



Berkeley Science Fellow & Howard Hughes Medical
Institute Awardee of the Life Sciences Research
Foundation. Howard Hughes Medical Institute and
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Jacob L. Steenwyk

PROFESSIONAL POSITIONS

- Since 2024** Scientific Consultant, FutureHouse Inc., San Francisco, CA
- Since 2023** Howard Hughes Medical Institute Awardee, Life Sciences Research Foundation
- Since 2022** Postdoctoral Associate, Laboratory of Dr. King, University of California, Berkeley
- Since 2022** Berkeley Science Fellow, University of California, Berkeley
- 2024 - 2025** Bioinformatics Visiting Scholar, MantleBio Inc., San Francisco, CA
- 2022 - 2023** Scientific Consultant, LatchBio Inc., San Francisco, CA

FIVE HIGHLIGHTED PUBLICATIONS (Trainees and I are in **bold** font.)

1. **Steenwyk, J.L.**, S. Knowles, R.W. Bastos, **C. Balamurugan**, D. Rinker, M.E. Mead, C.D. Roberts, H.A. Raja, Y. Li, A.C. Colabardini, P.A. de Castro, T.F. dos Reis, D. Canóvas, R.L. Sanchez, K. Lagrou, E. Torrado, F. Rodrigues, N.H. Oberlies, X. Zhou, G.H. Goldman[^], & A. Rokas[^] (2024). [^]Corresponding authors. Evolutionary origin and population diversity of a cryptic hybrid pathogen. **Nature Communications**. DOI: 10.1038/s41467-024-52639-1
2. **Steenwyk, J.L.**, Y. Li, X. Zhou, X.-X. Shen, & A. Rokas (2023). Incongruence in the phylogenomics era. **Nature Reviews Genetics**. DOI: 10.1038/s41576-023-00620-x
3. **Steenwyk, J.L.**, **M.A. Phillips**, F. Yang, S.S. Date, T. Graham, J. Berman, C.T. Hittinger, & A. Rokas (2022). An orthologous gene coevolution network provides insight into eukaryotic cellular and genomic structure and function. **Science Advances**. DOI: 10.1126/sciadv.abn0105
4. **Steenwyk, J.L.**[^], T.J. Buida III, A.L. LaBella, Y. Li, X.-X. Shen, & A. Rokas[^] (2021). PhyKIT: a UNIX shell toolkit for processing and analyzing phylogenomic data. [^]Corresponding authors. **Bioinformatics**. DOI: 10.1093/bioinformatics/btab096
5. **Steenwyk, J.L.**[^], T.J. Buida III, Y. Li, X.-X. Shen, & A. Rokas[^] (2020). ClipKIT: a multiple sequence alignment-trimming software for accurate phylogenomic inference. [^]Corresponding authors. **PLOS Biology**. DOI: 10.1371/journal.pbio.3001007

AWARDS

- 2025** Next Wave of Faculty in Genomics Symposium, Genomics Institute of the University of California, Santa Cruz
- 2024** Frequency Bio Cohort 10 Member, Pillar Venture Capital
- 2024** Trailblazers of Tomorrow National Postdoctoral Symposium, The University of Texas at Austin
- 2024** Englund Emerging Scholar Award, Department of Biological Chemistry, Johns Hopkins Medicine

