

## REBEKAH L. ROGERS

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<http://evolscientist.com>  
[Google Scholar](#)

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### ***EVOLVE Evolution Research Group Lead Faculty*** - March 2024 to Present

College of Computing and Informatics  
University of North Carolina, Charlotte

### ***Associate Professor with tenure*** - effective July 2022

University of North Carolina, Charlotte  
Dept of Bioinformatics and Genomics

### ***Assistant Professor*** - Jan 2017 to July 2022

University of North Carolina, Charlotte  
Dept of Bioinformatics and Genomics

### ***Postdoctoral Researcher*** - Sept 2014-Dec 2016

University of California, Berkeley, California  
Dept. of Integrative Biology

### ***Postdoctoral Fellow*** - April 2011- Aug 2014

University of California, Irvine, California  
Dept. of Ecology and Evolutionary Biology

## EDUCATION

### ***Harvard University***, Cambridge, Massachusetts - May 2011

Dept. of Organismic and Evolutionary Biology  
Ph.D. in Biology

### ***University of Georgia***, Athens, Georgia - May 2006

Department of Genetics, Franklin College of Arts and Sciences  
B.S. in Genetics with Highest Honors, *summa cum laude*  
University of Georgia Foundation Fellow, Phi Beta Kappa, Phi Kappa Phi

## GRANTS

2023-2024. NIH/NIGMS R35 Equipment supplement. \$91,959.  
2022-2024. UNCC Internal Funding. \$160,000 for 2 years.  
2021. UNCC Faculty Research Grant. Genome sequencing for a freshwater bivalve under threat. \$8,000.  
2019-2024. NIH/NIGMS R35 Maximizing Investigators' Research Award for Early Stage Investigators.  
\$250,000 direct costs per year for 5 years (\$1.25 million total).  
2019. UNCC Faculty Research Grant. Evolutionary Genomics in Endangered Asian Elephants. \$8,000.  
2011-2014. NIH/NIGMS Ruth L. Kirschstein National Research Service Award  
Postdoctoral Fellowship. 3 years salary, benefits, and travel funds. \$147,750 direct costs.  
2012. UC Irvine Center for Complex Biological Systems Opportunity Award. \$11,000.  
2010. Society for Molecular Biology and Evolution Graduate Student Travel Award. \$1,500.  
2010. Harvard Graduate Student Council Conference Travel Grant. \$750.

## PUBLICATIONS and PREPRINTS

24. J Kappelhof, E. Diepeveen, MFL Derks, O Madsen **R Rogers**, B Goossens, R Sharma, MAM Groenen, JJ Windig, M Bosse. 2024. Genomics reveals distinct Evolutionary lineages in Asian elephants. Under Review, Current Biology.
23. JE Titus-McQuillan, BA Turner, **RL Rogers**. 2023. Sex-specific UV Tolerance in Island *Drosophila*. Under Review, Ecology and Evolution. arXiv:2310.01743
22. A Nanni, JE Titus-McQuillan, O Moskalenkom, F Pardo-Palacios, A Conesa, **RL Rogers**, and L McIntyre. 2022. TranD: Transcript Distance a precise nucleotide level comparison of transcript models and long reads. Accepted, Nucleic Acids Research. Preprint and software release - bioRxiv 2021.09.28.462251, [GitHub](#).
21. Titus-McQuillan, JE, AV Nanni, LM McIntyre, **RL Rogers**. 2023. Evolution of Transcriptome Complexity Across Metazoa. BMC Genomics. arXiv:2211.02546.
20. Ferreira, EA, C Moore, D Ogereau, A Suwalski, **RL Rogers**, A Yassin. 2022. Genomic islands of divergence between *Drosophila yakuba* subspecies predominantly overlap with chromosomal inversions. In revision for Evolution. bioRxiv:2022.07.16.500113
19. Turner, BA, TM Miorin, NB Stewart, RW Reid, CM Moore, and **RL Rogers**. Chromosomal rearrangements facilitate local adaptation in island *Drosophila*. Under review (revision), Genetics. arXiv:2109.09801.
18. **Rogers. RL**, CM Moore, and NB Stewart. 2021. New gene formation in hybrid *Drosophila*. arXiv:2108.07859.
17. **Rogers, RL**, SL Grizzard, JT Garner. 2023. Strong recent selective sweeps reshape genetic diversity in freshwater bivalve *Megaloniaias nervosa*. [Molecular Biology and Evolution](#). 40(2), msad024. arXiv:2107.08010
16. **Rogers, RL**, SL Grizzard, JE Titus-McQuillan, K Bockrath, S Patel, JP Wares, JT Garner. 2021. Gene family amplification facilitates adaptation in freshwater Unionid bivalve *Megaloniaias nervosa*. [Molecular Ecology](#). 30: 1155-1173. arXiv:2008.00131.
15. Stewart, NB and **RL Rogers**. 2019. Chromosomal rearrangements as a source of new gene formation in *Drosophila yakuba*. [PLoS Genetics](#) 15(9), e1008314. arXiv:1806.02205.
14. **Rogers, RL**, L Zhou, C Chu, R Marquez, A. Corl, T Linderorth, et al. 2018. Genomic takeover by transposable elements in the Strawberry poison frog. [Molecular Biology and Evolution](#). 35:2913-2927.
13. **Rogers, RL**, L Shao, and KR Thornton. 2017. Tandem duplications facilitate rapid changes in gene expression via exon shuffling. [PLoS Genetics](#). 13(5), p.e1006795. bioRxiv 097501.
12. **Rogers, RL**, MW Slatkin. 2017. Excess of genomic defects in a woolly mammoth on Wrangel island. [PLoS Genetics](#), 13(3), e1006601. arXiv:1606.06336.  
Top 10% most cited papers in PLoS Genetics from 2017.
11. Prüfer, K, C De Filippo, S Grote, F Mafessoni et al. 2017. A high-coverage Neandertal genome from Vindija Cave in Croatia. [Science](#), 358: 655-658.

