Robert R. Fitak, PhD

Curriculum Vitae

Robert.Fitak@ucf.edu

Google Scholar Profile Fitak Lab website ResearchGate Profile GitHub Site

(*h* = 18)

EDUCATION

2008 – 2013 **Ph.D in Genetics**
University of Arizona, Tucson, AZ, USA
Dissertation Advisor: Melanie Culver
Dissertation Title: **"C*onservation genomics of the endangered Mexican wolf and de novo SNP marker development in pumas using next-generation sequencing"***

2003 – 2006 **B.S. in Molecular Genetics**
The Ohio State University, Columbus, OH, USA
Cum Laude and with distinction in Molecular Genetics
Thesis Advisor: Paul A. Fuerst
Thesis Title: "***Analysis of the prevalence and diversity of rickettsial species found in Ohio Amblyomma americanum ticks, assessed by the analysis of the 17kDa surface antigen gene"***

POSITIONS

2019 – present ***Assistant Professor***; August 2019 – present
Department of Biology
Genomics and Bioinformatics Cluster
University of Central Florida, Orlando, FL, USA

2015 – 2019 ***Postdoctoral Scientist***
Department of Biology, Duke University
PI: Dr. Sönke Johnsen
Project Title: "***Long-range Geomagnetic Navigation in Sea Turtles: An Interdisciplinary Approach to Localizing Magnetite-based Biological Magnetoreceptors***"

2013 – 2015 ***Postdoctoral Scientist***
Institut für Populationsgenetik (Institute for Population Genetics)
Veterinärmedizinische Universität Wien (Veterinary Medical University Vienna)
PI: Dr. Pamela Burger
Project Title: "***Detecting footprints of selection in Old World Camelids using genome sequencing***"

2012 ***Graduate Teaching Assistant***
University of Arizona, Tucson, AZ, USA

2008 – 2012 ***National Science Foundation IGERT Fellow in Comparative Genomics***
University of Arizona, Tucson, AZ, USA
Selected as a fellow for four years, three years of full tuition and salary

2008 – 2009 ***Science Foundation Arizona Fellow***
University of Arizona, Tucson, AZ, USA
One-year full tuition and salary

2006 – 2007 ***Laboratory Technician***
Department of Molecular Genetics
The Ohio State University, Columbus, OH, USA

RESEARCH

Peer-reviewed publications *Lab members in boldfaced type*; **graduate or **undergraduate student under my supervision;[§]postdoctoral researcher; [‡]corresponding author*

41. **Fitak RR**[‡]. (2024) The magneto-microbiome: a dataset of the metagenomic distribution of magnetotactic bacteria. *Data in Brief*. 53:110073.
40. *Brosnan E, *Palmisano JN, ***Martin J**, **Fitak RR**[‡]. (2023) Novel genome sequences of *Ophidiomyces ophiidocola*, the causative agent of snake fungal disease. *Microbial Resource Announcements*. 12(7):mra.00093-23.
39. ***Palmisano JN**[‡], Farrell TM, ***Gustafson TM**, **Fitak RR**. (2023) The mitochondrial genome of the pentastome parasite *Raillietiella orientalis* Hett, 1915 (Raillietiellida; Raillietiellidae) with notes on its phylogenetic position. *Mitochondrial DNA Part B*. 8(7):756-759.
38. Sharif MB, **Fitak RR**, Wallner B, Frewin S, Fremaux M, Mohandesan E. (2022) Reconstruction of the major maternal and paternal lineages in the feral New Zealand Kaimanawa horses. *Animals*. 12(24):3508.
37. **Ochoa A**[§‡], Onorato DP, Roelke-Parker ME, Culver M, and **Fitak RR**. (2022) Give and take: effects of genetic admixture on mutation load in endangered Florida panthers. *Journal of Heredity*. 113:491-499.
36. **Fitak RR**[‡]. (2021) OptM: estimating the optimal number of migration edges on population trees using Treemix. *Biology Methods and Protocols*. 6(1):bpab017.
35. Erwin JA, **Fitak RR**, Culver M. (2021) PumaPlex100: An expanded tool for puma SNP genotyping with low-yield DNA. *Conservation Genetics Resources*. 13:341–343.
34. Natan E, **Fitak RR**, Werber Y, Vortman Y. (2020) Symbiotic magnetic sensing: raising evidence and beyond. *Philosophical Transactions of the Royal Society B*. 375:20190595.
33. Taboada C, Faivovich J, Brunetti AE, Lyra ML, **Fitak RR**, Soverna AF, Ron SR, Lagorio MG, Haddad CFB, Lopes NP, Johnsen S, Chemes LB, Bari SE. (2020) Multiple origins of green coloration in frogs mediated by a novel biliverdin-binding serpin. *Proceedings of the National Academy of Sciences U.S.A.* 117(31): 18574–18581.
32. **Fitak RR**[‡], Mohandesan E, Corander J, Yadamsuren A, Chuluunbat B, Abdelhadi O, Raziq A, Nagy P, Walzer C, Faye B, and Burger PA. (2020) Genomic signatures of domestication in Old World camels. *Communications Biology*. 3:316.
31. Ernst DA, **Fitak RR**, Schmidt M, Derby CD, Johnsen S, and Lohmann KJ. (2020) Pulse magnetization elicits differential gene expression in the spiny lobster central nervous system. *Journal of Comparative Physiology A.* 206(5):725-742.
30. **Fitak RR**[‡], Wheeler BR, and Johnsen S. (2020) Effect of a magnetic pulse on orientation behavior in rainbow trout (*Oncorhynchus mykiss*). *Behavioral Processes*. 172:104058.
29. Antonacci R, Linguiti G, Burger PA, Castelli V, Pala A, **Fitak R**, Massari S, Ciccarese S. (2020). Comprehensive genomic analysis of the dromedary T cell receptor gamma (TRG) locus and identification of a functional TRCC5 cassette. *Developmental and Comparative Immunology*. 106:103614.
28. Granger J, Walkowicz L, **Fitak R**, and Johnsen S. (2020) Gray whales strand more often on days with increased levels of atmospheric radio-frequency noise. *Current Biology*. 30(4):R155-R156.
27. Ochoa A, Onorato DP, **Fitak RR**, Roelke-Parker ME, Culver M. (2019) *De novo* assembly and annotation from parental and F1 puma genomes of the Florida panther genetic restoration program. *G3 (Bethesda).* 9:3531-3536.
26. Favia M, **Fitak RR**, Guerra L, Pierri CL, Faye B, Oulmouden A, Burger PA, Ciani E. (2019). Beyond the big five: investigating myostatin structure, polymorphism and expression in *Camelus dromedarius*. *Frontiers in Genetics*. 10:502.