2023 JXTX + CSHL Genome Informatics Scholarship, Biology of Genomes, Cold Spring Harbor Laboratory

2023 Honorable mention, Next Generation Faculty Symposium, Stanford.Berkeley.UCSF

2023 Howard Hughes Medical Institute Awardee, Life Sciences Research Foundation

2022 Fifty 50 Community Fellow, Fifty Years Industries, LLC

2022 Berkeley Science Fellow, Berkeley Postdoctoral Entrepreneurship Program, University of California, Berkeley

2022 Graduate Student Excellence Award Finalist, Society for Molecular Biology and Evolution

2022 Hanna H. Gray Fellows Finalist, Howard Hughes Medical Institute

2022 Edward Ferguson Jr. Graduate Award, Graduate School, Vanderbilt University

2022 James F. Crow Early Career Researcher Award Finalist, Genetics Society of America

2022 Harold M. Weintraub Graduate Student Award, Fred Hutchinson Cancer Research Center

2021 Sandler Fellows Finalist, University of California, San Francisco

2021 Honorable mention, Next Generation Faculty Symposium, Stanford.Berkeley.UCSF

2021 Presentation award, Canadian Fungal Research Network and Great Lakes Mycology Conference

2021 Graduate Research Excellence Award in Biological Sciences, Vanderbilt University

2021 Smriti Bardhan Scholarship, Vanderbilt University

2021 Registration award, Science Talk '21

2020 Favorite Artist Award, Catalyst: A Virtual Sci-Art Exhibition

2020 Oral presentation award, SACNAS – The National Diversity in STEM Virtual Conference

2020 Registration scholarship, SACNAS – The National Diversity in STEM Virtual Conference

2020 Best Talk Honorable Mention, Canadian Fungal Research Network Meeting

2020 Trainee-of-the-Year, Vanderbilt Institute for Infection, Immunology and Inflammation

2019 Gilliam Predoctoral Fellowship, Howard Hughes Medical Institute

2019 Ann Bernard Martin Award for Excellence in Graduate Research, Vanderbilt University

2019 Ruth L. Kirschstein National Research Service Award, National Institutes of Health

2019 Ford Foundation Predoctoral Fellowship, Ford Foundation

2019 Graduate student travel grant, Vanderbilt University

2019 Curb Center Fellow, ArtLab, Vanderbilt University

2018 *GENETICS* Peer Review Training Program, Genetics Society of America

2018 Best poster award, Cellular and Molecular Fungal Biology, Gordon Research Seminar

2018 Best poster award, Cellular and Molecular Fungal Biology, Gordon Research Conference

2018 Best poster award, Department of Biological Sciences, Vanderbilt University

2018 T-shirt design contest winner, Department of Biological Sciences, Vanderbilt University

2017 Graduate student travel grant, Vanderbilt University

2016 Graduate student council travel awards, Clark University

2015 Summa cum laude, Clark University

2014 Bridging the gaps scholar, University of Southern California Keck School of Medicine

- 2013** Global environmental microbiology scholar, Center for Dark Energy Biosphere Investigations, University of Southern California
- 2011** Jonas Clark Scholar, Clark University

FUNDING

Life Sciences Research Foundation	Principal investigator, 08/23-08/26, Investigating the molecular underpinnings of complex traits like multicellularity, \$231,000. Funding generously provided by the Howard Hughes Medical Institute.
Howard Hughes Medical Institute	Principal investigator, 09/22, The evolution of pathways responsible for genome integrity in early animals and close relatives, Hanna H. Gray Finalist, \$10,000
Howard Hughes Medical Institute	Principal investigator, 09/19-09/22, Examining the loss of diverse DNA repair genes and long-term hypermutation in a lineage of budding yeasts, Gilliam Fellowship, Individual Predoctoral Fellowship, \$150,000
National Institutes of Health	Principal investigator, 08/19-08/22, Examining the loss of diverse DNA repair genes and long-term hypermutation in a lineage of budding yeasts, Ruth L. Kirschstein National Research Service Award, Individual Predoctoral Fellowship (Parent F31), \$88,128 (declined)
Ford Foundation Predoctoral Fellow	Principal investigator, 08/19-08/22, The consequences of aberrant cell cycle and DNA repair processes in budding yeast, Individual Predoctoral Fellowship, \$72,000 (declined)
Curb Center ArtLab Fellow	Principal investigator, 12/18-04/19, Bridging the gap between artist and scientist, ArtLab, Vanderbilt University, \$300

