



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

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**Since 2024** Scientific Consultant, FutureHouse Inc., San Francisco, CA

**Since 2024** Bioinformatics Visiting Scholar, MantleBio 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

**2022 – 2023** Scientific Consultant, LatchBio Inc., San Francisco, CA

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

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### Primary Research

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<sup>^</sup>, & A. Rokas<sup>^</sup> (2024). <sup>^</sup>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.**, **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
3. **Steenwyk, J.L.**<sup>^</sup>, T.J. Buida III, A.L. LaBella, Y. Li, X.-X. Shen, & A. Rokas<sup>^</sup> (2021). PhyKIT: a UNIX shell toolkit for processing and analyzing phylogenomic data. <sup>^</sup>Corresponding authors. **Bioinformatics**. DOI: 10.1093/bioinformatics/btab096
4. **Steenwyk, J.L.**<sup>^</sup>, T.J. Buida III, Y. Li, X.-X. Shen, & A. Rokas<sup>^</sup> (2020). ClipKIT: a multiple sequence alignment-trimming software for accurate phylogenomic inference. <sup>^</sup>Corresponding authors. **PLOS Biology**. DOI: 10.1371/journal.pbio.3001007
5. **Steenwyk, J.L.**<sup>\*</sup>, A.L. Lind<sup>\*</sup>, L.N.A. Ries, T.F. dos Reis, L.P. Silva, F. Almeida, R.W. Bastos, T.F. de Campos Fraga da Silva, V.L.D. Bonato, A.M. Pessoni, F. Rodrigues, H.A. Raja, S.L. Knowles, N.H. Oberlies, K. Lagrou, G.H. Goldman<sup>^</sup>, A. Rokas<sup>^</sup> (2020). Pathogenic allodiploid hybrids of *Aspergillus* fungi. <sup>\*</sup>Equal contributors; <sup>^</sup>Corresponding authors. **Current Biology**. DOI: 10.1016/j.cub.2020.04.071

### Reviews and other articles

1. **Bjornson, S.**, H. Verbruggen, N. Upham<sup>^</sup>, & **J.L. Steenwyk**<sup>^</sup> (2024). <sup>^</sup>Corresponding authors. Reticulate Evolution: Detection and Utility in the Phylogenomics Era. **Molecular Phylogenetics and Evolution**. DOI: 10.1016/j.ympev.2024.108197.
2. **Steenwyk, J.L.** (2024). The discovery of a new lifespan-extending gene in insects. **Crop**

**Health.** DOI: 10.1007/s44297-024-00032-1.

3. **Steenwyk, J.L.** & N. King (2024). The Promise and Pitfalls of Synteny in Phylogenomics. **PLOS Biology.** DOI: 10.1371/journal.pbio.3002632.
4. **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
5. **Steenwyk, J.L.**<sup>^</sup>, A. Rokas, & G.H. Goldman (2023). <sup>^</sup>Corresponding author. Know the enemy and know yourself: addressing cryptic fungal pathogens and beyond. **PLOS Pathogens.** DOI: 10.1371/journal.ppat.1011704

## AWARDS

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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

<b>2019</b>	Ford Foundation Predoctoral Fellowship, Ford Foundation
<b>2019</b>	Graduate student travel grant, Vanderbilt University
<b>2019</b>	Curb Center Fellow, ArtLab, Vanderbilt University
<b>2018</b>	<i>GENETICS</i> Peer Review Training Program, Genetics Society of America
<b>2018</b>	Best poster award, Cellular and Molecular Fungal Biology, Gordon Research Seminar
<b>2018</b>	Best poster award, Cellular and Molecular Fungal Biology, Gordon Research Conference
<b>2018</b>	Best poster award, Department of Biological Sciences, Vanderbilt University
<b>2018</b>	T-shirt design contest winner, Department of Biological Sciences, Vanderbilt University
<b>2017</b>	Graduate student travel grant, Vanderbilt University
<b>2016</b>	Graduate student council travel awards, Clark University
<b>2015</b>	Summa cum laude, Clark University
<b>2014</b>	Bridging the gaps scholar, University of Southern California Keck School of Medicine
<b>2013</b>	Global environmental microbiology scholar, Center for Dark Energy Biosphere Investigations, University of Southern California
<b>2011</b>	Jonas Clark Scholar, Clark University