25. Ritschard EA, **Fitak RR**, Simakov O, and Johnsen S. (2019) Genomic signatures of G-protein-coupled receptor expansions reveal functional transitions in the evolution of cephalopod signal transduction. *Proceedings of the Royal Society of London. Series B, Biological sciences*. 286(1897): 20182929.

24. **Fitak RR**[‡]**,** ... Pecon-Slattery, J. (2019) The expectations and challenges of wildlife disease research in the era of genomics: forecasting with a horizon scan. *Journal of Heredity*. 110(3):261-274.

23. Schweikert LE, **Fitak RR**, Caves EM, Sutton TT, and Johnsen S. (2018) Spectral sensitivity among ray-finned fishes: ecology, diversity, and shared descent. *Journal of Experimental Biology*. 221(23): jeb189761.

22. **Fitak RR**[‡], Caves EM, and Johnsen S**.** (2018) Orientation in pill bugs: an interdisciplinary activity to engage students in concepts of biology, physics, and circular statistics. *American Biology Teacher*. 80(8): 608-618.

21. **Fitak RR**[‡] and Johnsen S. (2018) Green sea turtle (*Chelonia mydas*) population history indicates important demographic changes near the mid-Pleistocene transition. *Marine Biology.* 165(7): 110.

20. **Fitak RR**[‡], Schweikert LE, Wheeler BR, Ernst DA, Lohmann KJ, and Johnsen S. (2018) Near absence of differential gene expression in the retina of rainbow trout after exposure to a magnetic pulse: Implications for magnetoreception. *Biology Letters*. 14(6): 20180209.

19. Schweikert LE, **Fitak RR**, Johnsen S. (2018) *De novo* transcriptomics reveal distinct phototransduction signaling components in the retina and skin of the color changing vertebrate, *Lachnolaimus maximus*. *Journal of Comparative Physiology A.* 204(5): 475-485.

18. **Fitak RR**[‡], Rinkevich S, and Culver M. (2018) Genome-wide analyses of SNPs is consistent with no domestic dog ancestry in the endangered Mexican wolf (*Canis lupus baileyi*). *Journal of Heredity*. 109(4): 373-383.

17. **Arniella MB, **Fitak RR**[‡], and Johnsen S. (2018) Unmapped sequencing reads identify additional candidate genes linked to magnetoreception in trout. *Environmental Biology of Fishes.* 101(5): 711-721.

16. **Fitak RR**[‡] and Johnsen S**.** (2017) Bringing the statistical analysis of animal orientation full circle: model-based approaches with maximum likelihood**.** *Journal of Experimental Biology* 220(21): 3878-38882.

15. Mohandesan E, **Fitak RR**, Corander J, Yadamsuren A, Chuluunbat B, Abdelhadi O, Raziq A, Nagy P, Stalder G, Walzer C, Faye B, and Burger PA. (2017) Mitogenome sequencing in the genus *Camelus* reveals evidence for purifying selection and long-term divergence between wild and domestic Bactrian camels. *Scientific Reports* 7(1): 9970.

14. Ohkura M, **Fitak RR**, Wisecaver JH, DeBlasio D, Niazi F, Egholm M, Rounsley SD, Kodira CD, and Orbach MJ. (2017) Genome sequence of *Ophidiomyces ophiodiicola*, an emerging fungal pathogen of snakes. *Genome Announcements* 5(30): e00677-17.

13. **Fitak RR**[‡], Wheeler BR, Ernst DA, Lohmann KJ, and Johnsen S. (2017) Candidate genes mediating magnetoreception in rainbow trout (*Oncorhynchus mykiss*). *Biology Letters* 13(4): 20170142.

12. Ochoa A, Onorato DP, **Fitak RR**, Roelke-Parker ME, and Culver M. (2017) Evolutionary and functional mitogenomics: presence of potential deleterious SNPs in Florida panthers prior to and as a consequence of the introduction of Texas pumas. *Journal of Heredity* 108(4): 449-455.

11. *Erwin JA, **Fitak RR**, Dwyer JF, and Culver M. (2016) Molecular detection of bacteria in the families *Rickettsiaceae* and *Anaplasmataceae* in northern crested caracaras (*Caracara cheriway*). *Ticks and Tick-Borne Diseases* 7(3): 470-474.

10. Plasil M, Mohandesan E, **Fitak RR**, Musilova P, Kubickova S, Burger PA, and Horin P. (2016) The major histocompatibility complex in Old World camelids and low polymorphism of its class II genes. *BMC Genomics* 17(1): 167.

9. **Fitak RR**[‡], Mohandesan E, Corander J, and Burger PA. (2016) The *de novo* genome assembly and annotation of a female domestic dromedary of North African origin. *Molecular Ecology Resources* 16(1): 314-324.

8. **Fitak RR**[‡], Naidu A, Thompson R, and Culver M. (2016) A new panel of SNP markers for the individual identification of North American pumas (*Puma concolor*). *Journal of Fish and Wildlife Management* 7(1): 13-27.

7. Bruford MW, … **Fitak R**, et al. (2015) Prospects and challenges for the conservation of farm animal genomic resources, 2015-2025. *Frontiers in Genetics* 6: 314.

6. Ruiz E, Mohandesan E, **Fitak RR**, and Burger P. (2015) Diagnostic single nucleotide polymorphism markers to identify hybridization between dromedary and Bactrian camels. *Conservation Genetics Resources* 7(2): 329-332.

5. **Fitak RR**[‡], Kelly DJ, Fuerst PA, et al. (2014) The prevalence of rickettsial and ehrlichial organisms in *Amblyomma americanum* ticks collected from Ohio and surrounding areas between 2000 and 2010. *Ticks and Tick-Borne Diseases* 5(6): 797-800.

4. **Fitak RR**[‡], Koprowski JL, and Culver M. (2013) Severe reduction in genetic variation in a montane isolate: the endangered Mount Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*). *Conservation Genetics* 14(6): 1233-1241.

3. Andrew DR, **Fitak RR**, Munguia-Vega A, Racolta A, Martinson V, and Dontsova K. (2012) Abiotic factors shape microbial diversity in Sonoran Desert soils. *Applied Environmental Microbiology* 78(21): 7527.

2. Naidu A, **Fitak RR**, Munguia-Vega A, and Culver M. (2012) Novel PCR primers for complete mitochondrial cytochrome b gene sequencing in mammals. *Molecular Ecology Resources* 12: 191-196.

