



# Jacob L. Steenwyk

Howard Hughes Medical Institute  
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<http://jlsteenwyk.com/>

## EDUCATION

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<b>Present</b>	Ph.D. Candidate, Biological Sciences Advisor: Antonis Rokas GPA: 3.97	<b>Vanderbilt University</b>
<b>2016</b>	M.S. Biochemistry and Molecular Biology Advisor: John G. Gibbons GPA: 3.98	<b>Clark University</b>
<b>2015</b>	B.A. Biochemistry and Molecular Biology Advisor: Denis Larochelle Cumulative GPA: 3.84 Science GPA: 3.84	<b>Clark University</b>

## AWARDS

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<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>	Summer research scholar, Bridging the gaps, 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

## RESEARCH INTERESTS

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- Evolution of technologically and medically significant fungi
- Evolution and function of DNA repair
- Genome evolution and phylogenomics

## HIGHLIGHTED PUBLICATIONS (see end of CV for all publications)

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Steenwyk, J.L., *et al.* (2020). ClipKIT: a multiple sequence alignment-trimming software for accurate phylogenomic inference. (^Senior authors). *PLoS Biology*. doi: 10.1371/journal.pbio.3001007.

Steenwyk, J.L.\*, A.L. Lind\*, *et al.* (2020). Pathogenic allodiploid hybrids of *Aspergillus* fungi. (\*Equal contributors). *Current Biology*. doi: 10.1016/j.cub.2020.04.071

Steenwyk, J.L., *et al.* (2020). Biosynthetic gene clusters, secondary metabolite profiles, and cards of virulence in the closest nonpathogenic relatives of *Aspergillus fumigatus*. *Genetics*. doi: 10.1534/genetics.120.303549.

Steenwyk, J.L., *et al.* (2019). Extensive loss of cell cycle and DNA repair genes in an ancient lineage of bipolar budding yeasts. *PLoS Biology*. doi: 10.1371/journal.pbio.3000255

Steenwyk, J.L., *et al.* (2019). A robust phylogenomic timetree for biotechnologically and medically important fungi in the genera *Aspergillus* and *Penicillium*. *mBio*. doi: 10.1128/mBio.00925-19

Shen, X.-X.\*, D.A. Opulente\*, J. Kominek\*, X. Zhou\*, J.L. Steenwyk, *et al.* (2018). Tempo and mode of genome evolution in the budding yeast subphylum. (\*Equal contributors). *Cell*. doi: 10.1016/j.cell.2018.10.023

## SOCIETIES

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

## FUNDING

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<b>Howard Hughes Medical Institute</b>	Principal co-investigator (shared with Antonis Rokas), 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

## INVITED TALKS

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<b>2020</b>	Evan Eichler Lab seminar, University of Washington, Seattle
<b>2020</b>	Genetics Society of America, Early Career Scientist Seminar Series
<b>2020</b>	Nicole King Lab seminar, University of California Berkeley
<b>2020</b>	The National Diversity in STEM Conference, SACNAS
<b>2020</b>	Canadian Fungal Research Network Meeting
<b>2020</b>	Trainee-of-the-year talk, Vanderbilt Institute for Infection, Immunology and Inflammation
<b>2020</b>	Day of Wond'ry, Vanderbilt University, Nashville, TN
<b>2019</b>	Genetics Society of America, Early Career Scientist Seminar Series
<b>2019</b>	Gordon Research Conference, Molecular Mechanisms in Evolution, Easton, MA

<b>2019</b>	Gordon Research Seminar, Molecular Mechanisms in Evolution, Easton, MA (declined)
<b>2019</b>	Focal Point, ArtLab, Vanderbilt University, Nashville, TN
<b>2019</b>	30 <sup>th</sup> Fungal Genetics Conference at Asilomar, Pacific Grove, CA
<b>2019</b>	Phylogenomics and Evolution Group, North Carolina State University, Raleigh, NC
<b>2018</b>	ArtLab Seminar Series, Vanderbilt University, Nashville, TN
<b>2015</b>	TedXClarkUniversity, Clark University, Worcester, MA

