

Archibald Lab publications (April 2026)

201. Latimer, J., Ozsan, E., Goertz, T. J., Kaur, G., Chung, D., & Archibald, J. M. 2026. Diversity of environmental Labyrinthulomycetes in Nova Scotia, Canada. *J. Eukaryot. Microbiol.* Under review. Biorxiv preprint doi.org/10.64898/2026.01.15.699578.

200. Colp, M. J. & Archibald, J. M. 2025. Complex and variable ploidy in *Acanthamoeba castellanii*. *Genome Biol. Evol.* 18:4. Advanced access: <https://doi.org/10.1093/gbe/evag051>.

199. **Archibald, J. M.** 2026. Evolution: Genomic clues to the origin of eukaryotic cells. *Nature* 650, 42-44.

198. Haro, R. E., Gallot-Lavallée, L., Archibald, J. M., & Slamovits, C. H. 2025. Endogenized polinton-like viruses in the dinoflagellate *Oxyrrhis marina* bridge gap between viruses and transposable elements. *J. Gen. Virol.* 106:002200.

197. Schoenle, A., Francis, O., **Archibald, J. M.**, Leger, M., Irisarri, I., Strassert, J. F. H., Florent, I., Yurchenko, V., Hehenberger, E., Massana, R., Burki, F., Lukeš, J., Worden, A. Z., Nitsche, F., Lara, E., de Vries, J., Eme, L., Dumack, K., Mathur, V., Hoffmeyer, T., Hall, N., del Campo, J., & Waldvogel, A.-M. 2025. Protist genomics: key to understanding eukaryotic evolution. *Trends Genet.* 41, 868-882.

196. Chung, D., Brask, N., Matar, S., Gallot-Lavallée, L., Pringle, E. Duguay, B., Blais, C., Slamovits, C. H., Leyland, B., Rest, J. S., Collier, J. L., McCormick, C., & Archibald, J. M. 2025. Persistent mirusvirus infection in the marine protist *Aurantiochytrium*. *Nature Comm.* Under revision. Research Square preprint: doi: 10.21203/rs.3.rs-5686297/v1.

195. Tashyreva, D., Drahomíra, F., Stříbrná, E., Horák, A., Lukeš, J., **Archibald, J. M.**, Oatley, G., Sinclair, E., Aunin, E., Gettle, N., Santos, C., Paulini, M., McKenna, V., O'Brien, R., Niu, H., Wellcome Sanger Institute Tree of Life Management, Samples and Laboratory Team, Wellcome Sanger Institute Scientific Operations: Sequencing Operations, Wellcome Sanger Institute Tree of Life Core Informatics Team, EBI Aquatic Symbiosis Genomics Data Portal Team, Aquatic Symbiosis Genomics Project Leadership. 2025. The genome sequences of the diplomonid protist *Diplonema japonicum* yPF1604 and its bacterial endosymbionts *Ca. Cytomitobacter primus* and *Ca. Nesciobacter abundans*. *Wellcome Open Res.* 10:193.

194. Tashyreva, D., Drahomíra, F., Lukeš, J., **Archibald, J. M.**, Oatley, G., Sinclair, E., Aunin, E., Gettle, N., Santos, C., Paulini, M., McKenna, V., O'Brien, R., Niu, H., Wellcome Sanger Institute Tree of Life Management, Samples and Laboratory Team, Wellcome Sanger Institute Scientific Operations: Sequencing Operations, Wellcome Sanger Institute Tree of Life Core Informatics Team, EBI Aquatic Symbiosis Genomics Data Portal Team, Aquatic Symbiosis Genomics Project Leadership. 2025. The genome sequences of the diplomonid protist *Rhynchopus euleeides* YPF1915 and its bacterial endosymbiont *Ca. Syngnamydia salmonis*. *Wellcome Open Res.* Under review.

