Jason E. Stajich

Contact Department of Plant Pathology & Microbiology, Institute for Integrative Genome Biology,

University of California, Riverside, CA 92521

Telephone: +1 951-827-2363 Email: jason.stajich@ucr.edu Web: http://lab.stajich.org/@stajichlab @hyphaltip

Education

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

Academic appointments:

2017-	Professor
2014-2017	Associate Professor (with tenure)
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:

2015	Kavli Fellow, Kavli Frontiers of Science
2014	C. J. Alexopoulos Prize, Mycological Society for America
2006-2009	Miller Institute for Basic Research in Science, Postdoctoral Research Fellowship
2003-2006	National Science Foundation, Graduate Research Fellowship

Publications: (Listed in reverse chronological order.)

Peer Reviewed Publications

- 1. Mondo, S., Dannebaum, R., Kuo, R., LaButti, K., Haridas, S., Kuo, A., Salamov, A., Ahrendt, S., Lipzen, A., Lindquist, E., Sullivan, W., Andreopoulos, W., Clum, A., Daum, C., Ramamoorthy, G., Gryganskyi, A., Culley, D., Magnuson, J., James, T., O'Malley, M., **Stajich**, J. E., Spatafora, J., Visel, A., Louie, K., Lau, R., Bewick, A., Schmitz, B., Northen, T., Bowen, B., and Grigoriev, I. V. 2017. Pervasive adenine N6-methylation of active genes in fungi. *Nature Genetics* In Press.
- 2. Ahrendt, S. R., Medina, E. M., Chia-en, A. C., and **Stajich**, J. E. 2017. Exploring the binding properties and structural stability of an opsin in the chytrid *Spizellomyces punctatus* using comparative and molecular modeling. *PeerJ* doi:10.7287/peerj.preprints.2397v1. In Press.
- 3. Nguyen, T. A., Cissé, O. H., Yun Wong, J., Zheng, P., Hewitt, D., Nowrousian, M., **Stajich**, J. E., and Jedd, G. 2017. Innovation and constraint leading to complex multicellularity in the Ascomycota. *Nature Communications* 8:14444. doi:10.1038/ncomms14444.
- 4. Chen, J., Wrightsman, T., Wessler, S. R., and **Stajich**, J. E. 2017. RelocaTE2: a high resolution transposable element insertion site mapping tool for population resequencing. *PeerJ* 5:e2942. doi:10.7717/peerj.2942.
- Spatafora, J. W., Chang, Y., Benny, G. L., Lazarus, K., Smith, M. E., Berbee, M. L., Bonito, G., Corradi, N., Grigoriev, I., Gryganskyi, A., James, T. Y., O'Donnell, K., Roberson, R. W., Taylor, T. N., Uehling, J., Vilgalys, R., White, M. M., and Stajich, J. E. 2016. A phylum-level phylogenetic classification of zygomycete fungi based on genome-scale data. *Mycologia* 108:1028–1046. doi: 10.3852/16-042.