## CONTRIBUTED TALKS

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<b>2020</b>	Evolution Seminar Series, Vanderbilt University
<b>2019</b>	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

## UNDERGRADUATE ADVISING

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<b>2019-Pres.</b>	Olivia Zheng
<b>2018-Pres.</b>	Megan A. Phillips
<b>2018-2019</b>	Benjamin Buckman
<b>2018</b>	Devin G. Arrants

## WORKSHOP TEACHING

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<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>2020</b>	HHMI Gilliam Fellows Meeting, Howard Hughes Medical Institute
<b>2020</b>	Vanderbilt Institute for Infection, Immunology and Inflammation Annual Symposium, Virtual Conference
<b>2020</b>	The Allied Genetics Conference, Virtual Conference
<b>2019</b>	HHMI Investigators Science Meeting, Howard Hughes Medical Institute, Bethesda, MD
<b>2019</b>	Gilliam Fellows Annual Meeting, Howard Hughes Medical Institute, Bethesda, MD
<b>2019</b>	Molecular Mechanisms in Evolution, Gordon Research Conference, Easton, MA
<b>2019</b>	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

## RESEARCH EXPERIENCE

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**2016-Pres.** Antonis Rokas Lab at Vanderbilt University, Nashville, TN. Doctoral Research. Evolution of medically and technologically significant fungi.  
**2015-2016** John Gibbons Lab at Clark University, Worcester, MA. Undergraduate and Master's Research. Copy number variation in the human pathogen, *Cryptococcus gattii*.  
**2015-2016** Robert Drewell Lab at Clark University, Worcester, MA. Undergraduate and Master's Research. Genome-wide methylation patterns in the social amoeba, *Dictyostelium discoideum*.  
**2014** Ite A. Laird-Offringa Lab at University of Southern California, Los Angeles, CA. Bridging the Gaps Summer Scholar. Mapping the autoimmune triggering epitope of *ELAVL4* in small cell lung cancer.  
**2013** John Heidelberg and Eric Webb Labs at University of Southern California, Los Angeles, CA. Global Environmental Microbiology Summer Scholar. Fresh and marine water microbial diversity.

## SERVICE

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**2021-Pres.** Member, Communication and Outreach Subcommittee, Genetics Society of America  
**2020-Pres.** Founder and Chief Officer, SciArt with Purpose, <https://jlsteenwyk.com/sciart.html>  
**2019-Pres.** Inclusion Coordinator, The Evolutionary Studies Initiative at Vanderbilt, Vanderbilt University, Nashville, TN  
**2019-Pres.** Graphic Illustrator, The Evolutionary Studies Initiative at Vanderbilt, Vanderbilt University, Nashville, TN  
**2018-Pres.** Volunteer Deputy, American Society of Microbiology Vanderbilt University Chapter, Nashville, TN  
**2017-Pres.** Educational outreach booth design and execution, MEGAMicrobe, Nashville, TN  
**2017-Pres.** Communications chair, Inclusivity in Biosciences Association, Vanderbilt University, Nashville, TN  
**2017-Pres.** Member of the Dean of Graduate Student's survey quantitative analysis subgroup, Graduate Diversity and Inclusion Committee, Vanderbilt University, Nashville, TN  
**2017-Pres.** Judge, Middle Tennessee Science and Engineering Fair, Belmont University, Nashville, TN  
**2019-2021** Co-chair, Communication and Outreach Subcommittee, Genetics Society of America  
**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
- 2017-2018** Scientific consultant, Little Harpeth Brewing, Nashville, TN
- 2017** Vanderbilt Student Volunteers for Science, Volunteer Science Teacher, West End Middle School, Nashville, TN
- 2014-2015** Undergraduate 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

## ART SHOWS

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- 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

## MANUSCRIPT REVIEWER

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*Systematic Biology; Genome Biology and Evolution; BMC Genomics; Nature Communications Biology; Genetics; G3: Genes | Genomes | Genetics; PLoS One; Molecular Genetics and Genomics; Young Scientists Journal; Scholarly Undergraduate Research Journal*

