-632. doi: 10.1146/annurev-genet-032321-091533
- Boswell, J., C. R. Lindsey, E. Cook, F. Rosenzweig, & **M. D. Herron**. 2021. Cryopreservation of clonal and polyclonal populations of *Chlamydomonas reinhardtii*. *Biology Methods & Protocols* 6:1-16. doi: 10.1093/biomethods/bpab011
- Herron, M. D.** 2020. What are the major transitions? *Biology & Philosophy* 36:1-19. doi: 10.1007/s10539-020-09773-z
- Herron, M. D.**, J. M. Borin, J. C. Boswell, J. Walker, I-C. K. Chen, C. A. Knox*, M. Boyd*, F. Rosenzweig, & W. C. Ratcliff. 2019. *De novo* origins of multicellularity in response to predation. *Scientific Reports* 9:2328. doi: 10.1038/s41598-019-39558-8
- Gulli, J. G., **M. D. Herron**, & W. C. Ratcliff. 2019. Evolution of altruistic cooperation among multicellular proto-organisms. *Evolution* 73:1012-1024. doi: 10.1111/evo.13727
- Herron, M. D.**, S. A. Zamani-Dahaj, & W. C. Ratcliff. 2018. Trait heritability in Major Transitions. *BMC Biology* 16:145. doi: 10.1186/s12915-018-0612-6. Part of the series In the Light of Evolution.

- Herron, M. D.**, W. C. Ratcliff, J. Boswell, & F. Rosenzweig. 2018. Genetics of a de novo origin of undifferentiated multicellularity. *Royal Society Open Science* 5:180912. doi: 10.1098/rsos.180912
- Hanschen, E. R., **M. D. Herron**, J. J. Wiens, P. J. Ferris, H. Nozaki, & R. E. Michod. 2018. Multicellularity drives the evolution of sexual traits. *The American Naturalist* 192: E93-E105. doi: 10.1086/698301.
- Boyd, M.*, F. Rosenzweig, & **M. D. Herron**. 2018. Analysis of motility in multicellular *Chlamydomonas reinhardtii* evolved under predation. *PLoS ONE* 13: e0192184. doi: 10.1371/journal.pone.0192184
- Herron, M. D.** 2017. Cells, colonies, and clones: individuality in the volvocine algae. Pp. 63-81 in. S. Lidgard & L. Nyhart (eds.) *Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives*. Chicago, University of Chicago Press. ISBN: 9780226446455
- Hanschen, E. R., **M. D. Herron**, J. J. Wiens, P. J. Ferris, H. Nozaki, & R. E. Michod. 2017. Repeated evolution and reversibility of self-fertilization in the volvocine green algae. *Evolution* 72:386-398. doi: 10.1111/evo.13394
- Ratcliff, W. C., **M. D. Herron**, E. Libby, & P. Conlin. 2017. Nascent life cycles and the emergence of higher-level individuality. *Philosophical Transactions of the Royal Society B* 372: 20160420. doi: 10.1098/rstb.2016.0420
- Nozaki, H., W. Mahakham, S. Athibaf, K. Yamamoto, M. Takusagawa, O. Misumi, **M. D. Herron**, F. Rosenzweig, & M. Kawachi. 2017. Rediscovery of the “ancestral *Volvox*” species: Morphology and phylogenetic position of *Pleodorina sphaerica* (Volvocales, Chlorophyceae) from Thailand. *Phycologia* 56:469–475. doi: 10.2216/17-3.1
- Herron, M. D.** 2016. Origins of multicellular complexity: *Volvox* and the volvocine algae (Meeting Review of the Third International *Volvox* Meeting). *Molecular Ecology* 25:1213–1223. doi: 10.1111/mec.13551
- Herron, M. D.** 2016. Fitness and individuality in complex life cycles. *Philosophy of Science* 83: 828-834. doi: 10.1086/687867
- Nozaki, H., N. Ueki, O. Misumi, K. Yamamoto, S. Yamashita, **M. D. Herron** and F. Rosenzweig. 2015. Morphology and reproduction of *Volvox capensis* (Volvocales, Chlorophyceae) from Montana, USA. *Phycologia*. doi: 10.2216/15-14.1
- Herron, M. D.** & A. M. Nedelcu. 2015. Volvocine algae: from simple to complex multicellularity. pp. 129-152 in A. M. Nedelcu & I. Ruiz-Trillo (eds.) *Evolutionary transitions to multicellular life: Principles and mechanisms*. ISBN: 978-94-017-9642-2
- Herron, M. D.**, S. Ghimire*, C. R. Vinikoor*, & R. E. Michod. 2014. Fitness trade-offs and developmental constraints in the evolution of soma: an experimental study in a volvocine alga. *Evolutionary Ecology Research* 16:203-221. abstract
- Ratcliff, W. C., **M. D. Herron**, K. Howell, F. Rosenzweig, & M. Travisano. 2014. Experimental evolution of an alternating uni- and multicellular life cycle in *Chlamydomonas reinhardtii*. *Nature Communications* 4:2742. doi: 10.1038/ncomms3742
- Herron, M. D.** & M. Doebeli. 2013. Parallel evolutionary dynamics of adaptive diversification in *Escherichia coli*. *PLoS Biology* 11(2):e1001490. doi: 10.1371/journal.pbio.1001490
- Herron, M. D.**, A. Rashidi, D. E. Shelton, & W. W. Driscoll. 2013. Cellular differentiation and individuality in the “minor” multicellular taxa. *Biological Reviews of the Cambridge Philosophical Society* 88(4):844-861. doi: 10.1111/brv.12031
- Leliaert, F., D. R. Smith, H. Moreau, **M. D. Herron**, H. Verbruggen, C. F. Delwiche, & O. De Clerck. 2012. Phylogeny and molecular evolution of the green algae. *Critical Reviews in Plant Sciences* 31(1):1-46. doi: 10.1080/07352689.2011.615705
- Herron, M. D.** & M. Doebeli. 2011. Adaptive diversification of a plastic trait in a predictably fluctuating

