

2018 Graduate Student Publications

Howard-Varona, C., **Vik, D. R.**, Solonenko, N. E., Li, Y. F., Gazitua, M. C., Chittick, L., Samiec, J. K., Jensen, A. E., Anderson, P., Howard-Varona, A., Kinkhabwala, A. A., Abedon, S. T., & Sullivan, M. B. (2018). Fighting Fire with Fire: Phage Potential for the Treatment of *E. coli* O157 Infection. *Antibiotics (Basel, Switzerland)*, 7(4), 101. <https://doi.org/10.3390/antibiotics7040101>

Kessler, A. C., **Silveira d'Almeida, G.**, & Alfonzo, J. D. (2018). The role of intracellular compartmentalization on tRNA processing and modification. *RNA biology*, 15(4-5), 554–566. <https://doi.org/10.1080/15476286.2017.1371402>

Dunn, M. J., Woodruff, A. L., & Anderson, M. Z. (2018). The *Galleria mellonella* Waxworm Infection Model for Disseminated Candidiasis. *Journal of visualized experiments : JoVE*, (141), 10.3791/58914. <https://doi.org/10.3791/58914>

Uppuluri, P., Acosta Zaldívar, M., Anderson, M. Z., **Dunn, M. J.**, Berman, J., Lopez Ribot, J. L., & Köhler, J. R. (2018). *Candida albicans* Dispersed Cells Are Developmentally Distinct from Biofilm and Planktonic Cells. *mBio*, 9(4), e01338-18. <https://doi.org/10.1128/mBio.01338-18>

Dunn, M. J., Kinney, G. M., Washington, P. M., Berman, J., & Anderson, M. Z. (2018). Functional diversification accompanies gene family expansion of MED2 homologs in *Candida albicans*. *PLoS genetics*, 14(4), e1007326. <https://doi.org/10.1371/journal.pgen.1007326>

Gibbs, M. R., & Fredrick, K. (2018). Roles of elusive translational GTPases come to light and inform on the process of ribosome biogenesis in bacteria. *Molecular microbiology*, 107(4), 445–454. <https://doi.org/10.1111/mmi.13895>

Tollerson, R., 2nd, Witzky, A., & Ibba, M. (2018). Elongation factor P is required to maintain proteome homeostasis at high growth rate. *Proceedings of the National Academy of Sciences of the United States of America*, 115(43), 11072–11077. <https://doi.org/10.1073/pnas.1812025115>

Witzky, A., Hummels, K. R., **Tollerson, R., 2nd**, Rajkovic, A., Jones, L. A., Kearns, D. B., & Ibba, M. (2018). EF-P Posttranslational Modification Has Variable Impact on Polyproline Translation in *Bacillus subtilis*. *mBio*, 9(2), e00306-18. <https://doi.org/10.1128/mBio.00306-18>

Ray, S. C., & Rappleye, C. A. (2019). Flying under the radar: *Histoplasma capsulatum* avoidance of innate immune recognition. *Seminars in cell & developmental biology*, 89, 91–98. <https://doi.org/10.1016/j.semcdb.2018.03.009>

Longo, L., **Ray, S. C.**, Puccia, R., & Rappleye, C. A. (2018). Characterization of the APSES-family transcriptional regulators of *Histoplasma capsulatum*. *FEMS yeast research*, 18(8), foy087. <https://doi.org/10.1093/femsyr/foy087>

Shen, Q., Beucler, M. J., **Ray, S. C.**, & Rappleye, C. A. (2018). Macrophage activation by IFN- γ triggers restriction of phagosomal copper from intracellular pathogens. *PLoS pathogens*, *14*(11), e1007444. <https://doi.org/10.1371/journal.ppat.1007444>

Garfoot, A. L., **Goughenour, K. D.**, Wüthrich, M., Rajaram, M., Schlesinger, L. S., Klein, B. S., & Rappleye, C. A. (2018). O-Mannosylation of Proteins Enables *Histoplasma* Yeast Survival at Mammalian Body Temperatures. *mBio*, *9*(1), e02121-17. <https://doi.org/10.1128/mBio.02121-17>