- 6. Short, D. P., O'Donnell, K., **Stajich**, J. E., Hulcr, J., Kijimoto, T., Berger, M. C., Macias, A. M., Spahr, E. J., Bateman, C. C., Eskalen, A., et al. 2017. PCR multiplexes discriminate *Fusarium* symbionts of invasive *Euwallacea* ambrosia beetles that inflict damage on numerous tree species throughout the United States. *Plant Disease* 101(1):233–240. doi:10.1094/PDIS-07-16-1046-RE.
- 7. Castanera, R., López-Varas, L., Borgognone, A., LaButti, K., Lapidus, A., Schmutz, J., Grimwood, J., Pérez, G., Pisabarro, A. G., Grigoriev, I. V., **Stajich**, J. E., and Ramírez, L. 2016. Transposable elements versus the fungal genome: Impact on whole-genome architecture and transcriptional profiles. *PLoS Genet* 12(6):e1006108. doi:10.1371/journal.pgen.1006108.
- 8. Lee, M. J., Geller, A. M., Bamford, N. C., Liu, H., Gravelat, F., Snarr, B. D., Le Mauff, F., Chabot, J., Ralph, B., Ostapska, H., Lehoux, M., Cerone, R. P., Baptisa, S. D., Vinogradov, E., **Stajich**, J. E., Filler, S. G., Howell, P. L., and Sheppard, D. C. 2016. Deacetylation of fungal exopolysaccharide mediates adhesion and biofilm formation. *mBio* 7(2):e00252–16. doi:10.1128/mBio.00252-16.
- 9. de Man, T. J. B., **Stajich**, J. E., Kubicek, C. P., Teiling, C., Chenthamara, K., Atanasova, L., Druzhinina, I. S., Levenkova, N., Birnbaum, S. S. L., Barribeau, S. M., Bozick, B. A., Suen, G., Currie, C. R., and Gerardo, N. M. 2016. Small genome of the fungus *Escovopsis weberi*, a specialized disease agent of ant agriculture. *Proc Natl Acad Sci U S A* 113(13):3567–3572. doi: 10.1073/pnas.1518501113.
- 10. U'Ren, J. M., Miadlikowska, J., Zimmerman, N. B., Lutzoni, F., **Stajich**, J. E., and Arnold, A. E. 2016. Contributions of North American endophytes to the phylogeny, ecology, and taxonomy of Xylariaceae (Sordariomycetes, Ascomycota). *Mol Phylogenet Evol* 98:210–232. doi:10.1016/j. ympev.2016.02.010.
- 11. Pieuchot, L., Lai, J., Loh, R. A., Leong, F. Y., Chiam, K.-H., **Stajich**, J. E., and Jedd, G. 2015. Cellular subcompartments through cytoplasmic streaming. *Dev Cell* 34(4):410–420. doi:10.1016/j.devcel.2015.07.017.
- 12. Wang, Y., Smith, K. M., Freitag, M., and **Stajich**, J. E. 2015. Endogenous small RNA mediates meiotic silencing of a novel DNA transposon. *G3: Genes* | *Genomes* | *Genetics* 5(10):g3.115.017921. doi:10.1534/g3.115.017921.
- 13. Liu, P. and **Stajich**, J. E. 2015. Characterization of the Carbohydrate Binding Module 18 gene family in the amphibian pathogen *Batrachochytrium dendrobatidis*. *Fungal Genet Biol* 77:31–39. doi:10.1016/j.fgb.2015.03.003.
- 14. Willger, S. D., Liu, Z., Olarte, R. A., Adamo, M. E., **Stajich**, J. E., Myers, L. C., Kettenbach, A. N., and Hogan, D. A. 2015. Analysis of the *Candida albicans* phosphoproteome. *Eukaryot Cell* 14(5):474–485. doi:10.1128/EC.00011-15.
- 15. Collins, R. A., **Stajich**, J. E., Field, D. J., Olive, J. E., and DeAbreu, D. M. 2015. The low information content of *Neurospora* splicing signals: implications for RNA splicing and intron origin. *RNA* 21(5):997–1004. doi:10.1261/rna.047985.114.
- 16. Mélida, H., Sain, D., **Stajich**, J. E., and Bulone, V. 2015. Deciphering the uniqueness of mucoromycotina cell walls by combining biochemical and phylogenomic approaches. *Environmental Microbiology* 17(5):1649–62. doi:10.1111/1462-2920.12601.
- 17. Teixeira, M. M., de Almeida, L. G., Kubitschek-Barreira, P., Alves, F. L., Kioshima, E. S., Abadio, A. K., Fernandes, L., Derengowski, L. S., Ferreira, K. S., Souza, R. C., Ruiz, J. C., de Andrade, N. C., Paes, H. C., Nicola, A. M., Albuquerque, P., Gerber, A. L., Martins, V. P., Peconick, L. D., Neto, A. V., Chaucanez, C. B., Silva, P. A., Cunha, O. L., de Oliveira, F. F., Dos Santos, T. C., Barros, A. L., Soares, M. A., de Oliveira, L. M., Marini, M. M., Villalobos-Duno, H., Cunha, M. M., de Hoog, S., da Silveira, J. F., Henrissat, B., Niño-Vega, G. A., Cisalpino, P. S., Mora-Montes, H. M., Almeida, S. R., Stajich, J. E., Lopes-Bezerra, L. M., Vasconcelos, A. T., and Felipe, M. S. 2014. Comparative genomics of the major fungal agents of human and animal Sporotrichosis: *Sporothrix schenckii* and *Sporothrix brasiliensis*. *BMC Genomics* 15:943. doi:10.1186/1471-2164-15-943.