## FUNDING

<b>Life Sciences Research Foundation</b>	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.
<b>Howard Hughes Medical Institute</b>	Principal investigator, 09/22, The evolution of pathways responsible for genome integrity in early animals and close relatives, Hanna H. Gray Finalist, \$10,000
<b>Howard Hughes Medical Institute</b>	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
<b>National Institutes of Health</b>	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)
<b>Ford Foundation Predoctoral Fellow</b>	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)
<b>Curb Center ArtLab Fellow</b>	Principal investigator, 12/18-04/19, Bridging the gap between artist and scientist, ArtLab, Vanderbilt University, \$300

## SOFTWARE

- 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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<b>2025</b>	DNA Sequences as Type, Westerdijk Fungal Biodiversity Institute
<b>2025</b>	Department of Microbiology and Immunology, The University of California, San Francisco
<b>2024</b>	Bioinformatics Group, Utrecht University, Netherlands
<b>2024</b>	Bioinformatics Group, Wageningen University, Netherlands
<b>2024</b>	Evolutionary Rate Covariation and Related Methods Workshop, Oregon State University and Colorado State University
<b>2024</b>	Biochemistry, Molecular, and Structural Biology Graduate Program, The University of California, Los Angeles
<b>2024</b>	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
<b>2024</b>	Postdoc Research Showcase, Molecular and Cell Biology Department, University of California, Berkeley
<b>2024</b>	Trailblazers of Tomorrow National Postdoctoral Symposium, The University of Texas at Austin
<b>2024</b>	Englund Emerging Scholar Symposium, Department of Biological Chemistry, Johns Hopkins Medicine
<b>2024</b>	32 <sup>st</sup> Fungal Genetics Conference at Asilomar, Pacific Grove, CA
<b>2023</b>	Seminar, Stowers Institute
<b>2023</b>	Innovative Genomics Institute and the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley
<b>2023</b>	CanFunNet, Acadia University

**2023** Lightning 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<sup>st</sup> 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<sup>th</sup> 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

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**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

<b>2019</b>	Research in Progress Seminar, Vanderbilt University, Nashville, TN
<b>2019</b>	Biological Sciences Annual Retreat, Vanderbilt University, Nashville, TN
<b>2019</b>	Science club at the library, Nashville Public Library, Nashville, TN
<b>2018</b>	Nashville Science Club, Jackalope Brewing Company, Nashville, TN
<b>2017</b>	Mycological Society of America, University of Georgia, Athens, GA
<b>2016</b>	Mycological Society of America, University of California Berkeley, Berkeley, CA
<b>2016</b>	Graduate Student Multidisciplinary Conference, Clark University, Worcester, MA

## TRAINEE ADVISING

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### Graduate Students

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

### Undergraduates

**2024-Pres.** Veronica L Uy, University of California, Berkeley

**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

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**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

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<b>2025</b>	Lecturer, Bioinformatics and Complex Networks, Antigua, Guatemala
<b>2024</b>	Instructor, Methods for Biological Data Workshop, University of Wisconsin-Madison
<b>2024</b>	Instructor, Phylogenomics and Population Genomics: Inference and Applications, University of Barcelona, Barcelona, Spain
<b>2024</b>	Lead instructor, Workshop on Phylogenomics, Evolution and Genomics, Český Krumlov, Czech Republic
<b>2019</b>	Organizer and instructor, Values-based leadership, Vanderbilt University, Nashville, TN
<b>2019</b>	Founder and instructor, 'A beginner's guide to making figures in R,' Vanderbilt University, Nashville, TN
<b>2019</b>	Instructor, Workshop on Phylogenomics, Evolution and Genomics, Český Krumlov, Czech Republic
<b>2019</b>	Instructor, Workshop on Genomics, Evolution and Genomics, Český Krumlov, Czech Republic

