# Jason E. Stajich

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#### Education

| 2006-2009 | Postdoctoral training, University of California, Berkeley, CA. Mentor: Dr. John W Taylor |
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| 2001-2006 | Ph.D., Genetics and Genomics, Duke University, Durham, NC. Advisor: Dr. Fred S Dietrich  |
| 1995–1999 | B.S., Computer Science, Duke University, Durham, NC                                      |

# **Academic appointments:**

| 2017-     | Professor, Dept of Microbiology & Plant Pathology. University of California Riverside.           |  |  |  |
|-----------|--|--|--|--|
| 2014–2017 | Associate Professor (with tenure), Dept of Microbiology & Plant Pathology. University of Cali-   |  |  |  |
|           | fornia Riverside.  |  |  |  |
| 2009-2014 | Assistant Professor, Dept of Plant Pathology & Microbiology. University of California Riverside. |  |  |  |
| 2006-2009 | Postdoctoral Research Fellow. Miller Institute for Basic Research.                               |  |  |  |
|           | Dept of Plant and Microbial Biology, University of California Berkeley.                          |  |  |  |

#### **Honors and Awards:**

| 2020      | Fellow, American Association for the Advancement of Science                      |  |  |  |
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| 2020      | Fellow, Mycological Society of America   |  |  |  |
| 2020      | Fellow, American Academy of Microbiology, American Society for Microbiology      |  |  |  |
| 2019-2025 | CIFAR Fellow in program 'Fungal Kingdom: Threats & Opportunities'                |  |  |  |
| 2019      | Rosie Perez Memorial Seminar, North Carolina State University                    |  |  |  |
| 2017      | Whetzel-Westcott-Dimock Special Lecturer, Cornell University                     |  |  |  |
| 2015      | Kavli Fellow, Kavli Frontiers of Science   |  |  |  |
| 2014      | C. J. Alexopoulos Prize, Mycological Society of America                          |  |  |  |
| 2006-2009 | Miller Institute for Basic Research in Science, Postdoctoral Research Fellowship |  |  |  |
| 2003-2006 | National Science Foundation, Graduate Research Fellowship                        |  |  |  |

#### **Publications:**

#### **Peer Reviewed Publications**

- 1. Baxter, R. V., Othmane, K. B., Rochelle, J. M., **Stajich**, J. E., Hulette, C., Dew-Knight, S., Hentati, F., Hamida, M. B., Bel, S., Stenger, J. E., Gilbert, J. R., Pericak-Vance, M. A., and Vance, J. M. 2002. Ganglioside-induced differentiation-associated protein-1 is mutant in Charcot-Marie-Tooth disease type 4A/8q21. *Nat Genet* 30(1):21–22. doi:10.1038/ng796.
- 2. **Stajich**, J. E., Block, D., Boulez, K., Brenner, S. E., Chervitz, S. A., Dagdigian, C., Fuellen, G., Gilbert, J. G. R., Korf, I., Lapp, H., Lehväslaiho, H., Matsalla, C., Mungall, C. J., Osborne, B. I., Pocock, M. R., Schattner, P., Senger, M., Stein, L. D., Stupka, E., Wilkinson, M. D., and Birney, E. 2002. The Bioperl toolkit: Perl modules for the life sciences. *Genome Res* 12(10):1611–1618. doi:10.1101/gr.361602.
- 3. Stein, L. D., Mungall, C., Shu, S., Caudy, M., Mangone, M., Day, A., Nickerson, E., **Stajich**, J. E., Harris, T. W., Arva, A., and Lewis, S. 2002. The generic genome browser: a building block for a model organism system database. *Genome Res* 12(10):1599–1610. doi:10.1101/gr.403602.
- 4. Hahn, M. W., **Stajich**, J. E., and Wray, G. A. 2003. The effects of selection against spurious transcription factor binding sites. *Mol Biol Evol* 20(6):901–906. doi:10.1093/molbev/msg096.

- 5. Stein, L. D., Bao, Z., Blasiar, D., Blumenthal, T., Brent, M. R., Chen, N., Chinwalla, A., Clarke, L., Clee, C., Coghlan, A., Coulson, A., D'Eustachio, P., Fitch, D. H. A., Fulton, L. A., Fulton, R. E., Griffiths-Jones, S., Harris, T. W., Hillier, L. W., Kamath, R., Kuwabara, P. E., Mardis, E. R., Marra, M. A., Miner, T. L., Minx, P., Mullikin, J. C., Plumb, R. W., Rogers, J., Schein, J. E., Sohrmann, M., Spieth, J., Stajich, J. E., Wei, C., Willey, D., Wilson, R. K., Durbin, R., and Waterston, R. H. 2003. The genome sequence of *Caenorhabditis briggsae*: a platform for comparative genomics. *PLoS Biol* 1(2):E45. doi:10.1371/journal.pbio.0000045.
- 6. Kraus, P. R., Boily, M.-J., Giles, S. S., **Stajich**, J. E., Allen, A., Cox, G. M., Dietrich, F. S., Perfect, J. R., and Heitman, J. 2004. Identification of *Cryptococcus neoformans* temperature-regulated genes with a genomic-DNA microarray. *Eukaryot Cell* 3(5):1249–1260. doi:10.1128/EC.3.5.1249-1260. 2004.
- 7. Fraser, J. A., Giles, S. S., Wenink, E. C., Geunes-Boyer, S. G., Wright, J. R., Diezmann, S., Allen, A., **Stajich**, J. E., Dietrich, F. S., Perfect, J. R., and Heitman, J. 2005. Same-sex mating and the origin of the Vancouver Island *Cryptococcus gattii* outbreak. *Nature* 437(7063):1360–1364. doi: 10.1038/nature04220.
- 8. Hahn, M. W., Bie, T. D., **Stajich**, J. E., Nguyen, C., and Cristianini, N. 2005. Estimating the tempo and mode of gene family evolution from comparative genomic data. *Genome Res* 15(8):1153–1160. doi:10.1101/gr.3567505.
- 9. Leman, S. C., Chen, Y., **Stajich**, J. E., Noor, M. A. F., and Uyenoyama, M. K. 2005. Likelihoods from summary statistics: recent divergence between species. *Genetics* 171(3):1419–1436. doi: 10.1534/genetics.104.040402.
- 10. Mitreva, M., McCarter, J. P., Arasu, P., Hawdon, J., Martin, J., Dante, M., Wylie, T., Xu, J., **Sta-jich**, J. E., Kapulkin, W., Clifton, S. W., Waterston, R. H., and Wilson, R. K. 2005. Investigating hookworm genomes by comparative analysis of two *Ancylostoma* species. *BMC Genomics* 6(1):58. doi:10.1186/1471-2164-6-58.
- 11. **Stajich**, J. E. and Hahn, M. W. 2005. Disentangling the effects of demography and selection in human history. *Mol Biol Evol* 22(1):63–73. doi:10.1093/molbev/msh252.
- 12. Hesselberth, J. R., Miller, J. P., Golob, A., **Stajich**, J. E., Michaud, G. A., and Fields, S. 2006. Comparative analysis of *Saccharomyces cerevisiae* WW domains and their interacting proteins. *Genome Biol* 7(4):R30. doi:10.1186/gb-2006-7-4-r30.
- 13. Cramer, R. A., **Stajich**, J. E., Yamanaka, Y., Dietrich, F. S., Steinbach, W. J., and Perfect, J. R. 2006. Phylogenomic analysis of non-ribosomal peptide synthetases in the genus *Aspergillus*. *Gene* 383:24–32. doi:10.1016/j.gene.2006.07.008.
- 14. Giles, S. S., **Stajich**, J. E., Nichols, C., Gerrald, Q. D., Alspaugh, J. A., Dietrich, F., and Perfect, J. R. 2006. The *Cryptococcus neoformans* catalase gene family and its role in antioxidant defense. *Eukaryot Cell* 5(9):1447–1459. doi:10.1128/EC.00098-06.
- 15. **Stajich**, J. E. and Dietrich, F. S. 2006. Evidence of mRNA-mediated intron loss in the human-pathogenic fungus *Cryptococcus neoformans*. *Euk Cell* 5(5):789–793. doi:10.1128/EC.5.5.789-793. 2006.
- 16. Kämper, J., Kahmann, R., Bölker, M., Ma, L.-J., Brefort, T., Saville, B. J., Banuett, F., Kronstad, J. W., Gold, S. E., Müller, O., Perlin, M. H., Wösten, H. A. B., de Vries, R., Ruiz-Herrera, J., na, C. G. R.-P., Snetselaar, K., McCann, M., Pérez-Martín, J., Feldbrügge, M., Basse, C. W., Steinberg, G., Ibeas, J. I., Holloman, W., Guzman, P., Farman, M., Stajich, J. E., Sentandreu, R., González-Prieto, J. M., Kennell, J. C., Molina, L., Schirawski, J., Mendoza-Mendoza, A., Greilinger, D., Münch, K., Rössel, N., Scherer, M., Vranes, M., Ladendorf, O., Vincon, V., Fuchs, U., Sandrock, B., Meng, S., Ho, E. C. H., Cahill, M. J., Boyce, K. J., Klose, J., Klosterman, S. J., Deelstra, H. J., Ortiz-Castellanos, L., Li, W., Sanchez-Alonso, P., Schreier, P. H., Häuser-Hahn, I., Vaupel, M., Koopmann, E., Friedrich, G., Voss, H., Schlüter, T., Margolis, J., Platt, D., Swimmer, C., Gnirke, A., Chen, F.,