- 18. Ouyang, S., Park, G., Atamian, H. S., Han, C. S., **Stajich**, J. E., Kaloshian, I., and Borkovich, K. A. 2014. Regulation of innate immunity to the fungal pathogen *Fusarium oxysporum* by microRNAs in tomato. *PLoS Path* 10(10):e1004464. doi:10.1371/journal.ppat.1004464.
- 19. Inglis, D. O., Skrzypek, M. S., Liaw, E., Moktali, V., Sherlock, G., and **Stajich**, J. E. 2014. Literature-based gene curation and proposed genetic nomenclature for *Cryptococcus*. *Eukaryot Cell* 13(7):878–883. doi:10.1128/EC.00083-14.
- 20. Treseder, K. K., Maltz, M. R., Hawkins, B. A., Fierer, N., **Stajich**, J. E., and McGuire, K. L. 2014. Evolutionary histories of soil fungi are reflected in their large-scale biogeography. *Ecol Lett* 17(9):1086–1093. doi:10.1111/ele.12311.
- 21. Janbon, G., Ormerod, K. L., Paulet, D., Byrnes, E. J., 3rd, Yadav, V., Chatterjee, G., Mullapudi, N., Hon, C.-C., Billmyre, R. B., Brunel, F., Bahn, Y.-S., Chen, W., Chen, Y., Chow, E. W. L., Coppée, J.-Y., Floyd-Averette, A., Gaillardin, C., Gerik, K. J., Goldberg, J., Gonzalez-Hilarion, S., Gujja, S., Hamlin, J. L., Hsueh, Y.-P., Ianiri, G., Jones, S., Kodira, C. D., Kozubowski, L., Lam, W., Marra, M., Mesner, L. D., Mieczkowski, P. A., Moyrand, F., Nielsen, K., Proux, C., Rossignol, T., Schein, J. E., Sun, S., Wollschlaeger, C., Wood, I. A., Zeng, Q., Neuvéglise, C., Newlon, C. S., Perfect, J. R., Lodge, J. K., Idnurm, A., Stajich, J. E., Kronstad, J. W., Sanyal, K., Heitman, J., Fraser, J. A., Cuomo, C. A., and Dietrich, F. S. 2014. Analysis of the genome and transcriptome of *Cryptococcus neoformans* var. grubii reveals complex RNA expression and microevolution leading to virulence attenuation. PLoS Genet 10(4):e1004261. doi:10.1371/journal.pgen.1004261.
- 22. Sachs, J. L., Skophammer, R. G., Bansal, N., and **Stajich**, J. E. 2014. Evolutionary origins and diversification of proteobacterial mutualists. *Proc Biol Sci* 281(1775):20132146. doi:10.1098/rspb.2013.2146.
- 23. Traeger, S., Altegoer, F., Freitag, M., Gabaldon, T., Kempken, F., Kumar, A., Marcet-Houben, M., Pöggeler, S., **Stajich**, J. E., and Nowrousian, M. 2013. The genome and development-dependent transcriptome of *Pyronema confluens*: a window into fungal evolution. *PLoS Genetics* 9(9):e1003820. doi:10.1371/journal.pgen.1003820.
- 24. Gryganskyi, A. P., Humber, R. A., **Stajich**, J. E., Mullens, B., Anishchenko, I. M., and Vilgalys, R. 2013. Sequential utilization of hosts from different fly families by genetically distinct, sympatric populations within the *Entomophthora muscae* species complex. *PLoS One* 8(8):e71168. doi: 10.1371/journal.pone.0071168.
- 25. Gioti, A., **Stajich**, J. E., and Johannesson, H. 2013. *Neurospora* and the dead-end hypothesis: genomic consequences of selfing in the model genus. *Evolution* 67(12):3600–3616. doi:10.1111/evo.12206.
- 26. James, T. Y., Pelin, A., Bonen, L., Ahrendt, S., Sain, D., Corradi, N., and **Stajich**, J. E. 2013. Shared signatures of parasitism and phylogenomics unite Cryptomycota and Microsporidia. *Curr Biol* 23(16):1548–1553. doi:10.1016/j.cub.2013.06.057.
- 27. Rosenblum, E. B., James, T. Y., Zamudio, K. R., Poorten, T. J., Ilut, D., Rodriguez, D., Eastman, J. M., Richards-Hrdlicka, K., Joneson, S., Jenkinson, T. S., Longcore, J. E., Parra Olea, G., Toledo, L. F., Arellano, M. L., Medina, E. M., Restrepo, S., Flechas, S. V., Berger, L., Briggs, C. J., and Stajich, J. E. 2013. Complex history of the amphibian-killing chytrid fungus revealed with genome resequencing data. *Proc Natl Acad Sci U S A* 110(23):9385–9390. doi:10.1073/pnas.1300130110.
- 28. Robb, S. M. C., Lu, L., Valencia, E., Burnette, J. M., 3rd, Okumoto, Y., Wessler, S. R., and **Stajich**, J. E. 2013. The use of RelocaTE and unassembled short reads to produce high-resolution snapshots of transposable element generated diversity in rice. *G3: Genes* | *Genomes* | *Genetics* 3(6):949–57. doi:10.1534/g3.112.005348.
- 29. Jamieson, K., Rountree, M. R., Lewis, Z. A., **Stajich**, J. E., and Selker, E. U. 2013. Regional control of histone H3 lysine 27 methylation in *Neurospora*. *Proc Natl Acad Sci U S A* 110(15):6027–6032. doi:10.1073/pnas.1303750110.

