

## **2020 Graduate Student Publications**

**Dunn, M. J.**, Fillinger, R. J., Anderson, L. M., & Anderson, M. Z. (2020). Automated quantification of *Candida albicans* biofilm-related phenotypes reveals additive contributions to biofilm production. *NPJ biofilms and microbiomes*, 6(1), 36. <https://doi.org/10.1038/s41522-020-00149-5>

Said, N., Hilal, T., **Sunday, N. D.**, Khatri, A., Bürger, J., Mielke, T., Belogurov, G. A., Loll, B., Sen, R., Artsimovitch, I., & Wahl, M. C. (2021). Steps toward translocation-independent RNA polymerase inactivation by terminator ATPase  $\rho$ . *Science (New York, N.Y.)*, 371(6524), eabd1673. <https://doi.org/10.1126/science.abd1673>

**Gibbs, M. R.**, Moon, K. M., **Warner, B. R.**, Chen, M., Bundschuh, R., Foster, L. J., & Fredrick, K. (2020). Functional Analysis of BipA in *E. coli* Reveals the Natural Plasticity of 50S Subunit Assembly. *Journal of molecular biology*, 432(19), 5259–5272.

<https://doi.org/10.1016/j.jmb.2020.07.013>

**Han, N. C.**, Bullwinkle, T. J., Loeb, K. F., Faull, K. F., Mohler, K., Rinehart, J., & Ibba, M. (2020). The mechanism of  $\beta$ -N-methylamino-l-alanine inhibition of tRNA aminoacylation and its impact on misincorporation. *The Journal of biological chemistry*, 295(5), 1402–1410.

<https://doi.org/10.1074/jbc.RA119.011714>

**Huening, K. A.**, Jiang, R., & Krzycki, J. A. (2020). Kinetic and substrate complex characterization of RamA, a corrinoid protein reductive activase from *Methanosarcina barkeri*. *FEMS microbiology letters*, 367(17), fnaa128. <https://doi.org/10.1093/femsle/fnaa128>

**Shen, Q., Ray, S. C.**, Evans, H. M., Deepe, G. S., Jr, & Rappleye, C. A. (2020). Metabolism of Gluconeogenic Substrates by an Intracellular Fungal Pathogen Circumvents Nutritional Limitations within Macrophages. *mBio*, 11(2), e02712-19. <https://doi.org/10.1128/mBio.02712-19>

**Lundstedt, E.**, Kahne, D., & Ruiz, N. (2021). Assembly and Maintenance of Lipids at the Bacterial Outer Membrane. *Chemical reviews*, 121(9), 5098–5123.

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**Lundstedt, E. A.**, Simpson, B. W., & Ruiz, N. (2020). Lipopolysaccharide transport involves long-range coupling between cytoplasmic and periplasmic domains of the LptB<sub>2</sub>FGC extractor. *Journal of bacteriology*, 203(6), e00618-20. Advance online publication.

<https://doi.org/10.1128/JB.00618-20>

**Lundstedt, E. A.**, Simpson, B. W., & Ruiz, N. (2020). LptB-LptF coupling mediates the closure of the substrate-binding cavity in the LptB<sub>2</sub> FGC transporter through a rigid-body mechanism to extract LPS. *Molecular microbiology*, 114(2), 200–213. <https://doi.org/10.1111/mmi.14506>

Jahnes, B. C., & Sabree, Z. L. (2020). Nutritional symbiosis and ecology of host-gut microbe systems in the Blattodea. *Current opinion in insect science*, 39, 35–41.

<https://doi.org/10.1016/j.cois.2020.01.001>

Vera-Ponce de León, A., Jahnes, B. C., Duan, J., Camuy-Vélez, L. A., & Sabree, Z. L. (2020). Cultivable, Host-Specific *Bacteroidetes* Symbionts Exhibit Diverse Polysaccharolytic Strategies. *Applied and environmental microbiology*, 86(8), e00091-20.