- Vysotskaia, V., Mannhaupt, G., Güldener, U., Münsterkötter, M., Haase, D., Oesterheld, M., Mewes, H.-W., Mauceli, E. W., DeCaprio, D., Wade, C. M., Butler, J., Young, S., Jaffe, D. B., Calvo, S., Nusbaum, C., Galagan, J., and Birren, B. W. 2006. Insights from the genome of the biotrophic fungal plant pathogen *Ustilago maydis*. *Nature* 444(7115):97–101. doi:10.1038/nature05248.
- 17. James, T. Y., Kauff, F., Schoch, C. L., Matheny, P. B., Hofstetter, V., Cox, C. J., Celio, G., Gueidan, C., Fraker, E., Miadlikowska, J., Lumbsch, H. T., Rauhut, A., Reeb, V., Arnold, A. E., Amtoft, A., Stajich, J. E., Hosaka, K., Sung, G.-H., Johnson, D., O'Rourke, B., Crockett, M., Binder, M., Curtis, J. M., Slot, J. C., Wang, Z., Wilson, A. W., Schüßler, A., Longcore, J. E., O'Donnell, K., Mozley-Standridge, S., Porter, D., Letcher, P. M., Powell, M. J., Taylor, J. W., White, M. M., Griffith, G. W., Davies, D. R., Humber, R. A., Morton, J. B., Sugiyama, J., Rossman, A. Y., Rogers, J. D., Pfister, D. H., Hewitt, D., Hansen, K., Hambleton, S., Shoemaker, R. A., Kohlmeyer, J., Volkmann-Kohlmeyer, B., Spotts, R. A., Serdani, M., Crous, P. W., Hughes, K. W., Matsuura, K., Langer, E., Langer, G., Untereiner, W. A., Lücking, R., Büdel, B., Geiser, D. M., Aptroot, A., Diederich, P., Schmitt, I., Schultz, M., Yahr, R., Hibbett, D. S., Lutzoni, F., McLaughlin, D. J., Spatafora, J. W., and Vilgalys, R. 2006. Reconstructing the early evolution of Fungi using a six-gene phylogeny. *Nature* 443(7113):818–822. doi:10.1038/nature05110.
- 18. Demuth, J. P., Bie, T. D., **Stajich**, J. E., Cristianini, N., and Hahn, M. W. 2006. The evolution of mammalian gene families. *PLoS One* 1:e85. doi:10.1371/journal.pone.0000085.
- 19. Fitzpatrick, D. A., Logue, M. E., **Stajich**, J. E., and Butler, G. 2006. A fungal phylogeny based on 42 complete genomes derived from supertree and combined gene analysis. *BMC Evol Biol* 6:99. doi:10.1186/1471-2148-6-99.
- 20. Erwin, T. A., Jewell, E. G., Love, C. G., Lim, G. A. C., Li, X., Chapman, R., Batley, J., **Stajich**, J. E., Mongin, E., Stupka, E., Ross, B., Spangenberg, G., and Edwards, D. 2007. BASC: an integrated bioinformatics system for *Brassica* research. *Nucleic Acids Res* 35(Database issue):D870–D873. doi:10.1093/nar/gkl998.
- 21. Harrison, L. B., Yu, Z., **Stajich**, J. E., Dietrich, F. S., and Harrison, P. M. 2007. Evolution of budding yeast prion-determinant sequences across diverse fungi. *J Mol Biol* 368(1):273–282. doi: 10.1016/j.jmb.2007.01.070.
- 22. Fraser, J. A., **Stajich**, J. E., Tarcha, E. J., Cole, G. T., Inglis, D. O., Sil, A., and Heitman, J. 2007. Evolution of the mating type locus: insights gained from the dimorphic primary fungal pathogens *Histoplasma capsulatum*, *Coccidioides immitis*, and *Coccidioides posadasii*. *Eukaryot Cell* 6(4):622–629. doi:10.1128/EC.00018-07.
- 23. **Stajich**, J. E., Dietrich, F. S., and Roy, S. W. 2007. Comparative genomic analysis of fungal genomes reveals intron-rich ancestors. *Genome Biol* 8(10):R223. doi:10.1186/gb-2007-8-10-r223.
- 24. Hu, G., Liu, I., Sham, A., **Stajich**, J. E., Dietrich, F. S., and Kronstad, J. W. 2008. Comparative hybridization reveals extensive genome variation in the aids-associated pathogen *Cryptococcus neoformans*. *Genome Biol* 9(2):R41. doi:10.1186/gb-2008-9-2-r41.
- 25. Lilly, W. W., **Stajich**, J. E., Pukkila, P. J., Wilke, S. K., Inoguchi, N., and Gathman, A. C. 2008. An expanded family of fungalysin extracellular metallopeptidases of *Coprinopsis cinerea*. *Mycol Res* 112(Pt 3):389–398. doi:10.1016/j.mycres.2007.11.013.
- 26. Martin, F., Aerts, A., Ahrén, D., Brun, A., Danchin, E. G. J., Duchaussoy, F., Gibon, J., Kohler, A., Lindquist, E., Pereda, V., Salamov, A., Shapiro, H. J., Wuyts, J., Blaudez, D., Buée, M., Brokstein, P., Canbäck, B., Cohen, D., Courty, P. E., Coutinho, P. M., Delaruelle, C., Detter, J. C., Deveau, A., DiFazio, S., Duplessis, S., Fraissinet-Tachet, L., Lucic, E., Frey-Klett, P., Fourrey, C., Feussner, I., Gay, G., Grimwood, J., Hoegger, P. J., Jain, P., Kilaru, S., Labbé, J., Lin, Y. C., Legué, V., Tacon, F. L., Marmeisse, R., Melayah, D., Montanini, B., Muratet, M., Nehls, U., Niculita-Hirzel, H., Secq, M. P. O.-L., Peter, M., Quesneville, H., Rajashekar, B., Reich, M., Rouhier, N., Schmutz, J., Yin, T., Chalot, M., Henrissat, B., Kües, U., Lucas, S., de Peer, Y. V., Podila, G. K., Polle, A., Pukkila, P. J., Richardson, P. M., Rouzé, P., Sanders, I. R., Stajich, J. E., Tunlid, A., Tuskan, G., and Grigoriev,

- I. V. 2008. The genome of *Laccaria bicolor* provides insights into mycorrhizal symbiosis. *Nature* 452(7183):88–92. doi:10.1038/nature06556.
- 27. Regier, J. C., Shultz, J. W., Ganley, A. R. D., Hussey, A., Shi, D., Ball, B., Zwick, A., **Stajich**, J. E., Cummings, M. P., Martin, J. W., and Cunningham, C. W. 2008. Resolving arthropod phylogeny: exploring phylogenetic signal within 41 kb of protein-coding nuclear gene sequence. *Syst Biol* 57(6):920–938. doi:10.1080/10635150802570791.
- 28. Rosenblum, E. B., **Stajich**, J. E., Maddox, N., and Eisen, M. B. 2008. Global gene expression profiles for life stages of the deadly amphibian pathogen *Batrachochytrium dendrobatidis*. *Proc Natl Acad Sci U S A* 105(44):17034–17039. doi:10.1073/pnas.0804173105.
- 29. Fisher, M. C., Bosch, J., Yin, Z., Stead, D. A., Walker, J., Selway, L., Brown, A. J. P., Walker, L. A., Gow, N. A. R., **Stajich**, J. E., and Garner, T. W. J. 2009. Proteomic and phenotypic profiling of the amphibian pathogen *Batrachochytrium dendrobatidis* shows that genotype is linked to virulence. *Mol Ecol* 18(3):415–429. doi:10.1111/j.1365-294X.2008.04041.x.
- 30. Sharpton, T. J., **Stajich**, J. E., Rounsley, S. D., Gardner, M. J., Wortman, J. R., Jordar, V. S., Maiti, R., Kodira, C. D., Neafsey, D. E., Zeng, Q., Hung, C.-Y., McMahan, C., Muszewska, A., Grynberg, M., Mandel, M. A., Kellner, E. M., Barker, B. M., Galgiani, J. N., Orbach, M. J., Kirkland, T. N., Cole, G. T., Henn, M. R., Birren, B. W., and Taylor, J. W. 2009. Comparative genomic analyses of the human fungal pathogens *Coccidioides* and their relatives. *Genome Res* 19(10):1722–1731. doi:10.1101/gr.087551.108.
- 31. Nowrousian, M., **Stajich**, J. E., Engh, I., Espagne, E., Kamerewerd, J., Kempken, F., Kunstmann, B., Kuo, H.-C., Osiewacz, H. D., Pöggeler, S., Read, N., Seiler, S., Smith, K., Zickler, D., Kück, U., and Freitag, M. 2010. Next-generation sequencing of the 40 Mb genome of the filamentous fungus *Sordaria macrospora*. *PLoS Genetics* 6(4):e1000891. doi:10.1371/journal.pgen.1000891.
- 32. Neafsey, D. E., Barker, B. M., Sharpton, T. J., **Stajich**, J. E., Park, D. J., Whiston, E., Hung, C.-Y., McMahan, C., White, J., Sykes, S., Heiman, D., Young, S., Zeng, Q., Abouelleil, A., Aftuck, L., Bessette, D., Brown, A., Fitzgerald, M., Lui, A., Macdonald, J. P., Priest, M., Orbach, M. J., Galgiani, J. N., Kirkland, T. N., Cole, G. T., Birren, B. W., Henn, M. R., Taylor, J. W., and Rounsley, S. D. 2010. Population genomic sequencing of *Coccidioides* fungi reveals recent hybridization and transposon control. *Genome Res* 20(7):938–946. doi:10.1101/gr.103911.109.
- 33. **Stajich**, J. E., Wilke, S. K., Ahrèn, D., Au, C. H., Birren, B. W., Borodovsky, M., Burns, C., Canbäck, B., Casselton, L. A., Cheng, C. K., Deng, J., Dietrich, F. S., Fargo, D. C., Farman, M. L., Gathman, A. C., Goldberg, J., Guigó, R., Hoegger, P. J., Hooker, J. B., Huggins, A., James, T. Y., Kamada, T., Kilaru, S., Kodira, C., Kües, U., Kupfer, D., Kwan, H. S., Lomsadze, A., Li, W., Lilly, W. W., Ma, L.-J., Mackey, A. J., Manning, G., Martin, F., Muraguchi, H., Natvig, D. O., Palmerini, H., Ramesh, M. A., Rehmeyer, C. J., Roe, B. A., Shenoy, N., Stanke, M., Ter-Hovhannisyan, V., Tunlid, A., Velagapudi, R., Vision, T. J., Zeng, Q., Zolan, M. E., and Pukkila, P. J. 2010. Insights into evolution of multicellular fungi from the assembled chromosomes of the mushroom *Coprinopsis cinerea* (*Coprinus cinereus*). *Proc Natl Acad Sci U S A* 107(26):11889–11894. doi:10.1073/pnas. 1003391107.
- 34. Ohm, R. A., de Jong, J. F., Lugones, L. G., Aerts, A., Kothe, E., Stajich, J. E., de Vries, R. P., Record, E., Levasseur, A., Baker, S. E., Bartholomew, K. A., Coutinho, P. M., Fowler, T. J., Gathman, A. C., Lombard, V., Henrissat, B., Knabe, N., Kües, U., Lilly, W. W., Lindquist, E., Lucas, S., Magnuson, J. K., Piumi, F., Raudaskoski, M., Salamov, A., Schmutz, J., Schwarze, F. W., vanKuyk, P. A., Horton, J. S., Grigoriev, I. V., and Wösten, H. A. 2010. Genomic sequence of the wood-rotting Schizophyllum commune strain H4-8: a model mushroom system. Nature Biotech 28:957–963. doi:10.1038/nbt.1643.
- 35. Strandberg, R., Nygren, K., Menkis, A., James, T. Y., Wik, L., **Stajich**, J. E., and Johannesson, H. 2010. Conflict between reproductive gene trees and species phylogeny among outcrossing members of the filamentous ascomycete genus *Neurospora*. *Fungal Genetics & Biology* 11(7):869–878. doi:10.1016/j.fgb.2010.06.008.