SOFTWARE

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- 1) ClipKIT: a multiple sequence alignment-trimming software for accurate phylogenomic inference. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 2) PhyKIT: a UNIX shell toolkit for processing and analyzing phylogenomic data. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 3) BioKIT: a versatile toolkit for processing and analyzing diverse types of sequence data. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 4) OrthoHMM: Improved Inference of Ortholog Groups using Hidden Markov Models. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 5) OrthoSNAP: a tree splitting and pruning algorithm for retrieving single-copy orthologs from gene family trees. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 6) orthofisher: a broadly applicable tool for automated gene identification and retrieval. [Publication PDF](#); [Documentation](#); [Source code](#)
 - 7) treehouse: a user-friendly application to obtain subtrees from large phylogenies. [Publication PDF](#); [Documentation & source code](#)
 - 8) ggpubfigs: an R package for creating colorblind friendly figures with ggplot2. [Publication PDF](#); [Documentation & source code](#)

- 9) Orthoflow: phylogenomic analysis and diagnostics with one command. [Publication PDF](#); [Documentation](#); [Source code](#)
- 10) Solu – a cloud platform for real-time genomic pathogen surveillance. [Publication PDF](#); [Platform](#)
- 11) LVBRs: a cloud-based suite of workflows for bulk RNA-seq quality control, analysis, and functional enrichment. [Publication PDF](#); [Documentation](#); [Source code](#)

INVITED TALKS

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| 2025 | The International Choanoflagellates & Friends Meeting, Institut Pasteur, France |
| 2025 | Next Wave of Faculty in Genomics Symposium, The University of California, Santa Cruz, Genomics Institute |
| 2025 | DNA Sequences as Type, Westerdijk Fungal Biodiversity Institute |
| 2025 | Department of Microbiology and Immunology, The University of California, San Francisco |
| 2024 | Bioinformatics Group, Utrecht University, Netherlands |
| 2024 | Bioinformatics Group, Wageningen University, Netherlands |
| 2024 | Evolutionary Rate Covariation and Related Methods Workshop, Oregon State University and Colorado State University |
| 2024 | Biochemistry, Molecular, and Structural Biology Graduate Program, The University of California, Los Angeles |
| 2024 | Southern California Evolutionary Genetics and Genomics Meeting, Caltech's Center for Evolutionary Science and the University of California's Center for Ecological and Evolutionary Dynamics, Caltech |
| 2024 | Postdoc Research Showcase, Molecular and Cell Biology Department, University of California, Berkeley |
| 2024 | Trailblazers of Tomorrow National Postdoctoral Symposium, The University of Texas at Austin |
| 2024 | Englund Emerging Scholar Symposium, Department of Biological Chemistry, Johns Hopkins Medicine |
| 2024 | 32 st Fungal Genetics Conference at Asilomar, Pacific Grove, CA |
| 2023 | Seminar, Stowers Institute |
| 2023 | Innovative Genomics Institute and the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley |
| 2023 | CanFunNet, Acadia University |
| 2023 | Lightening Talk, Southern California Systems Biology Conference, University of Southern California |
| 2023 | Departmental Seminar, Plant Pathology and Environmental Microbiology, The Pennsylvania State University |
| 2022 | Biology Department, Loras College |
| 2022 | Yeast Genetics Meeting, Genetics Society of America |
| 2022 | Hanna H. Gray Fellows Finalists Meeting, Howard Hughes Medical Institute |
| 2022 | Molecular mycology meeting, Technion - Israel Institute of Technology |
| 2022 | Evolution, Am. Soc. of Naturalists, Soc. for the Study of Evo., and the Soc. of Sys. Biologists, Cleveland, OH (declined due to scheduling conflict) |
| 2022 | James F. Crow Early Career Researcher Award Finalist, Genetics Society of America |
| 2022 | Department of Biological Sciences, George Washington University |
| 2022 | 31 st Fungal Genetics Conference at Asilomar, Pacific Grove, CA |