## POPULAR SCIENCE ARTICLES

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- (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

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### Preprints

- (5) **Steenwyk, J.L.**, M.E. Mead, P.A. Castro, C. Valero, A. Damasio, R.A.C. Santos, A.L. LaBella, Y. Li, S.L. Knowles, H.A. Raja, N.H. Oberlies, X. Zhou, O.A. Cornely, F. Fuchs, P. Koehler<sup>^</sup>, G.H. Goldman<sup>^</sup>, A. Rokas<sup>^</sup> (2020). Genomic and phenotypic analysis of

COVID-19-associated pulmonary aspergillosis isolates of *Aspergillus fumigatus*. (^Senior authors). bioRxiv. doi: 10.1101/2020.11.06.371971.

- (4) **Steenwyk, J.L.**^, T.J. Buida III, A.L. LaBella, Y. Li, X.-X. Shen, & A. Rokas^ (2020). PhyKIT: a UNIX shell toolkit for processing and analyzing phylogenomic data. (^Senior authors). bioRxiv. doi: 10.1101/2020.10.27.358143.
- (3) Li, Y., **J.L. Steenwyk**, Y. Chang, Y. Wang, T.Y. James, J.E. Stajich, J.W. Spatafora, M. Groenewald, C. Dunn, C.T. Hittinger, X.-X. Shen, A. Rokas (2020). A genome-scale phylogeny of Fungi; insights into early evolution, radiations, and the relationship between taxonomy and phylogeny. bioRxiv. doi: 10.1101/2020.08.23.262857v1.
- (2) LaBella, A.L., D. Ofulente, **J.L. Steenwyk**, C.T. Hittinger, & A. Rokas (2020). Signatures of optimal codon usage predict metabolic ecology in budding yeasts. bioRxiv. doi: 10.1101/2020.07.22.214635.
- (1) **Steenwyk, J.**, J. St. Denis, J. Dresch, D. Larochelle, & R. Drewell (2017). Whole genome bisulfite sequencing reveals a sparse, but robust pattern of DNA methylation in the *Dictyostelium discoideum* genome. bioRxiv. doi: 10.1101/166033.

### Peer Review Published

- (31) **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. (^Senior authors). PLoS Biology. doi: 10.1371/journal.pbio.3001007.
- (30) Li, Y., K.T. David, X.-X. Shen, **J.L. Steenwyk**, K.M. Halanych, & A. Rokas (2020). Feature Frequency Profile-based phylogenies are inaccurate. PNAS. doi: 10.1073/pnas.2013143117
- (29) Shen, X.-X.^, **J.L. Steenwyk**, A.L. LaBella, D.A. Ofulente, X. Zhou, J. Kominek, Y. Li, M. Groenewald, C.T. Hittinger, & A. Rokas^ (2020). Genome-scale phylogeny and contrasting modes of genome evolution in the fungal phylum Ascomycota. (^Senior authors). Science Advances. doi: 10.1126/sciadv.abd0079.
- (28) Santos, R.A.C., O. Rivero-Menendez, **J.L. Steenwyk**, M.E. Mead, G.H. Goldman^, A. Alastruey-Izquierdo, & A. Rokas^ (2020). Draft genome sequences of four *Aspergillus* section *Fumigati* clinical strains. (^Senior authors) Microbiology Resource Announcements. doi: 10.1128/MRA.00856-20.
- (27) Filho, A.P.C., G.T.P. Brancini, P.A. de Castro, J.A. Ferreira, L.P. Silva, M.C. Rocha, I. Malavazi, J.G.M. Pontes, T. Fill, R. Silva, F. Almeida, **J.L. Steenwyk**, A. Rokas, T.F. dos Reis, L.N.A. Ries, & G.H. Goldman (2020). *Aspergillus fumigatus* G-protein coupled receptors GprM and GprJ are important for the regulation of the cell wall integrity pathway, secondary metabolite production, and virulence. mBio: *in press*.
- (26) **Steenwyk, J.L.** (2020). A portrait of budding yeasts: A symbol of the arts, sciences and a whole greater than the sum of its parts. Yeast. doi: 10.1002/yea.3518.
- (25) **Steenwyk, J.L.**, M.E. Mead\*, S.L. Knowles\*, H.A. Raja, C.D. Roberts, O. Bader, J. houbroken, G.H. Goldman, N.H. Oberlies, & A. Rokas (2020). Biosynthetic gene clusters, secondary metabolite profiles, and cards of virulence in the closest nonpathogenic relatives of *Aspergillus fumigatus*. (\*Equal contributors). Genetics. doi: 10.1534/genetics.120.303549.
- (24) Ries, L.N.A., L. Pardeshi, Z. Dong, K. Tan, **J.L. Steenwyk**, A.C. Colabardini, J.A.F. Filho, P.A. de Castro, L.P. Silva, N.W. Preite, F. Almeida, L.J. de Assis, R.A.C. dos Santos, P. Bowyer, M. Bromley, R.A. Owens, S. Doyle, M. Demasi, D.C.R. Hernández, L.E.S. Netto,

