Curriculum Vitae: Updated May 1st, 2026

Kevin D. Kohl

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RESEARCH INTERESTS

Digestive physiology, nutritional ecology, and symbiotic relationships between hosts and microbes

EDUCATION, TRAINING, AND EMPLOYMENT

Associate Professor – Sept. 2023 - Present
University of Pittsburgh, Department of Biological Sciences

Assistant Professor – Sept. 2017 – Aug. 2023
University of Pittsburgh, Department of Biological Sciences

Postdoctoral Researcher – Jun. 2014 – Aug. 2017
Vanderbilt University
Co-advisor: Dr. Seth Bordenstein

Universidad Nacional de San Luis
Co-advisor: Dr. Enrique Caviedes-Vidal

Doctor of Philosophy, Biology – May 2014
University of Utah
Advisor: Dr. Denise Dearing

Bachelor of Science, Biology and Wildlife Ecology – May 2009
University of Wisconsin – Madison
Graduated with Honors in Research

AWARDS & HONORS

Young Scientist Award (2021)
Awarded by International Society of Zoological Sciences (ISZS)

G. Richard Riser Award for Outstanding Graduate Research (2014)
University of Utah - Department of Biology

Best Student Oral Presentation (2011)
Division of Comparative Physiology and Biochemistry
Society for Integrative and Comparative Biology Meeting, Salt Lake City, UT

PUBLICATIONS

Google Scholar Page: www.tinyurl.com/KohlGoogleScholar

Underlined names are Kohl Lab trainees, with superscripts denoting career stages
- † Undergraduate researchers
- ‡ Graduate Students
- § Visiting Scholars and Technicians
- ¶ Postdoctoral Researchers

108. **Kohl, K.D.,** Anderson, R., Andreadis, C., Baiz, M.D., Bodawatta, K.H., Campos-Cerda, F., Chaves, J.A., Clark, A.B., Costantini, M.S., Davidson, G.L., Davies, C.S., Dietz, M.W., Florkowski, M., Hird, S.M., Houtz, J.L., Karasov, W.H., Knutie, S.A., Lim, H.C., Mason, N.A., Rowe, M., Rudzki, E.N., San Juan, P.A., Skeen, H.R., Slevin, M.C., Somers, S., West, A.G., Worsley, S.F., Videvall, E., Trevelline, B.K. (2026) The elephant (bird) in the room: unknown mechanisms and unresolved impacts of low DNA yields in avian microbiome research. Accepted at *Animal Microbiome*

107. Davies, C.S., Capilla-Lasheras, P., Catelan-Carphio, E., Corregidor-Castro, A., Diez-Méndez, D., Drobniak, S.M., Drzewińska-Chańko, J., **Kohl, K.D.,** Martínez-Renau, E., Ramellini, S. and Richardson, D.S., Ruuskanen, S., Sutton, A.O., Szulkin, M., Troisi, C.A., White, J., Worsley, S.F., Bodawatta, K.H., Videvall, E. (2026) Bridging the gap: improving methodologies for future avian microbiome research. *Journal of Avian Biology*, 2026: e03594.
106. Westcott, R.G., Rudzki, E.N.[‡], Emerson, K.J., Woodley, S.K., **Kohl, K.D.** (2026) Exposure to environmental microbes alters responsiveness of tadpole gut microbiome to dietary tannins. *Integrative Zoology*. Online Ahead of Print.
105. Víquez-R, L., **Kohl, K.D.,** Speer, K.A. (2026) The microbiome horizon of mammalogy. *Journal of Mammalogy*. 107: 1-6
104. Kramp, R.D, Janecka, M.J., Tardent, N., Jokela, J., **Kohl, K.D.,** Stephenson, J.F. (2026) Host genetics and the skin microbiome independently predict parasite resistance. *Ecology and Evolution.* 16: e72923
103. Peralta Martínez, K.Y. [‡], Goyco-Blas, J.[§], Reilly, S.[†], Ahn, Y., Hedayati, S., **Kohl, K.D.** (2025) Reviving microbial diversity: cryoprotectants and culturing methods enhance growth of mammalian gut microbes from field-collected samples. *Journal of Mammalogy.* 107: 27-43.
102. Fontaine, S.S., Kennedy-Gold, S.R., Regester, K.J., Sheridan, J.A., **Kohl, K.D.** (2025). The impact of whole-animal fluid preservation on the observed gut microbiome of vertebrates: implications for the use of museum specimens in microbiome research. *Molecular Ecology Resources.* 25: e14127.
101. Lipowska, M. M., Sadowska, E. T., **Kohl, K. D.**, & Koteja, P. (2025). Experimental evolution of a mammalian holobiont: bank voles selected for herbivorous capability evolved distinct and robust gut bacterial communities. I*SME Communications.* 5: ycaf160
100. **Kohl, K.D.** (2025) Through the microbial looking glass: our shifting understanding of the holobiont and microbes as mediators of organismal biology. *Integrative and Comparative Biology.* 65: 727-735.
99. Barts, N.[¶], Trevelline, B.[¶], Dearing, M.D., Martinez-Mota, R., Pasch, B., **Kohl. K.D.** (2025) Gut bacterial and fungal communities of three rodent species respond uniquely to dietary fiber and protein manipulation. *Journal of Experimental Biology.* 228: jeb249794
98. **Kohl, K.D.**, Barts, N.[¶], Peralta-Martínez, K.[‡], Lackey, A.[†], Lyons, E.[†], Maier, M.J.[†], Maurer, M.[†], Tripoli, D.[†], Yawitz, T.[†], Martinez Mota, R., Pasch, B., Dearing M.D., Trevelline, B.[¶] (2025). How consistent is 'the dynamic gut'?: Complex physiological responses to dietary fiber and protein across three rodent species. *Journal of Experimental Biology*. 228: jeb249797.
97. Karasov, W.H., **Kohl, K.D.**, Caviedes-Vidal, E. (2025) The dynamic gut: the vertebrate gastrointestinal tract and associated microbiome exhibit physiological flexibility and adaptations to diet. *Journal of Experimental Biology*. 228: jeb250395.
96. McCain, K.M., Mansilla, G., Sheldon., E.L., Zimmer, C., Schrey, A.W., Rowe, M., Dor, R., **Kohl, K.D.**, Søraker, J.S., Jensen, H., Mathot, K.J., Vu, T, Phuong, H.T., Jimeno, B., Buchanan, K.L., Thiam, M., Briskie, J., Martin, L.B. (2025). Microbial surveillance versus cytokine responsiveness in native and non-native house sparrows. *Biology Letters*. 21: 20240431.
95. Bordenstein, Seth R., and The Holobiont Biology Network [**Kohl, K.D.** and others]. "The disciplinary matrix of holobiont biology." (2024) *Science* 386: 731-732.
94. Leonard, A., Abalos, J., Adhola, T., Aguirre, W., Aizpurua, O., Ali, S., ... **Kohl, K.D.** … & Alberdi, A. (2024). A global initiative for ecological and evolutionary hologenomics. *Trends in Ecology & Evolution*. 39: 616-620
93. Bordenstein, Seth R., and The Holobiont Biology Network [**Kohl, K.D.** and others]. "The disciplinary matrix of holobiont biology." (2024) *Science* 386: 731-732.
92. Lipowska, M. M., Sadowska, E. T., **Kohl, K. D.**, & Koteja, P. (2024). Experimental evolution of a mammalian holobiont? Genetic and maternal effects on the cecal microbiome in bank voles selectively bred for herbivorous capability. *Ecological and Evolutionary Physiology.* 97: 274-291.