1. Loftis AD, Mixson TR, Stromdahl EY, Yabsley MJ, Garrison LE, Williamson PC, **Fitak RR**, Fuerst PA, and Blount KB. (2008) Geographic distribution and genetic diversity of the *Ehrlichia* sp. from Panola Mountain. *BMC Infectious Diseases* 8: 54.

Manuscripts *under review* or *in revision*

2. **Sharkey E****, Onorato DP, Roelke-Parker ME, **Ochoa A**[§], Culver M, and **Fitak RR**[‡]. (submitted) Prion gene sequencing in Florida panthers (*Puma concolor*) suggests no differential susceptibility to transmissible spongiform encephalopathy. *Journal of Wildlife Diseases*.

1. DiSciullo RA, Forsman AM, **Fitak RR**, Hunt J, Nietlisbach P, Thompson CF, Sakaluk SK. (in revision) Sexual selection acting on multiple song components predicts recruitment in a wild bird population. *Evolution*.

Manuscripts *in preparation*

4. **Fitak RR**. (in prep.) LAGG: an R package for visualizing genomic data using chaos game representations. *Manuscript available upon request*.

3. Vortman Y, **Fitak RR**, and Natan E. (in prep.) In animal magnetoreception a ruling hypothesis reigns supreme: matters arising from Xu et al.. *Manuscript available upon request*.

2. **Fitak RR**[‡], Brothers JR, and Johnsen S. (in prep.) The geomagnetic biogeography of navigating species. *Manuscript available upon request*.

1. **Fitak RR**[‡], Meyers T, and Culver M. (in prep.) Concurrent patterns of vicariance in mussels of the genus *Anodonta* from Mexico and the western United States and implications for their conservation. *Manuscript available upon request*

Book chapters

1. Culver M, **Fitak RR**, and Herrmann H. (2010) Genetic Methods for Biodiversity Assessment. In Anne Magurran and Brian McGill (Eds.), *Biological Diversity: frontiers in measurement and assessment*. Oxford University Press: USA, 2011, p208-218.

Other publications and technical reports

8. Culver M, Ochoa A, **Fitak RR**. (2021) Sequencing the puma genome: Why? And how is it beneficial for conservation and management? *Wild Felid Monitor* 14(1): 8-10.

7. **Fitak, RR**. (2016) Wild felid genomics: where are we now? *Wild Felid Monitor* 9(1): 13.
6. Erwin JA**, Fitak RR**, Meyers T, and Culver M. (2016) Genetic analysis of *Anodonta californiensis* from the Río Bavispe: a recommendation for reintroduction into the San Bernardino River subbasin**.** Final report for the Arizona Game and Fish Department,Tucson, AZ.
5. Naidu A, **Fitak R**, and Culver M. (2014) Landscape genetics of mountain lions (*Puma concolor*) in southwestern Arizona. Final report to the Arizona Game and Fish Department Habitat Partnership Committee, Project number HPC-09-406, Tucson, AZ.
4. Naidu A, **Fitak R**, and Culver M. (2014) Data sharing for wildlife management: the puma genetic database. Final report to the Arizona Game and Fish Department Habitat Partnership Committee, Project number HPC- 10-705, Tucson, AZ.
3. **Fitak RR,** Rinkevich S, and Culver M. (2013) The effects of extirpation and reintroduction on the Mexican wolf (*Canis lupus baileyi*) through genome-wide association. Final report for the U.S. Fish and Wildlife Service, Albuquerque, NM.
2. Culver M, **Fitak RR**, and Meyers T. (2011) California Floater Genetics. Final report for the Arizona Game and Fish Department Heritage Program. Tucson, AZ.
1. **Fitak RR** and Culver M. (2009) Mount Graham red squirrel genetic analysis to aid in formation of a captive breeding population. Final report for the U.S. Fish and Wildlife Service, Tucson, AZ.

GRANTS

Total UCF grant dollars: $452,672 ($33,538 credited to me; *$1,844,335 pending***)**

2024 **NSF IOS - (Pending) $1,800,000 [$271,811]**
"*Collaborative Research: Linking Molecular Mechanisms of Geomagnetic Imprinting to Natal Homing Behavior*"
RR Fitak (PI; 100% credit split for UCF portion) L. Komoroske, UMass (co-PI); K. Phillips, UMass (co-PI); C. and L. Lohmann, UNC (co-PIs); B. Shamblin, UGA (co-PI).

2023 **UCF College of Medicine Research Pilot Award Program (Pending) $20,000 [$2,500]**
"*Engineering dermal human tissue for tick blood feeding and bite-site biology investigations*"
RR Fitak (co-I; 12.5% credit split); B. Willenberg, UCF (PI); M. Jewett, UCF (co-I)

2023 **Sea Turtle Conservancy License Plate Grants (Pending) $24,335**
"*Characterizing the magneto-microbiome and symbiotic magnetic sensing in sea turtles*"
RR Fitak (PI; 50% credit split); K. Mansfield, UCF (co-PI)

2023 **Morris Animal Foundation: Wildlife Health Proposal (Declined) $115,545**
"*Preventing catastrophic declines in Florida's native snakes from an invading crustacean lungworm*"
RR Fitak (PI; 100% credit split)

2023 **NSF CAREER: IOS - Symbiosis Infection & Immunity (Declined) $704,900**
"*Symbiotic magnetic sensing in animals*"
RR Fitak (PI; 100% credit split)

2023 **NASA Space Biology Research Studies (Declined) $299,999**
"*Transgenerational physiological and epigenetic effects of exposure to lunar regolith simulant in the terrestrial isopod crustacean Armadillidium vulgare*"
RR Fitak (PI; 50% credit split); R. Stanbrook, UCF (co-PI)

2022 **NSF Organismal Response to Climate Change (Declined) $796,366**

"*Exploring the evolutionary complexity of multi-origin invasive species and corresponding impacts on ecosystem functioning*"
RR Fitak (PI; 50% credit split); R. Stanbrook, UCF (co-PI)

2022 **Sea Turtle Conservancy License Plate Grants (Declined) $17,897**
"*Characterizing the magneto-microbiome and symbiotic magnetic sensing in sea turtles*"
RR Fitak (PI; 75% credit split); K. Mansfield, UCF (co-PI)

2022 **Mathers Foundation (Declined) $303,846**
"*The magneto-microbiome and its symbiotic relationships with host species*"
RR Fitak (PI; 100% credit split)

2021 **NSF REU Site (Awarded) $441,194 [$22,060]**
"*Conservation, Restoration, and Communication*"
RR Fitak (co-PD; 5% credit split); L. Walters (UCF PI); K. Mansfield (UCF co-PI), P. Bohlen (UCF co-PD), L. Chambers (UCF co-PD), G. Cook (UCF co-PD), M. Gaither (UCF co-PD), E. Goolsby (UCF co-PD), E. Hoffman (UCF co-PD), K. Kibler (UCF co-PD), C. Mason (UCF co-PD), A. Savage (UCF co-PD)

