



Berkeley Science Fellow & Howard Hughes Medical  
Institute Awardee of the Life Sciences Research  
Foundation. Howard Hughes Medical Institute and  
University of California, Berkeley.  
jsteenwyk@berkeley.edu  
www.jlsteenwyk.com

# Jacob L. Steenwyk

## PROFESSIONAL POSITIONS

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**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

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

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1. **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
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

## AWARDS

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|-------------|---|
| <b>2023</b> | Englund Emerging Scholar Award, Department of Biological Chemistry, John Hopkins Medicine                   |
| <b>2023</b> | JXTX + CSHL Genome Informatics Scholarship, Biology of Genomes, Cold Spring Harbor Laboratory               |
| <b>2023</b> | Honorable mention, Next Generation Faculty Symposium, Stanford.Berkeley.UCSF                                |
| <b>2023</b> | Howard Hughes Medical Institute Awardee, Life Sciences Research Foundation                                  |
| <b>2022</b> | Fifty 50 Community Fellow, Fifty Years Industries, LLC  |
| <b>2022</b> | Berkeley Science Fellow, Berkeley Postdoctoral Entrepreneurship Program, University of California, Berkeley |
| <b>2022</b> | Graduate Student Excellence Award Finalist, Society for Molecular Biology and Evolution                     |
| <b>2022</b> | Hanna H. Gray Fellows Finalist, Howard Hughes Medical Institute   |
| <b>2022</b> | Edward Ferguson Jr. Graduate Award, Graduate School, Vanderbilt University                                  |

<b>2022</b>	James F. Crow Early Career Researcher Award Finalist, Genetics Society of America
<b>2022</b>	Harold M. Weintraub Graduate Student Award, Fred Hutchinson Cancer Research Center
<b>2021</b>	Sandler Fellows Finalist, University of California, San Francisco
<b>2021</b>	Honorable mention, Next Generation Faculty Symposium, Stanford.Berkeley.UCSF
<b>2021</b>	Presentation award, Canadian Fungal Research Network and Great Lakes Mycology Conference
<b>2021</b>	Graduate Research Excellence Award in Biological Sciences, Vanderbilt University
<b>2021</b>	Smriti Bardhan Scholarship, Vanderbilt University
<b>2021</b>	Registration award, Science Talk '21
<b>2020</b>	Favorite Artist Award, Catalyst: A Virtual Sci-Art Exhibition
<b>2020</b>	Oral presentation award, SACNAS – The National Diversity in STEM Virtual Conference
<b>2020</b>	Registration scholarship, SACNAS – The National Diversity in STEM Virtual Conference
<b>2020</b>	Best Talk Honorable Mention, Canadian Fungal Research Network Meeting
<b>2020</b>	Trainee-of-the-Year, Vanderbilt Institute for Infection, Immunology and Inflammation
<b>2019</b>	Gilliam Predoctoral Fellowship, Howard Hughes Medical Institute
<b>2019</b>	Ann Bernard Martin Award for Excellence in Graduate Research, Vanderbilt University
<b>2019</b>	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

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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) OrthoSNAP: a tree splitting and pruning algorithm for retrieving single-copy orthologs from gene family trees. [Publication PDF](#); [Documentation](#); [Source code](#)
- 5) orthofisher: a broadly applicable tool for automated gene identification and retrieval. [Publication PDF](#); [Documentation](#); [Source code](#)
- 6) LVBRs: a cloud-based suite of workflows for bulk RNA-seq quality control, analysis, and functional enrichment. [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](#)

## INVITED TALKS

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<b>2024</b>	Department of Biological Chemistry, John 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
<b>2023</b>	Lightening Talk, Southern California Systems Biology Conference, University of Southern California
<b>2023</b>	Departmental Seminar, Plant Pathology and Environmental Microbiology, The Pennsylvania State University
<b>2022</b>	Biology Department, Loras College
<b>2022</b>	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  
**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

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## **TRAINEE ADVISING**

### **Graduate Students**

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

### **Undergraduates**

**2022-Pres.** Charu Balamurugan (co-advised with Antonis Rokas at Vanderbilt University)

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

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

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## **COMPANY ADVISING**

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

**2022-2023** Scientific Advisor, WittGen Biotechnologies, CA

**2022-2023** Scientific Consultant, Latch AI Inc., San Francisco, CA

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

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## **WORKSHOP TEACHING**

**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

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## **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

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## **POSTER PRESENTATIONS**

**2023** 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

**2023-Pres.** Founder, Genomely Internship in Genome Sciences Program, Genomely  
**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.** Executive Board Member, Berkeley Postdoctoral Entrepreneurship Program, University of California, Berkeley  
**2023-Pres.** Chair, TAGC Undergraduate Travel Award Subcommittee, Genetics Society of America  
**2023-Pres.** Representative for Early Career Scientists, Allied Program Committee, The Allied Genetics Conference 2024, 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>  
**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; 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

<b>2020</b>	Fire-Exhibition, Kefi Collective at Vanderbilt University, Nashville, TN
<b>2019</b>	Biomedical Sciences Winter Show, Vanderbilt University, Nashville, TN
<b>2019</b>	Focal point, ArtLab, Vanderbilt University, Nashville, TN
<b>2019</b>	Connecting the Dots, ArtLab, Vanderbilt University, Nashville, TN
<b>2018</b>	ArtLab opening reception, ArtLab, Vanderbilt University, Nashville, TN
<b>2018</b>	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