- M.T. Pupo, A. Rokas, F.V. Loures, K.H. Wong, & G.H. Goldman (2020). The *Aspergillus fumigatus* transcription factor RglT is important for gliotoxin biosynthesis and self-protection, and virulence. PLoS Pathogens. doi: 10.1371/journal.ppat.1008645
- (23) **Steenwyk, J.L.\***, A.L. Lind\*, 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^, A. Rokas^ (2020). Pathogenic allodiploid hybrids of *Aspergillus* fungi. (\*Equal contributors; ^Senior authors). Current Biology. doi: 10.1016/j.cub.2020.04.071
- (22) Mead, M.E.\*, A.T. Borowsky\*, B. Joehnk, **J.L. Steenwyk**, X.-X. Shen, A. Sil, & A. Rokas (2020). Recurrent loss of *abaA*, a master regulator of asexual development in filamentous fungi, correlates with changes in genomic and morphological traits. (\*Equal contributors). Genome Biology and Evolution. doi: 10.1093/gbe/evaa107
- (21) Santos, R.A.C., **J.L. Steenwyk**, O. Rivero-Menendez, M.E. Mead, L.P. Silva, R.W. Bastos, A. Alastruey-Izquierdo, G.H. Goldman^, & A. Rokas^ (2020). Genomic and phenotypic heterogeneity of clinical isolates of the human pathogens *Aspergillus fumigatus*, *Aspergillus lentulus* and *Aspergillus fumigati*affinis. (^Senior contributors). Frontiers in Genetics. doi: 10.3389/fgene.2020.00459.
- (20) Bastos, R.W., C. Valero, L.P. Silva, T. Schoen, M. Drott, V. Brauer, R. Silva-Rocha, A. Lind, **J.L. Steenwyk**, A. Rokas, F. Rodrigues, A. Resendiz-Sharpe, K. Lagrou, M. Marcet-Houben, T. Gabaldon, E. McDonnell, I. Reid, A. Tsang, B.R. Oakley, F. Loures, F. Almeida, A. Huttenlocher, N.P. Keller, L. Ries, G.H. Goldman (2020). Functional characterization of clinical isolates of the opportunistic fungal pathogen *Aspergillus nidulans*. mSphere. doi: 10.1128/mSphere.00153-20.
- (19) Rokas, A., M.E. Mead, **J.L. Steenwyk**, N.H. Oberlies, & G.H. Goldman (2020). Evolving moldy murderers: *Aspergillus* section *Fumigati* as a model for studying the repeated evolution of fungal pathogenicity. PLoS Pathogens. doi: 10.1371/journal.ppat.1008315.
- (18) Knowles, S.L., M.E. Mead, L.P. Silva, H.A. Raja, **J.L. Steenwyk**, G.H. Gustavo, A. Rokas, & N.H. Oberlies (2020). Gliotoxin, a known virulence factor in the major human pathogen *Aspergillus fumigatus*, is also biosynthesized by the non-pathogenic relative *A. fischeri*. mBio. doi: 10.1128/mBio.03361-19.
- (17) Libkind, D., D. Peris, F.A. Cubillos, **J.L. Steenwyk**, D.A. Opulente, Q.K. Langdon, N. Bellora, A. Rokas, & C.T. Hittinger (2020). Into the wild: new yeast genomes from natural environments and new tools for their analysis. FEMS Yeast Research. doi: 10.1093/femsyr/foaa008.
- (16) Rokas, A., M.E. Mead, **J.L. Steenwyk**, H.A. Raja, & N.H., Oberlies (2020). Biosynthetic gene clusters and the evolution of fungal chemodiversity. Natural Product Reports. doi: 10.1039/C9NP00045C.
- (15) Bodinakku, I., J. Shaffer, A.B. Connors, **J.L. Steenwyk**, E. Kastman, A. Rokas, A. Robbat, B. Wolfe (2019). Rapid phenotypic and metabolomics domestication of wild *Penicillium* molds on cheese. mBio. doi: 10.1128/mBio.02445-19.
- (14) Mead, M.E.\*, H.A. Raja\*, **J.L. Steenwyk**, S.L. Knowles, N.H. Oberlies^, & A. Rokas^ (2019). Draft genome sequence of the griseofulvin-producing fungus *Xylaria flabelliformis* strain G536. (\*Equal contributors; ^Senior authors) Microbiology Resource Announcements. doi: 10.1128/MRA.00890-19.