2021 **UK BBSRC-US NSF/BIO Collaborative Grants (Declined) $1,161,681**
"*Development of an open-source and high-throughput genotyping tool to elucidate genetic mechanisms underlying bird migratory phenology*"
RR Fitak (PI; 50% credit split); D. Kishkinev, Keele Univ (co-PI)

2021 **NSF CAREER: IOS - Symbiosis Infection & Immunity (Declined) $939,316**
"*Symbiotic magnetic sensing in animals*"
RR Fitak (PI; 100% credit split)

2021 **Association of Avian Veterinarians Wild Bird Health Grant (Declined) $4,917**
"*A molecular and serological survey of avian pox in three bird species from two orders*"
RR Fitak (PI; 50% credit split); A. Forsman, UCF (co-PI)

2021 **Human Frontier Science Program Early Career Award (Declined) $1,095,000**
"*Elucidating the avian magnetic sense: from behavior to brains to genes*"
RR Fitak (PI; 33% credit split); P. Malkemper, Max Planck (co-PI); D. Kishkinev, Keele Univ (co-PI)

2021 – 2022 **UCF Seed Funding Program Exploratory Research Award $11,478**
"*Do ticks go on blind dates? Disentangling the visual system of lone star ticks and its role in mate recognition*"
RR Fitak (PI; 100% credit split)

2020 **Morris Animal Foundation: Wildlife/Exotics Pilot Proposal (Declined) $10,612**
"*The origins and evolution of snake fungal disease in North America*"
RR Fitak (PI; 100% credit split)

2020 **Association of Avian Veterinarians Wild Bird Health Grant (Declined) $4,969**
"*A molecular and serological survey of avipoxvirus prevalence in burrowing owls (Athene cunicularia), purple martins (Progne subis), and Florida scrub jays (Aphelocoma coerulescens)*"
RR Fitak (PI; 50% credit split); A. Forsman, UCF (co-PI)

2019 **UCF Seed Funding Program Exploratory Research Award (Declined) $26,153**
"*'Can't see the forest for the trees' – how characterizing the visual system of ticks can help improve tick-borne disease prevention*"
RR Fitak (PI; 50% credit split); L. Schweikert, FIU (co-PI)

2019 **DoD Tick-Borne Disease Research Program Idea Award (Declined) ≤$400,000**
"*Improving tick-borne disease prevention by investigating the vector's visual physiology*"
RR Fitak (PI; 50% credit split); L. Schweikert, FIU (co-PI)

2018 **Duke Center for Genomic and Computational Biology Voucher Award $5,547**
"The American shad (Alosa sapidissima) genome: understanding the evolutionary novelties of the 'fish that fed the Nation's founders'"
RR Fitak (PI; 100% credit split)

2014 **European Science Foundation Exchange Grant €3,500**
Award for an exchange research visit in the lab of Dr. Michael Bruford, Cardiff University, UK, as part of the Farm Animal Genomic Resources Program

2013 **Arizona Game and Fish Department Heritage Fund $50,000**
"Historical connectivity of black-tailed prairie dog populations in the Southwest"

2010 **Arizona Game and Fish Dept. Habitat Partnership Program $15,000**
"Establishment of a forensics genetic database for big game"

2009 **U.S. Fish and Wildlife Service Science Support Partnership $29,869**
"The effects of extirpation and reintroduction on the Mexican wolf (Canis lupus baileyi) through genome-wide association"

Research grants awarded to students under my supervision **graduate or **undergraduate student*

2023	**Emily Fackler – UCF Office of Undergraduate Research Grant	**$750**
2022	*George Zaragoza – Bass Pro Shops & Cabela's ForEverglades Scholarship	**$30,000**
2022	**Mitchell Dyen – UCF Office of Undergraduate Research Grant	**$750**
2022	*Taryn Gustafson – Conchologists of America	**$1800**
2022	*Taryn Gustafson – American Malacological Society	**$1300**
2020	**Arimar J. López Limas – Zoological Lighting Institute	**$500**
2020	**Coral Robson – UCF Office of Undergraduate Research Grant	**$700**

PRESENTATIONS

Invited Seminars

2023 "*Tales of the Florida panther: Implications of genetic rescue on a single gene to the entire epigenome*" – Center for Computational Biology; University of California Berkeley; Berkeley, CA.

2023 "*Animal magnetoreception: sensory mechanisms and the metazoan magneto-microbiome*" – Florida Space Institute; Orlando, FL.

2022 "*Animal magnetoreception: sensory mechanisms and the metazoan magneto-microbiome*" – Dept. of Biology and Marine Biology; University of North Carolina Wilmington; Wilmington, NC.

2021 "*Macrogenetics and the metazoan magneto-microbiome*" – Zoological Navigation Working Group (International working group; virtual).

2020 "*Magnetoreception in animals*" – Dept. of Biological Sciences, Florida International University; Miami, FL
****CANCELLED DUE TO COVID-19****

2018 "*From conservation to sensory biology: an interdisciplinary walk*" – Invited (Plenary) Speaker: Genetics IDP Annual Retreat at the University of Arizona; Tucson, AZ

2018 "*The expectations and challenges of wildlife disease research in the era of genomics: Forecasting with a horizon scan*" – UPE/TriCEM Symposium at Duke University; Durham, NC

2014 "*Conservation genomics of the endangered Mexican wolf*" – Mexican Wolf SSP Annual Meeting, St. Louis, MO

Regional, National and International Conference Presentations **graduate or **undergraduate student*

2024 **Fitak RR**, Palmisano J*, Gustafson T*. "*What are pentastomes, really? And no, they don't have five mouths"* – Society for Integrative & Comparative Biology, National Meeting, Seattle, WA

2024 Martin JK*, **Fitak R**R. "*Turtle tears? Characterizing the magneto-microbiome of the sea turtle lacrimal gland*" — Society for Integrative and Comparative Biology, National Meeting, Seattle, WA

2023 *Zaragoza GZ, **Fitak RR**. "*Beyond the bottleneck: Contributions of urban adaptation to divergence in Florida key deer*" – International Urban Wildlife Conference, Washington, DC

2023 **Fackler ER, **Fitak RR**, Kishkinev D, Prochazka P. "*Do genes influence the migratory timing of great reed warblers?*" – Disney's Animal Kingdom Fowl Language Group, Orlando, FL