2021	Artist-in-Residence program, Vanderbilt Institute for Infection, Immunology and Inflammation
2021	CanFunNet and Great Lakes Mycology Conference
2021	Sandler Fellows Finalists Seminar, University of California, San Francisco
2021	Department of Ecology, Evolution, and Organismal Biology, Iowa State University
2021	Medical Mycology Trainee Seminar Series, University of Utah (Link)
2021	Mycology Graduate Student Organization, University of Georgia
2021	MicroSeminar, International Society for Microbial Ecology (Link)
2021	Alliance for Diversity in Science and Engineering, Young Researchers Conference
2021	Andrew Murray Lab seminar, Harvard University, Cambridge
2020	Institute of Insect Sciences, Zhejiang University
2020	Evan Eichler Lab seminar, University of Washington, Seattle
2020	Genetics Society of America, Early Career Scientist Seminar Series
2020	Nicole King Lab seminar, University of California Berkeley
2020	The National Diversity in STEM Conference, SACNAS
2020	Canadian Fungal Research Network Meeting
2020	Trainee-of-the-year talk, Vanderbilt Institute for Infection, Immunology and Inflammation
2020	Day of Wond'ry, Vanderbilt University, Nashville, TN
2019	Genetics Society of America, Early Career Scientist Seminar Series
2019	Gordon Research Conference, Molecular Mechanisms in Evolution, Easton, MA
2019	Gordon Research Seminar, Molecular Mechanisms in Evolution, Easton, MA (declined)
2019	Focal Point, ArtLab, Vanderbilt University, Nashville, TN
2019	30 th Fungal Genetics Conference at Asilomar, Pacific Grove, CA
2019	Phylogenomics and Evolution Group, North Carolina State University, Raleigh, NC
2018	ArtLab Seminar Series, Vanderbilt University, Nashville, TN
2015	TedXClarkUniversity, Clark University, Worcester, MA

CONTRIBUTED TALKS

2023	Plant and Microbial Biology, Postdoc Seminar Series, University of California, Berkeley, Berkeley, CA
2021	Students' Mycology Colloquium, Mycological Society of America
2020	Evolution Seminar Series, Vanderbilt University (Link)
2019	DNA Damage and Response Journal Club, Vanderbilt University, Nashville, TN
2019	Research in Progress Seminar, Vanderbilt University, Nashville, TN
2019	Biological Sciences Annual Retreat, Vanderbilt University, Nashville, TN
2019	Science club at the library, Nashville Public Library, Nashville, TN
2018	Nashville Science Club, Jackalope Brewing Company, Nashville, TN
2017	Mycological Society of America, University of Georgia, Athens, GA
2016	Mycological Society of America, University of California Berkeley, Berkeley, CA
2016	Graduate Student Multidisciplinary Conference, Clark University, Worcester, MA

TRAINEE ADVISING

Graduate Students

2023-Pres. Saelin Bjornson, University of Melbourne (co-advised with Heroen Verbruggen)

Undergraduates

2022-2024 Charu Balamurugan, Vanderbilt University (co-advised with Antonis Rokas)

2019-2022 Qianhui (Olivia) Zheng, Vanderbilt University (co-advised with Antonis Rokas)

2018-2021 Megan A. Phillips, Vanderbilt University (co-advised with Antonis Rokas)

COMPANY ADVISING

Since 2023 Advisor, ForensisGroup, Inc., Pasadena, CA

2022-2023 Scientific Advisor, WittGen Biotechnologies, CA

2017-2018 Scientific Consultant, Little Harpeth Brewing, Nashville, TN

WORKSHOP TEACHING

2025 Lecturer, Bioinformatics and Complex Networks, Antigua, Guatemala

2024 Instructor, Methods for Biological Data Workshop, University of Wisconsin-Madison

2024 Instructor, Phylogenomics and Population Genomics: Inference and Applications, University of Barcelona, Barcelona, Spain

2024 Lead instructor, Workshop on Phylogenomics, Evolution and Genomics, Český Krumlov, Czech Republic

2019 Organizer and instructor, Values-based leadership, Vanderbilt University, Nashville, TN

2019 Founder and instructor, 'A beginner's guide to making figures in R,' Vanderbilt University, Nashville, TN

2019 Instructor, Workshop on Phylogenomics, Evolution and Genomics, Český Krumlov, Czech Republic

2019 Instructor, Workshop on Genomics, Evolution and Genomics, Český Krumlov, Czech Republic

TEACHING EXPERIENCE

2020 Guest lecture, Science Communication Tools and Techniques, Vanderbilt University, Nashville, TN

2017-2019 Teaching Assistant, Introductory Biology Lab, Vanderbilt University, Nashville, TN