Martinez, M. A., Woodcroft, B. J., Ignacio Espinoza, J. C., **Zayed, A. A.**, Singleton, C. M., Boyd, J. A., Li, Y. F., Purvine, S., Maughan, H., Hodgkins, S. B., Anderson, D., Sederholm, M., Temperton, B., Bolduc, B., Saleska, S. R., Tyson, G. W., Rich, V. I., IsoGenie Project Coordinators, Saleska, S. R., Tyson, G. W., ... Rich, V. I. (2019). Discovery and ecogenomic context of a global Caldiserica-related phylum active in thawing permafrost, Candidatus Cryoseriicota phylum nov., Ca. Cryoseriicia class nov., Ca. Cryoseriicales ord. nov., Ca. Cryoseriicaceae fam. nov., comprising the four species *Cryosericum septentrionale* gen. nov. sp. nov., Ca. *C. hinesii* sp. nov., Ca. *C. odellii* sp. nov., Ca. *C. terrychapinii* sp. nov. *Systematic and applied microbiology*, *42*(1), 54–66. <https://doi.org/10.1016/j.syapm.2018.12.003>

Trubl, G., Jang, H. B., Roux, S., Emerson, J. B., Solonenko, N., **Vik, D. R.**, Solden, L., **Ellenbogen, J.**, **Runyon, A. T.**, Bolduc, B., Woodcroft, B. J., Saleska, S. R., Tyson, G. W., Wrighton, K. C., Sullivan, M. B., & Rich, V. I. (2018). Soil Viruses Are Underexplored Players in Ecosystem Carbon Processing. *mSystems*, *3*(5), e00076-18. <https://doi.org/10.1128/mSystems.00076-18>

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Lam, J., Vadia, S., Pathak-Sharma, S., McLaughlin, E., Zhang, X., Swanson, J., & Seveau, S. (2018). Host cell perforation by listeriolysin O (LLO) activates a Ca²⁺-dependent cPKC/Rac1/Arp2/3 signaling pathway that promotes *Listeria monocytogenes* internalization independently of membrane resealing. *Molecular biology of the cell*, *29*(3), 270–284. <https://doi.org/10.1091/mbc.E17-09-0561>

Daly, R. A., Roux, S., Borton, M. A., Morgan, D. M., Johnston, M. D., **Booker, A. E.**, Hoyt, D. W., Meulia, T., Wolfe, R. A., Hanson, A. J., Mouser, P. J., Moore, J. D., Wunch, K., Sullivan, M. B., Wrighton, K. C., & Wilkins, M. J. (2019). Viruses control dominant bacteria colonizing the terrestrial deep biosphere after hydraulic fracturing. *Nature microbiology*, *4*(2), 352–361. <https://doi.org/10.1038/s41564-018-0312-6>

Howard-Varona, C., **Vik, D. R.**, Solonenko, N. E., Gazitua, M. C., Hobbs, Z., Honaker, R. W., Kinkhabwala, A. A., & Sullivan, M. B. (2018). Whole-Genome Sequences of Phages p000v and

p000y, Which Infect the Bacterial Pathogen Shiga-Toxigenic *Escherichia coli*. *Microbiology resource announcements*, 7(20), e01400-18. <https://doi.org/10.1128/MRA.01400-18>

Howard-Varona, C., **Vik, D. R.**, Solonenko, N. E., Li, Y. F., Gazitua, M. C., Chittick, L., Samiec, J. K., Jensen, A. E., Anderson, P., Howard-Varona, A., Kinkhabwala, A. A., Abedon, S. T., & Sullivan, M. B. (2018). Fighting Fire with Fire: Phage Potential for the Treatment of *E. coli* O157 Infection. *Antibiotics (Basel, Switzerland)*, 7(4), 101. <https://doi.org/10.3390/antibiotics7040101>

Trubl, G., Jang, H. B., Roux, S., Emerson, J. B., Solonenko, N., **Vik, D. R.**, Solden, L., **Ellenbogen, J.**, **Runyon, A. T.**, Bolduc, B., Woodcroft, B. J., Saleska, S. R., Tyson, G. W., Wrighton, K. C., Sullivan, M. B., & Rich, V. I. (2018). Soil Viruses Are Underexplored Players in Ecosystem Carbon Processing. *mSystems*, 3(5), e00076-18. <https://doi.org/10.1128/mSystems.00076-18>

Gregory, A. C., Sullivan, M. B., Segal, L. N., & Keller, B. C. (2018). Smoking is associated with quantifiable differences in the human lung DNA virome and metabolome. *Respiratory research*, 19(1), 174. <https://doi.org/10.1186/s12931-018-0878-9>