- 36. Lévesque, C. A., Brouwer, H., Cano, L., Hamilton, J. P., Holt, C., Huitema, E., Raffaele, S., Robideau, G. P., Thines, M., Win, J., Zerillo, M. M., Beakes, G. W., Boore, J. L., Busam, D., Dumas, B., Ferriera, S., Fuerstenberg, S. I., Gachon, C. M., Gaulin, E., Govers, F., Grenville-Briggs, L., Horner, N., Hostetler, J., Jiang, R. H., Johnson, J., Krajaejun, T., Lin, H., Meijer, H. J., Moore, B., Morris, P., Phuntmart, V., Puiu, D., Shetty, J., Stajich, J. E., Tripathy, S., Wawra, S., van West, P., Whitty, B. R., Coutinho, P. M., Henrissat, B., Martin, F., Thomas, P. D., Tyler, B. M., De Vries, R. P., Kamoun, S., Yandell, M., Tisserat, N., and Buell, C. R. 2010. Genome sequence of the necrotrophic plant pathogen, *Pythium ultimum*, reveals original pathogenicity mechanisms and effector repertoire. *Genome Biol* 11(7):R173. doi:10.1186/gb-2010-11-7-r73.
- 37. Smith, K. M., Sancar, G., Dekhang, R., Sullivan, C. M., Li, S., Tag, A. G., Sancar, C., Bredeweg, E. L., Priest, H. D., McCormick, R. F., Thomas, T. L., Carrington, J. C., **Stajich**, J. E., Bell-Pedersen, D., Brunner, M., and Freitag, M. 2010. Transcription factors in light and circadian clock signaling networks revealed by genomewide mapping of direct targets for Neurospora White Collar Complex. *Eukaryot Cell* 9(10):1549–1556. doi:10.1128/EC.00154-10.
- 38. Burns, C., **Stajich**, J. E., Rechtsteiner, A., Hanlon, S. E., Wilke, S. K., Palmerini, H. J., Savytskyy, O. P., Gathman, A. C., Lilly, W. W., Lieb, J. D., Zolan, M. E., and Pukkila, P. J. 2010. Analysis of the basidiomycete *Coprinopsis cinerea* reveals conservation of the core meiotic expression program over half a billion years of evolution. *PLoS Genetics* 6(9):e1001135. doi:10.1371/journal.pgen. 1001135.
- 39. D'Souza, C. A., Kronstad, J. W., Taylor, G., Warren, R., Yuen, M., Hu, G., Jung, W. H., Sham, A., Kidd, S. E., Tangen, K., Lee, N., Zeilmaker, T., Sawkins, J., McVicker, G., Shah, S., Gnerre, S., Griggs, A., Zeng, Q., Bartlett, K., Li, W., Wang, X., Heitman, J., **Stajich**, J. E., Fraser, J. A., Meyer, W., Carter, D., Schein, J., Krzywinski, M., Kwon-Chung, K. J., Varma, A., Wang, J., Brunham, R., Fyfe, M., Ouellette, B. F. F., Siddiqui, A., Marra, M., Jones, S., Holt, R., Birren, B. W., Galagan, J. E., and Cuomo, C. A. 2011. Genome variation in *Cryptococcus gattii*, an emerging pathogen of immunocompetent hosts. *MBio* 2(1):e00342–10. doi:10.1128/mBio.00342-10.
- 40. Ellison, C. E., **Stajich**, J. E., Jacobson, D. J., Natvig, D. O., Lapidus, A., Foster, B., Aerts, A., Riley, R., Lindquist, E. A., Grigoriev, I. V., and Taylor, J. W. 2011. Massive changes in genome architecture accompany the transition to self-fertility in the filamentous fungus *Neurospora tetrasperma*. *Genetics* 189(1):55–69. doi:10.1534/genetics.111.130690.
- 41. Joneson, S., **Stajich**, J. E., Shiu, S.-H., and Rosenblum, E. B. 2011. Genomic transition to pathogenicity in chytrid fungi. *PLoS Pathogens* 7(11):e1002338. doi:10.1371/journal.ppat. 1002338.
- 42. **Stajich**, J. E., Harris, T., Brunk, B. P., Brestelli, J., Fischer, S., Harb, O. S., Kissinger, J. C., Li, W., Nayak, V., Pinney, D. F., Stoeckert, C. J., Jr, and Roos, D. S. 2012. FungiDB: an integrated functional genomics database for fungi. *Nucleic Acids Res* 40(D1):D675–D681. doi:10.1093/nar/gkr918.
- 43. Gioti, A., Mushegian, A. A., Strandberg, R., **Stajich**, J. E., and Johannesson, H. 2012. Unidirectional evolutionary transitions in fungal mating systems and the role of transposable elements. *Mol Biol Evol* 29(10):3215–3226. doi:10.1093/molbev/mss132.
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### **Microbial Resource Announcements**

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#### **Submitted Manuscripts and Preprints**

- 1. Unruh, S. A., Pires, C. A., Zettler, L. W., Erba, L., Grigoriev, I. V., Barry, K. W., Daum, C., Lipzen, A. V., and **Stajich**, J. E. 2019. Shallow genome sequencing for phylogenomics of mycorrhizal fungi from endangered orchids. *Biorxiv* doi:10.1101/862763.
- 2. Alvarado, P., de Melo Teixeir, M., Pérez-Rojas, Y., Barker, B., **Stajich**, J. E., Zambrano, E. A., and Gonzatti, M. I. 2020. Genomic characterization and biochemical identification of secreted antigens and peptidases in a Venezuelan clinical isolate of *Histoplasma suramericanum*. *Submitted*.
- 3. Carter-House, D., Chung, J., McDonald, S., Mauck, K., and **Stajich**, J. E. 2020. Volatiles from *Serratia marcescens*, *S. proteamaculans*, and *Bacillus subtilis* inhibit growth of *Rhizopus stolonifer* and other fungi. *bioRxiv* doi:10.1101/2020.09.07.286443.
- 4. Clemons, R., Yacoub, M., Faust, E., Toledo, L. F., Jenkinson, T. S., Kalinka, E., Fritz-Laylin, L. K., James, T. Y., and **Stajich**, J. E. 2023. DNA virus BdDV-1 of the amphibian pathogen *Batrachochytrium dendrobatidis* is associated with hypervirulence. *bioRxiv* doi:10.1101/2023.03.16. 532857.
- 5. He, B., Cai, Q., Weiberg, A., Li, W., Cheng, A.-P., Ouyang, S., Borkovich, K., **Stajich**, J., Abreu-Goodger, C., and Jin, H. 2023. *Botrytis cinerea* small RNAs are associated with tomato AGO1 and silence tomato defense-related target genes supporting cross-kingdom RNAi. *bioRxiv* doi: 10.1101/2022.12.30.522274.
- 6. **Stajich**, J. E., Lovett, B., Lee, E., Macias, A. M., Hajek, A. E., de Bivort, B. L., Kasson, M. T., Licht, H. H. D. F., and Elya, C. 2023. Signatures of transposon-mediated genome inflation, host specialization, and photoentrainment in *Entomophthora muscae* and allied entomophthoralean fungi. *bioRxiv* doi:10.1101/2023.09.13.557621.
- 7. Carpenter, S. C. D., Bogdanove, A. J., **Stajich**, J. E., Uehling, J., Lovett, B., Kasson, M., and Carter, M. E. 2023. Prevalence and diversity of TAL effector-like proteins in fungal endosymbiotic *Mycetohabitans spp. bioRxiv* doi:10.1101/2023.10.16.562584.
- 8. Myers, J. M., Schulz, F., Rahimlou, S., Amses, K. R., Simmons, D. R., **Stajich**, J. E., and James, T. Y. 2024. Large dna viruses in early diverging fungal genomes are relics of past and present infections. *bioRxiv* page 2024.01.04.574182. doi:10.1101/2024.01.04.574182.
- 9. Yacoub, M. N. and **Stajich**, J. E. 2024. Comparative genomics reveals intra and inter species variation in the pathogenic fungus *Batrachochytrium dendrobatidis*. *bioRxiv* doi:10.1101/2024.01. 24.576925.

