

SCHOOL OF SCIENCE

SELECTED FACULTY AND STUDENT PUBLICATIONS 2022-2023

(July 1, 2022 – June 30, 2023)

- Arrighi, M.E.*, Burkich, G.L. *, Cama, P.A. *, Chang, M.S. *, Coronel-Galindo, A.R. *, D’Costa, B.C. *, Frengul, J. *, Goncalves, A.D. *, Gottlieb, O.M. *, Hughes, A.N. *, Kupka, J. *, Losauro, C.M. *, Matik, J.A. *, Natale, S.N. *, Patruno, A.M. *, Strathausen, D.W. *, Venters, C.A. *, Yanes, F.M. *, Tocci, R.L. *, Godin, E.A., Dennis, M.K., Merkohfer, E.C., Garlena, R.A., Russell, D.A., Jacobs-Sera, D., & Hatful, G. Nucleotide [Internet]. Bethesda (MD): National Library of Medicine (US), National Center for Biotechnology Information; [1988] - .Accession No. OP434462.1, Arthrobacter Phage LilHuddy, complete genome; [2023 May 15]. Available from: <https://www.ncbi.nlm.nih.gov/nucleotide/OP434462.1>
- Cerda, V.*, Klos, P. Z. (2022). Experimental investigation of water chestnut’s influence on cyanobacteria in the Hudson River. Peer-reviewed and annually published report, Polgar Fellowship Scientific Advisory Committee. *Hudson River Foundation*.
- Chen, F.L., Ullal, T.V., Graves, J.L., Ratcliff, E.R., Naka, A., McKenzie, B., Carttar, T.A., Super, K.M., Austriaco, J., Weber, S.Y., Vaughn, J., LaCroix-Fralish, M.L. (2023). Evaluating instruments for assessing healthspan: a multi-center cross-sectional study on health-related quality of life (HRQL) and frailty in the companion dog. *Geroscience*. <https://doi.org/10.1007/s11357-023-00744-2>
- Espinasa, L., Collins, E. *, García, C.P.O., Rétaux, S., Rohner, N. & Rutkowski, J.* (2022). Divergent evolutionary pathways for aggression and territoriality in *Astyanax* cavefish. *Subterranean Biology*, 43: 169-183. <https://doi.org/10.3897/subtbiol.73.79318>
- Espinasa, L., Diamant, R., Mesquita, M.*, Lindquist, J. M.*, Powers, A. M.*, & Helmreich, J. (2022) Laterality in cavefish: left or right foraging behavior in *Astyanax mexicanus*. *Subterranean Biology*, 44: 123-138. <https://doi.org/10.3897/subtbiol.44.86565>
- Espinasa, L., Pavie, M. and Rétaux, S. (2023). Protocol for lens removal in embryonic fish and its application on the developmental effects of eye regression. *Subterranean Biology*, 45: 39-52. <https://doi.org/10.3897/subtbiol.45.96963>
- Espinasa, L., Rohner, N., & Rétaux, S. (2023). Reproductive seasonality of *Astyanax mexicanus* cavefish. *Zoological Research*, 44(4): 698-700. <https://doi.org/10.24272/j.issn.2095-8137.2022.164>
- Espinasa, L. & Smith G. B. (2023). “*Nicoletia*” *tergata* Mills, 1940 rediscovered in Florida and confirmed as the first species of the Coletiniinae (Zygentoma: Nicoletiidae) in North America. *Zootaxa*, 5228(3): 337–350. <https://doi.org/10.11646/zootaxa.5228.3.6>