91. Barts, N.[¶], Bhatt, R.H., Toner, C., Meyer, W.K., Durrant, J., **Kohl, K.D.** (2024) Functional convergence in gastric lysozymes of foregut-fermenting rodents, ruminants, and primates is not attributed to convergent molecular evolution. *Comparative Biochemistry and Physiology, Part B*. 271: 110949.
90. Rudzki, E.N.[‡], Antonson, N.D., Jones, T.M., Schelsky, W.M., Trevelline, B.K.[¶], Hauber, M.E. **Kohl, K.D.** (2024). Host avian species and environmental conditions influence the microbial ecology of brood parasitic Brown-headed Cowbird nestlings: What rules the roost?. *Molecular Ecology*. 33: e17289
89. Maurer, M.[†], Goyco-Blas, J.[§], **Kohl, K.D.** (2024) Dietary tannins alter growth, development, behavior, and the gut microbiome of larval amphibians. *Integrative Zoology*. 19: 585-595.
88. Emerson, K.J., Fontaine, S.S.[‡], **Kohl, K.D.,** Woodley, S.K. (2023) Temperature and the microbial environment alter brain morphology in a larval amphibian. *Journal of Experimental Biology*. 226: jeb245333.
87. Fontaine, S.S.[‡], **Kohl, K.D.** (2023) Ectotherm heat tolerance and the microbiome: current understanding, future directions and potential applications. *Journal of Experimental Biology*. 226: jeb245761.
86. Rudzki, E.N.[‡], **Kohl, K.D.** (2023) Deficits in accessibility across field research stations for scientists with disabilities and/or chronic illness, and proposed solutions. *Integrative and Comparative Biology.* 63: 114–127.
85. Fontaine, S.S.[‡], **Kohl, K.D.** (2023) The microbiome buffers tadpole hosts from heat stress: a hologenomic approach to understand host-microbe interactions under warming. *Journal of Experimental Biology*. 226: jeb245191.
84. Rudzki, E.N.[‡], Kuebbing, S.E., Clark, D.R., Gharaibeh, B., Janecka, M.J., Kramp, R., **Kohl, K.D.,** Mastalski, T., Ohmer, M.E.B., Turcotte, M.M., Richards-Zawacki, C.L. (2022) A guide for developing a field research safety manual that explicitly considers risks for marginalized identities in the sciences. *Methods in Ecology and Evolution.* 13: 2318-2330.
83. Kramp., R.D., **Kohl, K.D.**, Stephenson, J.F. (2022) Skin bacterial microbiome diversity predicts lower activity levels in female, but not male, guppies, *Poecilia reticulata. Biology Letters*. 18: 20220167.
82. Yawitz., T.A.[†], Barts, N.[¶], **Kohl, K.D.** (2022) Comparative digestive morphology and physiology of five species of *Peromyscus* under controlled environment and diet. *Comparative Biochemistry and Physiology A: Molecular & Integrative Physiology*. 271: 111265.
81. **Kohl, K.D.,** Dieppa-Colón, E.[‡], Goyco-Blas, J.[§], Peralta-Martínez, K.[‡], Scafidi, L.[†], Shah, S.[†], Zawacki, E.[†], Barts, N.[¶], Ahn, Y., Hedayati, S., Secor, S.M., Rowe, M.P. (2022) Gut microbial ecology of five species of sympatric desert rodents in relation to herbivorous and insectivorous feeding strategies. *Integrative and Comparative Biology*. 62: 237-251.
80. Trevelline, B.K.[¶], **Kohl, K.D.** (2022) The gut microbiome influences diet selection behavior. *Proceedings of the National Academy of Sciences.* 119: e2117537119.
    - Profiled by *Medical News Today* – www.tinyurl.com/DietSelect
79. Fontaine, S.S.[‡], Mineo, P.M., **Kohl, K.D.** (2022) Experimental manipulation of microbiota reduces host thermal tolerance and fitness under heat stress in a vertebrate ectotherm. *Nature Ecology & Evolution.* 6: 405-417.
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78. MacLeod, K.J., **Kohl, K.D.,** Trevelline, B.K.[¶], Langkilde, T. (2022) Context-dependent effects of glucocorticoids on the lizard gut microbiome. *Molecular Ecology*. 31: 185-196.
77. Stapleton, T.E., **Kohl, K.D.,** Dearing, M.D. (2022) Plant secondary compound- and antibiotic-induced community disturbances improve the establishment of foreign gut microbiota. *FEMS Microbiology Ecology*. 98: fiac005.