## TEACHING EXPERIENCE

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<b>2020</b>	Guest lecture, Science Communication Tools and Techniques, Vanderbilt University, Nashville, TN
<b>2017-2019</b>	Teaching Assistant, Introductory Biology Lab, Vanderbilt University, Nashville, TN
<b>2016</b>	Teaching Assistant, Introduction to Biostatistics, Clark University, Worcester, MA
<b>2014-2015</b>	Teaching Assistant, Cell Biology, Clark University, Worcester, MA

## POSTER PRESENTATIONS

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<b>2024</b>	Life Sciences Research Foundation Fellows Annual Meeting, Chicago, IL
<b>2023</b>	Genome Informatics, Cold Spring Harbor Laboratory

**2023** The International Choanoflagellates & Friends Workshop  
**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** 30<sup>th</sup> Fungal Genetics Conference at Asilomar, Pacific Grove, CA  
**2019** Asperfest pre-meeting at 30<sup>th</sup> 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

**2024-Pres.** Member, Conferences Committee, Genetics Society of America  
**2024-Pres.** Co-chair, Postdocs Research Showcase, Molecular and Cell Biology, University of California, Berkeley  
**2023-Pres.** Mentor, Alumni Mentorship Program Early Career Mentorship Program, Genetics Society of America  
**2023-Pres.** Project Partner, Data Science Discovery Program, University of California, Berkeley  
**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>  
**2023-2024** 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, 30<sup>th</sup> 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**

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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

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*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

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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

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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.)

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### Preprints/Submitted

11. **Steenwyk, J.L.**^ & N. King^ (2025). ^Corresponding authors. Integrative phylogenomics positions sponges at the root of the animal tree. **Submitted.**
10. **Steenwyk, J.L.**^ & T.J. Buida III (2025). ^Corresponding author. ClipKIT in the Browser: Fast Online Trimming of Multiple Sequence Alignments for Phylogenetics. **Preprints.** DOI: 10.20944/preprints202502.0279.
9. **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.

8. **Steenwyk, J.L.**<sup>^</sup> & T.J. Buida III (2024). <sup>^</sup>Corresponding author. RCVT: a novel diagnostic to quantify compositional biases among taxa for phylogenomics. **bioRxiv**. DOI: 10.1101/2024.11.28.625917.
7. Ros-Rocher, N., J. Reyes-Rivera, U. Horo, C. Combredet, Y. Foroughijabbari, 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**.
6. Feng, B.<sup>\*</sup>, Y. Li<sup>\*</sup>, H. Liu<sup>\*</sup>, **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<sup>^</sup>, X. Zhou<sup>^</sup>, & Y. Li<sup>^</sup> (2024). <sup>\*</sup>Equal contributors; <sup>^</sup>Corresponding authors. Unique trajectory of gene family evolution from genomic analysis of nearly all known species in an ancient yeast lineage. **bioRxiv**. DOI: 10.1101/2024.06.05.597512.
5. O. Lemke<sup>\*</sup>, B.M. Heineike<sup>\*</sup>, 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). <sup>\*</sup>Equal contributors. The Role of Metabolism in Shaping Enzyme Structures Over 400 Million Years of Evolution. **bioRxiv**. DOI: 10.1101/2024.05.27.596037
4. 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. **bioRxiv**. DOI: 10.1101/2024.03.21.586190.
3. Turnbull, R.<sup>\*</sup>, **J.L. Steenwyk**<sup>\*</sup>, S. Mutch, P. Scholten, V.W. Salazar, J.L. Birch, & H. Verbruggen (2023). <sup>\*</sup>Equal contributors. Orthoflow: phylogenomic analysis and diagnostics with one command. **Research Square**. DOI: 10.21203/rs.3.rs-3699210/v1
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