193. Sibbald, S. J., Lawton, M., Maclean, C., Roger, A. J., & Archibald, J. M. 2025. Pangenome biology and evolution in harmful algal-bloom-forming pelagophytes. *Curr. Biol.* Under revision. Biorxiv pre-print doi: 10.1101/2024.10.30.620910.

192. Sganzerla-Martinez, G., Kumar, A., Kiganda-Lusamaki, E., Dutt, M., Wawina Bokalanga, T., Toloue, A. Mawete Francisca, M., Makangara-Cigolo, J. C., Kelvin, P., Adrienne, A. A., Richardson, C. D., Lokilo, E., Luakanda, G., Ayoub, A., Rimoin, A. W., Mukadi-Bamuleka, D., Delaporte, E., Pilarowski, G., Kindrachuk, J., Liesenborghs, L., Hensley, L. E., Subissi, L., Peeters, M., Hoff, N. A., Tshiani-Mbaya, O. Tessema, S., Muyembe Tamfum, J.-J., Ahuka-Mundeke, S., Kelvin, A. A., **Archibald, J. M.**, Mbala-Kingebeni, P., Flores-Giron, L., & Kelvin, D. J. 2025. Monkeypox virus pangenomics reveals determinants of clade Ib. Submitted. medRxiv pre-print doi: 10.1101/2024.10.31.24315917.

191. Schvarcz, C. R., Stancheva, R., Turk-Kubo, K. A., Wilson, S. T., Zehr, J. P., Edwards, K. F., Steward, G. F., **Archibald, J. M.**, Oatley, G., Sinclair, E., Aunin, E., Gettle, N., Santos, C., Paulini, M., McKenna, V., O'Brien, R., Niu, H., Wellcome Sanger Institute Tree of Life Management, Samples and Laboratory Team, Wellcome Sanger Institute Scientific Operations: Sequencing Operations, Wellcome Sanger Institute Tree of Life Core Informatics Team, EBI Aquatic Symbiosis Genomics Data Portal Team, Aquatic Symbiosis Genomics Project Leadership. 2025. The genome sequences of the chain-forming marine diatom *Epithemia catenata* (Schvarcz, Stancheva & Steward, 2022) and its nitrogen-fixing cyanobacterial endosymbiont. **Wellcome Open Res.** Under review.

190. Zhang, X., Hu, Y., Cheng, Z. & **Archibald, J. M.** 2025. HSDSnake: A SnakeMake pipeline for comprehensive analysis of highly similar gene duplicates in eukaryotic genomes. **Bioinformatics.** [10.1093/bioinformatics/btaf325](https://doi.org/10.1093/bioinformatics/btaf325).

189. Zhang, X., Hu, Y., Cheng, Z. & **Archibald, J. M.** 2025. AMRLearn: A machine learning pipeline for characterization of antimicrobial resistance determinants in microbial genomic data. **STAR Protocols.** 16 103733.

187. Blais, C., Colp, M. J., Sarre, L. A., de Mendoza, A. & **Archibald, J. M.** 2024. Epigenetic silencing and host genome dynamics determine the fate of giant viral endogenizations in *Acanthamoeba*. Submitted. Biorxiv pre-print doi: 10.1101/2024.10.31.621330.

186. Colp, M. J., Blais, C., Curtis, B. A., & **Archibald, J. M.** 2025. The fate of artificial transgenes in *Acanthamoeba castellanii*. **BMC Genomics.** 26:368. 21.

185. **Archibald, J. M.** 2025. Eukaryogenesis: Mosaic evolution of eukaryotic carbon metabolism. **Nature Ecol. Evol.** 02552-4.

184. Richards, T. A., Eme, L., **Archibald, J. M.**, Leonard, G., Coelho, S. M., de Mendoza, A., Dessimoz, C., Dolezal, P., Fritz-Laylin, L. K., Gabaldon, T., Hampl, V., Kops, G. J. P. L., Leger, M. M., Lopez-Garcia, P., McInerney, J. O., Moreira, D., Munoz-Gomez, A., Richter, D. J., Ruiz-Tillo, I., Santoro, A. E., Sebe-Pedros, A., Snel, B., Stairs, C. W., Tromer, E. C., van Hooff, J. J. E., Wickstead, B., Williams, T. A., Roger, A. J., Dacks, J. B., & Wideman, J. G. 2024. Consensus view: reconstructing the last common ancestor of all eukaryotes. **PLOS Biol.** 22 (11): e3002917.