2016 Teaching Assistant, Introduction to Biostatistics, Clark University, Worcester, MA

2014-2015 Teaching Assistant, Cell Biology, Clark University, Worcester, MA

POSTER PRESENTATIONS

2024 Life Sciences Research Foundation Fellows Annual Meeting, Chicago, IL

2023 Genome Informatics, Cold Spring Harbor Laboratory

2023 The International Choanoflagellates & Friends Meeting, The University of California, Berkeley and San Francisco

2022 Decoding the Genome, Howard Hughes Medical Institute

2021 Gilliam Fellows Meeting, Howard Hughes Medical Institute

2021 Biology of Genomes, Cold Spring Harbor Laboratories

2021 Science Talk '21, Science Talk

2020 Gilliam Fellows Meeting, Howard Hughes Medical Institute

2020 Vanderbilt Institute for Infection, Immunology and Inflammation Annual Symposium, Virtual Conference

2020 The Allied Genetics Conference, Virtual Conference

2019 Investigators Science Meeting, Howard Hughes Medical Institute, Bethesda, MD

2019 Gilliam Fellows Annual Meeting, Howard Hughes Medical Institute, Bethesda, MD

2019 Molecular Mechanisms in Evolution, Gordon Research Conference, Easton, MA

2019 Molecular Mechanisms in Evolution, Gordon Research Seminar, Easton, MA

2019 30th Fungal Genetics Conference at Asilomar, Pacific Grove, CA

2019	Asperfest pre-meeting at 30 th Fungal Genetics Conference at Asilomar, Pacific Grove, CA
2018	Cellular and Molecular Fungal Biology, Gordon Research Conference, Holderness, NH
2018	Cellular and Molecular Fungal Biology, Gordon Research Seminar, Holderness, NH
2018	Department of Biological Sciences Annual Retreat, Vanderbilt University, Nashville, TN
2015	Bumpus Symposium, Clark University, Worcester, MA
2015	Traina Scholars Presentation, Clark University, Worcester, MA
2015	Summer Research Presentation, Clark University, Worcester, MA

EDUCATION

Vanderbilt University	Biological Sciences	Ph.D., GPA: 3.97	2016–2022
Clark University	Biochemistry and Molecular Biology	M.S., GPA: 3.98	2015–2016
Clark University	Biochemistry and Molecular Biology	B.A., GPA: 3.84	2011–2015

SERVICE

2025-Pres.	Member, Special Purpose Committee, International Mycological Congress
2024-Pres.	Member, Conferences Committee, Genetics Society of America
2023-Pres.	Chair of Alumni Affairs, The Evolutionary Studies Initiative at Vanderbilt, Vanderbilt University, Nashville, TN
2020-Pres.	Founder and Chief Officer, SciArt with Purpose, https://jlsteenwyk.com/sciart.html
2023-2025	Mentor, Alumni Mentorship Program Early Career Mentorship Program, Genetics Society of America
2023-2025	Project Partner, Data Science Discovery Program, University of California, Berkeley
2023-2024	Executive Board Member, Berkeley Postdoctoral Entrepreneurship Program, University of California, Berkeley
2023-2024	Chair, TAGC Undergraduate Travel Award Subcommittee, Genetics Society of America
2023-2024	Representative for Early Career Scientists, Allied Program Committee, The Allied Genetics Conference 2024, Genetics Society of America
2022	Panelist at the Diversity, Equity, and Inclusion Discussion, Yeast Genetics Conference, Genetics Society of America
2022	Scientist-Artist: Embracing Duality, ArtLab, Vanderbilt University
2019-2022	Member, Steering Committee, Early Career Leadership Program, Genetics Society of America
2019-2022	Inclusion Coordinator, The Evolutionary Studies Initiative at Vanderbilt, Vanderbilt University, Nashville, TN
2019-2022	Graphic Illustrator, The Evolutionary Studies Initiative at Vanderbilt, Vanderbilt University, Nashville, TN
2017-2022	Educational outreach booth design and execution, MEGAMicrobe, Nashville, TN
2017-2022	Member of the Dean of Graduate Student's survey quantitative analysis subgroup, Graduate Diversity and Inclusion Committee, Vanderbilt University, Nashville, TN
2017-2022	Judge, Middle Tennessee Science and Engineering Fair, Belmont University, Nashville, TN
2019-2021	Co-chair, Communication and Outreach Subcommittee, Genetics Society of America