- Espinasa, L., Sprouse, P., Posso, K., Mitchell, A., Espinasa, M., & Lin, J.* (2023). Miocene divergence for *Texoreddellia*? An important component of the cave-adapted fauna of Texas and northern Mexico. *Zootaxa*, 5256(3): 267–278.
<https://doi.org/10.11646/zootaxa.5256.3.3>
- Fitzgerald, N. & Edwards, J.C. (2023). Investigation of solid phase microextraction gas chromatography–mass Spectrometry, Fourier transform infrared spectroscopy and ¹H qNMR spectroscopy as potential methods for the authentication of Baijiu spirits. *Beverages*, 9(1), 25. <https://doi.org/10.3390/beverages9010025>
- Laurent, L., Rode, J., Germon, I., Pavie, M., Quiviger, C., Policarpo, M., Leclercq, J., Père, S., Fumey, J., Hyacinthe, C., Ornelas-García, P., Espinasa, L., Rétaux, S., & Casane, D. (2023). Genetic identification and reiterated captures suggests that the *Astyanax mexicanus* El Pachón cavefish population is closed and declining. *Zoological Research*, 44(4): 701-711. <http://dx.doi.org/10.24272/j.issn.2095-8137.2022.481>
- Lee, A. M.*, Gervasio, E. D.*, Hughes, R. O.*, Maalouf, A. A.*, Musso, S. A.*, Crisalli, A. M.*, & Woolridge, E. M. (2023). Alginate encapsulation stabilizes xylanase toward the laccase mediator system. *Applied Biochemistry and Biotechnology*, 195, 3311-3326.
<https://doi.org/10.1007/s12010-022-04296-7>
- Ramsés Miranda-Gamboa, R., Espinasa, L., Verde-Ramírez, M. A., Hernández-Lozano, J., Lacaille, J. L., Espinasa, M., & Ornelas-García, C. P. (2023). A new cave population of *Astyanax mexicanus* from Northern Sierra de El Abra, Tamaulipas, México. *Subterranean Biology*, 45: 95–117. <https://doi.org/10.3897/subtbiol.45.98434>
- Roberts, H. (2023). Physical therapy management of hip pain in adults with scoliosis: a case series. *Frontiers in Medical Case Reports* . 4: 1-16.
<https://dx.doi.org/10.47746/FMCR.2023.4202>
- Shih, H.-J. S., Macpherson, C. E., King, M., Delaney, E., Gu, Y., Long, K., Reid, J., **Fineman, J.**, Yu, G., Rieger, J., Satchidanand, A., Shah, H., Alcalay, R. N., & Quinn, L. (2022). Physical activity coaching via telehealth for people with Parkinson disease: A cohort study. *Journal of Neurologic Physical Therapy: JNPT*, 46(4), 240–250.
<https://doi.org/10.1097/NPT.0000000000000410>
- Torres, José A. (2023), ‘The Blue Economy, Climate, Tourism, and Social Injustice in Barbuda’, chapter in *Blue Economy: Place, Space, and Regional Transitions*, J. Morrissey, C. Germond-Duret, and C.P. Heidkamp, eds., invited to contribute the chapter, Routledge, London.
- Whitefleet-Smith, J.L., Westover, K.M., West, L.G., Watt, D.K., Sakowski, E.G., Rueschoff, E., Rossier, O., Regeard, C., Reardon, S.N., Plymale, R.C., Perry, D.M., Rartida, C.D., Parra-Unda, R.P., Page, S.T., Ozturk, F., Moyer, A.E., McFerrin, H.E., Mascali, F.C., Martin, B.J., Lypaczewski, P.C., Logan, R., Klyczek, K., Jones, A.K., Jerby, A.E., Gunn, K.E., Guerrero, J.A., Godin, E.A., Garza, A., Galle, C.S., Fisher, P.D.E., Espariz, M.,

Edwards, D.C., Dotson, D.R., Diaz, F.E., Dennis, M.K., Delesalle, V.A., Daft, J.G., Cresawn, S.G., Byrum, C.A., Biederman, W.H., Beyer, A.R., Behr, E.O., Beckman, E.L., Bailey, D.S., Baez-Flores, M.E., Aquino-Gomez, J., Ahumada-Santos, Y.P., Garlena, R.A., Jacobs-Sera, D., Russell, D.A. & Hatfull, G.F. Nucleotide [Internet]. Bethesda (MD): National Library of Medicine (US), National Center for Biotechnology Information; [1988] - .Accession No. OP985602.1, Microbacterium phage Jefe, complete genome; [2023 May 15]. Available from: <https://www.ncbi.nlm.nih.gov/nuccore/OP985602.1>

SCHOOL OF SCIENCE

SELECTED FACULTY AND STUDENT PRESENTATIONS 2022-2023

(July 1, 2022 – June 30, 2023)

Ali, K., Bleboo*, A., Cunningham, N.*, Owens, H.*, Wrobel, J.* & Fitzgerald, N. (2022, August 14-16). *Chemical comparison of a sour beer made with bacteria and genetically modified yeast* [Poster presentation]. Brewing Summit, Providence, RI, United States.

Aswadallah, B.*, Hanneman, B.*, & Kepner, R. (2023, April 21). *Surviving in extremes: the unseen powers of haloarchaea* [Poster presentation]. Westchester Undergraduate Research Conference, Purchase, NY, United States.