- environment. *Journal of Theoretical Biology* 285(1):58-68. doi: 10.1016/j.jtbi.2011.06.007
- Nedelcu, A. M., W. W. Driscoll, P. M., Durand, **M. D. Herron**, & A. Rashidi. 2011. On the paradigm of altruistic suicide in the unicellular world. *Evolution* 65(1):3-20. doi: 10.1111/j.1558-5646.2010.01103.x
- Herron, M. D.**, A. G. Desnitskiy, & R. E. Michod. 2010. Evolution of developmental programs in *Volvox* (Chlorophyta). *Journal of Phycology* 46(2):316-324. doi: 10.1111/j.1529-8817.2009.00803.x
- Herron, M. D.** 2009. Many from one: lessons from the volvocine algae on the evolution of multicellularity. *Communicative & Integrative Biology* 2(4):368-370. doi: 10.4161/cib.2.4.8611
- Herron, M. D.**, J. D. Hackett, F. O. Aylward*, & R. E. Michod. 2009. Triassic origin and early radiation of multicellular volvocine algae. *Proceedings of the National Academy of Sciences, USA* 106(9):3254-3258. doi: 10.1073/pnas.0811205106
- Pepper, J. W. & **M. D. Herron**. 2008. Does biology need an organism concept? *Biological Reviews of the Cambridge Philosophical Society* 83(4):621-627. doi: 10.1111/j.1469-185X.2008.00057.x
- Herron, M. D.** & R. E. Michod. 2008. Evolution of complexity in the volvocine algae: transitions in individuality through Darwin's eye. *Evolution* 62(2):436-451. doi: 10.1111/j.1558-5646.2007.00304.x
- Jiang, Z. J., T. A. Castoe, C. C. Austin, F. Burbrink, **M. D. Herron**, J. McGuire, C. L. Parkinson, & D. Pollock. 2007. Comparative mitochondrial genomics of snakes: extraordinary substitution rate dynamics and functionality of the duplicate control region. *BMC Evolutionary Biology* 7:123. doi: 10.1186/1471-2148-7-123
- Michod, R. E. & **M. D. Herron**. 2006. Cooperation and conflict during evolutionary transitions in individuality. *Journal of Evolutionary Biology* 19(5):1406-1409. doi: 10.1111/j.1420-9101.2006.01142.x
- Herron, M. D.**, J. M. Waterman, & C. L. Parkinson. 2005. Phylogeny and historical biogeography of African ground squirrels: the role of climate change in the evolution of *Xerus*. *Molecular Ecology* 14(9):2773-2788. doi: 10.1111/j.1365-294X.2005.02630.x
- Herron, M. D.**, T. A. Castoe, & C. L. Parkinson. 2004. Sciurid phylogeny and the paraphyly of Holarctic ground squirrels (*Spermophilus*). *Molecular Phylogenetics and Evolution* 31(3):1015-1030. doi: 10.1016/j.ympev.2003.09.015
- Herron, M. D.** & J. M. Waterman. 2004. *Xerus erythropus*. *Mammalian Species* 748:1-4. doi: 10.1644/748
- Waterman, J. M. & **M. D. Herron**. 2004. *Xerus princeps*. *Mammalian Species* 751:1-3. doi: 10.1644/751