- 2018-2021** Volunteer Deputy, American Society of Microbiology Vanderbilt University Chapter, Nashville, TN
- 2017-2021** Communications chair, Inclusivity in Biosciences Association, Vanderbilt University, Nashville, TN
- 2020** Panelist at the Communication and Outreach Workshop, The Allied Genetics Conference, Genetics Society of America
- 2019-2020** President, Inclusivity in Biosciences Association, Vanderbilt University, Nashville, TN
- 2019-2020** Co-chair, MEGAMicrobe, Vanderbilt Institute for Infections, Immunology and Inflammation, Nashville, TN
- 2018-2019** Vice President, Inclusivity in Biosciences Association, Vanderbilt University, Nashville, TN
- 2013-2019** Administrator and Owner, Molecular Biology and Biochemistry for Researchers and Students Group, LinkedIn
- 2019** Peer review workshop leader, 30th Fungal Genetics Conference at Asilomar, Pacific Grove, CA
- 2018-2019** Vice President, Graduate Student Association, Department of Biological Sciences, Vanderbilt University, Nashville, TN
- 2018-2019** Vice co-chair, MEGAMicrobe, Vanderbilt Institute for Infections, Immunology and Inflammation, Nashville, TN
- 2017-2018** Secretary, Graduate Student Association, Department of Biological Sciences, Vanderbilt University, Nashville, TN
- 2017** Vanderbilt Student Volunteers for Science, Volunteer Science Teacher, West End Middle School, Nashville, TN
- 2014-2015** Director, Clark University Emergency Medical Services, Clark University, Worcester, MA
- 2014-2015** Subcommittee for Department of Chemistry, Biochemistry and Molecular Biology Faculty Search Committee, Clark University, Worcester, MA
- 2014-2015** Science Education Outreach Blogger, C-DEBI Sci-Curious Blog
- 2013-2014** Secretary, Clark University Emergency Medical Services, Clark University, Worcester, MA

SOCIETIES

Genetics Society of America, Society of Systematic Biologists, American Society for Microbiology, Mycological Society of America, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science

MANUSCRIPT REVIEWER

Nature Communications; Proceedings of the National Academy of Sciences, Molecular Biology and Evolution; Systematic Biology; Current Biology; PLOS Pathogens, GigaScience, Methods in Ecology and Evolution; Genome Biology and Evolution; Genetics; G3 Genes|Genomes|Genetics; FEMS Yeast Research; and others

ART SHOWS

- 2021** Science Talk '21, Science Talk
- 2020** Catalyst: A Virtual Sci-Art Exhibition, Michigan State University
- 2020** Day of Wond'ry, Vanderbilt University, Nashville, TN
- 2020** Fire-Exhibition, Kefi Collective at Vanderbilt University, Nashville, TN
- 2019** Biomedical Sciences Winter Show, Vanderbilt University, Nashville, TN

- 2019** Focal point, ArtLab, Vanderbilt University, Nashville, TN
- 2019** Connecting the Dots, ArtLab, Vanderbilt University, Nashville, TN
- 2018** ArtLab opening reception, ArtLab, Vanderbilt University, Nashville, TN
- 2018** The Intersection between Art and Science, ArtLab, Vanderbilt University, Nashville, TN