2023 **Fackler ER, **Fitak RR**, Kishkinev D, Prochazka P. "*Do genes influence the migratory timing of great reed warblers?"* – ZooNav (Virtual),

2021 **Fitak RR**. "*Symbiotic magnetic sensing in animals: evidence from metagenomics"* – Society for Integrative & Comparative Biology, National Meeting, Virtual

2021 *Zaragoza G, **Robson C, **Fitak RR**. "*Assigning rural and urban origin to burrowing owls (Athene cunicularia) using traditionally omitted genomic data"* – Society for Integrative & Comparative Biology, National Meeting, Virtual

2020 **Fitak RR**, Wheeler BR, Naisbett-Jones LC, Scanlan MM, Noakes DLG, Johnsen S. "*Time-dependent characterization of candidate magnetoreception genes in the brain of Chinook salmon"* – Society for Integrative & Comparative Biology, National Meeting, Austin, TX

2019 **Fitak RR**. "*The molecular signatures of magnetite-based magnetoreception: evidence from transcriptomics*" – The 10th RIN (Royal Institute of Navigation) Conference on Animal Navigation, Royal Holloway College, UK

2019 Schweikert LE, Caves EM, **Fitak RR**, Solie SE, Sutton TT, Johnsen S. "*Patterns and predictors of spectral sensitivity variation in fishes"* – Society for Integrative & Comparative Biology, National Meeting, Tampa, FL

2018 **Fitak RR**, Wheeler BR, Schweikert LE, Ernst DA, Lohmann KJ, Johnsen S. "*Candidate magnetoreception genes in the brain and retina of trout"* – Society for Integrative & Comparative Biology, National Meeting, San Francisco, CA

2018 Ritschard EA, **Fitak RR**, Johnsen S. "*Sensory insights from the molecular evolution of GPCRs in the Octopus bimaculoides genome"* – Society for Integrative & Comparative Biology, National Meeting, San Francisco, CA

2018 Ernst DA, **Fitak RR**, Schmidt M, Derby CD, Johnsen S, Lohmann KJ. "*A magnetic pulse induces differential gene expression in the spiny lobster central nervous system"* – Society for Integrative & Comparative Biology, National Meeting, San Francisco, CA

2018 Schweikert LE**, Fitak RR**, Grace MS, Johnsen S. "*Dermal photoreception may provide sensory feedback for dynamic coloration"* – Society for Integrative & Comparative Biology, National Meeting, San Francisco, CA

2016 **Fitak RR**. "*The effect of geomagnetic field reversals on the demographic history of navigating species: a case study in green sea turtles"* – Society for Integrative & Comparative Biology, Regional Meeting, Durham, NC

2016 **Fitak RR**. "*Navigating the earth using magnetic fields: Identifying genes linked to a functional magnetoreceptor"* – Duke Biology Department Retreat, Beaufort, NC

2016 **Fitak RR**, Mohandesan E, Burger PA. "*Genomic footprints of selection under domestication in Old World camelids"* – Plant & Animal Genome Conference XXIV, San Diego, CA

2015 Antonacci R, **Fitak RR**, Burger PA, Castelli V, Ciani E, Ciccarese.S. "*Functional genomics and evolution of the gamma/delta T cell receptor ioci in old world camels*" – 4th Conference of ISOCARD: Silk Road Camel: The Camelids, Main Stakes for Sustainable Development, Almaty, Kazakhstan

2015 **Fitak RR**, Mohandesan E, Burger PA. "*Complete genome re-sequencing reveals patterns of domestication in Old World camelids"* – 4th Conference of ISOCARD: Silk Road Camel: The Camelids, Main Stakes for Sustainable Development, Almaty, Kazakhstan

2015 Muzzachi S, Burger P, Fitak RR, Oulmouden A, Cherifi Y, Yahyaoui H, Zayed MA, Lacalandra GM, Faye B, Ciani E. *"Combined sanger and NGS sequence analysis of the myostatin gene (mstn) in the Camelus dromedarius species"*– 4th Conference of ISOCARD: Silk Road Camel: The Camelids, Main Stakes for Sustainable Development, Almaty, Kazakhstan

2014 **Fitak RR**, Mohandesan E, Burger PA. "*Complete genome re-sequencing reveals patterns of domestication in Old World camelids"* – European Science Foundation: Livestock Genomic Resources in a Changing World, Cardiff, UK

2014 **Fitak RR**, Mohandesan E, Burger PA. "*Complete genome re-sequencing reveals patterns of domestication in Old World camelids"* – Society for Molecular Biology and Evolution Annual Meeting, San Juan, PR

2013 **Fitak RR**. "*PumaPlex: A high-throughput SNP assay for the genetic monitoring of pumas"*– 46th Joint Annual Meeting of the AZ/NM Chapters of the Wildlife Society, Albuquerque, NM

2012 **Fitak RR**, Rinkevich S, Culver M. "*Conservation genomics of the endangered Mexican wolf*" – The Wildlife Society Annual Conference, Portland, OR

2012 **Fitak RR**, Kelly DJ**,** Fuerst PA. "*A longitudinal study of the prevalence of rickettsial and ehrlichial endosymbionts in Ohio Amblyomma americanum ticks"*– 25th Meeting of the American Society for Rickettsiology, Park City, UT

2012 **Fitak RR**, Rinkevich S, Culver M. "*A genome scan of Mexican wolves to improve their captive breeding and reintroduction program"*– 44th Joint Annual Meeting of the AZ/NM Chapters of the Wildlife Society, Pinetop, AZ

2010 **Fitak RR**, Rinkevich S, Culver M. "*Conservation genomics for the analysis of Arizona's native carnivores*" – University of Arizona Genetics Core Graduate Student Research Symposium, Tucson, AZ

2009 **Fitak RR**. "*Genetic Variation and population structure in the endangered Mt. Graham red squirrel: evidence from microsatellite markers*"– 42nd Joint Annual Meeting of the AZ/NM Chapters of the Wildlife Society, Gallup, NM

2007 Kelly DJ, **Fitak RR,** Fuerst PA. *"Novel method for the quantitative detection of Ehrlichia sp. in Ohio Amblyomma americanum ticks"* – 21st Meeting of the American Society for Rickettsiology, Colorado Springs, CO

Regional, National and International Poster Presentations **graduate or **undergraduate student*

2024 Dyen M**, **Fitak RR**. "*A transcriptomic study of the lone star tick's eyes and mating behaviors for disease mitigation"* — Society for Integrative & Comparative Biology, National Meeting, Seattle, WA

2024 Fackler ER**, **Fitak RR**, Kishkinev D, Prochazka P. "*Do Genes Influence the Migratory Timing of Great Reed Warblers?*" — Society for Integrative and Comparative Biology, National Meeting, Seattle, WA

2024 *Gustafson TM, **Fitak RR**. "*Characterizing the SLC17 gene family expansion in Cephaloopoda: Neurogenomic insights into the evolution of complex cognition in octopuses*" – Society for Integrative and Comparative Biology, National Meeting, Seattle, WA

2023 *Gustafson TM, **Fitak RR**. "*Characterizing the SLC17 gene family expansion in Cephaloopoda: Neurogenomic insights into the evolution of complex cognition in octopuses*" – Comparative Cognition Conference (CO3), Melbourne, FL

2023 *Palmisano JN, Farrell TM, **Fitak RR**, Savage AE. "*Recent advances in invasive pentastome research to further characterize the threat to native snake populations*" – Joint Meeting of Ichthyologists and Herpetologists, Norfolk, VA.