NON PEER-REVIEWED

- Herron, M. D.** 2020. Algal highlight: A new prasinophyte with a new way to stay put. In press, *Journal of Phycology*
- Chen, I-C. K. & **M. D. Herron**. 2019. Predators drive the evolution of multicellularity. *The Science Breaker* 257. doi: 10.25250/thescbr.brk257
- Zamani-Dahaj, S.A., A. Burnetti, T. Day, W.C. Ratcliff, P.J. Yunker, & **M.D. Herron**. 2021. Spontaneous emergence of multicellular heritability. *bioRxiv* 452990. doi: 10.1101/2021.07.19.452990
- Chen, I-C.K., Rosenzweig, F., and **Herron, M.D.** in prep. Genetics of de novo multicellularity evolved under predation.
- Chen, I-C.K., Rosenzweig, F., and **Herron, M.D.** in prep. Eco-evo-devo of the evolution of

multicellularity.

GRANTS AND FELLOWSHIPS

RESEARCH GRANTS

- 2015 – 2018 NSF Division of Environmental Biology (DEB-1457701/1723293): *Collaborative research: de novo evolution of multicellularity in a unicellular volvocine alga*. PIs: **M. Herron**, A. Nedelcu (U New Brunswick), W. Ratcliff (Georgia Tech); Co-PI: F. Rosenzweig (U Montana). Total budget \$1.05 million; U Montana budget \$774,735 including \$109,285 subaward to U New Brunswick.
- 2015 – 2017 NASA Astrobiology: Exobiology and Evolutionary Biology Program: Origin and evolutionary consequences of multicellular life cycles (NNX15AR33G). PI: William Ratcliff; Co-Is: **M. Herron**, E. Libby. UMT subaward \$42,474.
- 2015 – 2019 NASA Astrobiology Institute Cycle 7 Cooperative Agreement Notice (NNA17BB05A): *Reliving the history of life: experimental evolution of major transitions*. PI: F. Rosenzweig; Co-Is: V. Cooper, S. Copley, P. Gerrish, **M. Herron**, M. Kinnersley, J. McCutcheon, S. Miller, G. Sherlock, E. Smith, P. Sniegowski. Total budget \$8.3 million; budget for Co-I Herron's project \$1.3 million, including 5 years support for a postdoc, a graduate student, and an undergraduate.
- 2013 – 2015 John Templeton Foundation (43285): *Experimental Evolution of Multicellularity*. PI: M. Travisano; Co-PIs: M. Borrello, T. Dean, **M. Herron**, W. Ratcliff, F. Rosenzweig, W. Soto. [U Montana subaward (Herron & Rosenzweig) \$317,000]
- 2013 NASA EPSCoR / Montana Space Grant Consortium Research Initiation Grant (G149-13-4R1063): *Genetics of a novel origin of multicellularity* [\$49,641].
- 2008 – 2010 National Science Foundation Doctoral Dissertation Improvement Grant, DEB0806778: *Dissertation Research: Experimental Evolution in Volvocine Algae* [\$11,984]