- (13) **Steenwyk, J.L.** & A. Rokas (2019). treehouse: a user-friendly application to obtain subtrees from large phylogenies. BMC Research Notes. doi: 10.1186/s13104-019-4577-5
- (12) Labella, A.L., D.A. Opulente, **J.L. Steenwyk**, C.T. Hittinger, & A. Rokas (2019). Variation and selection on codon usage bias across an entire subphylum. PLoS Genetics. doi: 10.1371/journal.pgen.1008304
- (11) **Steenwyk, J.L.**, X.-X. Shen, A.L. Lind, G.H. Goldman, & A. Rokas (2019). A robust phylogenomic timetree for biotechnologically and medically important fungi in the genera *Aspergillus* and *Penicillium*. mBio. doi: 10.1128/mBio.00925-19
- (10) **Steenwyk, J.L.**, D. Opulente, J. Kominek, X.-X. Shen, X. Zhou, A.L. LaBella, N.P. Bradley, B.F. Eichman, N. Čadež, D. Libkind, J. DeVirgilio, A.B. Hulfachor, C.P. Kurtzman, C.T. Hittinger<sup>^</sup>, & A. Rokas<sup>^</sup> (2019). Extensive loss of cell cycle and DNA repair genes in an ancient lineage of bipolar budding yeasts. (<sup>^</sup>Senior authors) PLoS Biology. doi: 10.1371/journal.pbio.3000255
- (9) Ries, L.N.A., **J.L. Steenwyk**, P.A. de Castro, P.B.A. de Lima, F. Almeida, L.J. de Assis, A.O. Manfiolli, A. Takahashi-Nakaguchi, Y. Kusuya, D. Hagiwara, H. Takahashi, X. Wang, J. Obar, A. Rokas, & G.H. Goldman (2019). Nutritional heterogeneity among *Aspergillus fumigatus* strains has consequences for virulence in a strain- and host-dependent manner. Frontiers in Microbiology. doi: 10.3389/fmicb.2019.00854
- (8) Mead M.E., S.L. Knowles, H.A. Raja, S.R. Beattie, C.H. Kowalski, **J.L. Steenwyk**, L.P. Silva, J. Chiaratto, L.N.A. Ries, G.G. Goldman, R.A. Cramer, N.H. Oberlies, & A. Rokas (2019). Characterizing the pathogenic, genomic, and chemical traits of *Aspergillus fischeri*, the closest sequenced relative of the major human fungal pathogen *Aspergillus fumigatus*. mSphere. doi: 10.1128/mSphere.00018-19
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