183. LaRoche, J. & Archibald, J. M. 2024. Marine microbiology: how to evolve a nitrogen-fixing organelle. **Curr. Biol.** 34, R826-R829.

182. Schvarcz, C. R., Stancheva, R., Turk-Kubo, K. A., Wilson, S. T., Zehr, J. P., Edwards, K. F., Steward, G. F., **Archibald, J. M.**, Oatley, G., Sinclair, E., Aunin, E., Gettle, N., Santos, C., Paulini, M., McKenna, V., O'Brien, R., Niu, H., Wellcome Sanger Institute Tree of Life Management, Samples and Laboratory Team,

Wellcome Sanger Institute Scientific Operations: Sequencing Operations, Wellcome Sanger Institute Tree of Life Core Informatics Team, EBI Aquatic Symbiosis Genomics Data Portal Team, Aquatic Symbiosis Genomics Project Leadership. 2024. The genome sequences of the marine diatom *Epithemia pelagica* strain UHM3201 (Schvarcz, Stancheva & Steward, 2022) and its nitrogen-fixing, endosymbiotic cyanobacterium. *Wellcome Open Res.* 9:232.

181. Kantor, E. J. H., Robicheau, B., Tolman, J., **Archibald, J. M.**, and LaRoche, J. 2024. Targeted metagenomics reveals pangenomic diversity of the nitroplast (UCYN-A) and its algal host plastid. *ISME Comm.* 4(1): ycae150.

180. Bougon, J., Kadijk, E.C., Gallot-Lavallée, L., Curtis, B.A., Landers, M., **Archibald, J.M.** & Khapersky, D. A. 2024. Influenza A virus NS1 effector domain is required for PA-X mediated host shutoff in infected cells. *J. Virol.* 98, e01901-23.

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177. **Archibald, J.M.** 2024. Symbiotic revolutions at the interface of genomics and microbiology. *PLOS Biol.* 22:e3002581.

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174. Rius, M., Rest, J. S., Filloramo, G., Vanclova, A., **Archibald, J. M.**, & Collier, J.L. 2023. Horizontal gene transfer and fusion spread carotenogenesis among diverse heterotrophic protists. *Genome. Biol. Evol.* doi.org/10.1093/gbe/evad029.