10. **Rogers, RL**. 2015. Chromosomal rearrangements as barriers to genetic homogenization between archaic and modern humans. *Molecular Biology and Evolution*. 32:3064-3078. arXiv: 1505.07047
9. **Rogers, RL**, JM Cridland, L Shao, TT Hu, P Andolfatto, and KR Thornton. 2015. Tandem duplications and the limits of natural selection in *Drosophila yakuba* and *Drosophila simulans*. *PLoS One*. 10(7): e0132184. arXiv: 1405.0518
8. **Rogers, RL**, L Shao, J Sanjak, P Andolfatto and KR Thornton. 2014. Revised annotations, sex-biased expression, and lineage-specific genes in the *Drosophila melanogaster* group. *G3: Genes, Genomes, Genetics* 4: 2345-2351. arXiv:1408.0247
7. **Rogers, RL**, JM Cridland, L Shao, TT Hu, P Andolfatto, and KR Thornton. 2014. Landscape of standing variation for tandem duplications in *Drosophila yakuba* and *Drosophila simulans*. *Molecular Biology and Evolution* 31:1750-1766. arXiv:1401.7371
6. **Rogers, RL** and DL Hartl. 2012. *Rapid Evolution via Chimeric Genes* in Rapidly Evolving Genes and Genetic Systems. Invited Book Chapter. R Singh and RJ Kulathinal Eds.
5. **Rogers, RL** and DL Hartl. 2012. Chimeric genes as a source of rapid evolution in *Drosophila melanogaster*. *Molecular Biology and Evolution* 29: 517-529.
4. **Rogers, RL**, T Bedford, AM Lyons and DL Hartl. 2010. Adaptive impacts of the chimeric gene *Quetzalcoatl* in *Drosophila melanogaster*. *Proceedings of the National Academy of Science USA* 107:10943-10948.
3. **Rogers, RL**, T Bedford, and DL Hartl. 2009. Formation and longevity of chimeric and duplicate genes in *Drosophila melanogaster*. *Genetics* 181: 313-322.
2. Pontaroli, AC, **RL Rogers**, Q Zhang, ME Shields, TM Davis, KM Folta, P SanMiguel, and JL Bennetzen. 2008. Gene content and distribution in the nuclear genome of *Fragaria vesca*. *The Plant Genome* 2: 93-101.
1. Haggerty, TM, JT Garner and **R Rogers**. 2005. Reproductive phenology in *Megalanaia nervosa* (Bivalvia: Unionidae) in Wheeler Reservoir, Tennessee River, Alabama, USA. *Hydrobiologia* 539: 131-136.