Aswadallah B.*, Hanneman, B.*, & Kepner, R. (2023, April 27). *Surviving in extremes: the unseen powers of haloarchaea* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.

Becuwe, M. (2023, April 27). *FIT2 is a lipid phosphate phosphatase crucial for the endoplasmic reticulum homeostasis* [Keynote lecture]. Hudson Valley Life Science Group Spring Symposium, Poughkeepsie, NY, United States.

Breheney, S.P.*, Pugliese, J.A.*, & Henry, K.J. (2023, January 6 – 9). *The effectiveness of branched-chain amino acid supplementation on recovery in resistance-trained individuals: a critically-appraised topic* [Poster Presentation]. Eastern Athletic Trainers' Association Annual Meeting & Clinical Symposia, Boston, MA, United States.

Cerda, V.*, & Klos, P. Z. (2022, December 12 - 16). *Experimental investigation of water chestnut's influence on cyanobacteria in the Hudson River* [Poster presentation]. American Geophysical Union Annual Meeting, Chicago, IL, United States.

Cerda, V.*, & Klos, P. Z. (2023, April 19). *Experimental investigation of water chestnut's influence on cyanobacteria in the Hudson River* [Poster presentation]. Hudson River Environmental Society Symposium, Millbrook, NY, United States.

- Davis, J.L.*, Muhr, L.E.*, & Henry, K.J. (2023, January 6 – 9). *The effects of plyometric exercise on balance following ankle injury: a critically-appraised topic* [Poster presentation]. Eastern Athletic Trainers' Association Annual Meeting & Clinical Symposia, Boston, MA, United States.
- Egan, M.*, Powers, M.E., & Henry, K.J. (2023, January 6 – 9). *A comparison of proprioceptive neuromuscular facilitation and maitland joint mobilizations for increasing ankle dorsiflexion* [Poster Presentation]. Eastern Athletic Trainers' Association Annual Meeting & Clinical Symposia, Boston, MA, United States.
- Egitto, Y. (2023, February 25). *Functional mobility screening impact on perception of fitness in seniors involved in lifelong learning* [Poster presentation]. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, United States.
- Feldman, R.S. (2023, April 21-23). *Project-based capping course addresses environmental concerns for nearby municipalities and Marist College* [Conference presentation]. Northeast Natural History Conference, Burlington, VT, United States.
- Feldman, R.S., Wildova, R., Yamamoto, C.*, & Anderson, E.* (2023, April 21-23). *Goat grazing followed by repeated cutting of Reynoutria japonica, s.l., (Japanese knotweed) allows recovery of diverse flora* [Poster presentation]. Northeast Natural History Conference, Burlington, VT, United States.
- Feldman, R.S., Wildova, R., Yamamoto, C.*, & Anderson, E.* (2022, August 14-19). *Recovery of diverse flora after control of Japanese knotweed (Reynoutria japonica, s.l.) by goat grazing and repeated cutting* [Poster presentation]. Ecological Society of America and Canadian Society for Ecology & Evolution Joint Meeting, Montréal, Quebec, Canada.
- Galbraith, J.M. (2022, July 3-8). *MO and VB: Two great tastes that taste great together* [Conference presentation]. WATOC 2020: 12th Triennial Congress of the World Association of Theoretical and Computational Chemists, Vancouver, BC, Canada.
- Gallagher, C. *, Venters, C. *, Kupka, J. *, & Dennis, M.K. (2023, March 30 – April 2). *Determining loss of AP-3 and functional impact on CRISPR'ed mouse melanocytes* [Poster presentation]. Northeast Regional Honors Council Conference, Pittsburgh, PA, United States.
- Gallagher, C. *, Venters, C. *, Kupka, J. *, & Dennis, M.K. (2023, April 27). *Determining loss of AP-3 and functional impact on CRISPR'ed mouse melanocytes* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.
- Ingalls V. (2023, April 20 – 23). *Do the predicted sex differences in hero characteristics hold up over time? New data using children's fantasy literature* [Conference presentation]. Annual Meeting of the Northeastern Evolutionary Psychology Association. New Paltz, NY, United States.