#### Reviews (Refereed)

- 1. **Stajich**, J. E. and Lapp, H. 2006. Open source tools and toolkits for bioinformatics: significance, and where are we? *Brief Bioinform* 7(3):287–296. doi:10.1093/bib/bbl026.
- 2. **Stajich**, J. E., Berbee, M. L., Blackwell, M., Hibbet, D. S., James, T. Y., Spatafora, J. W., and Taylor, J. W. 2009. The Fungi. *Current Biol* 19(18):R840–R845. doi:10.1016/j.cub.2009.07.004.
- 3. Rosenblum, E. B., Voyles, J., Porten, T. J., and **Stajich**, J. E. 2010. The deadly chytrid fungus: a story of an emerging pathogen. *PLoS Pathogens* 6(1):e1000550. doi:10.1371/journal.ppat. 1000550.
- 4. Rosenblum, E. B., Fisher, M. C., James, T. Y., **Stajich**, J. E., Longcore, J. E., Gentry, L. R., and Porten, T. J. 2010. A molecular perspective on the biology of the emerging pathogen *Batrachochytrium dendrobatidis*. *Diseases of Aquatic Organisms* 92(2-3):131–147. doi:10.3354/dao02179.
- 5. Hibbett, D. S., **Stajich**, J. E., and Spatafora, J. W. 2013. Toward genome-enabled mycology. *Mycologia* 105(6):1339–1349. doi:10.3852/13-196.
- Amend, A., Burgaud, G., Cunliffe, M., Edgcomb, V. P., Ettinger, C. L., Gutiérrez, M. H., Heitman, J., Hom, E. F. Y., Ianiri, G., Jones, A. C., Kagami, M., Picard, K. T., Quandt, C. A., Raghukumar, S., Riquelme, M., Stajich, J., Vargas-Muñiz, J., Walker, A. K., Yarden, O., and Gladfelter, A. S. 2019. Fungi in the marine environment: Open questions and unsolved problems. *mBio* 10(2):e01189–18. doi:10.1128/mBio.01189-18.
- 7. Warren, S. D., Clair, L. L. S., Stark, L. R., Lewis, L. A., Pombubpa, N., Kurbessoian, T., **Stajich**, J. E., and Aanderud, Z. T. 2019. Reproduction and dispersal of biological soil crust organisms. *Frontiers In Ecology & Evolution* 7:344. doi:10.3389/fevo.2019.00344.
- 8. Fisher, M. C., Gurr, S. J., Cuomo, C. A., Blehert, D. S., Jin, H., Stukenbrock, E. H., **Stajich**, J. E., Kahmann, R., Boone, C., Denning, D. W., Gow, N. A. R., Klein, B. S., Kronstad, J. W., Sheppard, D. C., Taylor, J. W., Wright, G. D., Heitman, J., Casadevall, A., and Cowen, L. E. 2020. Threats posed by the fungal kingdom to humans, wildlife, and agriculture. *mBio* 11(3):e00449–20. doi: 10.1128/mBio.00449-20.
- 9. Lovett, B., Macias, A., **Stajich**, J. E., Cooley, J., Eilenberg, J., de Fine Licht, H. H., and Kasson, M. T. 2020. Behavioral betrayal: how select fungal parasites enlist living insects to do their bidding. *PLoS Pathogens* 16(6):e1008598. doi:10.1371/journal.ppat.1008598.
- 10. James, T. Y., **Stajich**, J. E., Hittinger, C. T., and Rokas, A. 2020. Towards a fully resolved Fungal Tree of Life. *Annual Reviews of Microbiology* 74:291–313. doi:10.1146/annurev-micro-022020-051835.
- 11. Coleine, C., **Stajich**, J. E., de Los Ríos, A., and Selbmann, L. 2020. Beyond the extremes: Rocks as ultimate refuge for fungi in drylands. *Mycologia* 113(1):108–133. doi:10.1080/00275514.2020. 1816761.
- 12. Selbmann, L., Benkö, Z., Coleine, C., de Hoog, S., Donati, C., Druzhinina, I., Emri, T., Ettinger, C. L., Gladfelter, A. S., Gorbushina, A. A., Grigoriev, I. V., Grube, M., Gunde-Cimerman, N., Karányi, Z. A., Kocsis, B., Kubressoian, T., Miklós, I., Miskei, M., Muggia, L., Northen, T., Novak-Babic, M., Pennacchio, C., Pfliegler, W. P., Pócsi, I., Prigione, V., Riquelme, M., Segata, N., Schumacher, J., Shelest, E., Sterflinger, K., Tesei, D., U'Ren, J. M., Varese, G. C., Vázquez-Campos, X., Vicente, V. A., Souza, E. M., Zalar, P., Walker, A. K., and **Stajich**, J. E. 2020. Shed light in the DaRk LineagES of the fungal tree of life-STRES. *Life* 10(12):362. doi:10.3390/life10120362.
- 13. Lofgren, L. A. and **Stajich**, J. E. 2021. Fungal biodiversity and conservation mycology in light of new technology, big data, and changing attitudes. *Current Biology* 31:R1312–R1325. doi: 10.1016/j.cub.2021.06.083.

- 14. Coleine, C., **Stajich**, J. E., and Selbmann, L. 2022. Fungi are key players in extreme ecosystems. *Trends in Ecology & Evolution* doi:10.1016/j.tree.2022.02.002.
- 15. Gostinčar, C., **Stajich**, J. E., and Gunde-Cimerman, N. 2023. Extremophilic and extremotolerant fungi. *Current Biology* 33:R752–R756. doi:10.1016/j.cub.2023.06.011.

#### **Books and Book Chapters**

- 1. Coghlan, A., **Stajich**, J. E., and Harris, T. W. 2006. Comparative genomics in *C. elegans*, *C. briggsae*, and other *Caenorhabditis* species. *Methods Mol Biol* 351:13–29. doi:10.1385/1-59745-151-7:13.
- 2. **Stajich**, J. E. and Dietrich, F. S. 2006. Genomic perspectives on the fungal kingdom. In J. Heitman, S. G. Filler, J. E. Edwards Jr, and A. P. Mitchell, editors, *Molecular principles of fungal pathogenesis*, pages 657–666. ASM press.
- 3. Stajich, J. E. 2007. An introduction to BioPerl. Methods Mol Biol 406:535–548.
- 4. Edwards, D., Stajich, J. E., and Hansen, D., editors. 2009. Bioinformatics. Springer, NY.
- 5. McKay, S. J., Vergara, I. A., and **Stajich**, J. E. 2010. Using the Generic Synteny Browser (GBrowse\_syn). *Curr Protoc Bioinformatics* Chapter 9:Unit9.12. doi:10.1002/0471250953. bi0912s31.
- 6. Fisher, M. C., **Stajich**, J. E., and Farrer, R. A. 2012. Emergence of the chytrid fungus *Batra-chochytrium dendrobatidis* and global amphibian declines. In D. Sibley, B. Howlett, and J. Heitman, editors, *Evolution of Virulence in Eukaryotic Microbes*. Wiley Blackwell.
- 7. **Stajich**, J. E. 2013. Comparative genomics. In J. Losos, D. Baum, D. J. Futuyma, H. Hoekstra, R. Lenski, A. Moore, D. Schluter, and M. Whitlock, editors, *The Princeton Guide to Evolution*. Princeton University Press.
- 8. **Stajich**, J. E. 2015. Phylogenomics enabling genome based mycology. In D. J. McLaughlin, M. Blackwell, and J. W. Spatafora, editors, *The Mycota VII*, Systematics and Evolution. Springer.
- 9. Spatafora, J. W., Aime, M. C., Grigoriev, I. V., Martin, F., **Stajich**, J. E., and Blackwell, M. 2017. The fungal tree of life: From molecular systematics to genome-scale phylogenies. In J. Heitman, B. J. Howlett, P. W. Crous, E. H. Stukenbrock, T. Y. James, and N. A. R. Gow, editors, *The Fungal Kingdom*, chapter 1, pages 1–34. John Wiley & Sons, Ltd. doi:10.1128/9781555819583.ch1.
- 10. **Stajich**, J. E. 2017. Fungal genomes and insights into the evolution of the kingdom. In J. Heitman, B. J. Howlett, P. W. Crous, E. H. Stukenbrock, T. Y. James, and N. A. R. Gow, editors, *The Fungal Kingdom*, chapter 29, pages 619–633. John Wiley & Sons, Ltd. doi:10.1128/microbiolspec. FUNK-0055-2016.

#### **Consortia publications**

- 1. Bidartondo, M. I. 2008. Preserving accuracy in GenBank. *Science* 319(5870):1616–1616. doi: 10.1126/science.319.5870.1616a.
- 2. West, A. G., Digby, A., Lear, G., Digby, A., Armstrong, D., Armstrong-James, D., Bromley, M., Buckley, E., Chatterton, J., Cox, M. P., Cramer, R. A., Crane, J., Dearden, P. K., Eason, D., Fisher, M. C., Gago, S., Gartrell, B., Gemmell, N. J., Glare, T. R., Guhlin, J., Howard, J., Lacap-Bugler, D., Le Lec, M., Lin, X. X., Lofgren, L., Mackay, J., Meis, J., Morelli, K. A., Perrott, J., Petterson, M., Quinones-Mateu, M., Rhodes, J., Roberts, J., Stajich, J., Taylor, M. W., Tebbutt, S. J., Truter-Meyer, A., Uddstrom, L., Urban, L., van Rhijn, N., Vercoe, D., Vesely, E., Weir, B. S., West, A. G., Winter, D. J., Yeung, J., Taylor, M. W., Kākāpō Recovery Team, and Kākāpō Aspergillosis Research Consortium. 2022. Influence of management practice on the microbiota of a critically endangered species: a longitudinal study of kākāpō chick faeces and associated nest litter. *Animal Microbiome* 4(1):55. doi:10.1186/s42523-022-00204-w.