15. Brown, A., **J.L. Steenwyk**, & A. Rokas (2024). Genome-wide patterns of non-coding sequence variation in the major fungal pathogen *Aspergillus fumigatus*. *Submitted*.
14. 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
13. Haase, M.A.B.^, **J.L. Steenwyk**, & J.D. Boeke (2023). ^Corresponding author. Gene loss and cis-regulatory novelty shaped core histone gene evolution in the apiculate yeast *Hanseniaspora uvarum*. DOI: 10.1101/2023.08.28.551515.
12. Goncalves, C., M.-C. Harrison, **J.L. Steenwyk**, D.A. Opulente, A.L. LaBella, J.F. Wolters, X. Zhou, X.-X. Shen, M. Groenewald, C.T. Hittinger, & A. Rokas (2023). Diverse signatures of convergent evolution in cacti-associated yeasts. *bioRxiv*. DOI: 10.1101/2023.09.14.557833.
11. **Bjornson, S.**, N. Upham, H. Verbruggen, & **J.L. Steenwyk** (2023). Methods for phylogenomic inference, divergence-time calibration, and characterizing reticulate evolution. Preprint. DOI: 10.20944/preprints202309.0905.v1.
10. **Steenwyk, J.L.** & N. King (2023). From Genes to Genomes: Opportunities and Challenges for Synteny-based Phylogenomics. Preprints. DOI: 10.20944/preprints202309.0495.v1.
9. Liu, H.\*, **J.L. Steenwyk**\*, X. Zhou, D.T. Schultz, K.M. Kocot, X.-X. Shen, A. Rokas^, & Y. Li^ (2023). \*Equal contributors; ^Corresponding authors. A genome-scale Opisthokonta tree of life: toward phylogenomic resolution of ancient divergences. *bioRxiv*. DOI:



10.1101/2023.09.20.556338

8. G.H. Goldman<sup>^</sup>, Valero, C.\*<sup>\*</sup>, Pinzan, C.F.\*<sup>\*</sup>, P.A. de Castro, N. van Rhijn, K. Earle, H. Liu, M.A.C. Horta, O. Kniemeyer, T. Krüger, A. Pschibul, A.A. Brakhage, **J.L. Steenwyk**, M.E. Mead, A. Rokas, S.G. Filler, H. Cabral, E. Deljabe, M.J. Bromley, G. Palmisano, A.S. Ibrahim, S. Gago<sup>^</sup>, & T.F. dos Reis<sup>^</sup> (2023). \*Equal contributors; <sup>^</sup>Corresponding authors. A phylogenetic approach to explore the *Aspergillus fumigatus* conidial surface-associated proteome and its role in pathogenesis. bioRxiv. DOI: 10.1101/2023.08.22.553365v1
7. O'Meara, M.<sup>^</sup>, J. Rapala, C.B. Nichols, C. Alexandre, B. Billmyre, **J.L. Steenwyk**, J.A. Alspaugh, & T. O'Meara<sup>^</sup> (2023). <sup>^</sup>Corresponding authors. CryptoCEN: A Co-Expression Network for *Cryptococcus neoformans* reveals novel proteins involved in DNA damage repair. bioRxiv. DOI: 10.1101/2023.08.17.553567.
6. **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> (2023). <sup>^</sup>Corresponding authors. Evolutionary origin, population diversity, and diagnostics for a cryptic hybrid pathogen. bioRxiv. DOI: 10.1101/2023.07.03.547508.
5. Opulente, D.A.\*<sup>\*</sup>, A.L. LaBella\*<sup>\*</sup>, M.-C. Harrison<sup>#</sup>, J.F. Wolters<sup>#</sup>, C. Liu, Y. Li, J. Kominek, **J.L. Steenwyk**, H.R. Stoneman, J. VanDenAvond, C.R. Miller, Q.K. Langdon, M. Silva, C. Goncalves, E.J. Ubbelohde, Y. Li, K.V. Buh, M. Jarzyna, M.A.B. Haase, C.A. Rosa, N. Cadez, D. Libkind, J.H. DeVirgilio, A.B. Hulfachor, C.P. Kurtzman, J.P. Sampaio, P. Goncalves, X. Zhou, X.-X. Shen, M. Groenewald, A. Rokas<sup>^</sup>, & C.T. Hittinger<sup>^</sup> (2023). \*Equal co-first authors; <sup>#</sup>Equal co-second authors; <sup>^</sup>Corresponding authors. Genomic and ecological factors shaping specialism and generalism across an entire subphylum. bioRxiv. DOI: 10.1101/2023.06.19.545611.
4. **Balamurugan, C.**, **J.L. Steenwyk**<sup>^</sup>, G.H. Goldman, & A. Rokas<sup>^</sup> (2023). <sup>^</sup>Corresponding authors. The evolution of the gliotoxin biosynthetic gene cluster in *Penicillium* fungi. bioRxiv. DOI: 10.1101/2023.01.17.524442.
3. **Steenwyk, J.L.**, **C. Balamurugan**, H.A. Raja, C. Goncalves, N. Li, F. Martin, J. Berman, N.H. Oberlies, J.G. Gibbons, G.H. Goldman, D.M. Geiser, D.S. Hibbett, & A. Rokas (2022). Phylogenomics reveals extensive misidentification of fungal strains from the genus *Aspergillus*. bioRxiv. DOI: 10.1101/2022.11.22.517304
2. Le, H.G.B.H.<sup>^\*</sup>, **J.L. Steenwyk**<sup>\*</sup>, N. Manske, M. Smolin, A. Abdulali, A. Kamat, R. Kanchana, K. Giffin, A. Andere, & K. Workman<sup>^</sup> (2022). \*Equal contributors; <sup>^</sup>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
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