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Zhang, W. W., Karmakar, S., Gannavaram, S., Dey, R., Lypaczewski, P., Ismail, N., Siddiqui, A., Simonyan, V., Oliveira, F., Coutinho-Abreu, I. V., DeSouza-Vieira, T., Meneses, C., Oristian, J., Serafim, T. D., Musa, A., Nakamura, R., Saljoughian, N., Volpedo, G., Satoskar, M., Satoskar, S., ... Nakhси, H. L. (2020). A second generation leishmanization vaccine with a markerless attenuated *Leishmania* major strain using CRISPR gene editing. *Nature communications*, 11(1), 3461. <https://doi.org/10.1038/s41467-020-17154-z>

Jha, B. K., Varikuti, S., Seidler, G. R., Volpedo, G., Satoskar, A. R., & McGwire, B. S. (2020). MicroRNA-155 Deficiency Exacerbates *Trypanosoma cruzi* Infection. *Infection and immunity*, 88(7), e00948-19. <https://doi.org/10.1128/IAI.00948-19>

Ryan, N., Anderson, K., Volpedo, G., Hamza, O., Varikuti, S., Satoskar, A. R., & Oghumu, S. (2020). STAT1 inhibits T-cell exhaustion and myeloid derived suppressor cell accumulation to promote antitumor immune responses in head and neck squamous cell carcinoma. *International journal of cancer*, 146(6), 1717–1729. <https://doi.org/10.1002/ijc.32781>

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Anderson, K., Ryan, N., Volpedo, G., Varikuti, S., Satoskar, A. R., & Oghumu, S. (2020). Immune Suppression Mediated by STAT4 Deficiency Promotes Lymphatic Metastasis in HNSCC. *Frontiers in immunology*, 10, 3095. <https://doi.org/10.3389/fimmu.2019.03095>

Vik, D., Gazitúa, M. C., Sun, C. L., Zayed, A. A., Aldunate, M., Mulholland, M. R., Ulloa, O., & Sullivan, M. B. (2021). Genome-resolved viral ecology in a marine oxygen minimum zone. *Environmental microbiology*, 23(6), 2858–2874. <https://doi.org/10.1111/1462-2920.15313>

Gazitúa, M. C., Vik, D. R., Roux, S., Gregory, A. C., Bolduc, B., Widner, B., Mulholland, M. R., Hallam, S. J., Ulloa, O., & Sullivan, M. B. (2021). Potential virus-mediated nitrogen cycling in oxygen-depleted oceanic waters. *The ISME journal*, 15(4), 981–998.

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Mara, P., **Vik, D.**, Pachiadaki, M. G., Suter, E. A., Poulos, B., Taylor, G. T., Sullivan, M. B., & Edgcomb, V. P. (2020). Viral elements and their potential influence on microbial processes along the permanently stratified Cariaco Basin redoxcline. *The ISME journal*, 14(12), 3079–3092. <https://doi.org/10.1038/s41396-020-00739-3>

**Gregory, A. C.**, Zablocki, O., **Zayed, A. A.**, Howell, A., Bolduc, B., & Sullivan, M. B. (2020). The Gut Virome Database Reveals Age-Dependent Patterns of Virome Diversity in the Human Gut. *Cell host & microbe*, 28(5), 724–740.e8. <https://doi.org/10.1016/j.chom.2020.08.003>

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**Goughenour, K.D.**, Whalin, J., Slot, J.C., and Rappleye, C.A. (2020). Diversification of fungal chitinases and their functional differentiation in *Histoplasma capsulatum*. *Mol Biol Evol*. doi: 10.1093/molbev/msaa293.

**Han, N.C.**, Kelly, P., and Ibba, M. (2020b). Translational quality control and reprogramming during stress adaptation. *Exp Cell Res* 394(2), 112161. doi: 10.1016/j.yexcr.2020.112161.

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**Shen, Q.**, and Rappleye, C.A. (2020). Living Within the Macrophage: Dimorphic Fungal Pathogen Intracellular Metabolism. *Front Cell Infect Microbiol* 10, 592259. doi: 10.3389/fcimb.2020.592259.

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