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170. Matthey-Doret*, C., Colp*, M. J., Escoll Guerrero, P., Thierry, A., Curtis, B. A., Sarrain, M., Gray, M.W., Lang B.F., **Archibald, J. M.**, Buchrieser, C., & Koszul, R. 2022. Chromosome-scale assemblies of *Acanthamoeba castellanii* genomes provide insights into *Legionella pneumophila* infection-related chromatin re-organization. *Genome Res.* 32, 1698-1710.
169. Kim, J. I., Jo, B. Y., Park, M. G., Yoo, Y. D., Shin, W., & **Archibald, J. M.** 2022. Evolutionary dynamics and lateral gene transfer in raphidophycean plastid genomes. *Frontiers Plant Sci.* 13, doi:10.3389/fpls.2022. 896138.
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167. Lawniczak, M. K. N., Durbin, R., Flicek, P., Lindblad-Toh, K., Wei, X., **Archibald, J. M.**, Baker, W. J., Belov, K., Blaxter, M. L., Marques Bonet, T., Childers, A. K., Coddington, J. A., Crandall, K. A., Crawford, A. J., Davey, R. P., Di Palma, F., Fang, Q., Haerty, W., Hall, N., Hoff, K. J., Howe, K., Jarvis, E. D., Johnson W. E., Johnson, R. N., Kersey, P. J., Liu, X., Lopez, J. V., Myers, E. W., Pettersson, O. V., Phillippy, A. M., Poelchau, M. F., Pruitt, K. D., Rhie, A., Castilla-Rubio, J. C., Sahu, S. K., Salmon, N. A., Soltis, P. S., Swarbreck, D., Thibaud-Nissen, F., Wang, S., Wegrzyn, J. L., Zhang, G., Zhang, H., Lewin, H. A., Richards, S. 2022. Standards recommendations for the Earth BioGenome Project. *Proc. Natl. Acad. Sci. USA.* 119, 4 e2115636118.
166. Blaxter, M., **Archibald, J. M.**, Childers, A. K., Coddington, J. A., Crandall, K. A., Di Palma, F., Durbin, R., Edwards, S. V., Graves, J. A. M., Hackett, K. J., Hall, N., Jarvis, E. D., Johnson, R. N., Karlsson, E. K., Kress, W. J., Kuraku, S., Lawniczak, M. K. N., Lindblad-Toh, K., Lopez, J. V., Moran, N.A., Robinson, G. E., Ryder, O. A., Shapiro, B., Soltis, P. S., Warnow, T., Zhang, G., & Lewin, H. A. 2022. Why sequence all eukaryotes? *Proc. Natl. Acad. Sci. USA.* 119, 4 e2115636118.
165. Lewin, H. A., Richards, S., Lieberman Aiden, E., Allende, M. L., **Archibald, J. M.**, Bálint, M., Barker, K. B., Baumgartner, B., Belov, K., Bertorelle, G., Blaxter, M.L., Cai, J., Caperello, N. D., Carlson, K., Castilla-Rubio, J. C., Chaw, S. M., Chen, L., Childers, A. K., Coddington, J. A., Conde, D. A., Corominas, M., Crandall, K. A., Crawford, A. J., DiPalma, F., Durbin, R., Ebenezer, T. E., Edwards, S. V., Fedrigo, O., Flicek, P., Formenti, G., Gibbs, R. A., Gilbert, M. T. P., Goldstein, M. M., Graves, J. M., Greely, H. T., Grigoriev, I. V., Hackett, K. J., Hall, N., Haussler, D., Helgen, K. M., Hogg, C. J., Isobe, S., Jakobsen, K. S., Janke, A., Jarvis, E. D., Johnson, W. E., Jones, S. J. M., Karlsson, E. K., Kersey, P. J., Kim, J. H., Kress, W. J., Kuraku, S., Lawniczak, M. K. N., Leebens-Mack, J. H., Li, X., Lindblad-Toh, K., Liu, X., Lopez, J. V., Marques-Bonet, T., Mazard, S., Mazet, J. A. K., Mazzoni, C. J., Myers, E. W., O'Neill, R. J., Paez, S., Park, H., Robinson, G. E., Roquet, C., Ryder, O. A., Sabir, J. S. M., Shaffer, H. B., Shank, T. M., Sherkow, J. S., Soltis, P. S., Tang, B., Tedersoo, L., Uliano-Silva, M., Wang, K., Wei, X., Wetzer, R., Wilson, J. L., Xu, X., Yang, H., Yoder, A. D., Zhang, G. 2022. The Earth BioGenome Project 2020: starting the clock. *Proc. Natl. Acad. Sci. USA.* 119, 4 e2115636118.

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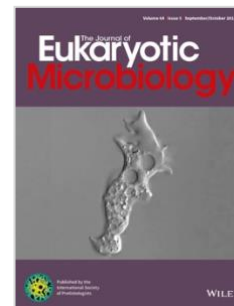
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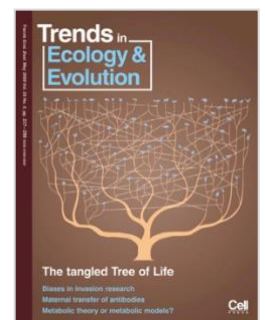
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