76. Jorge, F., Brealey, J.C., Brindley, P.J., Buysse, M., Cantacessi, C., Duron, O., Fichorova, R., Fitzpatrick, C.R., Hahn, M., Hunter, C., Hervé, V., Knoll, L.J., **Kohl, K.D.,** Lalle, M., Lukeš, J., Martínez, J.M., Perkins, S.L., Poulin, R., Rosario, K., Schneider, A.C., Schriml, L.M., Thompson, L.R., Walls, R.L., Dheilly, N.M. (2022). MIxS-SA: a MIxS extension defining the minimum information standard for sequence data from symbiont-associated micro-organisms. *ISME Communications.* 2: 1-5.
75. Weinstein, S.B., Martínez-Mota, R., Stapleton, T.E., Klure, D.M., Greenhalgh, R., Orr, T.J., Dale, C., **Kohl, K.D.,** Dearing, M.D. (2021) Microbiome stability and structure is governed by host phylogeny over diet and geography in woodrats (*Neotoma* spp.) *Proceedings of the National Academy of Sciences* 118: e2108787118.
74. Maurer, M.†, Peralta Martínez, K.‡, Trevelline, B.K.¶, Tripoli, D.†, Dearing, M.D., Derting, T., Martinez Mota, R., Pasch, B., **Kohl, K.D.** (2021) Diet alters rodent fecal pellet size: implications for paleoecological and demographic studies using fecal dimensions. *Journal of Mammalogy.* 102: 1619-1626.
73. Alrubaye, H.‡, **Kohl, K.D.** (2021) Abundance and compositions of B-vitamin producing microbes in the mammalian gut vary based on feeding strategies. *mSystems*. 6: e00313-21.
72. Bo, T.B.§, **Kohl, K.D.** (2021) Stabilization and optimization of host-microbe-environment interactions as a potential reason for the behavior of natal philopatry. *Animal Microbiome*. 3: 26.
71. Fontaine, S.S.‡, Mineo, P.M., **Kohl, K.D.** (2021) Changes in the gut microbial community of the eastern newt (*Notophthalamus viridescens*) across its three distinct life stages. *FEMS Microbiology Ecology*. 97: fiab021.
70. Newman, J.†, Maurer, M.†, Forbey, J.S., Brittas, R., Johansson, Ö, Nielsen, Ó.K., Willebrand, T., **Kohl, K.D.** (2021) Low activities of digestive enzymes in the guts of herbivorous grouse (Aves: Tetraoninae) *Journal of Ornithology*. 162: 477-485.
69. Fontaine, S.S.‡, **Kohl, K.D**. (2020) Optimal integration between host physiology and functions of the gut microbiome. *Philosophical Transactions of the Royal Society B.* 375: 20190594.
68. Bo, T.B.§, Zhang, X.Y., **Kohl, K.D.,** Wen. J., Tian, S.J., Wang, D.H. (2020) Coprophagy prevention alters microbiome, metabolism, neurochemistry, and cognitive behavior in a small mammal. *ISME Journal*. 14: 2625-2645.
67. Fontaine, S.S.‡, **Kohl, K.D.** (2020) Gut microbiota of invasive bullfrog tadpoles responds more rapidly to temperature than a non-invasive congener. *Molecular Ecology*. 29: 2449-2462.
66. Trevelline, B.K.¶, Stephenson, J.F., **Kohl, K.D.** (2020) Two's company, three's a crowd: exploring how host-parasite-microbiota interactions may influence disease susceptibility and conservation of wildlife. *Molecular Ecology*. 29: 1402-1405.
65. Trevelline, B.K.¶, Sosa, J.‡, Hartup, B.K., **Kohl, K.D.** (2020) A bird's eye view of phylosymbiosis: weak signatures of phylosymbiosis among all 15 species of cranes. *Proceedings of the Royal Society B*. 287: 20192988.
64. **Kohl, K.D.** (2020) Ecological and evolutionary mechanisms underlying patterns of phylosymbiosis in host-associated microbial communities. *Philosophical Transactions of the Royal Society B.* 375: 20190251.
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62. Berlow, M., **Kohl, K.D.,** Derryberry, E.P. (2020) Evaluation of non-lethal gut microbiome sampling methods in a passerine bird. *Ibis.* 162: 911-923.
61. Dheilly, N.M., Martínez Martínez, J., Rosario, K., Brindley, P.J., Fichorova, R.N., Kaye, J.Z., **Kohl, K.D.**, Knoll, L.J., Lukeš, J., Perkins, S.L., Poulin, R., Schriml, L., Thompson, L.R. (2019) Parasite microbiome project: Grand Challenges. *PLoS Pathogens*. 15: e1008028.
60. Trevelline, B.K.¶, MacLeod, K.J., Langkilde, T., **Kohl, K.D.** (2019) Gestation alters the gut microbiota of an oviparous lizard. *FEMS Microbiology Ecology*. 95: fiz086.
59. Marón, C.F., **Kohl, K.D.,** Chirife, A., Di Martino, M., Penadés Fons, M., Navarro, M.A., Beingesser, J., McAloose, D., Uzal, F., Dearing, M.D., Rowntree, V.J., Uhart, M. (2019) Symbiotic microbes and potential pathogens in the intestine of stranded southern right whale calves (*Eubalaena australis*). *Anaerobe. 57*: 107-114.

