Nina Wale

Departments of Microbiology & Molecular Genetics and Integrative Biology
Program in Ecology, Evolution and Behavior
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Education

Ph.D.	Pennsylvania State University, USA	2016
B.A.	University of Cambridge, UK	2010

Experience

Michigan State University	Assistant Professor	2020-
University of Michigan	Postdoctoral Research Fellow	2016-2020
Pennsylvania State University	Graduate Research Assistant	2011-2015
EcoHealth Alliance	Research Associate	2010-2011
University of Cambridge	Undergraduate Researcher	2009-2010

Awards, Fellowships & Grants

Awards

Gilbert S. Omenn Prize, **International Society for Evolution, Medicine & Public Health**	2018
W. D. Hamilton Award, **Society for the Study of Evolution**	2016
Excellence in Teaching Award**, Pennsylvania State University**	2015

Fellowships & Grants

'Immunity Across Scales' Workshop Grant, National Science Foundation IDEAS RCN	2018
Research Exchange Grant, National Science Foundation IDEAS RCN	2015
Summer Institute in Statistics & Modeling in Infectious Diseases Travel Award	2015
Ecology & Evolution of Infectious Diseases Workshop, National Science Foundation	2013
Campbell Distinguished Graduate Fellowship, Pennsylvania State University	2012
University Graduate Fellowship, Pennsylvania State University	2011
Braddock Award, Pennsylvania State University	2011

Notable nominations

Finalist, Packard Fellowship for Science & Engineering, Packard Foundation	2022
Nominee (U. Michigan, co-PI Aaron King), W.M. Keck Foundation medicine program	2022
Nominee (MSU), Ono Grant, Ono Pharma Foundation	2022

Publications (*indicates undergraduate co-author)

Wale, N., (2022) There's more to (a pathogen's) life than growing fast. **mSphere,** eoo277-22

Wale, N., Fuller, R.C., Johnsen, S., Turrill, M.T.*, & Duffy, M. A. (2021) The visual ecology of selective predation: Are unhealthy hosts less stealthy hosts? **Ecology and Evolution** 11 18591-18603

Allgeier, J., Weeks, B., Munsterman, K., Wale, N., Wenger, S., Parravicini, V., Schiettekatte, N., Villéger, S. & Burkepile, D. (2021) Phylogenetic conservatism drives nutrient dynamics of coral reef fishes. **Nature Communications***,* 12 5432

Duffy, M.A., Garcia-Robledo, C., Gordon, S., Grant, N.K., Green II, D.A., Kamath, A., Penczykowski, R.M., Rebodella-Gomez, M., Wale, N. & Zaman, L. (2021) Model systems in ecology, evolutionary biology, and behavior: A call for more diversity in our model systems and discipline. **The American Naturalist**, 198 (1)

Wale, N & Duffy, M.A. (2021) The use and underuse of model systems in infectious disease ecology & evolutionary biology. **The American Naturalist***,* 198 (1)

Greischar, M., Alexander, H., Bashey, F., Bento, A., Bhattacharya, A., Bushman, M., Childs, L., Daversa, D., Day, T., Faust, C., Gallagher, M., Gandon, S., Glidden, C., Halliday, F., Hanley, K.,

Kamiya, T., Read, A., Schwabl, P., Sweeny, A., Tate, A., Thompson, R., Wale, N., Wearing, H., Yeh, P. & Mideo, N[+] (2020) Evolutionary consequences of feedbacks between within-host competition and disease control. **Evolution, Medicine & Public Health***,* 2020 (1) 30-34

Wale, N., Jones, M.J., Sim, D.G, Read, A.F & King, A.A. (2019) The contribution of host-cell directed vs. parasite-directed immunity to the disease and dynamics of malaria infections. **Proceedings of the National Academy of Sciences**, 116 (44) 22386-22392

Wale, N., Turrill, M.T*, Duffy, M.A. (2019) A colorful killer: *Daphnia* infected with the bacterium *Spirobacillus cienkowskii* exhibit unexpected color variation. **Ecology**, 100 (3) e02562

Bresciani, L., Lemos, L.N.*, Wale, N., Lin, J.L., Strauss, A.T., Duffy, M.A. & Rodrigues, J.L.M. (2018) Draft genome sequence of the *Candidatus Spirobacillus cienkowskii,* a pathogen of freshwater *Daphnia* species, reconstructed from hemolymph metagenomic reads. **Microbiology Resource Announcements**, 7 (22) 301175-78

Wale, N., Sim, D.G., Jones, M.J., Salathe, R., Day, T. & Read, A.F. (2017) Resource limitation prevents the emergence of drug resistance by intensifying within-host competition. **Proceedings of the National Academy of Sciences***,* 114 (52): 13774-13779

Wale, N., Sim, D.G. & Read, A.F. (2017) A nutrient mediates intraspecific competition between rodent malaria parasites *in vivo*. **Proceedings of the Royal Society of London, B.** 284: 20171067

Kouyos, R.D., Metcalf, C.J.E., Birger. R., Klein, E.Y., zur Wiesch, P.A., Ankomah, P., Arinaminpathy, N., Bogich, T.L., Bonhoeffer, S., Brower, C., Chi-Johnston, G., Cohen, E., Day, T., Greenhouse, B., Huijben, S., Metlay, J., Mideo, N., Pollitt, L.C., Read, A.F., Smith, D.L., Standley, C., Wale, N. & Grenfell, B. (2014) The path of least resistance: aggressive or moderate treatment. **Proceedings of the Royal Society of London***,* **B***.* 281: 20140566 ([+]majority of authors in alphabetical order)

Vandegrift, K.J., Wale, N. & Epstein, J.H. (2011) An ecological & conservation perspective on advances in the applied virology of zoonoses. *Viruses*, 3: 370-397

Publications in prep (i.e., between submissions or in full draft form)

Wale, N., Freimark, C.F.*, Ramirez, J.*, Turrill, M*….& Duffy, M.A. Virulence and transmission biology of the ecologically important zooplankton pathogen, *Spirobacillus cienkowskii.*

Day, T., Wale, N. & Read, A. F. The evolutionary benefit of using host-directed therapy for controlling infectious disease.

Oral presentations

18 **invited** presentations, incl. 1 prize lecture, 1 plenary. 4 **contributed** presentations, 7 posters.

Teaching & Mentoring

Instructor of Record MMG 991 Evolution of Infectious Diseases (Fall 2022) **Undergraduate Researcher Mentor** to 19 undergraduate research assistants (7 MSU; 13 UM; 1 PSU); **Guest Lecturer** (Evolutionary Medicine, U. Nebraska, U. Michigan, SUNY Binghamton); **Teaching Assistant** (Populations & Communities, PSU)

Service & Outreach

Publication reviewing & editing Editorial Board Member, *ISME* Journal (2021-); Reviewer for *American Naturalist, Ecology Letters, eLife, Evolution* (recognized by the Editor for excellence in reviewing, 2018), *Evolution Letters, Evolution, Medicine & Public Health, Frontiers in Ecology & Evolution, Infection & Immunity, ISME Journal, Molecular Ecology, Nature Ecology & Evolution, PLoS Biology, PLoS Pathogens* & *Proceedings of the Royal Society B.*

Grant reviewing National Institutes of Health (NIH), NIAID ODSET study section (2022).

Society Service Secretary & Treasurer, *Ecological Society of America Disease Section* (2019-2021).