#### **Meeting and Technical Reports**

- 1. Lapp, H., Bala, S., Balhoff, J., Bouck, A., Goto, N., Holder, M., Holland, R., Holloway, A., Katayama, T., Lewis, P. O., Mackey, A. J., Osborne, B. I., Piel, W. H., Kosakovsky Pond, S. L., Poon, A., Qiu, W., **Stajich**, J. E., Stoltzfus, A., Thierer, T., Vielella, A. J., Vos, R. A., Zmasek, C., Zwickl, D., and Vision, T. J. 2007. The 2006 NESCent Phyloinformatics Hackathon: A field report. *Evolutionary Bioinformatics Online* 3:357–366.
- 2. Bates, S. T., Ahrendt, S., Bik, H., Bruns, T. D., Caparaso, J., Cole, J., Dwan, M., Fierer, N., Gu, D., Houston, S., Knight, R., Leff, J., Lewis, C., McDonald, D., Nilsson, H., Porras-Alfaro, A., Robert, V., Schoch, C., Scott, J., Taylor, D. L., Wegener-Parfrey, L., and **Stajich**, J. E. 2013. Meeting Report: Fungal ITS Workshop (October 2012). *SIGS* 8:118–23.
- 3. Glass, E. M., Dribinsky, Y., Yilmaz, P., Levin, H., Van Pelt, R., Wendel, D., Wilke, A., Eisen, J. A., Huse, S., Shipanova, A., Sogin, M., **Stajich**, J., Knight, R., Meyer, F., and Schriml, L. M. 2014. MIxS-BE: a MIxS extension defining a minimum information standard for sequence data from the built environment. *ISME J* 8(1):1–3. doi:10.1038/ismej.2013.176.
- 4. Kennedy, P. and **Stajich**, J. E. 2015. Twenty-first century mycology: a diverse, collaborative, and highly relevant science. *New Phytol* 205(1):23–26. doi:10.1111/nph.13165.
- 5. Momany, M., Di Pietro, A., Alexander, W. G., Barker, B. M., Harb, O. S., Kamoun, S., Martin, F., Pires, J. C., **Stajich**, J. E., Thomma, B. P. H. J., and Unruh, S. 2015. Meeting Report: Fungal Genomics Meets Social Media: Highlights of the 28th Fungal Genetics Conference at Asilomar. *G3: Genes Genomes Genetics* 5(12):2523–2525. doi:10.1534/g3.115.024158.
- 6. Gaya, E., Kooija, P., Dentinger, B. T. M., Grigoriev, I. V., Nagy, L., **Stajich**, J. E., Coker, T., and Leitcha, I. J. 2018. Fungal tree of life. In K. J. Willis, editor, *State of the World's Fungi. Report*, pages 12–17. Royal Botanic Gardens, Kew.
- 7. Baltrus, D. A., Cuomo, C. A., Dennehy, J. J., Dunning Hotopp, J. C., Maresca, J. A., Newton, I. L. G., Rasko, D. A., Rokas, A., Roux, S., and **Stajich**, J. E. 2019. Future-proofing your *Microbiology Resource Announcements* genome assembly for reproducibility and clarity. *Microbiology Resource Announcements* 8(36):e00954–19. doi:10.1128/MRA.00954-19.
- 8. Pombubpa, N., Kurbessoian, T., **Stajich**, J. E., and Pietrasiak, N. 2020. Exploring the microbial diversity in biological soil crusts at Joshua Tree National Park. https://www.nps.gov/articles/exploring-the-microbial-diversity-in-biological-soil-crusts-at-joshua-tree-national-park.htm
- 9. Dunning Hotopp, J. C., Baltrus, D. A., Bruno, V. M., Dennehy, J. J., Gill, S. R., Maresca, J. A., Matthijnssens, J., Newton, I. L. G., Putonti, C., Rasko, D. A., Rokas, A., Roux, S., **Stajich**, J. E., Stedman, K. M., Stewart, F. J., and Thrash, J. C. 2020. Best practices for successfully writing and publishing a genome announcement in *Microbial Resource Announcements*. *Microbiology Resource Announcements* 9(36):e00763–20. doi:10.1128/MRA.00763-20.
- Case, N. T., Berman, J., Blehert, D. S., Cramer, R. A., Cuomo, C., Currie, C. R., Ene, I. V., Fisher, M. C., Fritz-Laylin, L. K., Gerstein, A. C., Glass, N. L., Gow, N. A. R., Gurr, S. J., Hittinger, C. T., Hohl, T. M., Iliev, I. D., James, T. Y., Jin, H., Klein, B. S., Kronstad, J. W., Lorch, J. M., McGovern, V., Mitchell, A. P., Segre, J. A., Shapiro, R. S., Sheppard, D. C., Sil, A., Stajich, J. E., Stukenbrock, E. E., Taylor, J. W., Thompson, D., Wright, G. D., Heitman, J., and Cowen, L. E. 2022. The future of fungi: threats and opportunities. *G3* 12(11):jkac224. doi:10.1093/g3journal/jkac224.
- 11. Case, N. T., Song, M., Fulford, A. H., Graham, H. V., Orphan, V. J., **Stajich**, J. E., Casadevall, A., Mustard, J., Heitman, J., Lollar, B. S., and Cowen, L. E. 2022. Exploring space via astromycology: A report on the CIFAR programs *Earth 4D* and *Fungal Kingdom* inaugural joint meeting. *Astrobiology* doi:10.1089/ast.2021.0186.

#### **Commentaries and Book Reviews**

- 1. **Stajich**, J. E. 2009. Review of Bioinformatics, Volume I: Data, Sequence Analysis and Evolution; Volume II: Structure, Function and Applications. *The Quarterly Review of Biology* 84(3):284–285. doi:10.1086/644662. Book Review.
- 2. **Stajich**, J. E. 2011. Review of cellular and molecular biology of filamentous fungi. *The Quarterly Review of Biology* 86(1):59–59. doi:10.1086/658451. Book Review.
- 3. **Stajich**, J. E. 2016. Fungal Evolution: *Mucor* and *Phycomyces* see double. *Curr Biol* 26(16):R775–R777. doi:10.1016/j.cub.2016.06.049.
- 4. Valent, B., Farman, M., Tosa, Y., Begerow, D., Fournier, E., Gladieux, P., Islam, M. T., Kamoun, S., Kemler, M., Kohn, L. M., Lebrun, M.-H., **Stajich**, J. E., Talbot, N. J., Terauchi, R., Tharreau, D., and Zhang, N. 2019. *Pyricularia graminis-tritici* is not the correct species name for the wheat blast fungus: response to Ceresini *et al.* (mpp 20:2). *Molecular Plant Pathology* 20:173–179. doi: 10.1111/mpp.12778.

#### **Essays**

1. **Stajich**, J. E. 2014. Top 5 real wolves of wall street. http://nautil.us/issue/10/mergers-acquisitions/top-5-real-wolves-of-wall-street. "Moldy Monopolies" and "Creepy Crawly Conglomerate" in the "Mergers & Acquisitions" issue.

#### Software and other Products

BioPerl - http://bioperl.org - Core developer

Github http://github.com/hyphaltip - individual projects

Github http://github.com/stajichlab - lab projects

 $Protocols.io\ Protocols\ https://www.protocols.io/researchers/jason-stajich\ -\ public\ protocols\ protocols$ 

Github http://github.com/1KFG - 1000 Fungal genomes project

Github http://github.com/zygolife - ZyGoLife NSF project and associated phylogenomics

Website: http://1000.fungalgenomes.org - 1KFG project

Website: http://herptilemicrobiomes.org - NSF URoL Herptile Microbiomes

Website: http://zygolife.org - NSF Zygolife

Website: http://dynamiterice.org - NSF Rice Transposable Element project

Website: http://fungalgenomes.org/blog - "The Hyphal Tip" A Blog I write about Fungal Genemics

nomics

Website & Database (Collaboration): http://fungidb.org

# **Grant Support:**

#### **Ongoing support**

2017-2026 National Institutes of Health. R01-AI127548

"Evolved Heterogeneity contributes to chronic fungal lung infections"

Role: Senior Personnel. PI: D Hogan (Dartmouth)

2017-2028 National Institutes of Health. R01-AI130128

"Evolution of Aspergillus fumigatus virulence"

Role: Senior Personnel. PI: RA Cramer, Jr (Dartmouth)

2019-2025 Canadian Institute For Advanced Research. Fellowship

"Fungal Kingdom: Threats and Opportunities"

Role: CIFAR Fellow. PI/Directors: L Cowen and J Heitman

2020-2023 Gordon and Betty Moore Foundation

"New Tools for Advancing Model Systems in Aquatic Symbiosis"

Role: Co-PI. PI: Lillian Fritz-Laylin (U Mass-Amherst). With Co-PI Tim James (U Michigan)