- 30. Cheng, C. K., Au, C. H., Wilke, S. K., **Stajich**, J. E., Zolan, M. E., Pukkila, P. J., and Kwan, H. S. 2013. 5'-serial analysis of gene expression studies reveal a transcriptomic switch during fruiting body development in *Coprinopsis cinerea*. *BMC Genomics* 14(1):195. doi:10.1186/1471-2164-14-195.
- 31. Gioti, A., Nystedt, B., Li, W., Xu, J., Andersson, A., Averette, A. F., Münch, K., Wang, X., Kappauf, C., Kingsbury, J. M., Kraak, B., Walker, L. A., Johansson, H. J., Holm, T., Lehtiö, J., **Stajich**, J. E., Mieczkowski, P., Kahmann, R., Kennell, J. C., Cardenas, M. E., Lundeberg, J., Saunders, C. W., Boekhout, T., Dawson, T. L., Munro, C. A., de Groot, P. W. J., Butler, G., Heitman, J., and Scheynius, A. 2013. Genomic insights into the atopic eczema-associated skin commensal yeast *Malassezia sympodialis*. *MBio* 4(1):e00572–e00512. doi:10.1128/mBio.00572-12.
- 32. Nygren, K., Wallberg, A., Samils, N., **Stajich**, J. E., Townsend, J. P., Karlsson, M., and Johannesson, H. 2012. Analyses of expressed sequence tags in *Neurospora* reveal rapid evolution of genes associated with the early stages of sexual reproduction in fungi. *BMC Evol Biol* 12:229. doi:10.1186/1471-2148-12-229.
- 33. Abramyan, J. and **Stajich**, J. E. 2012. Species-specific chitin-binding module 18 expansion in the amphibian pathogen *Batrachochytrium dendrobatidis*. *MBio* 3(3):e00150–e00112. doi:10.1128/mBio.00150-12.
- 34. 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.
- 35. **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.
- 36. Joneson, S., **Stajich**, J. E., Shiu, S.-H., and Rosenblum, E. B. 2011. Genomic transition to pathogenicity in chytrid fungi. *PLoS Pathog* 7(11):e1002338. doi:10.1371/journal.ppat.1002338.
- 37. 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.
- 38. 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.
- 39. 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.
- 40. 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.
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- 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.
- 42. 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.
- 43. 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.
- 44. 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.
- 45. 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.
- 46. 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.
- 47. 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.
- 48. 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.