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55. Fontaine, S.S.‡, Novarro, A.J., **Kohl, K.D.** (2018) Environmental temperature alters the digestive performance and gut microbiota of a terrestrial amphibian. *Journal of Experimental Biology*. 221: 187559.
54. **Kohl, K.D.,** Oakeson, K.F., Orr, T.J., Miller, A.W., Forbey, J.S., Phillips, C.D., Dale, C., Weiss, R.B., Dearing, M.D. (2018) Metagenomic sequencing provides insights into microbial detoxification in the guts of small mammalian herbivores (*Neotoma* spp.). *FEMS Microbiology Letters.* 94: fiy184.
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41. Knutie, S.A., Shea, L.A., Kupselaitis, M., Wilkinson, C.L., **Kohl, K.D.**, Rohr, J.R. (2017) Early-life diet affects host microbiota and later-life defenses against parasites in frogs. *Integrative and Comparative Biology*. 57: 732-742.
40. **Kohl, K.D.** (2017) An introductory 'how-to' guide for incorporating microbiome research into integrative and comparative biology. *Integrative and Comparative Biology.* 57: 674-681.

39. Dearing, M.D., **Kohl, K.D.** (2017) Beyond Fermentation: Other important services provided to endothermic herbivores by their gut microbiota. *Integrative and Comparative Biology.* 57: 723-731.
38. **Kohl, K.D.,** Dearing, M.D. (2017) Intestinal lymphatic transport: an overlooked pathway for understanding absorption of plant secondary compounds in vertebrate herbivores. *Journal of Chemical Ecology.* 43: 290-294.
37. **Kohl, K.D.,** Brun, A., Magallanes, M., Brinkerhoff, J.D., Laspiur, A., Acosta, J.C., Caviedes-Vidal, E., Bordenstein, S.R. (2017) Gut microbial ecology of lizards: insights into diversity in the wild, effects of captivity, variation across gut regions, and transmission. *Molecular Ecology.* 26: 1175-1189.
36. Brooks, A.W.‡, **Kohl, K.D.**‡, Brucker, R.M.‡, van Opstal, E., Bordenstein, S.R. (2016) Phylosymbiosis: relationships and functional effects of microbial communities across host evolutionary history. *PLoS Biology.* 14: e2000225. (‡ Co-first authors)
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35. **Kohl, K.D.,** Carey, H.V. (2016) A place for host-microbe symbiosis in the comparative physiologist's toolbox. *Journal of Experimental Biology.* 219: 3496-3504.
34. **Kohl, K.D.,** Ciminari, M.E., Chediack, J.G., Leafloor, J.O., Karasov, W.H., McWilliams, S.R., Caviedes-Vidal, E. (2016) Modulation of digestive enzyme activities in the avian digestive tract in relation to diet composition and quality. *Journal of Comparative Physiology – B.* 187: 339-351.
33. **Kohl, K.D.,** Dearing, M.D. (2016) The woodrat gut microbiota as an experimental system for understanding microbial metabolism of dietary toxins. *Frontiers in Microbiology.* 7: 1165.
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25. **Kohl, K.D.,** Coogan, S.C.P., Raubenheimer, D. (2015) Do wild carnivores forage for prey or for nutrients?: Evidence for nutrient specific foraging in vertebrate predators. *BioEssays.* 37: 701-709.
24. Chalmers, J.W., Mock, K.E., **Kohl, K.D.,** Madsen, K.J., Nadkarni, N.M. (2015) Clonality and dynamics of leaf abscission of Gambel oaks at small spatial scales in Utah. *Forest Science*. 61: 829-833.
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21. **Kohl, K.D.**, Pitman, E., Robb, B.C., Connelly, J.W., Dearing, M.D., Forbey, J.S. (2015) Monoterpenes as inhibitors of digestive enzymes and counter-adaptations in a specialist avian herbivore. *Journal of Comparative Physiology – B.* 185: 425-434.
20. **Kohl, K.D.,** Miller, A.W., Dearing, M.D. (2015) Evolutionary irony: evidence that "defensive" plant spines act as a proximate cue to attract a mammalian herbivore. *Oikos*. 124: 835-841.