POPULAR SCIENCE ARTICLES

- 6. **Steenwyk, J.L.** & K. Giffin. The silver lining of bioinformatics. *Genes to Genomes*. September 12, 2022
- 5. Simopoulos, M.A.C., A.F. Cisneros, A.D. Mendoza, C. Bautista, **J.L. Steenwyk**, N. Ahmad. Hurdles and advances to making science gender-neutral, *ecrLife*. November 26, 2020
- 4. Mendoza, A.D., C. Bautista, E.A. Marnik, C.M.A. Simopoulos, & **J.L. Steenwyk**. Navigating fake news as a scientist, *ecrLife*. October 8, 2020
- 3. **Steenwyk, J.L.** & M. Jonika. How to get started in science communication, *ecrLife*. August 21, 2020
- 2. **Steenwyk, J.L.** & A. Rokas. A new hybrid fungus is found in hospitals and linked to lung disease, *The Conversation*. June 4, 2020
- 1. **Steenwyk, J.L.** & A. Rokas. An outlaw yeast thrives with genetic chaos – and could provide clues for understanding cancer growth, *The Conversation*. May 21, 2019

PUBLICATIONS (Trainees and I are in **bold** font.)

Preprints/Submitted

- 9. Cao, X.* , C. Liu*, D. Liu*, J.L. Steenwyk, X. Zhong, Y. Wang, H. Liu, Y. Wang, Q. Zhang, X.-X. Shen, Z. Qu^, Yuanning Li^ (2025). *Equal co-first authors; ^Corresponding authors. The evolution and function of eukaryote-to-cyanobacteria horizontal gene transfer. **Submitted.**
- 8. Gonçalves, C.* , **J.L. Steenwyk***, D.C. Rinker, D.A. Opulente, A.L. LaBella, M.-C. Harrison, J.F. Wolters, X. Zhou, X.-X. Shen, S. Covo, M. Groenewald, C.T. Hittinger, & A. Rokas (2025). *Equal co-first authors. Stable hypermutators revealed by the genomic landscape of DNA repair genes among yeast species. **bioRxiv**. DOI: 10.1101/2025.03.15.643480
- 7. **Steenwyk, J.L.**^ & T.J. Buida III (2025). ^Corresponding author. RCVT: a novel diagnostic to quantify compositional biases among taxa for phylogenomics. **bioRxiv**. DOI: 10.1101/2024.11.28.625917.
- 6. **Steenwyk, J.L.**^ & N. King^ (2025). ^Corresponding authors. Integrative phylogenomics positions sponges at the root of the animal tree. **Submitted.**
- 5. **Steenwyk, J.L.**^, T.J. Buida III, A. Rokas, & N. King (2024). ^Corresponding author. OrthoHMM: Improved Inference of Ortholog Groups using Hidden Markov Models. **bioRxiv**. DOI: 10.1101/2024.12.07.627370.
- 4. Ros-Rocher, N., J. Reyes-Rivera, U. Horo, C. Combredet, Y. Foroughjabbari, B.T. Larson, M.C. Coyle, E.A.T. Houtepen, M.J.A. Vermeij, N. King, **J.L. Steenwyk**, & T. Brunet (2024). Clonal-aggregative multicellularity entrained by salinity in one of the closest relatives of animals. **Submitted.**
- 3. Turnbull, R.* , **J.L. Steenwyk***, S. Mutch, P. Scholten, V.W. Salazar, J.L. Birch, & H. Verbruggen (2023). *Equal contributors. Orthoflow: phylogenomic analysis and diagnostics

with one command. **Research Square**. DOI: 10.21203/rs.3.rs-3699210/v1

2. Le, H.G.B.H.^{^*}, **J.L. Steenwyk**^{*}, N. Manske, M. Smolin, A. Abdulali, A. Kamat, R. Kanchana, K. Giffin, A. Andere, & K. Workman[^] (2022). ^{*}Equal contributors; [^]Corresponding authors. Latch Verified Bulk-RNA Seq toolkit: a cloud-based suite of workflows for bulk RNA-seq quality control, analysis, and functional enrichment. **bioRxiv**. DOI: 10.1101/2022.11.10.516016.
1. **Zheng, Q., J.L. Steenwyk**[^], & A. Rokas[^] (2022). Lack of universal mutational biases in a fungal phylum. [^]Corresponding authors. **bioRxiv**. DOI: 10.1101/2022.03.29.486229