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Submitted Manuscripts and Preprints

- 1. Cissé, O. H. and **Stajich**, J. E. 2016. FGMP: assessing fungal genome completeness and gene content. *bioRxiv* doi:10.1101/049619. Submitted.
- 2. Torres-Cruz, T. J., Billingsley Tobias, T. L., Almatruk, M., Hesse, C., Kuske, C. R., Desiro, A., Benucci, G. N., Bonito, G., **Stajich**, J. E., Dunlap, C., Arnold, A. E., and Porras-Alfaro., A. 2017. *Bifiguratus adelaidae* gen. et sp. nov., a new lineage of Mucoromycotina with endophytic and soil-dwelling strains. Submitted.
- 3. Beaudet, D., Chen, E., Ndikumana, S., Dalpé, Y., Séguin, S., Farinelli, L., **Stajich**, J. E., and Corradi, N. 2017. Single-cell transcriptomics reveals hidden functional diversity and novel phylogenetic affiliations within arbuscular mycorrhizal fungi Submitted.
- 4. Sinha, S., Flibotte, S., Neira, M., Formby, S., Plemenitaš, A., Cimerman, N. G., Lenassi, M., Gostinčar, C., **Stajich**, J. E., and Nislow, C. 2017. Insight into the recent genome duplication of the halophilic yeast *Hortaea werneckii*: combining an improved genome with gene expression and chromatin structure Submitted.
- 5. Coleine, C., Masonjones, S., Selbmann, L., Zucconi, L., Onofri, S., Pacelli, C., and **Stajich**, J. E. 2017. Draft genomes of the Antarctic endolithic fungi *Rachicladosporium antarcticum* CCFEE 5527 and *Rachicladosporium* sp. CCFEE 5018. *Genome Announcements* Submitted.

Reviews (Refereed)

- 1. 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.
- 2. 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.

- 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. **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.
- 5. **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.

Books and Book Chapters

- 1. **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.
- 2. **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.
- 3. 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.
- 4. 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.
- 5. Edwards, D., Stajich, J. E., and Hansen, D., editors. 2009. Bioinformatics. Springer, NY.
- 6. Stajich, J. E. 2007. An introduction to BioPerl. Methods Mol Biol 406:535-548.
- 7. **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.
- 8. 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.

Meeting and Technical Reports

- 1. 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.
- 2. 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.
- 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/ismei.2013.176.
- 4. 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.
- 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.

Commentaries and Book Reviews

- 1. **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.
- 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. 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.

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

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://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 Ge-

nomics

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

Grant Support:

O	ng	oin	g s	up	port

2011-2016 W.M. Keck Foundation. \$1M

"New Active Transposable Elements for Mosquito Genetics."

Role: Co-I. PI: SR Wessler (UC Riverside). Co-I: P Atkinson (UC Riverside).

2011-2017 National Science Foundation. Plant Genome - IOS-1027542. \$4.9M

"CPGS: Genome-wide impact of mPing transposition on rice phenotypic diversity."

Role: Co-I. PI: SR Wessler (UC Riverside). Co-I: T Brutnell (Danforth Center), Q Sun (Cornell).

Cornen).

http://dynamiterice.org

2014-2017 National Institutes of Health - 1-R01-GM108492-01. \$1.5M

"Dynamics of bacterial-fungal interactions in chronic lung infections"

Role: Co-I. PI: D Hogan (Dartmouth)

2015-2018 National Science Foundation. GO Life DEB-1441715. \$714k (\$2.5M total award)

"Collaborative Research: The Zygomycetes Genealogy of Life (ZyGoLife)- the conundrum

of Kingdom Fungi"

Role: PI. Collaborative award with 3 other PIs and 12 collaborating labs: J Spatafora

(Oregon State), TY James (U Michigan), R Robertson (Arizona State)

http://zvgolife.org

2016-2019 National Science Foundation. DEB-1557110. \$317k (\$709k total award)

"Collaborative Research: Phylogenomics and evolutionary history of the anaerobic fungal

	group, Neocallimastigomycota" Role: PI. Collaborative award with PI: Noha Youssef and Mostafa Elshahed (Oklahoma
2017-2020	State) Univ of California-Office of the President, MRPI. \$105k (\$1.7M total award) "UC Valley Fever Research Initiative"