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19. **Kohl, K.D.,** Marón, C.F., Chirife, A., Di Martino, M., Dearing, M.D., Rowntree, V.J. (2015) Intestinal lactase activity in southern right whale calves (*Eubalaena australis*). *Marine Mammal Science.* 31: 398-403.
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17. **Kohl, K.D.,** Weiss, R.B., Cox, J., Dale, C., Dearing, M.D. (2014) Gut microbes of mammalian herbivores facilitate intake of plant toxins. *Ecology Letters.* 17: 1238-1247.
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    - Featured in popular science book "*I Contain Multitudes*" by Ed Yong
16. **Kohl, K.D.,** Miller, A.W., Marvin, J.E., Mackie, R., Dearing, M.D. (2014) Herbivorous rodents (*Neotoma spp*.) harbor abundant and active foregut microbiota. *Environmental Microbiology.* 16: 2869-2878.
15. **Kohl, K.D.,** Skopec, M.M.**,** Dearing, M.D. (2014) Captivity results in disparate loss of gut microbial diversity in closely related hosts. *Conservation Physiology*. 2: cou009.
14. Miller, A.W., **Kohl, K.D.,** Dearing, M.D. (2014) The gastrointestinal tract of the white-throated woodrat (*Neotoma albigula*) harbors distinct consortia of oxalate-degrading bacteria. *Applied and Environmental Microbiology.* 80: 1595-1601.
13. **Kohl, K.D.,** Dearing, M.D. (2014) Wild-caught rodents retain a majority of their natural gut microbiota upon entrance into captivity. *Environmental Microbiology Reports.* 6: 191-195.
12. Brzęk, P., **Kohl, K.D.**, Caviedes-Vidal, E., Karasov, W.H. (2013) Activity of intestinal carbohydrases responds to multiple dietary signals in nestling House sparrows. *Journal of Experimental Biology.* 216: 3981-3987.
11. **Kohl, K.D.**, Cary, T.L., Karasov, W.H., Dearing, M.D. (2013) Restructuring of the amphibian gut microbiota through metamorphosis. *Environmental Microbiology Reports.* 5: 899-903.
10. Samuni-Blank, M., Izhaki, I., Dearing, M.D., Karasov, W.H., Gerchman, Y., **Kohl, K.D.**, Lymberakis, P., Kurnath, P., Arad, Z. (2013) Physiological and behavioural effects of fruit toxins on seed-predating versus seed-dispersing congeneric rodents. *Journal of Experimental Biology*. 216: 3667-3673.
9. **Kohl, K.D.**, Stengel, A., Samuni-Blank, M., Dearing, M.D. (2013) Effects of anatomy and diet on gastrointestinal pH in rodents. *Journal of Experimental Zoology Part A*. 319:225-229.
8. Brzęk, P., Ciminari, M.E., **Kohl, K.D**., Lessner, K., Karasov, W.H., Caviedes-Vidal, E. (2013) Effect of age and diet composition on activity of pancreatic enzymes in birds. *Journal of Comparative Physiology - B*. 183:685-697.
7. **Kohl, K.D.,** Dearing, M.D. (2012) Experience matters: prior exposure to plant toxins enhances diversity of gut microbes in herbivores. *Ecology Letters*. 15:1008-1015.
6. **Kohl, K.D.** (2012) Diversity and function of the avian gut microbiota. *Journal of Comparative Physiology B.* 182:591-602.
5. **Kohl, K.D.,** Dearing, M.D. (2011) Induced and constitutive responses of digestive enzymes to plant toxins in an herbivorous mammal. *Journal of Experimental Biology*. 214:4133-4140.
4. **Kohl, KD.,** Weiss, R.B., Dale, C., Dearing, M.D. (2011) Diversity and novelty of the gut microbial community of an herbivorous rodent (*Neotoma bryanti*). *Symbiosis*. 54:47-54.

3. Brzęk, P., **Kohl, K.D.**, Caviedes-Vidal, E., Karasov, W.H. (2011) Fully reversible phenotypic plasticity of digestive physiology in young House sparrows: lack of long-term effect of early diet composition. *Journal of Experimental Biology.* 214:2755-2760.
2. **Kohl, K.D.,** Brzęk, P., Caviedes-Vidal, E., Karasov, W.H. (2011) Pancreatic and intestinal carbohydrases are matched to dietary starch level in wild passerine birds. *Physiological and Biochemical Zoology*. 84:195-203.
1. Brzęk, P., **Kohl, K.D.,** Caviedes-Vidal, E., Karasov, W.H. (2009) Developmental adjustments of House sparrow (*Passer domesticus*) nestlings to diet composition. *Journal of Experimental Biology*. 212:1284-1293.