| 2020-2025   | USDA-NIFA, Emergency Citrus Disease Research and Extension   |
|---|--|
| 2020-2023   | "CAP: Combining Cultural And Genetic Approaches For Grove Success To Unravel And   |
|   | Enhance Resistance/Tolerance To Huanglongbing."  |
|   | Role: Co-PI. PI Caroline Roper, UCR  |
| 2022-2024   | Canadian Institute For Advanced Research. Catalyst Award   |
| 2022 202 (  | "Discovering and describing fungi from deep biosphere environments"  |
|   | Role: PI. Co-PI: Tim James, U Michigan   |
| 2022-2026   | National Science Foundation. EF-2125066.   |
|   | "Collaborative Research: MIM: Gut-inhabiting fungi influence structure and function of   |
|   | herptile microbiomes through horizontal gene transfer and novel metabolic function"  |
|   | Role: PI. Collaborative linked award with 3 other PIs: J Spatafora & K McPhail (Oregon   |
|   | State), D Walker (Middle Tennessee State) https://herptilemicrobiomes.org/   |
| 2022-2026   | National Science Foundation. IOS-2134912   |
|   | "Research-PGR: Impact of transposable element bursts on the rice genome and epigenome."  |
|   | Role: Co-I. PI: SR Wessler (UC Riverside). Co-I: R Schmitz (U Georgia), K Ostivek (UC  |
|   | Riverside), J Burnette (UC Riverside)  |
| 2022-2026   | National Science Foundation. DBI-2215705   |
|   | "Research Infrastructure: MRI: Acquisition of a Big Data HPC Cluster for Interdisciplinary   |
|   | Research and Training."  |
|   | Role: Co-I. PI: Thomas Girke (UC Riverside). Co-I: Wenxiu Ma, Mark Alber, Adam Godzik  |
|   | (UC Riverside)   |
| 2022-2027   | National Science Foundation. IOS-2141858   |
|   | "CAREER: Dissecting the molecular regulation of septin-mediated plant invasion by the  |
|   | blast fungus Magnaporthe oryzae"   |
|   | Role: Senior Personnel. PI: Martin Egan (U Arkansas)   |
| Completed our   | nout   |
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| 2010-2013   | Burroughs Wellcome Fund.   |
|   | Burroughs Wellcome Fund. "FungiDB: A Pan Fungal Genome Database".  |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)   |
|   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.   |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)   |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  |
| 2010-2013   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  |
| 2010-2013<br>2011-2012<br>2013-2014                                   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  |
| 2010-2013<br>2011-2012<br>2013-2014                                   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery" Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside) National Institutes of Health - 1-R03-AI105636-01.  |
| 2010-2013<br>2011-2012<br>2013-2014                                   | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  |
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| 2010-2013<br>2011-2012<br>2013-2014<br>2013-2014                      | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin  |
| 2010-2013<br>2011-2012<br>2013-2014<br>2013-2014<br>2011-2014         | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery" Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside) National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature" Role: PI. Co-I G Sherlock (Stanford) Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources". Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  |
| 2010-2013<br>2011-2012<br>2013-2014<br>2013-2014                      | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery" Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside) National Institutes of Health - 1-R03-A1105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature" Role: PI. Co-I G Sherlock (Stanford) Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources". Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab). National Science Foundation. DBI-1429826.  |
| 2010-2013<br>2011-2012<br>2013-2014<br>2013-2014<br>2011-2014         | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co  |
| 2010-2013 2011-2012 2013-2014 2013-2014 2011-2014 2014-2015           | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co PI. PI T Girke. Co-Is J Bailey-Serres, M Allen, and S Lonardi (UCR)  |
| 2010-2013<br>2011-2012<br>2013-2014<br>2013-2014<br>2011-2014         | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co PI. PI T Girke. Co-Is J Bailey-Serres, M Allen, and S Lonardi (UCR)  National Institutes of Health - 1-R01-GM108492-01.  |
| 2010-2013 2011-2012 2013-2014 2013-2014 2011-2014 2014-2015           | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co PI. PI T Girke. Co-Is J Bailey-Serres, M Allen, and S Lonardi (UCR)  National Institutes of Health - 1-R01-GM108492-01.  "Dynamics of bacterial-fungal interactions in chronic lung infections"                          |
| 2010-2013 2011-2012 2013-2014 2013-2014 2011-2014 2014-2015 2014-2017 | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database". Role: Co-I. PI: DS Roos (U Pennsylvania) UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control" Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside) UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery" Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside) National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature" Role: PI. Co-I G Sherlock (Stanford) Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources". Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab). National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co PI. PI T Girke. Co-Is J Bailey-Serres, M Allen, and S Lonardi (UCR) National Institutes of Health - 1-R01-GM108492-01.  "Dynamics of bacterial-fungal interactions in chronic lung infections" Role: Co-I. PI: D Hogan (Dartmouth) |
| 2010-2013 2011-2012 2013-2014 2013-2014 2011-2014 2014-2015           | Burroughs Wellcome Fund.  "FungiDB: A Pan Fungal Genome Database".  Role: Co-I. PI: DS Roos (U Pennsylvania)  UC Riverside, Chancellor's Strategic Investment Funds.  "Coelomomyces Genomics for Mosquito Vector Control"  Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)  UC Riverside, Office of Research Strategic Investment Funds.  "High-throughput synthetic biology for natural products discovery"  Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)  National Institutes of Health - 1-R03-AI105636-01.  "Annotation of Cryptococcus genomes by comprehensive curation of published literature"  Role: PI. Co-I G Sherlock (Stanford)  Alfred P. Sloan Foundation.  "MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".  Role: PI. Linked grants with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).  National Science Foundation. DBI-1429826.  "MRI: Acquisition of a Big Data Compute Cluster for Interdisciplinary Research" Role: Co PI. PI T Girke. Co-Is J Bailey-Serres, M Allen, and S Lonardi (UCR)  National Institutes of Health - 1-R01-GM108492-01.  "Dynamics of bacterial-fungal interactions in chronic lung infections"                          |

Role: Co-I. PI: SR Wessler (UC Riverside). Co-I: P Atkinson (UC Riverside). 2017 Burroughs Wellcome Fund. "Meeting grant to support Fungal Cell Wall (FCW2017) Conference in Ensenada, Mexico" Role: PI. 2016-2019 National Science Foundation. DEB-1557110. (No Cost Ext thru 04/2020) "Collaborative Research: Phylogenomics and evolutionary history of the anaerobic fungal group, Neocallimastigomycota" Role: PI. Collaborative linked award PI: N Youssef (Oklahoma State) National Science Foundation, IOS-1027542. (No Cost Ext thru 02/2021) 2011-2017 "CPGS: Genome-wide impact of mPing transposition on rice phenotypic diversity." Role: Co-I. PI: SR Wessler (UC Riverside). http://dynamiterice.org National Science Foundation. GO Life DEB-1441715. (No Cost Ext thru 08/2020) 2015-2018 "Collaborative Research: The Zygomycetes Genealogy of Life (ZyGoLife)- the conundrum of Kingdom Fungi" Role: PI. Collaborative linked award with 3 other PIs and 12 collaborating labs: J Spatafora (Oregon State), TY James (U Michigan), R Robertson (Arizona State) http://zygolife.org 2017-2020 Univ of California-Office of the President, MRPI. "UC Valley Fever Research Initiative" Role: Co-PI. PI: Anita Sil (UCSF) and Co-PIs at UC Berkeley, UC Merced, UC San Diego City of Hope / Univ of California-Riverside 2019-2020 "Antifungal drug resistance in Southern California: Discovery of novel mechanisms by genomics and proteomics." Role: PI with Co-PIs M Kalkum and S Dadwal at City of Hope Hospital Canadian Institute For Advanced Research 2020-2021 "Pilot investigation of avian-origin Aspergillus fumigatus infections in the United States" Role: PI. Co-PI: David Blehert, National Wildlife Health Center, USGS 2020 Burroughs Wellcome Fund. "Meeting grant to support 2022 Fungal Cellular and Molecular Biology Gordon Research Conference" Role: PI. 2020-2021 USDA-ANIMAL AND PLANT HEALTH INSPECTION SERVICE "Tracking seasonal changes of endophytic communities in Fusarium dieback - Invasive shot hole borers host trees in California." Role: Co-I. PI Akif Eskalen, UC Davis 2022 National Science Foundation. MCB-2227426 "Meeting grant to support Fungal Cellular and Molecular Biology Gordon Research Conference 2022" Role: PI. 2019-2022 Univ of California-Office of the President "Investigating fundamental gaps in Valley Fever research" Role: Co-PI. PI: Anita Sil (UCSF) and Co-PIs at UC Berkeley, UC Davis, UC Merced, UC San Diego National Institutes of Health. R15-GM132869 2019-2022 "Understanding The Mechanisms Of Spatial Protein Quality Control In A Model Filamentous Fungus" Role: Senior Personnel. PI: Egans, M (U Arkansas) 2020-2022 California Conservation Genomics Project (subproject) "Landscape and Population Genomics of the lichen Acarospora socialis in California" Role: PI.

2021-2023 Canadian Institute For Advanced Research. Catalyst Award

"Exploring the extended phenotypes of BdDV-1, a DNA mycovirus associated with enzootic

strains of amphibian chytridiomycosis"

Role: Co-PI. PI: Tim James, U Michigan; Co-PI: Lillian Fritz-Laylin, U Mass Amherst; Co-PI

Mat Fisher, Imperial College (UK)

2020-2023 California Department of Agriculture / Glassywinged Sharptshooter Board

"CRISPR-mediated genome modification of *Homalodisca vitripennis* for the genetic control

of Pierce's disease"

Role: Co-PI. PI Peter Atkinson, UCR

## **Service:**

# **University and Departmental**

| 2020-2022    | Division Chair, Riverside Division of the University of California Academic Senate |  |  |  |  |
|--------------|--|--|--|--|--|
| 2020-2022    | Member UC Academic Senate Academic Council (as per role as UCR Senate Chair)       |  |  |  |  |
| 2021-2022    | Member Senate/UCOP Leadership Budget Call (as per role as UCR Senate Chair)        |  |  |  |  |
| 2020-2021    | Member UC Academic Planning Committee (as per role as UCR Senate Chair)            |  |  |  |  |
| 2020-2021    | Member UCR Campus Safety Taskforce (as per role as UCR Senate Chair)               |  |  |  |  |
| 2021         | Member UCR Provost Search Committee (as per role as UCR Senate Chair)              |  |  |  |  |
| 2018-2020    | Chair, UC Riverside Graduate Council and member of Senate Executive Council        |  |  |  |  |
| 2017-2018    | Member, UC Riverside Graduate Council  |  |  |  |  |
| 2015-2020    | Director, Microbiology Graduate Program (except Sabbatical 2016-17)                |  |  |  |  |
| 2014–2015, 2 | 2018–2020 Graduate Advisor, Microbiology Graduate Program                          |  |  |  |  |
| 2015-2016,2  | 017–2018 Admissions Advisor, Microbiology Graduate Program                         |  |  |  |  |

#### **Editorial Boards**

| 2021-     | Editorial Board, Annual Reviews of Microbiology                  |
|-----------|--|
| 2019-2023 | Associate Editor, Genome Biology & Evolution                     |
| 2019-     | Associate Editor, Mycologia                                      |
| 2018-     | Senior Editor, Microbial Resource Announcements                  |
| 2018-     | Associate Editor, GENETICS                                       |
| 2016-     | Editorial Board, Current Opinion in Microbiology                 |
| 2015-2019 | Associate Editor, Microbial Genomics                             |
| 2014–2022 | Associate Editor, Fungal Genetics & Biology                      |
| 2013,2015 | Guest Associate Editor, PLoS Genetics                            |
| 2013      | Guest Associate Editor, Mycologia                                |
| 2011–2016 | Faculty Member in Microbial Genetics & Genomics, Faculty of 1000 |
| 2010–2015 | Editorial Board, Eukaryotic Cell.                                |
| 2009–2016 | Section Editor, PLoS One.  |
| 2007–2016 | Academic Editor, PLoS One.                                       |