## DISSERTATION

2011. Evolution of chimeric genes in *Drosophila melanogaster*.

## EDITORSHIPS

**Journal of Evolutionary Biology**, Handling Editor (comparable to Senior Editor), (2023-2027)

**Molecular Biology and Evolution**, Associate Editor (2018-present)

**Frontiers in Genetics**, Review Editor, Computational Genomics (2022)

**PLoS Genetics**, Guest Editor (2022)

## GRANT PANELS

National Institutes of Health study section member, R35 MRAA grants (2022-2023)

National Institutes of Health study section member, T15 training grants (2021)

National Science Foundation panelist, DEB: Evolutionary Processes (2021)

National Institutes of Health study section member, NIGMS K99/R00 Special Emphasis Panel (2021)

National Science Foundation panelist, EPSCoR Reverse Site Visit (2020)

National Science Foundation panelist, EPSCoR RII (2017-2019, 2024)

### ***ad hoc* GRANT REVIEWS**

Agence Nationale Recherche CE02 - Terre vivante (2021)  
UKRI Natural Environment Research Council reviewer (2021)  
NWO Dutch Research Council *Veni* Talent Programme (2020)  
Regeneron Science Talent Search (2018, 2019)  
German Research Foundation reviewer (2016)  
National Science Foundation reviewer (2015)

**Journal Peer Reviews:** Genome Biology and Evolution, Genome Research, Genetics, G3, Molecular Biology and Evolution, Heredity, Frontiers in Ecology and Evolution, BMC Evolutionary Biology, Science Reports, Science, Bioinformatics, PNAS, Evolution Letters, Journal of Molecular Evolution, Molecular Ecology, Molecular Ecology Resources, Proceedings B, PLoS Genetics, Cell Death and Disease, ASM mSystems

### **INVITED PRESENTATIONS**

2024. Plant and Animal Genomes, non-coding RNA session, San Diego, CA  
2022. Colloque de Biologie, 13me edition. University of Laval, Quebec City, Canada.  
*\*\*Graduate student invited speaker\*\**  
2021. Fourth International Meeting of the Global Invertebrate Genomics Alliance (Virtual)  
2021. UNCC Sustainability Summit (Virtual).  
2020. Society for Molecular Biology and Evolution, Quebec City, Quebec (Canceled/Postponed)  
2018. Society for Molecular Biology and Evolution, Tokyo, Japan  
2018. Fossils and Ancient DNA symposium, Shenzhen, China  
2016. Keynote invited speaker. RECOMB-CG satellite meeting. Montreal, Canada.  
2011. NerdNite, Middlesex Lounge, Cambridge MA.

### **INVITED SEMINARS**

2024. University of Nebraska, Lincoln NE (upcoming)  
2023. University of Arizona, Tucson, AZ  
2023. University College London, London, UK  
2022. NC State Genetics and Genomics Academy seminar, Raleigh, NC  
2022. University of Michigan Ecology and Evolution seminar, Ann Arbor, MI  
2020. Emory and Henry College. Lyceum lecture, Emory, VA (virtual)  
2020. The George Washington University, Washington, DC  
2019. University of Utah. Salt Lake City, UT  
2019. Emory University. Atlanta, GA  
2019. Virginia Tech. Ecology and Evolution Seminar, Blacksburg, VA  
2019. The Jackson Lab. Farmington, CT  
2018. Duke University. Population Biology Seminar. Durham, NC  
2018. University of Georgia. Genetics Dept Commencement Speaker. Athens, GA  
2017. Emory and Henry College. Lyceum lecture, Emory, VA  
2017. University of Georgia. Genetics Dept Seminar, Athens, GA  
2017. North Carolina State University. Ecology and Evolution Seminar. Raleigh, NC  
2017. East Carolina University. Biology Dept. Seminar. Greenville, NC  
2016. Simons Institute, University of California, Berkeley, CA  
2015. Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany.  
2015. Dept. of Anthropology, Southampton University, Southampton, UK.  
2015. MRC Clinical Sciences Center, Molecular Systems, London, UK.  
2015. Evolution and Ecology, University of California, Davis CA.