2022 *Gustafson T, **Fitak RR**. "*Characterizing the sialin gene family expansion in Cephalopoda: Neurogenomic insights into invertebrate intelligence*" – Cephalopod International Advisory Council, Sesimbra, Portugal

2021 **López Limas AJ, **Fitak RR**. "*Phototransduction components involved in the visual system of hard bodied ticks"* – Florida Undergraduate Research Conference, State Meeting, Virtual

2021 *Gustafson T, **Fitak RR**. "*Characterizing the sialin gene family expansion in Cephalopoda: Neurogenomic insights into invertebrate intelligence"* – Society for Integrative & Comparative Biology, National Meeting, Virtual

2012 **Fitak RR**, Rinkevich S, Culver M. "*Inbreeding and haplotype structure in the endangered Mexican wolf*"– American Genetic Association Annual Symposium: Recombination, Durham, NC

2011 **Fitak RR**, Rinkevich S, Culver M. "*Conservation genomics of the endangered Mexican wolf*"– American Genetic Association Annual Symposium: Genomics and Biodiversity, Guanajuato, Mexico

2010 **Fitak RR**, Rinkevich S, Culver M. "*Conservation genomics of Arizona's large carnivores*"– American Genetic Association Annual Symposium: Conservation Genomics, Hilo, HI

2007 Kelly DJ, **Fitak RR,** Fuerst PA. *"Sequencing and analysis of Orientia tsutsugamushi DNA in a Leptotrombidium pallidum mite colony originating in a scrub typhus endemic region in Saitama Prefecture, Japan"* – 21st Meeting of the American Society for Rickettsiology, Colorado Springs, CO

2007 **Fitak RR**, Kelly DJ**,** Fuerst PA. *"Rickettsial prevalence and antigenic variation in Ohio-collected Amblyomma americanum ticks"* – 21st Meeting of the American Society for Rickettsiology, Colorado Springs, CO

2006 Carmichael J, Kelly DJ, **Fitak RR,** Fuerst PA. *"Phylogeographic variation of potential virulence genes from Rickettsia amblyommii isolates from the north east United States"* – 20th Meeting of the American Society for Rickettsiology, Pacific Grove, CA

2006 Kelly DJ, **Fitak RR,** Fuerst PA. *"A multigene analysis of the prevalence and diversity of rickettsial forms in Amblyomma americanum ticks from Ohio and the north central United States"* – 20th Meeting of the American Society for Rickettsiology, Pacific Grove, CA

UCF Conference Posters & Presentations

2023 *Zaragoza G, **Fitak RR**. *"Why did the puma cross the road? Unfortunately, it didn't"* – UCF Spring Student Scholar Symposium, Orlando, FL

2023 **Fackler ER, **Fitak RR**, Kishkinev D, Prochazka P. "*Do genes influence the migratory timing of great reed warblers?"* – UCF Spring Student Scholar Symposium, Orlando, FL

2023 ****Dyen M, **Fitak RR**. "*How to off ticks without ticking them off: Establishing a tick euthanasia protocol for ethical and accurate transcriptomics*" – UCF Spring Student Scholar Symposium, Orlando, FL

2023 *Gustafson TM, **Fitak RR**. "*Characterizing the SLC17 gene family expansion in Cephalopoda: Neurogenomic insights into the evolution of complex cognition in octopuses*" – UCF Spring Student Scholar Symposium, Orlando, FL

2023 **Fackler ER, **Fitak RR**, Kishkinev D, Prochazka P. "*Do genes influence the migratory timing of great reed warblers?"* – GBC Open House, Orlando, FL

2023 *Brosnan E, *Palmisano J, ***Martin J**, **Fitak RR**. "*Novel genome sequences of Ophidiomyces ophidiicola, the causative agent of snake fungal disease"* – GBC Open House, Orlando, FL

2023 *Gustafson TM, **Fitak RR**. "*Characterizing the SLC17 gene family expansion in Cephalopoda: Neurogenomic insights into the evolution of complex cognition in octopuses"* – GBC Open House, Orlando, FL

2021 **Levin A, **Fitak RR**. "*Linking magnetoreception to CACNA1D homolog protein insertions in vertebrates"* – UCF Showcase of Undergraduate Research Excellence (SURE), Orlando, FL

2021 **López Limas AJ, **Fitak RR**. "*Phototransduction components involved in the visual system of hard bodied ticks"* – UCF Showcase of Undergraduate Research Excellence (SURE), Orlando, FL

2021 *Gustafson T, **Fitak RR**. "*Characterizing the sialin gene family expansion in Cephalopoda: Neurogenomic insights into invertebrate intelligence"* – UCF Student Scholar Symposium, Orlando, FL

2020 **Boggs E, **Hevia A, **Fitak RR**. "*Sensing symbiosis: investigating a link between magnetotactic bacteria and cartilaginous fishes using genomics*" – UCF Showcase of Undergraduate Research Excellence (SURE), Orlando, FL

2020 **Robson C, **Fitak RR**. "*Prospecting for pathogens: de novo pathogen discovery in burrowing owls*" – UCF Showcase of Undergraduate Research Excellence (SURE), Orlando, FL

2020 **Scales J, **Fitak RR**. "*De Novo discovery of pathogens in American alligators*" – UCF Showcase of Undergraduate Research Excellence (SURE), Orlando, FL

TEACHING

Courses Taught (FA = fall; SP = spring; SU = summer; GTA = graduate teaching assistant; UTA = undergraduate teaching assistant)