SMALLER RESEARCH GRANTS

- 2005 Sigma Xi Grant-in-Aid of Research: *A comparative study of the evolution of complexity in Volvocales* [\$550]
- 2005 Society for Integrative and Comparative Biology Grant-in-Aid of Research: *Experimental selection of feeding rates in rotifers* [\$815]
- 2005 Society of Systematic Biologists Graduate Student Award: *A comparative study of the evolution of complexity in Volvocales* [\$1800]
- 2002 University of Central Florida Biology Graduate Committee Grant [\$1000]

FELLOWSHIPS & AWARDS

- 2012 – 2014 NASA Postdoctoral Program in Astrobiology: *The evolution of complexity by multicellular development and cellular differentiation: a theoretical and experimental investigation*
- 2008 – 2009 National Science Foundation Teaching Fellowship, Biology from Molecules to Ecosystems (BioME)
- 2009 Galileo Circle Scholar, University of Arizona College of Science
- 2008 Hoshaw Memorial Scholarship, University of Arizona EEB Department (“...the highest

2004 honor for graduate students in the Department of Ecology and Evolutionary Biology”)
University of Arizona Graduate College Fellowship
2001 University of Central Florida Merit Fellowship

COURSES TAUGHT

2016 The “Major Transitions” in Evolution (as Instructor), University of Montana.
2010 Evolutionary Dynamics (as Teaching Assistant), University of British Columbia
2008 – 2009 Biotechnology (as Graduate Fellow), Tucson High Magnet School
2008 – 2009 Research Methods (as Graduate Fellow), Tucson High Magnet School
2005 Environmental Biology Lab (as Teaching Assistant), University of Arizona
2002 – 2003 Population Biology and Evolution Lab (as Instructor), University of Central Florida
2002 Population Biology and Evolution Lab (as Teaching Assistant), University of Central Florida

PRESENTATIONS AND WORKSHOPS

INVITED PRESENTATIONS AND WORKSHOPS

2022 Evolution of multicellularity. Virginia Polytechnic Institute.
2019 Evolution of multicellularity in *Chlamydomonas reinhardtii* in response to predation. Donald Danforth Plant Science Center.
2019 Evolution of multicellularity in *Chlamydomonas reinhardtii* in response to predation. University of Georgia Department of Cellular Biology.
2019 *Experimental evolution of multicellularity in the green alga Chlamydomonas*. Evolution. Spotlight session: Genomics of Experimental Evolution.
2018 *Origins of multicellular and sexual complexity in volvocine green algae*. NASA Astrobiology Institute Executive Council Meeting, Georgia Institute of Technology.
2018 *Evolution of multicellularity in Chlamydomonas reinhardtii in response to predation*. University of Georgia.
2017 *Evolution of multicellular development in the volvocine algae*. University of Rochester.
2017 *Evolution of multicellular development in the volvocine algae*. Miami University Ohio.
2017 *Evolution of biological complexity in the volvocine algae*. University of Arizona.
2016 *Development and evolution of Volvox and related algae* (keynote address). Phycomorph 2016. Limassol, Cyprus.
2015 *Evolution of multicellularity and cellular differentiation in the volvocine algae*. Santa Fe Institute.
2015 *Origins of multicellular development in the volvocine algae*. University of California, San Diego.
2015 *Exploring the evolution of multicellularity using comparative and experimental approaches*. University of California, San Diego.
2015 *Origins of multicellular development in the volvocine algae*. University of California, Berkeley.
2014 *Fitness and individuality in complex life cycles*. Philosophy of Science Association 24th