INVITED PRESENTATIONS

2026 Keynote Address, American Chemoreception Society, St. Pete Beach, FL
2026 Invited Update Speaker, Human Anatomy and Physiology Society Annual Conference, Pittsburgh PA
2025 Oklahoma State University, Stillwater, OK
2025 Invited Speaker to symposium "*Microbes matter: Phenotypic effects of microbiota on wild animal hosts*". Society of Integrative and Comparative Biology, Atlanta, GA
2024 Buffalo State University, Department of Biology, Buffalo, NY
2024 Applied Hologenomics Conference, Copenhagen, Denmark.
2024 Wild Animal Microbiome Evolution (WAME) Special Topic Network *[virtual seminar]*
2023 Keynote Speaker for "*Horizons in Metaorganism Research*" Conference. Kiel, Germany.
2023 Center for Evolutionary Hologenomics, Copenhagen, Denmark
2022 Conference on Beneficial Microbes, Madison, WI
2022 University of Nevada – Reno *[virtual]*
2022 University of Calgary *[virtual]*
2021 University of Maine
2021 Duquesne University, Pittsburgh, PA
2021 Invited Speaker to session "Moving toward a Mechanistic Understanding of Wildlife Microbiomes" at American Society of Microbiology's World Microbe Forum *[virtual]*
2021 Bielefeld University, Germany *[virtual]*
2021 Microbiome Centers Consortium Seminar Series *[virtual]*
2021 University of Groningen, The Netherlands *[virtual]*
2020 North Carolina State University, Raleigh, NC *[virtual]*
2020 Cornell University, Ithaca, NY *[virtual]*
2020 University of Tennessee – Knoxville, Knoxville, TN *[virtual]*
2020 Auburn University, Auburn, AL *[virtual]*
2020 University of Texas at Arlington, Arlington, TX
2020 Invited Speaker to symposium "*Cultivating Communities: Making Sense of Host-Microbe Interactions Through the Lens of Genetics*". Genetic Society of America Virtual Conference
2019 University of Rhode Island, Providence, RI
2019 Jagiellonian University, Kraków, Poland
2019 Muséum National d'Histoire Naturelle, Paris, France
2019 Invited Speaker to symposium "*Meals, Metabolism, Microbes, and Management: Linking Foraging Behavior and Physiology to Predict Demographics in Wildlife*". Annual meeting of The Wildlife Society in Reno, NV
2019 The Ohio State University, Columbus, OH
2019 West Virginia University, Morgantown, WV
2019 Invited to participate in 'Parasite Microbiome Project Workshop', Clearwater, FL
2018 University of California – Irvine, CA
2018 University of Connecticut, Storrs, CT
2018 Plenary speaker at Duquesne Biology Department Retreat, Pittsburgh, PA
2017 Pennsylvania State University, State College, PA
2017 University of Alabama, Tuscaloosa, AL

2017 9th Meeting of the International Society of Zoological Sciences, Xining, China
2017 University of Oregon, Eugene, OR
2017 Gordon Research Conference on Plant-Herbivore Interactions, Ventura, CA
2017 University of Minnesota, Minneapolis, MN
2017 University of South Florida, Tampa, FL
2016 University of Pittsburgh, Pittsburgh, PA
2016 University of Alberta, Edmonton, AB
2016 University of Mississippi, Oxford, MS
2016 Austin Peay State University, Clarksville, TN
2015 Early Career Scientists Symposium – University of Michigan, Ann Arbor, MI
2014 Iowa State University, Ames, IA
2014 Workshop on Microbiology of Animals in the Built Environment – Univ. of California, Davis, CA

ACTIVE RESEARCH GRANTS

National Science Foundation (Aug. 2023 – July 2027) Role: PI*
"OSIB: Dynamic Interactions between Host Social Behavior and Parasite Virulence, National
Total Direct Costs: $1,431,641
**This grant was originally awarded to a colleague, Dr. Jess Stephenson, who relocated to Europe. Grant funds and personnel are managed PI-Kohl*

PREVIOUS RESEARCH GRANTS

National Science Foundation (Apr. 2020 – Mar. 2026) Role: PI
"CAREER: Microbial contributions to host phenotypic flexibility"
Total Direct Costs: $881,563

National Science Foundation (Sept. 2020 – Aug. 2025) Role: Co-PI
"Epigenetic potential and range expansion in the house sparrow"
Total Direct Costs to KDK: $200,954

Dietrich Innovation Initiative Award (Nov. 2024 – May 2026) Role: PI
"The Overlooked Ecology of Pittsburgh's Public Stairways"
Total Costs: $19,510

Morris Animal Foundation (Jun. 2019 – May 2023) Role: PI
"*Impact of Artificial Rearing on the Microbiota and Health of Endangered Whooping Cranes"*
Total Direct Costs: $126,587

University of Pittsburgh Central Research Development Fund (Jul. 2019- Jun. 2021) Role: PI
"*Can we learn from the past?: Validating the use of museum specimens to study the gut microbiome*"
Total Costs: $16,000

University of Pittsburgh Central Research Development Fund (Jul. 2018 – Jun. 2020) Role: PI
"*Developing an Experimental System to Investigate Microbial Contributions to Host Physiology*"
Total Costs: $16,000

Winters Foundation (2018) Role: PI
"*Molecular Mechanisms Controlling Assembly of the Gut Microbiota In Early Life*"
Total Costs: $10,000

NIH T32 Training Grant in Gastroenterology (Oct. 2016 – Aug. 2017)
"Genetic mechanisms underlying development of the gut microbiome"
Total Costs: $47,000

NSF Conference, Symposia, and Workshop Support (2016)
"Meeting: Microbial Partners in Integrative and Comparative Biology, a Symposium for the Society for Integrative and Comparative Biology (SICB)"
Total Costs: $12,450

NSF International Postdoctoral Research Fellowship in Biology (Nov. 2014 – Sept. 2016)
"The role of maternal transmission of the gut microbiota in stabilizing host-microbe interactions and facilitating co-evolution"
Total Costs: $140,000

NSF Doctoral Dissertation Improvement Grant (2012)
"Biodiversity and community ecology of the gut microbiota in herbivores with respect to dietary toxins"
Total Costs: $14,999

NSF Graduate Research Fellowship Award (Sept. 2010 – Aug. 2014)
"*Investigating the role of intestinal microbes in the metabolism of plant toxins"*
Total Costs: $125,500

American Museum of Natural History Theodore Roosevelt Memorial Grant (2010)
Total Costs: $2000