Role: Co-PI. Collaborative award with PI: Anita Sil (UCSF)

Completed support

Completed supp	Doit
2010-2013	Burroughs Wellcome Fund. \$500k
	"FungiDB: A Pan Fungal Genome Database".
	Role: Co-I. PI: DS Roos (U Pennsylvania)
2011-2012	UC Riverside, Chancellor's Strategic Investment Funds. \$25k
	"Coelomomyces Genomics for Mosquito Vector Control"
	Role: Co-I. PI: B Federici. Co-I: A Ray (UC Riverside)
2013-2014	UC Riverside, Office of Research Strategic Investment Funds. \$50k
	"High-throughput synthetic biology for natural products discovery"
	Role: Co-I. PI: K Borkovich. Co-I: C Larive (UC Riverside)
2013-2014	National Institutes of Health - 1-R03-AI105636-01. \$168k
	"Annotation of Cryptococcus genomes by comprehensive curation of published literature"
	Role: PI. Co-I G Sherlock (Stanford)

2011-2014 Alfred P. Sloan Foundation. \$750k

"MoBe DAC: A data coordinating center for the Sloan Indoor Environment Metagenomic Project - Fungal resources".

Role: PI. Coordinated with F Meyer (U Chicago/ANL), R Knight (U Colorado), M Sogin (Marine Biological Lab).

2014-2015 National Science Foundation. DBI-1429826. \$548k

"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)

Service

University and Departmental

2015–2016 Director & Admissions Advisor, Microbiology Graduate Program
 2014–2015 Graduate Advisor, Microbiology Graduate Program

Editorial Boards

2016-	Editorial Board, Current Opinion in Microbiology
2015-	Associate Editor, Microbial Genomics
2014-	Associate Editor, Fungal Genetics & Biology
2013,2015	Guest Associate Editor, PLoS Genetics
2013	Guest Associate Editor, Mycologia
2011-	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

2018-2020	Co-Vice Chair (2018) and Co-Chair (2020) of Cellular and Molecular Fungal
	Biology, Gordon Research Conference
2014–2018	Neurospora Policy Committee, Co-Organized 2016 Neurospora conference
2013-2019	Fungal Genetics Policy Committee
2012-2017	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	Councilor for Genetics & Molecular Biology, Mycological Society of America
2009-2010	Advisory Board for Genomic Encyclopedia of Fungi, Joint Genome Institute,
	US Department of Energy.
2009-2010	Pan-Fungal Database Steering Committee for Burroughs Welcome Fund.
2007-2009	Scientific advisory board for NSF funded Computer Science Education Revi-
	talization project to PI Owen Astrachan, Duke University.
2005-2008	Scientific advisory committee for Information Technology and Computing
	infrastructure for the National Center for Evolutionary Synthesis (NESCent).
2005-2011	President and Board Member [2005–Present], Open Bioinformatics Founda-
	tion http://www.open-bio.org/
2001-	Co-Project leader, BioPerl. http://www.bioperl.org/

Membership in Professional Societies:

2002-	International Society for Computational Biology
2004-	Society for Molecular Biology and Evolution
2007-	American Society for Microbiology
2004-	Genetics Society of America
2007-	Mycological Society of America
2001-	BioPerl developed. Co-Project leader (2001-2012).
2002-	Open Bioinformatics Foundation

Graduate Students:

2009–13	PhD student, Divya Sain. Genetics, Genomics, & Bioinformatics. Currently: Bioinformatics Scientist at Ambry Genetics.
2010-12	MS student, Yi (Zoe) Zhu. Genetics, Genomics, & Bioinformatics. Currently:
	Biostatistician at Biostatistical Consulting Inc.
2014	MS student, Elizabeth Holmes, Plant Pathology & Microbiology
2010-14	PhD student, Yizhou Wang. Plant Biology. Currently: Research Bioinformati-
	cian at Cedars Sinai.
2011-15	PhD student, Steven Ahrendt. Genetics, Genomics, & Bioinformatics. Cur-
	rently: Postdoc at UC Berkeley/LBNL & DOE Joint Genome Institute.
2015-	PhD Student, Sawyer Masonjones. Genetics, Genomics, & Bioinformatics
2015-	PhD Student, Nuttapom Pombubpa. Plant Pathology.
2016-	PhD Student, Derreck Carter-House. Plant Pathology
2016-	PhD Student, Jesús Peña, Microbiology