- Biennial Meeting.
- 2014 De novo *evolution of multicellularity in Chlamydomonas*. NASA Postdoctoral Program Alumni Seminar (go.nasa.gov/2UU3dBI).
- 2014 *Origins of multicellular development in the volvocine algae*. University of Hawaii, Hilo.
- 2014 *Origins of multicellular development in the volvocine algae*. University of Missouri-St. Louis.
- 2014 *Origins of multicellular development in the volvocine algae*. University of California, Riverside.
- 2014 *Origins of multicellular development in the volvocine algae*. Indiana University.
- 2013 *Individuality in the "minor" multicellular taxa*. KITP Conference: Cooperation and the Major Evolutionary Transitions
- 2013 *Complexity and individuality in the volvocine algae*. What is an individual? Where philosophy, history, and biology coincide (Workshop)
- 2012 *Cellular differentiation and individuality in the "minor" multicellular taxa*. Cain Conference *E. pluribus unum*: bringing biological parts and wholes into historical and philosophical perspective
- 2011 *Algae are way cool because...* University of British Columbia Beaty Biodiversity Museum "Way Cool" Lecture Series (Public lecture)
- 2011 *Evolution of multicellularity in the volvocine green algae*. EPSRC Workshop: Evolution of Microbial Cooperation
- 2009 *Phylogenetic inference using molecular sequence data*. Workshop for high school teachers at the Arizona Center for STEM Teachers workshop Discovering Darwin Days: Teaching Evolution in the K-12 Classroom.

CONFERENCE PRESENTATIONS

- 2019 *Experimental evolution of multicellularity in the green alga Chlamydomonas*. Evolution of Complex Life Conference (poster).
- 2019 De novo *origins of multicellularity in response to predation*. Astrobiology Science Conference (poster, presented by coauthor).
- 2017 *Evolution of multicellularity in Chlamydomonas reinhardtii in response to predation*. Fourth International *Volvox* Conference.
- 2017 De novo *origin of multicellularity in response to predation*. Astrobiology Science Conference.
- 2016 *Genetics of experimentally evolved multicellularity*. Second ASM Conference on Experimental Microbial Evolution (poster).
- 2015 *Experimental evolution of multicellularity in Chlamydomonas reinhardtii*. Third International *Volvox* Conference.
- 2015 *Experimental evolution of multicellularity in the green alga Chlamydomonas reinhardtii*. Astrobiology Science Conference.
- 2014 *Experimental evolution of multicellularity in Chlamydomonas reinhardtii*. First ASM Conference on Experimental Microbial Evolution.
- 2013 *Experimental evolution of a multicellular life cycle in Chlamydomonas reinhardtii*. Second International *Volvox* meeting.

- 2012 *Genetics of adaptive diversification*. Astrobiology Science Conference.
- 2011 *Fitness trade-offs and developmental constraints in the evolution of soma: an experimental study in a volvocine alga*. First International *Volvox* Conference.
- 2011 *Multicellularity and cellular differentiation in the volvocine green algae*. International Society for the History, Philosophy, and Social Studies of Biology.
- 2010 *Metabolic diversification by genetic assimilation*. Evolution 2010.
- 2010 *Adaptive dynamics of genetic assimilation*. Evo-WIBO.
- 2009 *Does biology need an organism concept?* Arizona State University Center for Social Dynamics and Complexity 1st International Conference: Group as Individual in Social Dynamics.
- 2008 *Estimation of divergence times in the volvocine algae* (Poster). 13th International Conference on the Cell and Molecular Biology of *Chlamydomonas*.
- 2007 *Artificial selection for colony size in Pleodorina* (Poster). University of Arizona Center for Astrobiology: Evolutionary Watersheds: Genome or Biome?
- 2006 *A comparative study of the evolution of complexity in volvocine algae*. Evolution 2006
- 2006 *Reconstruction of ancestral character states in the volvocine algae*. 12th International Conference on the Cell and Molecular Biology of *Chlamydomonas*.
- 2004 *Evolution of the African ground squirrel genus Xerus: Phylogenetic and phylogeographic patterns reflect the influence of climate change* (Poster). Florida Academy of Sciences.
- 2003 *Molecular phylogeny of the Sciuridae inferred from mitochondrial cytochrome-b sequences*. Florida Academy of Sciences.