Southwest Association of Naturalists Howard McCarley Research Award (2010)
Total Costs: $1000

Society for Integrative and Comparative Biology Grant in Aid of Research (2010)
Total Costs: $1000

TEACHING

***Advanced Ecology* – BIOSCI 2361 – Univ. of Pittsburgh**
Fall 2023 - 12 graduate students
Spring 2026, co-instructor – 5 graduate students

***Advanced Global Change Biology – BIOSCI 2405* - Univ. of Pittsburgh**
Spring 2025, co-instructor – 7 graduate students

***Science Communication: Posters and Presentations – BIOSCI 2056* - Univ. of Pittsburgh**
Spring 2026, co-instructor – 14 graduate students

***Seminar in Ecology and Evolution – BIOSCI 2540* - Univ. of Pittsburgh**
Fall 2024, co-instructor – 5 graduate students

***Environmental Animal Physiology* – BIOSCI 1435 – Univ. of Pittsburgh**
Spring 2019 – 34 students
Spring 2020 – 31 students [*partial virtual instruction*]
Spring 2021 – 45 students [*virtual instruction*]
Spring 2022 – 53 students
Spring 2023 – 50 students
Spring 2025 – 60 students
Spring 2026 – 64 students

***Mammalogy* - Biology 5370 (3 cr) – University of Utah**
Instructor Spring 2012, Spring 2013

MENTORSHIP

Postdoctoral Researchers

Dr. Emily Hardison Nov. 2023 – Present
-NSF Postdoctoral Research Fellow
Dr. Rachael Kramp Nov. 2025 – Present

Dr. Noah Leith June 2024 – June 2025
- Pittsburgh Ecology & Evolution Postdoctoral (PEEP) Fellow
-Currently an NSF Postoctoral Research Fellow at UC-Berkeley
Dr. Mauna Dasari January 2022 – Sept 2022
-NSF Postdoctoral Research Fellow
-Currently a Grant Writer at California Academy of Sciences
Dr. Nicholas Barts August 2020 – August 2022
-Currently an Assistant Professor at University of Central Missouri
Dr. Brian Trevelline Oct 2017 – June 2020
-Currently an Assistant Professor at Kent State University

Graduate Students

Jessica Diaz (NSF GRFP Fellow) Aug. 2022 – present

Samantha Fontaine (NSF GRFP Fellow) September 2017 – May 2023
-Currently an Assistant Professor at South Dakota State University
Elizabeth Rudzki (NSF GRFP Fellow) May 2019 – May 2025
-Currently a postdoctoral researcher at Michigan State University
Dr. Karen Peralta Martinez (NSF GRFP Fellow) May 2020 – May 2025
-Currently a Research Scientist at Nestlé Health Sciences

Service on PhD Committees

Sam Lapp University of Pittsburgh (2025-present)
Marco Gonzalez Santoro University of Pittsburgh (2025-present)
Rachel Verdi University of Pittsburgh (2023-present)
Louis Freeland-Haynes University of Pittsburgh (2023-present)
Lauren Chronister University of Pittsburgh (2024-present)
Keila Jellings University of Pittsburgh (2025-present)
Alicia Endress University of Pittsburgh (2025-present)
Mujeeb Balogun University of Pittsburgh (2025-present)

Past PhD Committees
Dr. Mae Berlow University of Tennessee – Knoxville (2020)
Dr. Veronica Saenz University of Pittsburgh (2021)
Dr. Tess Stapleton University of Utah (2022)
Dr. Rachel Reeb University of Pittsburgh (2023)
Dr. Nevin Cullen University of Pittsburgh (2023)
Dr. Kaitlyn Murphy Auburn University (2023)
Dr. Veronica Iriart University of Pittsburgh (2024)
Dr. Kayla Komondor University of Pittsburgh (2024)
Dr. Kyle Emerson Duquesne University (2024)
Rachael Kramp University of Pittsburgh (2025)
Crystal Lara University of Pittsburgh (2025)

PROFESSIONAL SERVICE

Service to the Department

Faculty Mentoring Committees
Dr. David Outomuro
Dr. Castilleja Olmsted

2025-2026	Chair, Graduate Funding and Fellowship Committee (GFFC)
2024 – 2025	Member of Ecology and Evolution Faculty Search Committee
2022 – present	Member of Graduate Recruitment and Admissions Committee (GRAC)
2018 – 2022	Member of Departmental Retreat Committee [Chaired Departmental Retreat "*The Art of Science*" - Oct. 2022]
Nov. 2020	Represented department at the Annual Biomedical Research Conference for Minority Students (ABRCMS) [*virtual*]
2019 - 2021	Member of the Graduate Mentoring and Advising Committee (GMAC)
2018 - Jan. 2019	Member of Microbiology Faculty Search Committee
2017- Aug. 2018	Member of Undergraduate Research Committee

External Service

External Thesis Reviewer

Nov. 2023	Dr. Sophie Teullet, University of Montpellier, France
Oct. 2021	Dr. Aura Raulo, University of Oxford, England
July 2021	Dr. Jia Zhou, University of Adelaide, Australia
Oct. 2018	Mr. Elliot Schmidt, Laurentian University, Ontario, Canada (MSc thesis)