2024 SP: Instructor – Genetics (PCB 3063); University of Central Florida (enrollment = 446; 2 UTAs)

2024 SP: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (12 sections, 6 GTAs)

2023 FA: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (13 sections, 7 GTAs)

2023 SU: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (8 sections, 4 GTAs)

2023 SP: Instructor – Advanced Inferences in Conservation (PCB 5937-ST); University of Central Florida

2023 SP: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (11 sections, 6 GTAs)

2022 FA: Instructor – Wildlife Genomics (PCB 4575/5688); University of Central Florida

2022 FA: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (13 sections, 7 GTAs)

2022 SU: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (8 sections, 4 GTAs)

2022 SP: Instructor – Genetics (PCB 3063); University of Central Florida (enrollment = 460; 2 UTAs)

2022 SP: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (8 sections, 4 GTAs)

2021 FA: Instructor – Genetics (PCB 3063); University of Central Florida (enrollment = 450; 1 UTA)

2021 FA: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (10 sections, 5 GTAs)

2021 SU: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (1 section, 1 GTA)

2021 SP: Instructor – Advanced Inferences in Conservation (PCB 5937-ST); University of Central Florida

2021 SP: Coordinator – Genetics Laboratory (PCB 3063L); University of Central Florida (8 sections, 4 GTAs)

2021 SP: Instructor – Seminar in Biology (BSC 6935); University of Central Florida

2020 FA: Instructor – Wildlife Genomics (PCB 4575/5688); University of Central Florida

2019 FA: Instructor – Wildlife Genomics (PCB 4575/5688); University of Central Florida

2012 FA: Graduate Teaching Assistant – Biology Laboratory (BIO 181L), University of Arizona

Advising

1. Postdoctoral Scientists

2020 – 2022 Dr. Alexander Ochoa; ***Preeminent Postdoctoral Program Scholar; **Currently a research associate at Yale University**

2. Committee Chair

2020 – present George Zaragoza (PhD: UCF Biology); ***2020 UCF Summer Mentoring Fellow**

2020 – present Taryn Gustafson (PhD: UCF Biology); ***2020 UCF Summer Mentoring Fellow**

2022 – present Julianna Martin (PhD: UCF Biology)

2022 – present Andrew Alba (PhD: UCF Biology)

3. Undergraduate Honors in the Major Thesis

2023 – present Emily Fackler

2023 – present Mitchell Dyen

2020 – 2021 Annabelle Levin (**Graduated 2021**)

2020 – 2021 Arimar J. López Limas (**Graduated 2021**)

2019 – 2020 Elizabeth Boggs (**Graduated 2020**)

4. Graduate Student Committee Memberships *(*graduated with degree*)

2023 – present David Roach, MS – Department of Biology, University of Central Florida

2023 – present Stephanie Villella, MS – Department of Biology, University of Central Florida

2023 – present Kathryn Greiner-Ferris, PhD – Department of Biology, University of Central Florida

2023 – present Jenna Palmisano, PhD – Department of Biology, University of Central Florida

2023 – present Stephanie Gaspar, MS – Department of Biology, University of Central Florida

2022 – present Veronica Urgiles, PhD – Department of Biology, University of Central Florida

2021 – present Rachel Behm, PhD – Department of Biology, University of Central Florida

2021 – present Matthew Larsen, PhD – Department of Biology, University of Central Florida

2020 – present Lok Poon, PhD – Department of Biology, University of Central Florida

2020 – present Maryam Ghoojaei, PhD – Department of Biology, University of Central Florida

2019 – present Pavithiran Amirthalingam, PhD – Department of Biology, University of Central Florida

2019 – present Samuel Greaves, PhD – Department of Biology, University of Central Florida

2019 – present Katherine Martin, PhD – Department of Biology, University of Central Florida

2021 – 2023 *Sambadi Majumder, PhD – Department of Biology, University of Central Florida

2019 – 2023 *Johnny Konvalina, PhD – Department of Biology, University of Central Florida

2019 – 2023 *Jesse Granger, PhD – Department of Biology, Duke University

2021 – 2023 *Jessica Folsom, MS – Department of Biology, University of Central Florida

2021 – 2023 *Heather Lenk, MS – Genetics Interdisciplinary Program, University of Arizona

2021 – 2022 *Julia Webb, MS – Department of Biomedical Sciences, University of Central Florida

2016 – 2018 *June Ordoñez, MS – Molecular Ecology and Evolution Laboratory, University of the Philippines

5. Undergraduate Researchers Supervised

2023 – present Salma Slaoui-Andaloussi (UCF ‘25)

2023 Kenicia Johnson (REU participant, summer 2023)

2022 Elizabeth Sharkey (REU participant, summer 2022)

2022 – present Emily Fackler (UCF ’25; **Honors in the Major**)

- **2023 UCF Summer Undergraduate Research Fellow (SURF; $2,000 scholarship)**
- **2023 UCF Student Scholar Symposium Award winner ($500 scholarship)**

2022 – present Mitchell Dyen (UCF ’25; **Honors in the Major**)

- **2023 UCF Summer Undergraduate Research Fellow (SURF; $2,000 scholarship)**

2021 – 2022 Shyra Shung (UCF ’22)

2021 Tyler Wright (UCF ’21)

2020 – 2021 Annabelle Levin (UCF ’21; **GEMS**; **Honors in the Major**)

- **Awarded a $1,000 HUT Scholarship in Spring 2021**
- **2023 NSF GRFP Awardee**

2020 – 2021 Arimar J. López Limas (UCF ’21; **Honors in the Major**)

2020 – 2021 Ankita Tripathi (UCF ’21)

2020 Jessica Scales (UCF ‘20)

2020 Emma Niven (UCF ‘20)

2019 – 2020 Coral Robson (UCF ‘20)

2019 – 2020 Elizabeth Boggs (UCF ’20; **Honors in the Major**)

2019 – 2020 Anthony Hevia (UCF ’20)

2018 Victoria Hsiung (Duke University ‘19)

2017 D’Amy Steward (Duke University ‘19)

2016 – 2017 Monica Arniella (Duke University ‘18)

2012 Sergio Redondo (University of Arizona ’12; **McNair Scholar**)

6. High School Students Supervised

2021 – 2023 Naina Aggarwal (Lake Highland Preparatory School ASPIRE Program)

2017 – 2018 Pranav Charvu (High school intern; Duke University)

2011 – 2012 Bianca Judy (City High Intern; University of Arizona)

2011 Conor Davey (KEYS Intern; University of Arizona)

Guest Instructor

2021 Animal Behavior (undergraduate); University of Pittsburg (Dr. Jessica Stephenson)

2020 Animal Behavior (ZOO 4513); University of Central Florida

2017 Current Topics in Sensory Biology (BIO 427S); Duke University

2017 Sensory Biology (BIO 180S); Duke University

2009 – 2012 Wildlife Management – Mammals (WFSC 444); University of Arizona

2009 – 2012 Conservation Genetics (GENE 570); University of Arizona

2011 Molecular Genetics (MCB 304); University of Arizona

SERVICE

Department

2024 – present New Chair Search Committee, Genomics & Bioinformatics Cluster (University of Central Florida)