POSITIONS

- 2020 – present Rotating Program Director, National Science Foundation, Division of Environmental Biology, Evolutionary Processes Cluster
- 2016 – present Senior Research Scientist – School of Biology, Georgia Institute of Technology (leave of absence 2020 – 2022)
- 2014 – 2016 Research Assistant Professor – Division of Biological Sciences, University of Montana
- 2012 – 2014 Postdoctoral Fellow – NASA Astrobiology Institute, NASA Postdoctoral Program
- 2010 – 2012 Postdoctoral Research Fellow – University of British Columbia, Department of Zoology, Laboratory of Michael Doebeli
- 2010 – 2011 Teaching Assistant - University of British Columbia, Department of Zoology
- 2005 – 2009 Graduate Research Associate – University of Arizona, EEB Department. Laboratory of Richard Michod
- 2005 Graduate Teaching Associate – University of Arizona, EEB Department.
- 2004 Technical Expert – University of Arizona, EEB Department. *Phylogenetic reconstruction of Volvocales (Chlorophyta)*
- 2002 – 2003 Instructor – University of Central Florida, Department of Biology.
- 2002 Graduate Teaching Assistant – University of Central Florida, Department of Biology.
- 2001 – 2003 Graduate Research Assistant – University of Central Florida, Department of Biology. Laboratory of Christopher Parkinson

PROFESSIONAL SERVICE

MEETING & EVENT ORGANIZATION

- 2019 Member of program committee, Fifth International *Volvox* Conference
- 2017 Session chair and member of program committee, Fourth International *Volvox* Conference
- 2017 Session chair and member of program committee, Astrobiology Science Conference
- 2016 Session chair and member of program committee, Second ASM Conference on Experimental Microbial Evolution
- 2015 Session co-chair, Astrobiology Science Conference
- 2015 Member, Organizing Committee, Third International *Volvox* Conference
- 2014 Member, Program Committee, First ASM Conference on Experimental Microbial Evolution
- 2013 Co-organizer, NESCent Catalysis Meeting “Evolutionary origins of multicellularity”
- 2013 Member, Organizing Committee, Second International *Volvox* Conference
- 2011 Member, Organizing Committee, First International *Volvox* Conference
- 2008 – 2009 Committee Chair, College of Science Graduate Awards Banquet, University of Arizona
- 2008 – 2009 Member, *ad hoc* planning committee for EEB Darwin Day celebration, University of Arizona

MENTORSHIP & OUTREACH

- Postdoctoral Kimberly Chen, Pedram Samani, Katrin Schmidt
- Graduate Jared Betz, Jacob Boswell, Charles Lindsey
- Undergraduate Jacob Boswell, Magrethe Boyd, Andy Chea, Shania Khatri, Charles Knox, Niveda Shanmugam, Kyle Hamilton, Sophia Sukkestad, Hanna Terhaar
- High School Rory Anderson
- 2017 U.S. Department of Energy National Science Bowl, question writer
- 2015, 2017 SAGANet Mentor, Astrobiology Science Conference
- 2015 Faculty Host, Tribal College Professional Development Workshop
- 2015 Poster judge, Astrobiology Science Conference
- 2013 Research Mentor, University of Montana Introductory Multicultural Summer Undergraduate Research Experience
- 2010 – 2012 Museum Educator, Beaty Biodiversity Museum, Vancouver, BC, Canada
- 2006 – 2014 Science fair judging: Georgia Tech Undergraduate Research Symposium 2021, Montana Space Grant Consortium Student Research Symposium, 2014; Montana Science Fair, 2013, 2014, 2015, & 2016; Vancouver District Science Fair, 2010; University of Arizona Graduate and Professional Student Council Travel Grant, 2009; Booth-Fickett Magnet School Science Fair, 2009; Pusch Ridge Christian Academy Science Fair, 2008 & 2009; University of Arizona Graduate & Professional Student Council Student Showcase, 2006 & 2008.