Service to the Field

2024	Co-Chair of 9th Conference on Beneficial Microbes [July 21-25, Madison WI], 252 attendees.
2023	Co-organized a symposium at the 13th International Mammalogical Congress, titled "*The microbiome frontier of mammalogy*" [July 18, 2023, Anchorage AK, USA]
2022	Organized a symposium at the annual meeting of American Physiological Society meeting for Comparative Physiology, titled *"Microbial contributions to organismal responses in a changing world"* [Oct. 30th, 2022, San Diego, CA, USA]
2022	Member of Organizing Committee for the Beneficial Microbes Conference [July 10-14, 2022, Madison, WI, USA]
2021	Organized a symposium and roundtable discussion at the annual meeting of the American Ornithological Society, titled "*A bird's-eye view of the microbiome*"
2019	Organized a Special Session at Society for Integrative and Comparative Biology in honor of Dr. William Karasov
2017	Organized a symposium on host-microbe interactions at annual meeting for Society for Integrative and Comparative Biology – http://tinyurl.com/KohlSICB

Ad-Hoc Reviewer for National Science Foundation
Integrative Organismal Systems: 2016, 2020, 2022, 2023, 2024, 2026
Division of Environmental Biology: 2015, 2018
Molecular and Cellular Biosciences: 2023

Panel Member for National Science Foundation
Directorate for Biological Sciences: 2021
Division of Molecular and Cellular Biosciences: 2022
Division of Integrative Organismal Systems: 2025

Peer Reviewer for Other Funding Agencies

2025 Graduate Women in Science Graduate Fellowship
2020 Czech Science Foundation
2019 Barton Springs Salamander Conservation Fund (City of Austin, TX)
2019 Center for Health Effects of Environmental Contamination , University of Iowa

Peer Reviewer

2026: *Journal of Experimental Biology (x2), Animal Behavior, Ecological and Evolutionary Physiology*

2025: *(2 papers) Proceedings of the National Academy of Sciences, Integrative Zoology (x2), Molecular Ecology, ISME Journal,*

2024: *(5 papers) Ecology Letters, Current Biology, ISME Journal, Integrative Zoology, Microbiology*

2023: *(3 papers) mBio, Proceedings of the National Academy of Sciences, Philosophical Transactions of the Royal Society B: Biological Sciences*

2022: *(6 papers) eLife, Proceedings of the National Academy of Sciences, Ecology Letters, Microbial Ecology, Functional Ecology, Journal of Mammalogy*

2021: *(8 papers) Science, Ecology Letters, Proceedings of the Royal Society B: Biological Sciences, Functional Ecology, Animal Microbiome, Global Ecology and Biogeography, Journal of Comparative Physiology B: Biochemical Systematic, and Environmental Physiology, Integrative Zoology*

2020: *(6 papers) Proceedings of the Royal Society B: Biological Sciences, Biology Letters, ISME Journal, Molecular Ecology (x2), Journal of Experimental Biology*

2019: *(10 papers) Proceedings of the National Academy of Sciences, Biology Letters, Proceedings of the Royal Society B: Biological Sciences (x2), Philosophical Transactions of the Royal Society B: Biological Sciences, ISME Journal, FEMS Microbiology Letters (x2), Journal of Comparative Physiology B: Biochemical Systematic, and Environmental Physiology, Frontiers in Microbiology*

2018: *(11 papers) Nature Ecology & Evolution, Nature Communications, Microbial Ecology (x2), ISME Journal, Journal of Comparative Physiology B: Biochemical Systematic, and Environmental Physiology, Molecular Ecology, Applied and Environmental Microbiology, FEMS Microbiology Letters, Heliyon, PeerJ*

2017: *(9 papers) Nature Ecology & Evolution, ISME Journal, Current Biology, Integrative and Comparative Biology, Journal of Animal Ecology, Journal of Chemical Ecology, Molecular Ecology Resources, Journal of Experimental Biology, Current Biology*

Service to the Community (Scientific Outreach)

Mar. - April 2025	STEAM Saturdays – The Kohl Lab taught a 6-week curriculum on animal adaptations to a group of 5th graders through a program hosted at the UPitt's Community Engagement Center in the Hill District
Mar. 2022 – present	Each year, the Kohl Lab managed a table conveying our research to high-school students at the Carnegie Science Center's annual Animals & Local Wildlife SciTech Day
Nov. 2021,2022	Kohl Lab hosted a table conveying our research to the general public at Market Science, a scientific outreach event at a local Pittsburgh farmer's market
Dec. 2019	Speaker at a luncheon discussion with a group of ~20 students from Pittsburgh Allderdice High School who were visiting Pitt BioSci.
Sep. 2019	Kohl Lab hosted a table conveying our research to the general public at Market Science, a scientific outreach event at a local Pittsburgh farmer's market

DIVERSITY, EQUITY, & INCLUSION

May 2024 Completed for the Global Competency Certificate Program, offered by UPitt's Office of Equity, Diversity, and Inclusion

May 2022 Led Pitt BioSci Departmental Diversity Book Club on Holding Space by Dr. Aminata Cairo

Apr. 2022 Seminar Speaker for the PEER Mentoring program – a program led by Pitt BioSci to integrate research experiences and belonging across career stages

Jul. 2021 Completion of the Diversity and Inclusion Certificate Program, a 7-course program offered by UPitt's Office of Equity, Diversity, and Inclusion

2020, 2021 Participant in "Out to Lunch" series at the Society of Integrative and Comparative Biology (SICB) annual conference, where LGBT+ professors meet and discuss their path in science with LGBT+ trainees

July 2020 Participant in '*Virtual Faculty Panel'* for Summer Gene Team (a high school outreach program led by UPitt BioSci)