2022 – present Instructor/Lecturer Promotion Committee, Department of Biology (University of Central Florida)

2022 – present Undergraduate Curriculum Committee, Department of Biology (University of Central Florida)

2022 – present Graduate Student Awards Committee, Department of Biology (University of Central Florida)

2021 – present Genomics and Bioinformatics Minor Degree Committee (University of Central Florida)

2020 – 2022 Graduate Curriculum Committee, Department of Biology (University of Central Florida)

2019 – 2023 National Save the Sea Turtle Scholarship Fund Review Committee, Department of Biology (University of Central Florida)

2019 – 2022 My Biology Day participant, Department of Biology (University of Central Florida)

2019 – 2020	Undergraduate Curriculum Committee, Department of Biology (University of Central Florida)
2011	Academic Program Review student representative, Genetics IDP (University of Arizona)

College

2022 – present	College of Sciences Dean's Advisory Council (University of Central Florida)
2022	College of Sciences Bylaws Revision Committee (University of Central Florida)

University

2023 – present	Faculty Advisor for the Knighthawks (Student chapter of the Audubon Society) at UCF
2021	Honors Pre-med Research Opportunities Panel (Burnett Medical Scholars Program)

Profession

2024	NSF GRFP Reviewer; "Genetics, Genomics, and Proteomics" Panel
2017 – present	Instructor/Organizer: Genomics of Diseases in Wildlife Workshop, Colorado State University (Ft. Collins, CO)
2013 – present	Newsletter Committee member for the Wild Felid Association
2019 – 2023	Morris Animal Foundation: Wildlife Scientific Advisory Board Member
2021	Session Chair (Development) – Society for Integrative & Comparative Biology, National Meeting, Virtual
2020 – 2021	Topic Editor: Genomics of Disease in Wildlife – *Frontiers in Ecology and Evolution*
2020	Session Chair (Sensory Biology – Navigation and Sensing) – Society for Integrative & Comparative Biology, National Meeting, Austin, TX
2014	Mexican wolf Species Survival Plan contributor
2014 – present	**Invited referee for the following journals:** *Ticks and Tick-Borne Diseases, Journal of Threatened Taxa, Journal of Heredity, Environmental Biology of Fishes***,** *International Journal of Animal Biosciences, The Pegasus Review, Vector-Borne and Zoonotic Diseases, Conservation Genetics, Mammalian Biology, Marine Mammal Science, American Biology Teacher, Frontiers in Genetics, Behavioral Ecology and Sociobiology, PeerJ, Environmental Health Insights, Communications Biology, Comparative Biochemistry and Physiology - Part D: Genomics and Proteomics, Tropical Animal Health and Production, Conservation Genetics Resources, Cell, Scientific Data, Integrative and Comparative Biology*
2016 – present	**Invited referee for the following funding organizations:** *Graduate Women in Science, U.S. Fish and Wildlife Service, Polish Academy of Science, UCF SEED Program Awards*

Community

2020 – 2024	Competition Judge: Seminole County Regional Science, Math, and Engineering Fair (Sanford, FL)
2017	SciREN Triangle networking event held at the NC Museum of Natural Sciences (Raleigh, NC)
2008 – 2013	Competition Judge: Southern Arizona Regional Science and Engineering Fair (Tucson, AZ)
2008 – 2013	Field Assistant/Volunteer (reptile surveys) for Matt Goode (Oro Valley, AZ)
2011	BioBlitz Educator: Sonoran Desert wildlife, conservation genetics, and herpetology (Tucson, AZ)
2010	Invited Speaker: 9th Grade Biology (Mrs. Ishraq Alfatesh), Flowing Wells HS (Tucson, AZ)

2009 – 2012	Earth Day Speaker at Borton Primary Magnet School (Tucson, AZ)
2009	Field Assistant/Volunteer at Agumbe Rainforest Research Station (Agumbe, India)

Professional Development

2020	NSF Pitch Circle – Office of Research, University of Central Florida (Orlando, FL)
2019	Best-Kept Secrets: UCF Resources That Support Active Learning Across Modalities (FCTL) – University of Central Florida (Orlando, FL)
2018	Deep Learning, Machine Learning, and Artificial Intelligence Symposium, SAS Institute (Cary, NC)
2018	"*Supervised Methods for Statistical Machine Learning*" – Summer Institute in Statistics for Big Data; University of Washington (Seattle, WA)
2010	"*MCMC for Genetics, Coalescent Theory, and Inferences of Relatedness and Relationships*" – Summer Institute in Statistical Genetics; University of Washington (Seattle, WA)
2007	Research Associate (PI: Dr. Krishnaveni Mishra); University of Hyderabad, (Hyderabad, India)

SELECT MEDIA COVERAGE

2022	Research featured in **UCF Today** (Wells, Robert) Link
2022	Research featured in **Orlando Sentinel** (Speak, Kevin) Link
2022	Research featured in **Earth.com** (Sexton, Chrissy) Link
2022	Research featured in **NPR** (Green, Amy) Link
2020	Poem inspired by my research "Symbiotic Senses" by Sam Illingworth (University of Western Australia)
2020	Interview with ***Vida en el Planeta*** **Podcast** (Dánae Rivadeneyra): Magnetoreception in animals. In Spanish
2020	Research featured in **UCF Today** (Wells, Robert) Link
2020	Research featured in **Science News** (Pennisi, Elizabeth) Link
2020	Research featured in **National Geographic** (Main, Douglas) Link
2020	Research featured in **The New York Times** (Sokol, Joshua) Link
2019	Video Interview with ***WUCF NewsNight*** (PBS) Link
2019	Research featured in **UCF Today** (Wells, Robert) Link
2019	Research featured by **WFME 90.7 Orlando NPR** (Green, Amy) Link
2019	Research featured by **The Wildlife Society** (Kobilinsky, Dana) Link
2018	Research featured in **Science Daily** Link
2018	Research featured by **The Wildlife Society** (Frey, David) Link
2018	Interview with **NPR: KJZZ**, Phoenix (Gerbis, Nicholas): Mexican wolves did not interbreed with dogs.
2017	Research featured in **Nature** in the *Research Highlights* section (***Nature*** 545:7652) Link

HONORS, AWARDS, & FELLOWSHIPS

2018	Postdoctoral Professional Development Award (Duke University)
2008	Mathematical Biosciences Institute Summer Graduate Fellow (The Ohio State University)