REFeree SERVICE

Editorial	Scientific Reports (Editorial Board Member, 2019-2020) Journal of Phycology (Associate Editor, 2019-present) Frontiers in Plant Science (Review Editor, 2018-2020) Quarterly Review of Biology (Book Review Consultant, 2019-present)
Journals	American Journal of Botany, The American Naturalist, Axios Review, Biology & Philosophy, BMC Biology, BMC Developmental Biology, BMC Evolutionary Biology, British Journal for the Philosophy of Science, Ecology & Evolution, eLife, European Journal of Phycology, Evolution, Evolutionary Applications, Evolutionary Biology, Frontiers in Marine Science, Frontiers in Plant Science, Genome Biology & Evolution, Geobiology, iScience, Journal of Biogeography, Journal of Eukaryotic Microbiology, Journal of Theoretical Biology, Journal of Mammalogy, Molecular Biology & Evolution, Molecular Ecology, Nature Communications, Novitates Systematicae Plantarum non Vascularium, Philosophy & Theory in Biology, Philosophy of Science, Planta, PLoS Biology, PLoS ONE, Proceedings B, Protist, Transactions of the Royal Society of South Africa, Trends in Ecology & Evolution
Books	Two book proposals for Elsevier
Grants	NASA Exobiology Program: Advanced Life (panelist and virtual panelist); National Science Foundation, Division of Evolutionary Biology (panelist); National Science Foundation, Division of Environmental Biology: Evolutionary Ecology (<i>ad hoc</i> reviewer); NASA Postdoctoral Program (<i>ad hoc</i> reviewer and virtual panelist), U.K. Biotechnology and Biological Sciences Research Council (<i>ad hoc</i> reviewer)

POPULAR MEDIA & SCIENCE NEWS COVERAGE

Herron *et al.* 2019 *Scientific Reports* study on experimental evolution of multicellularity:

Sky News: bit.ly/2UMYOR9
Science Alert: bit.ly/2XpjINV
IFL Science: bit.ly/2ZSe6b0
Futura Sciences (in French): bit.ly/2V43kiT
Zap.aeiou (in Portuguese): bit.ly/2Lbt9sM
Felix (UK): bit.ly/2GQiyzw
Interesting Engineering: bit.ly/2vtuGQk
Common Descent podcast: bit.ly/2V4wqPo
Mostly Science podcast: upcoming
Evolution hour vlog: bit.ly/2IOrcAQ

Presentation at AbSciCon 2015:

New Scientist: bit.ly/2WcbCBT

Ratcliff, Herron, et al. 2014 study on experimental evolution of multicellularity:

Science Daily: bit.ly/2GILB6R
New Scientist: bit.ly/2IMrLLj
Astriobiology Magazine: bit.ly/2VxjTTY

Herron & Doebeli 2013 *PLoS Biology* study on adaptive diversification:

PLoS Primer: *PLoS Biol* 11: e1001487. doi: 10.1371/journal.pbio.1001490
Research Highlight: *Nature Reviews Genetics* 14: 240. doi:10.1038/nrg3449
Research Highlight: *Nature* 494: 285. doi:10.1038/494285d
CBC News: bit.ly/2UJ1tv3
Scientific American: bit.ly/2GQcLtM

Herron et al. 2009 *PNAS* study on divergence times in volvocine algae:

ScienceNOW: bit.ly/2DBGB30

ScienceDaily: bit.ly/2VzkJzB

El Mundo: bit.ly/2VG3XPv

Herron & Michod 2008 *Evolution* study on ancestral character states in volvocine algae:

Research Focus: *Trends in Ecology & Evolution* 23: 245-248. doi: 10.1016/j.tree.2008.02.003

REFERENCES

Dr. Michael Doebeli, Professor, University of British Columbia, Department of Zoology, 6270 University Boulevard, Vancouver, BC V6T 1Z4, Canada, email doebeli@zoology.ubc.ca, phone (604) 822-3878 (postdoctoral advisor)

Dr. Frank Rosenzweig, Professor, Georgia Institute of Technology, School of Biology, North Avenue, Atlanta, GA 30332, email frank.rosenzweig@biology.gatech.edu, phone (404) 385-4458 (postdoctoral advisor)

Dr. Richard E. Michod, Professor and Department Head, University of Arizona, Department of Ecology and Evolutionary Biology, Biosciences West 306, Tucson, AZ 85721, email michod@u.arizona.edu, phone (520) 621-1844 (Ph.D. coadvisor)