Peer Review Published

82. Fan, Y., M. Du, W. Zhang, W. Deng, E. Yang, S. Wang, L. Yan, L. Zhang, S. Kang, **J.L. Steenwyk**, Z. An, X. Liu, & M. Xiang (2024). The Genomes of Nematode-Trapping Fungi Provide Insights into the Origin and Diversification of Fungal Carnivorism. **Molecular Phylogenetics and Evolution**. In press.
81. O. Lemke^{*}, B.M. Heineike^{*}, S. Viknander, N. Cohen, **J.L. Steenwyk**, L. Spranger, F. Li, F. Agostini, C.T. Lee, S.K. Aulakh, J. Nielsen, A. Rokas, J. Berman, A. Zelezniak, T.I. Gossmann, & M. Ralser (2024). ^{*}Equal contributors. The Role of Metabolism in Shaping Enzyme Structures Over 400 Million Years of Evolution. **Nature**. DOI: 10.1038/s41586-025-09205-6.
80. Feng, B.^{*}, Y. Li^{*}, H. Liu^{*}, **J.L. Steenwyk**, K.T. David, X. Tian, B. Xu, C. Gonçalves, D.A. Opulente, A.L. LaBella, M.-C. Harrison, J.F. Wolters, S. Shao, Z. Chen, K.J. Fisher, M. Groenewald, C.T. Hittinger, X.-X. Shen, A. Rokas[^], X. Zhou[^], & Y. Li[^] (2024). ^{*}Equal contributors; [^]Corresponding authors. Unique trajectory of gene family evolution from genomic analysis of nearly all known species in an ancient yeast lineage. **Molecular Systems Biology**. DOI: 10.1038/s44320-025-00118-0
79. **Steenwyk, J.L.**[^], J.T. Loucks, & T.J. Buida III (2025). [^]Corresponding author. ClipKIT in the Browser: Fast Online Trimming of Multiple Sequence Alignments for Phylogenetics. **Nucleic Acids Research**. DOI: 10.1093/nar/gkaf325.
78. Delbaje, E., L. Pontes, J. Rhodes, **J.L. Steenwyk**, L. Lu, T.F. dos Reis, A. Rokas & G.H. Goldman (2025). Aspergillus fumigatus mitogenomes and their influence on azole-resistant and -susceptible populations. **npj Antimicrobials and Resistance**. DOI: 10.1038/s44259-025-00083-6.
77. Li, N., D.M. Geiser, **J.L. Steenwyk**, C. Tsuchida, S. Koike, S. Slinski, & F.N. Martin (2025). A systematic approach for identifying unique genomic sequences for Fusarium oxysporum f. sp. lactucae race 1 and development of molecular diagnostic tools. **Phytopathology**. DOI: 10.1094/PHYTO-04-24-0142-R.
76. Moilanen, T., K. Visuri, J. Lehtinen, I. Ortega-Sanz, **J.L. Steenwyk**, & S. Sihvonen (2025). Solu: a cloud platform for real-time genomic pathogen surveillance. **BMC Bioinformatics**. DOI: 10.1186/s12859-024-06005-z.
75. **Steenwyk, J.L.**, S. Knowles, R.W. Bastos, **C. Balamurugan**, D. Rinker, M.E. Mead, C.D. Roberts, H.A. Raja, Y. Li, A.C. Colabardini, P.A. de Castro, T.F. dos Reis, D. Canóvas, R.L. Sanchez, K. Lagrou, E. Torrado, F. Rodrigues, N.H. Oberlies, X. Zhou, G.H. Goldman[^], & A. Rokas[^] (2024). [^]Corresponding authors. Evolutionary origin and population diversity of a cryptic hybrid pathogen. **Nature Communications**. DOI: 10.1038/s41467-024-52639-1.

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