### **Professional Service**

| 2018–2022 | Co-Chair (2020, moved to 2022) of Cellular and Molecular Fungal Biology, Gordon Research  |  |  |  |
|-----------|---|--|--|--|
|           | Conference; Co-Vice Chair (2018).   |  |  |  |
| 2017-2020 | Karling Lecture Committee, Mycologia Society of America (Chair 2019-2020)                 |  |  |  |
| 2018-2021 | Councilor for Cell Biology & Physiology. Mycological Society of America.                  |  |  |  |
| 2014-2018 | Neurospora Policy Committee, Co-Organized 2016 Neurospora conference                      |  |  |  |
| 2013-2019 | Fungal Genetics Policy Committee  |  |  |  |
| 2012-2020 | Scientific advisory board, Plant Microbe Interactions - DOE Science Focus Area, Oak Ridge |  |  |  |
|           | National Laboratory   |  |  |  |
| 2012-2018 | Scientific advisory board, WormBase   |  |  |  |
| 2012-2015 | Scientific advisory board, EnsEMBL Genomes  |  |  |  |

| 2010–2012<br>2009–2010 | Councilor for Genetics & Molecular Biology, Mycological Society of America<br>Advisory Board for Genomic Encyclopedia of Fungi, Joint Genome Institute, US Department   |  |  |  |  |
|------------------------|---|--|--|--|--|
| 2009–2010              | of Energy. Pan-Fungal Database Steering Committee for Burroughs Welcome Fund.   |  |  |  |  |
| 2007–2009              | Scientific advisory board NSF Computer Science Education Revitalization (PI Owen Astrachan, Duke University)  |  |  |  |  |
| 2005–2008              | Scientific advisory committee Information Technology and Computing infrastructure, National Center for Evolutionary Synthesis (NESCent).                                |  |  |  |  |
| 2005–2011              | President and Board Member [2005–2014], Open Bioinformatics Foundation http://www.open-bio.org/   |  |  |  |  |
| 2001–2015              | Co-Project leader, BioPerl. http://www.bioperl.org/   |  |  |  |  |
| Graduate               | Students:   |  |  |  |  |
| 2009–2013              | PhD student, Divya Sain. Genetics, Genomics, & Bioinformatics. Current: Bioinformatics Scientist at Ambry Genetics.   |  |  |  |  |
| 2010–2012              | MS student, Yi (Zoe) Zhou. Genetics, Genomics, & Bioinformatics. Current: Biostatistician at dMed Biopharmaceutical Co.   |  |  |  |  |
| 2010–2014              | PhD student, Yizhou Wang. Plant Biology. Current: Research Bioinformatician and Associate Director at Applied Genomics, Computation & Translational Core, Cedars-Sinai. |  |  |  |  |
| 2011–2015              | PhD student, Steven Ahrendt. Genetics, Genomics, & Bioinformatics. Current: Data Scientist at DOE Joint Genome Institute.   |  |  |  |  |
| 2016–2019              | PhD Student, Derreck Carter-House. Plant Pathology.<br>Current: Research Scientist, Clear Labs  |  |  |  |  |
| 2015–2021              | MS Student, Sawyer Masonjones. Genetics, Genomics, & Bioinformatics   |  |  |  |  |
| 2015–2021              | PhD Student, Nuttapon Pombubpa. Plant Pathology.<br>Current: Assistant Professor, Chulalongkorn, Bangkok, THAILAND  |  |  |  |  |
| 2016–2022              | PhD Student, Jesús Peña, Microbiology.<br>Current: Visiting Assistant Professor, Harvey-Mudd College  |  |  |  |  |
| 2017–2022              | PhD Student, Tania Kurbessoian, Microbiology  |  |  |  |  |
| 2017–<br>2020–         | PhD Student, Julia Adams, Plant Biology PhD Student, Talieh Ostovar, Evolutionary Biology, San Diego State - UCR Joint Doctoral Pro-                                    |  |  |  |  |
| 2020                   | gram  |  |  |  |  |
| 2021-                  | PhD Student, Mark Yacoub, Microbiology  |  |  |  |  |
| 2021-                  | PhD Student, Cheng-Hung Tsai, Genetics, Genomics, & Bioinformatics  |  |  |  |  |
| 2022-                  | PhD Student, Jessica Wu-Woods, Microbiology   |  |  |  |  |
| 2022–<br>2022–         | PhD Student, Leila Shadmani, Microbiology  PhD Student, Viscon (Sharen) Vis Collular Melagular and Davidenmental Biology  |  |  |  |  |
| 2022-                  | PhD Student, Xueyan (Sharon) Xu, Cellular, Molecular, and Developmental Biology. PhD Student, Kian Kelly, Plant Pathology   |  |  |  |  |
| 2023-                  | PhD Student, Nathan Matheiu, Genetics, Genomics, & Bioinformatics   |  |  |  |  |
| 2023–                  | PhD Student, Nora Ismail, Microbiology  |  |  |  |  |
| Postdocto              | ral Fellows:  |  |  |  |  |
| 2010–2011              | John Abramyan, Ph.D.  |  |  |  |  |
| 2011–2014              | Current: Assistant Professor, Univ of Michigan-Dearborn<br>Sofia Robb, Ph.D.<br>Current: Genomics Scientist at Stowers Institute.                                       |  |  |  |  |

| 2010–2011 | John Abramyan, Ph.D.                                     |
|-----------|--|
|           | Current: Assistant Professor, Univ of Michigan-Dearborn  |
| 2011–2014 | Sofia Robb, Ph.D.  |
|           | Current: Genomics Scientist at Stowers Institute.        |
| 2012-2014 | Brad Cavinder, Ph.D.                                     |
|           | Current: Research Associate at Michigan State University |
| 2012-2015 | Peng Liu, Ph.D.  |
|           | Current: Research Associate, Yangzhou University, CHINA  |

2013-2019 Jinfeng Chen, Ph.D. Current: Assistant Professor, Institute of Zoology of Chinese Academy of Science; 1st position: Staff Scientist, City of Hope, CA. 2013-2015 Ousmane Cissé, Ph.D. - Swiss National Science Foundation Fellow. Current: Staff Scientist at Critical Care Department, NIH Clinical Center. 2014-2015 Rodrigo Olarte, Ph.D. Current: NSF Postdoctoral Fellow at Univ of Minnesota. 2017-19 Yan Wang, Ph.D. Current: Assistant Professor, University of Toronto-Scarbourgh. 2019-2021 Lotus Lofgren, Ph.D. Current: Postdoctoral Researcher, Duke University. 2020-2021 Ying Sun, Ph.D. Current: Postdoctoral Researcher at Salk Institute Cassie Ettinger, Ph.D. 2020 -2020-2023 Kelsey Aadland, Ph.D. 2023-Claudia Coleine, Ph.D. - Marie Curie Fellow. **Visitors:** 2010–2013 (4, 2-3 month vists) Anastasia Gioti, PhD, Dept of Evolution Biology, Uppsala University, SWE-2010 Suzanne Joneson, PhD, Department of Biology, University of Idaho Edgar Medina Tovar, MSc Mycology and Phytopathology Lab, Universidad de Los Andes, Bo-2011 gota, COLOMBIA 2012 Andrii Gryganski, PhD, Visiting Researcher, Duke University Venkatesh Moktali, PhD, FungiDB Project, Visiting Research Fellow, Oregon State University 2013-2014 Raúl Castanera Andrés, Visiting Graduate Student, Universidad Pública de Navarra, Pamplona, 2014 2015 Natalie Vande Pol, Visiting Graduate Student (Bonito Lab), Michigan State University Zhinquan Song, Visiting Graduate Student (Guangyi Wang Lab), Tianjin University, CHINA 2015-2016 John Yinka Odebode, Visiting Graduate Student on a West African Research Assocation Fellow-2015 ship, University of Lagos, NIGERIA. Marco Marconi, Visiting Graduate Student, Universidad Politécnica de Madrid, Madrid, SPAIN 2015 Claudia Coleine, Visiting Graduate Student, Universitá degli Studi della Tuscia, Viterbo, ITALY 2015-2016 Jane Lind Nybo, Visiting Graduate Student, Technical University of Denmark, Copenhagen, 2017 DENMARK Guillermo Vidal-Diez de Ulzurrun, Visiting Postdoc scientist, IMB, Academia Sinica, Taipei, 2019 Taiwan 2019-2020 Felipe Salgado, Federal University of Rio de Janeiro, BRAZIL. Omar Valencia, Volunteer. 2020-2021 2021-2022 Jaehyuk Choi, Incheon National University, SOUTH KOREA. 2022-2023 Xinzhan Liu, Institute of Microbiology, Chinese Academy of Sciences, CHINA. Staff: 2011-2012 Daniel Borcherding, Programmer (FungiDB). Current: Senior Software Build Engineer, Apple, Inc. 2011-2013 Raghuraman Ramamurthy, Programmer (FungiDB). Current: Lead Bioinformatician - Natera. Edward Liaw, Programmer (FungiDB). 2012-2014 Current: Bioinformatics Engineer - Twist Bioscience. 2012-2014 Greg Gu, Programm (FungiDB).

Current: Chief Engineer - PH Engineering Corp.