- 2014. Lee University and the American Chemical Society, Chattanooga, TN.
- 2014. Dept. of Ecology and Evolutionary Biology, University of California, Irvine, CA.
- 2011. Dept. of Biology, California State University, Dominguez Hills, CA.
- 2009. Dept. of Genetics, University of Georgia, Athens, GA.

## ORAL PRESENTATIONS

- 2024. Evolution, Montreal Canada (*selected talk, Conservation Genetics Across Multiple Species*)
- 2024. Hartl Mendel Memorial Medal Symposia (upcoming), Cambridge, MA
- 2023. Evolution, Albuquerque, NM
- 2021. American Malacological Society (Virtual)
- 2019. Society for Molecular Biology and Evolution, Manchester, UK
- 2019. Drosophila Research Conference, Dallas, TX
- 2018. CEE RSI Alumni Reunion scientific talks, Cambridge, MA
- 2018. Population, Evolutionary, and Quantitative Genetics Meeting, Madison, WI
- 2017. Evolution, Portland, OR
- 2016. Cold Spring Harbor Labs Transposable Element Meeting
- 2016. Bay Area Population Genetics Meeting, San Francisco, CA
- 2013. Southern California Evolutionary Genomics Meeting, Irvine, CA.
- 2013. UC Irvine Systems Biology Retreat, Los Angeles, CA.
- 2012. 1st Joint Congress on Evolutionary Biology, Ottawa, Canada.
- 2012. 53rd Annual *Drosophila* Research Conference, Chicago, IL.
- 2010. Society for Molecular Biology and Evolution, Lyon, France.
- 2008. 50th Annual *Drosophila* Research Conference, Chicago, IL.

## POSTER PRESENTATIONS

- 2023. SMBE Ferrara, Italy
- 2022. PEQG. Asilomar, CA
- 2022. *Drosophila* research conference, San Diego, CA
- 2021. Society for Molecular Biology and Evolution (virtual)
- 2016. Genetics Society of America, Orlando, FL
- 2015. Society of Molecular Biology and Evolution, Vienna, Austria.
- 2014. Society of Molecular Biology and Evolution, San Juan, Puerto Rico.
- 2014. 55th Annual *Drosophila* Research Conference, San Diego, CA.
- 2013. Society of Molecular Biology and Evolution, Chicago, IL.
- 2013. 54th Annual *Drosophila* Research Conference, Washington, DC.
- 2012. UC Irvine Center for Complex Biological Systems Retreat.
- 2010. 51st Annual *Drosophila* Research Conference, Washington, DC.
- 2009. Society for Molecular Biology and Evolution, Iowa City, IA.
- 2008. Society for Molecular Biology and Evolution, Barcelona, Spain.

## POPULAR PRESS

### Print and Online:

*Reddit* top 10, *Nature* News, *Nature* Research Highlights, *Science* magazine, *Live Science*, *New York Times*, *BBC News*, *The Guardian*, *The Daily Mail*, *The Times* (London, UK), *Scientific American*, *Popular Science*, *UPI*, *South China Morning Post*, *Sharjah 24*, *Russia News Today*, *India Today*, *Live Science*, *Quanta Magazine* *UNCC Magazine*

### Radio and Podcasts:

*BBC Newshour*, *Radio 4* (UK), *60 Second Science* (Scientific American), *Mocncreiff* (Ireland), *As it Happens with Carol Off* (Canada), *Dork Time Radio* (Baltimore, US), *The John Batchelor Show* (New York), *This Week in Evolution* ([microbe.tv/twievo/twievo-60/](http://microbe.tv/twievo/twievo-60/))

**Television:**

*Full Frame: The evolution of our planet*

*In the Wild* - OX3 Productions

**HONORS AND AWARDS**

- 2014. UC Irvine Dean's Award for Postdoctoral Excellence
- 2008. NSF Graduate Research Fellowship Honorable Mention
- 2006. NSF Graduate Research Fellowship Honorable Mention
- 2006. Harvard University James Mills Peirce Fellowship
- 2006. University of Georgia Best Female Honors Science Student
- 2006. University of Georgia Dept. of Genetics Cynthia Kenyon Award
- 2004. Goldwater Scholar
- 2002. Intel International Science and Engineering Fair Finalist
- 2001. Intel International Science and Engineering Fair Finalist
- 2001. Intel Science Talent Search Semifinalist