Postdoctoral Fellows:

2010-2011	John Abramyan, PhD. Currently: Postdoc at Univ of West Virgina
2011-2014	Sofia Robb, PhD. Currently: Genomics Scientist at Stowers Institute.
2012-2014	Brad Cavinder, PhD. Currently: Research Associate at Michigan State Uni-
	versity
2012-2015	Peng Liu, PhD.
2013-	Jinfeng Chen, PhD
2013-2015	Ousmane Cissé, PhD - Swiss National Science Foundation Fellow. Currently:
	Postdoctoral Fellow at NIH Clinical Center.
2014-2015	Rodrigo Olarte. Currently: NSF Postdoctoral Fellow at Univ of Minnesota.
2017-	Yan Wang, PhD.

Visitors:

- 2010–13 (4, 2-3 month vists) Anastasia Gioti, PhD, Dept of Evolution Biology, Uppsala University, SWEDEN
- 2010 (Spring) Suzanne Joneson, PhD, Department of Biology, University of Idaho
- 2011 (Spring) Edgar Medina Tovar, MSc Mycology and Phytopathology Lab, Universidad de Los Andes, Bogota, COLOMBIA
- 2012 (Summer) Andrii Gryganski, PhD, Visiting Researcher, Duke University
- 2013–14 Venkatesh Moktali, PhD, FungiDB Project, Visiting Research Fellow, Oregon State University
- 2014 Raúl Castanera Andrés, Visiting Graduate Student, Universidad Pública de Navarra, Pamplona, SPAIN
- 2015 (Spring) Natalie Vande Pol, Visiting Graduate Student (Bonito Lab), Michigan State University
- 2015–16 Zhinquan Song, Visiting Graduate Student (Guangyi Wang Lab), Tianjin University, CHINA
- 2015 (Fall) John Yinka Odebode, Visiting Graduate Student on a West African Research Assocation Fellowship, University of Lagos, NIGERIA.
- 2015 (Fall) Marco Marconi, Visiting Graduate Student, Universidad Politécnica de Madrid, Madrid, SPAIN
- 2015–2016 Claudia Coleine, Visiting Graduate Student, Universitá degli Studi della Tuscia, Viterbo, ITALY

Teaching:

2010,2012	BIO5C - Introductory Ecology & Evolution
2011	BIO20 - The Dynamic Genome - Research module for Neurospora research
2011,2013	GEN240B - Tools for Bioinformatics and Genome Analysis
2015	MCBL124 - Microbial Pathogenesis
2011-	MCBL211 - Microbial Ecology
2012-2015	MCBL202 - Microbial Pathogenesis & Physiology
2012-	GEN220 - Computational Analysis of High Throughput Biological Data http:
	//hyphaltip.github.io/GEN220_2015
2016-	BIO119 - Introduction to Genomics and Bioinformatics

Undergraduate Researchers:

- 2010– Sponsor for summer research students in MARCU, STEM, and CAMP programs at UCR.
- 2010–2012 Jessica De Anda, UCR. STEM grant participant (2010); MARC USTAR student 2010-12. Current MS Student, Claremont College
- 2010–2011 Annie Nguyen, UCR.
- 2011–2012 Carlos Rojas Torres, UCR. CAMP (2011); lab researcher. Current: Gilead Pharmaceuticals.
- 2011 Ramy Wissa, UCR. Pre-MARC USTAR Summer student.
- 2011–2012 Lorena Rivera, UCR. Pre-MARC USTAR student (2011); lab researcher, CNAS Dean's Fellow Summer Undergraduate Research (Summer 2012)
- 2012-2014 Erum Khan, UCR.
- 2012–2014 Sapphire Ear, UCR. Current: CityYear and matriculating MD student (TBD).
- 2012–2014 Megna Tiwari, UCR. Current: MS student at Cal State-Long Beach
- 2013–2014 Dylan McVay, UCR.
- 2013–2016 Na Jeong, UCR, Summer RISE Scholar (2013) and lab researcher
- Spencer Swansen, Summer NSF REU student (Seattle Pacific University)