- Jano, R. *, & Kepner, R. (2023, April 27). *Effect of disturbance on epilithic algal growth in the Fall Kill* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.
- Johnson, A. *, & Klos, P. Z. (2022, December 12 - 16). *Rapid habitat and hydrologic assessment of vernal pools for amphibian conservation* [Poster presentation]. American Geophysical Union Annual Meeting, Chicago, IL, United States.
- Johnson, A. *, & Klos, P. Z. (2022, October 26 - 28). *Rapid habitat and hydrologic assessment of vernal pools for amphibian conservation* [Poster presentation]. Catskill Environmental Research and Monitoring Conference, Big Indian, NY, United States.
- Johnson, A. *, & Klos, P. Z. (2023, April 19). *Rapid habitat and hydrologic assessment of vernal pools for amphibian conservation* [Poster presentation]. Hudson River Environmental Society Symposium, Millbrook, NY, United States.
- Kellermeyer, R., Moran, Espinasa, L., & Rohner, N (2023, January 3-7). *A natural hybridization experiment: eyed and eyeless Astyanax mexicanus reveal origins of eye loss* [Conference presentation]. The Society for Integrative and Comparative Biology Annual Meeting. Austin, TX, United States.
- Lewis, K., Pech, A. *, & Espinasa L (2023, April 27). *Cx50, a gene that causes cataracts in humans, and its fitness effect on cavefish* [Poster Presentation]. Hudson Valley Life Sciences Group Spring symposium, Poughkeepsie, NY, United States.
- Lyons, S. *, Assaf, E.A. *, Wise, R. *, & Dennis, M.K. (2023, April 27). *What is a Lysosome? A search for the optimal organelle marker.* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.
- McCarthy, M. *, & Dennis, M.K. (2023, April 27). *Developing a research experience introducing students to CRISPR-Cas9 and other genomic editing techniques in C. elegans* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.
- McCarthy M. *, & Dennis, M.K. (2023, June 25-30). *Explorations in genetics research - broadening access to undergraduate research through a one-semester course* [Poster presentation]. Undergraduate Biology Education Research Gordon Conference, Lewiston, ME, United States.
- Nieves, M. *, Powers, M.E., & Gildard, M. (2023, January 6 - 9). *A comparison of instrument assisted soft tissue mobilization and static stretching for hamstring flexibility* [Poster presentation]. Eastern Athletic Trainers' Association Annual Meeting & Clinical Symposia, Boston, MA, United States.

- O'Brien, T.,* Monsky, R. J.,* & Nadeau, J. M. (2023, April 21). *Solvatochromism and aggregation-induced emission enhancement in V-shaped organic molecules* [Poster presentation]. 23rd Annual Mid-Hudson American Chemical Society Undergraduate Research Symposium, Annandale-On-Hudson, NY, United States.
- Piretra, C.*, & Klos, P. Z. (2022, December 12 - 16). *A comparative case study of stream trash accumulation in relation to urban garbage disposal methods in the U.S. and Europe* [Poster presentation]. American Geophysical Union Annual Meeting, Chicago, IL, United States.
- Pugliese, J.*, Powers, M.E., & Gildard, M. (2023, January 14). *Ulnar collateral ligament repair with an internal brace* [Poster presentation]. Eastern Athletic Trainers' Association Annual Meeting, Boston, MA, United States.
- Rostkowski, K. *, Driscoll, M. *, & Kepner R (2023, April 21). *Arctic bacterial isolate (Rhodococcus fascians): identification and testing for potential antimicrobial effects* [Poster presentation]. Westchester Undergraduate Research Conference, Purchase, NY, United States.
- Rostkowski, K. *, Driscoll M. *, & Kepner, R. (2023, April 27). *Arctic bacterial isolate (Rhodococcus fascians): identification and testing for potential antimicrobial effects* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.
- Sage-King, F. (2023, June 7). *Addressing agitation in the TBI population: overview and non-pharmacological management* [Conference presentation]. Brain Injury Association of New York (BIANYS) Annual Conference, Saratoga Springs, NY, United States.
- Sage-King, F. (2023, February 23). *R.E.S.P.E.C.T. and IPE* [Poster presentation]. American Physical Therapy Association (APTA) Combined Sections Meeting, San Diego, CA, United States.
- Stone, L., & Klos, P. Z. (2022, December 12 - 16). *Spatial patterning between lakebed groundwater exchange and shoreline physiography, aquatic vegetation, and substrate texture* [Poster presentation]. American Geophysical Union Annual Meeting, Chicago, IL, United States.
- Trees, A. *, Wenzel, T. *, Haqu A, *_ & Dennis, M.K. (2023, April 27). *Identifying post-translational modifications of LAMP-1 in AP-3-deficient cells* [Poster presentation]. Hudson Valley Life Sciences Group Spring Symposium, Poughkeepsie, NY, United States.