**STUDENT AWARDS**

- 2023. Brandon Turner, Graduate Student Travel Award, SMBE
- 2022. Taylor Conway, NSF GRFP (lab undergraduate, PhD student at Kansas)
- 2020. Josh Sikder, Victoria Finnerty Award. Genetics Society of America
- 2019. Brandon Turner, Victoria Finnerty Award. Genetics Society of America

Named the faculty member with the biggest influence on career success for 4 different graduating seniors across 3 different years

**SERVICE****Outreach**

- Professor, CEE Research Science Institute at MIT for high school seniors (2009-2011; 2017-2024)
- CEE K-12 Teacher Enrichment Program: Virtual Bite of Science - Florida (2020)
- RSI Alumni unofficial grassroots DEI working group (2023-present)
- RSI Alumni 2001 Class Representative and Fundraiser for CEE (2018-2019)
- University of Georgia Foundation Fellows Recruitment and Interviews (2017, 2019)
- Discovery Place Children's Science Museum Volunteer (2017-2019)
- Professor, USA Biological Olympiad (2014, 2017)
- USA Biological Olympiad Exam author for CEE (Exams 2013-2019)
- Alumni Rep, Regeneron Science Talent Search Banquet (2017, 2019)
- Judge, Regeneron Science Talent Search (2018, 2019)
- Judge, North Carolina State Science Fair, Charlotte NC (2017)
- Judge, Orange County Science and Engineering Fair (2012, 2014)
- Judge, Intel International Science and Engineering Fair, Los Angeles (2011, 2014)
- Harvard University Women in Science Mentor (2007-2011)
- Judge, Massachusetts State Science and Engineering Fair (2009, 2010)
- Judge, Georgia State Science Fair (2004)
- Judge, Georgia Jr. Academy of Sciences Paper Reading (2004)

### **Conference organization**

HartlFest, Lead, organizing committee (postponed from 2020, reinitiated May 2024)  
SMBE Awards committee (2022)  
Society for Molecular Biology and Evolution - session chair (2017)  
MontyFest organizing committee (2016)  
Sex and Conflict Symposium, Harvard University. Organizing Committee (2007)

### **UNCC Internal Service**

EVOLVE Evolution Research Group Lead (2024-present)  
College Tenure Review Committee (2023)  
Official Faculty Mentor - Abbe LaBella, Farah Deeba (2023-present)  
Faculty Search Committee, Bioinformatics and Genomics (2019-2020)  
Faculty Research Grant Review committee (2018-2020)  
Bioinformatics Department Awards committee (2019-2021, 2023)  
Dean's committee on Undergraduate Education (2018)  
Bioinformatics Seminar Series Organizer (2017-2018)  
Co-leader Evolutionary Genetics Journal Club with W. Sung (2017-2022)  
NIH MIRA grant writing workshop lead (2022,2023)  
Dissertation Committees (5)  
Proposal Defense Committees (3)  
Qualifying Exam Committees (5)

### **INTERNAL PRESS**

Office of OneIT Featured Research. Rebekah Rogers: Evolving Still  
CCI News. Flexing Her Mussels.  
Inside UNC Charlotte. Genomics Researcher Receives Prestigious Grant And Inspires The Next Generation.  
UNC Charlotte Magazine. UNC Charlotte's MIRA Trailblazer.

### **TEACHING**

BINF 3101 Sequence Analysis (Reviews 4.7/5.0 or higher, 2017-present)  
BINF 6350/8350 Molecular Sequencing (Reviews 4.8/5.0 or higher, 2018, 2019)  
Professor, Research Science Institute at MIT, 1 week genetics course (2009-2011; 2017-2023)  
Skype Invited Class Speaker - U. Rochester (2014)  
Skype Invited Class Speaker - Monmouth University (2018)  
Zoom Invited Class Speaker - Liberty Bell Junior-Senior High School (2023)

### **POPULAR PRESS - Pedagogy**

*Newsweek.com, Indy100*

### **PROFESSIONAL MEMBERSHIPS**

Society for Molecular Biology and Evolution  
Genetics Society of America  
Society for the Study of Evolution