2013–2014 Venkatesh Moktali, Bioinformatics Scientist (FungiDB). Current: Biotech and Healthcare Product Management - Twist Bioscience. Jericho Ortanez, Junior Specialist. Current: Graduate Student, UC Riverside. 2017-2018 2021 Omar Valencia, Junior Specialist. Sadikshya Sharma, Assistant Specialist. 2022-2023 Teaching: 2010,2012 BIO5C - Introductory Ecology & Evolution 2011 BIO20 - The Dynamic Genome - Research module for Neurospora research GEN240B - Tools for Bioinformatics and Genome Analysis 2011,2013 MCBL124 - Microbial Pathogenesis 2015 2011–2016 MCBL211 - Microbial Ecology MCBL202 - Microbial Pathogenesis & Physiology 2012-2015 2012-Present GEN220 - Computational Analysis of High Throughput Biological Data http://biodataprog. github.io/ 2016-2020 BIO119 - Introduction to Genomics and Bioinformatics 2022-Present MCBL221 - Microbial Genetics **Undergraduate Researchers:** Sponsor for summer research students in MARCU, STEM, and CAMP programs at UCR. 2010 -2010-2012 Jessica De Anda, UCR. STEM grant participant (2010); MARC USTAR student 2010-12. Current: Career Development Coordinator at UC Berkeley School of Buisiness 2010-2011 Annie Nguyen, UCR. 2011-2012 Carlos Rojas Torres, UCR. CAMP (2011); lab researcher. Current: Gilead Pharmaceuticals. Ramy Wissa, UCR. Pre-MARC USTAR Summer student. 2011 2011-2012 Lorena Rivera, UCR. Pre-MARC USTAR student (2011); lab researcher, CNAS Dean's Fellow Summer Undergraduate Research (Summer 2012) Erum Khan, UCR. 2012-2014 2012-2014 Sapphire Ear, UCR. Current: MD student at UCSF Megna Tiwari, UCR. Current: PhD student at Univ of Georgia 2012-2014 Dylan McVay, UCR. 2013-2014 Na Jeong, UCR, Summer RISE Scholar (2013) and lab researcher 2013-2016 Spencer Swansen, Summer NSF REU student (Seattle Pacific University) 2014 2015-2017 Justin Shen, UCR. 2015-2016 Serena Choi, UCR. 2015-2017 Dillon McDonald, UCR Summer HSI-STEM (2015) and lab researcher. Current: DO Student, Western University of Health Sciences in Oregon Christina Uriarte, UCR. Pre-MARC USTAR student. 2015 2015-2017 Jericho Ortanez, UCR. Current: PhD student UCR Microbiology 2015-2016 Leandra Ibrahim, UCR. Deane Kim, UCR. 2015-2017 Georgiy Smirnov, UCR. 2016-2017 2016-2018 Meng (Josh) Chung, UCR. Current: Dentistry Student 2017-2019 Estefania Caldera, UCR. 2018 Lily Bautista, UCR. Renata Haro, UCR. 2018-2020 Skylar McDonald, UCR. Current: MS student in UCR Engineering. 2018-2020 Saisuki Putumbaka, The College of New Jersey, Summer REU student. Current: PhD student 2019 at Univ of Georgia

Dionne Martin, UCR - won IIGB Undergraduate Research Award. Next: PhD student at Univ

2019-2020

2020-2021

Nicole Leung, UCR.

of Georgia

2021–2023 Amy Do, UCR. Current: MS student in UCR Engineering.

2023 Jared Coyle, CSUSB. - Summer REU student.

2023– Varshini Balaji, UCR.2023– Mia Miyatake, UCR.

### Thesis/Dissertation committees:

| 2011 | Sourav Roy, Pl | nD, Genetics, | Genomics & | Bioinformatics |
|------|----------------|---------------|------------|----------------|
|      | TT 01 3.50     |               | · 0 D:     |                |

Yi Zhou, MS, Genetics, Genomics & Bioinformatics  $\star$ 

2012 Andrew Defries, PhD, Plant Sciences 2013 Gilbert Uribe, MS, Plant Pathology

Divya Sain, PhD, Genetics, Genomics & Bioinformatics \*

2014 Yizhou Wang, PhD, Plant Sciences \*

Zhigang Wu, PhD, Genetics, Genomics & Bioinformatics

2015 Presha Shah, PhD, Biochemistry

Ming Wang, PhD, Plant Pathology

Steven Ahrendt, PhD, Genetics, Genomics & Bioinformatics  $\star$  Ilva Cabrera, PhD, Genetics, Genomics & Bioinformatics Jinfeng Lu, PhD, Genetics, Genomics & Bioinformatics

James Ricci, MS, Entomology

Ryan Arvidson, PhD, Biochemistry Francis Na, MS, Microbiology

> Jishu Ha, PhD, Genetics, Genomics & Bioinformatics Arit Gosh, PhD, Genetics, Genomics & Bioinformatics

Kelsey Gano, PhD, Microbiology Kun Liu, PhD, Plant Biology

2017 Raissa Green, PhD, Genetics, Genomics & Bioinformatics

Amelia Lindsey, PhD, Entomology

Patrick Schriener, PhD, Genetics, Genomics & Bioinformatics Eric Smith, PhD, Genetics, Genomics & Bioinformatics

Katherine Picard, PhD, Univ Prog in Genetics & Genomics (Duke University)

Eric Gordon, PhD, Entomology

2018 Cynthia Dick, PhD, EEOB

2016

Dan Vanderpool, PhD, Biology (University of Montana)

Steven Bolaris, PhD, Genetics, Genomics & Bioinformatics  $\triangle$ 

2019 Joseph Carrillo, PhD, Plant Pathology  $\triangle$ 

Dinusha Maheepala Mudalige, PhD, Plant Biology

Aaron Robinson, PhD, Biology (University of New Mexico)

Courtney Collins, PhD, Plant Biology

Edgar Medina, PhD, Univ Prog in Genetics & Genomics (Duke University)

Lluvia Vargas, PhD, Microbiología (CICESE, MEXICO)

Derreck Carter-House, PhD, Plant Pathology \*

2020 Andrea Vu, PhD, Plant Pathology

Nichole Ginnan, PhD, Plant Pathology Alex Rajewski, PhD, Plant Biology

2021 Nuttapon Pombubpa, PhD, Plant Pathology \*

Caleb Hubbard, PhD, Medical and Veterinary Entomology Sawyer Masonjones, MS, Genetics, Genomics & Bioinformatics \*

Markus Hiltunen, PhD, Evolutionary Biology, Uppsala University (external opponent)

2022 Yi Huang, PhD, Plant Biology

Jesús Peña, PhD, Microbiology ★

Hannah Shulman, PhD, Microbiology

Christopher Fiscus, PhD, Genetics, Genomics & Bioinformatics

Celia Xi, PhD, Plant Biology

Sarah Thorwall, Chemical and Environmental Engineering

Tania Kurbessoian, Microbiology \*

Moira Kelly, Ghent University (external PhD Exam committee)

2023 Robyn Anderson, University of Western Australia (external PhD Exam committee)

Samantha (Smith) Standring, Entomology

Zachary Konkel, The Ohio State University (external PhD Exam committee)

Glen Morrison, Plant Biology

Peggy Brady, EEOB

Danielle Stevenson, Environmental Sciences Fabiola Pulido-Chavez, Plant Pathology

Aidan Shands, Plant Pathology

ongoing Julia Adams, Plant Biology \*

Talieh Ostovar, Program in Evolutionary Biology SDSU-UCR \*

Dylan Enright, Microbiology

Yagna Oza, Genetics, Genomics, Bioinformatics

Jericho Ortañez, Microbiology

Linton Freund, Genetics, Genomics, & Bioinformatics Isaac Diaz, Genetics, Genomics, & Bioinformatics

Tamsen Dunn, Program in Evolutionary Biology SDSU-UCR

Angela Buehlman, Plant Biology

Colin Todd, Plant Biology

Ben Hoyt, Plant Pathology

Mark Yacoub, Microbiology ★

Jessica Maccaro, Entomology

Aida Tafrishi, Chemical and Environmental Engineering

Mark Yacoub, Microbiology ★

Jessica Wu-Woods, Microbiology \*

Leila Shadmani, Microbiology \*

Xueyan (Sharon) Xu, Cellular, Molecular and Developmental Biology \*

Nathan Mathieu, Genetics, Genomics, Bioinformatics ★ (co-advised with Sue Wessler)

Sadikshya Sharma, Genetics, Genomics, Bioinformatics \*

Kian Kelly, Plant Pathology  $\star$ 

Nora Ismail, Microbiology ★

# Invited Seminars and conference presentations (2015–Present)

- 2022 · CIFAR Fungal Kingdom: Threats & Opportunities, Presenter for Feb and March Meetings (Virtual)
  - · Keynote speaker, Bark Beetle Mycobiome Research community meeting (Virtual)
  - · Department Seminar, Scripps Institution of Oceanography, UCSD (Virtual)
  - · Mycological Society of Japan Annual Meeting (Virtual)
- 2021 · CIFAR Fungal Kingdom: Threats & Opportunities, Presenter for Feb and March Meetings
  - · University of Georgia, Guest lecture for undergraduate seminar course "Genome Biology Across the Tree of Life" (Virtual)
  - · Rochester Institute of Technology, Georgia Gosnell Seminar Series (Virtual)
  - · University of Deleware, Microbiology Graduate Program (Virtual)
  - · Canadian Fungal Network Conference, Plenary Speaker (Virtual)
  - · Botany / Mycological Society of America 2021 meeting (Virtual)

 $<sup>\</sup>star$  Stajich is Dissertation advisor or  $\triangle$  co-advisor / substitute

- · Metaorganisms: Collaborative Research Center Seminar series, Germany (Virtual)
- 2020 · Microbiology and Infectious Disease Grad Student retreat speaker, Univ Texas Health Sciences, Houston, TX (postponed)
- 2019 · Phylogenomics Workshop, Cesky Krumlov, Czech Republic
  - · Middle Tennessee State University, Murfreesboro, TN
  - · Rosie Perez Memorial Seminar, North Carolina State University, Raleigh, NC
  - · University of North Carolina, Chapel Hill, NC
  - · California State University, Northridge, CA
- 2018 · UC Riverside Data Science Series. Riverside, CA
  - · University of Nebraska-Lincoln, Lincoln, NE
  - · Creighton University, Omaha, NE
  - · Marine Fungi Workshop. Marine Biological Lab, Woods Hole, MA.
  - · 11th International Mycological Congress. San Juan, Puerto Rico
  - · CIFAR workshop "Microbial Pathogens in the Fungal Kingdom". Toronto, Ontario, CANADA
- 2017 · Oregon State University. Corvallis, OR
  - · 29th Fungal Genetics Conference. Plenary Speaker. Pacific Grove, CA.
  - · Oomycete Molecular Genetics Network. Plenary Speaker. Pacific Grove, CA
  - · Population Genomics of Oomycete and Fungal Pathogens. Ascona, Switzerland
  - · American Society for Microbiology Microbe Meeting. New Orleans, LA
  - · FASEB Microbial Pathogenesis. Aspen, CO.
  - · Mycological Society of America 2017 Meeting. Athens, GA
  - · American Academy of Microbiology Colloquium on Fungal Pathogenesis. Washington, DC
  - · Fungal Cell Wall Conference. Ensenada, Mexico
  - · Whetzel-Westcott-Dimock Special Lecturer, Cornell University, Ithaca, NY

February 11, 2024