2015–2016 Justin Shen, UCR. 2015-2016 Serena Choi, UCR. Dillon McDonald, UCR Summer HSI-STEM (2015) and lab researcher 2015-2015 Christina Uriarte, UCR. Pre-MARC USTAR student. 2015-Jericho Ortanez, UCR. 2015-2016 Leandra Ibrahim, UCR. Deane Kim, UCR. 2015-2016-Georgiy Smirnov, UCR. Meng (Josh) Chung, UCR. 2016-

Dissertation and thesis committees:

2011	Sourav Roy, PhD, GGB
2011	Yi Zhou, MS, GGB *
2012	Andrew Defries, PhD, Plant Sciences
2012	Gilbert Uribe, MS, Plant Pathology
2015	Divya Sain, PhD, GGB *
2014	Yizhou Wang, PhD, Plant Sciences *
2014	Zhigang Wu, PhD, GGB
2015	Presha Shah, PhD, Biochemistry
	Ming Wang, PhD, Plant Pathology
	Steven Ahrendt, PhD, GGB *
	Ilva Cabrera, PhD, GGB
	Jinfeng Lu, PhD, GGB
	James Ricci, MS, Entomology
2016	Ryan Arvidson, PhD, Biochemistry
	Francis Na, MS, Microbiology
	Jishu Ha, PhD, GGB
	Arit Gosh, PhD, GGB
	Kelsey Gano, Microbiology
	Kun Liu, Plant Biology
ongoing	Raissa Green, GGB
	Amelia Lindsey, Entomology
	Patrick Schriener, GGB
	Cynthia Dick, EEOB
	Eric Gordon, Entomology
	Eric Smith, GGB
	Dereck O'Meara, EEOB
	Yi Zhai, CMDB
	Andrea Vu, Plant Pathology
	Steven Bolaris, GGB

Dinusha Maheepala Mudalige, Plant Biology Nuttapon Pombubpa, Plant Pathology * Derreck Carter-House, Plant Pathology *

Sawyer Masonjones, GGB ★ Jesús Peña, Microbiology ★

Nathan Robinett, Joint Doctoral Program in Evolutionary Biology, SDSU-

UCR

Katherine Picard, UPGG - Duke University Edgar Medina, UPGG - Duke University

Lluvia Vargas, Microbiología - CICESE, MEXICO Dan Vanderpool, Biology, University of Montana

Invited Seminars and conference presentations (2015–Present)

- 2016 · Mycological Society of America 2016 Meeting. Berkeley, CA.
 - · CIFAR Integrated Microbial Biodiversity Program. Toronto, ON, CANADA.
 - · 13th European Fungal Genetics Conference. Paris, France. Plenary Speaker
 - · Neurospora Conference. Asilomar Conference Center, Pacific Grove, CA.
 - · University Program in Genetics & Genomics. Duke University, Durham, NC.
 - · Dept of Plant Pathology. University of California, Davis, CA.
 - · University of Exeter. United Kingdom.
- 2015 · Exploring the genomic complexity and diversity of eukaryotes. EMBO Conference, San Feliu de Guixols, SPAIN.
 - \cdot XI CONGRESO NATIONAL DE MICOLOGIA, Sociedad Mexicana de Micologia. Merida, Yucatan, MEXICO. Plenary Speaker
 - · School of Plant Sciences, University of Arizona, Tucson, AZ.
 - · Eighth International Conference on Mycorrhiza. Flagstaff, AZ.
 - · Mycological Society of America 2015 Meeting. Edmonton, AB, CANADA.
 - · Society for Molecular Biology & Evolution 2015. Vienna, Austria.
 - · Bioinformatics Seminar series. University of California, Los Angeles, CA.
 - · University of California, Merced, CA.
 - · 28th Fungal Genetics Conference. Asilomar Conference Center, Pacific Grove, CA.
 - · Center for Genome Research and Biocomputing Seminar. Oregon State University, Corvallis, OR.
 - · Dept of Microbiology and Molecular Genetics. Oklahoma State University, Stillwater, OK.

April 24, 2017