Alexander G. Ophir (PhD)

Associate Professor
Cornell University
Department of Psychology
Behavioral & Evolutionary Neuroscience
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Research Interests:

Proximate & ultimate influences on social behavior: including individual variation in genes, brain and behavior; monogamy and social attachment; alternative reproductive tactics; parental care; early-life social influence on development; social & spatial memory; mate choice; animal communication; reproductive decision-making.

Education & Employment:

Associate Professor — 2019 – Pres
Cornell University - Department of Psychology

Assistant Professor — 2013 – 2019
Cornell University - Department of Psychology

Assistant Professor — 2009 – 2013
Oklahoma State University - Department of Zoology

Adjunct Lecturer — 2007 – 2008
University of Florida - Department of Zoology

Postdoctoral Associate: Behavioral Neuroendocrinology — 2005 – 2007
University of Florida - Department of Zoology
Supervisor: S.M. Phelps

Postdoctoral Associate: Behavioral Ecology — 2004 – 2005
University of Memphis - Department of Biology
Supervisor: J.O. Wolff

Doctor of Philosophy (PhD): Animal Behavior — 26 Jan 2004
McMaster Univ. – Dept. of Psychology, Neuroscience & Behaviour
Supervisor: B.G. Galef Jr.

Mental Health Technician: Cognitive Neurobehavioral Unit — 1998 – 1999
Meridell Achievement Center, Austin TX.

Research Assistant — 1998 – 1999
University of Texas, Austin - Department of Psychology
Supervisor: M. Domjan

Bachelor of Arts (BA - *cum laude*): Behavioral Neuroendocrinology — 23 May 1998
University of Texas - Depts. of Psychology & Anthropology
Supervisor: W. Wilczynski

Grants, Honors & Awards:

Current Research Support

DoD: ARO & DARPA — Ophir, AG. (PI) — 2014-2022
W911NF-14-1-0376 (65344-LS) — (***$2,129,080***)
Title: Cognitive and behavioral flexibility: How variation impacts learning and memory, anxiety and stress coping.

Australian Research Council (ARC) — Ophir, AG (Co-PI) — 2021-2023
Discovery Project DP210103349 — (AUS ***$340,576***)
Title: Understanding the mechanisms underpinning complex sociality.

NIH: NICHD — Sailer, LL. (Co-PI) — 2022-2025
F32 HD105396 — (***$211,650***)
Title: Impact of paternal care on stress-coping behaviors and neuropeptide systems.

Center for Vertebrate Genomics (CVG) — Ophir, AG. (Co-I) — 2022
Seed Grant in Aid of Research; Cornell Univ. — (***$30,000***)
Title: Social-bonding induced changes in chromatin architecture.

Completed Research Support

Engaged Cornell, Cornell University — Ophir, AG. (PI) — 2020-2022
Office of Engagement Initiatives — (***$50,000***)
Title: Learning It, Doing It, Living It.

NIH: NICHD — Ophir, AG. (PI) — 2015-2020
R01 HD079573 — (***$1,298,737***)
Title: Influences of paternal and maternal care on offspring social cognition.

NSF: IOS — Ophir, AG. (PI) — 2014-2019
1354760 — (***$630,000***)
Title: Do neuropeptides shape alternative mating tactics and reproductive success through effects on memory?

DoD: AEOP — Ophir, AG. (PI) — 2019
Undergraduate Research Apprenticeship Program (URAP) (65344-LS) — (***$7,500***)
Title: Supplement to cognitive and behavioral flexibility: How variation impacts learning and memory, anxiety, and stress coping responses.

DoD: ARO — Ophir, AG. (Sub-contract) — 2016-2018
Small Business Technology Transfer (STTR) program — (***$18,628***)
Title: An Automated Deployable Robust Training System. *(STTR: **PI: Clark B.**, Barron Associates; **Co-PI Williams, C.**, University of Virginia)*

NIH: NICHD — Kelly, AM. (Co-PI) — 2014-2017
F32 HD081959 — (***$154,662***)
Title: Impact of early life family structure on behavior, nonapeptide systems, and the epigenome of offspring and mothers.

DoD: AEOP — Ophir, AG. (PI) — 2015

Undergraduate Research Apprenticeship Program (URAP) (65344-LS) (***$9,720***)
Title: Individual behavioral variation of pouched rats, *Cricetomys ansorgei*.

DoD: ARO — Ophir, AG. (Sub-contract) — 2015-2016
Small Business Technology Transfer (STTR) program (***$7,366***)
Title: An Automated Deployable Robust Training System. *(STTR: **PI: Clark B.**, Barron Associates; **Co-PI Williams, C.**, University of Virginia)*

DoD: ARO — Ophir, AG. (PI) — 2011-2014
W911NF-11-1-0111 (59156-LS) (***$355,767***)
Title: Predicting behavioral suites from genetic profiles: Variation in mating, aggression & exploration in pouched rats.

NIH: NICHD — Ophir, AG. (PI) — 2014-2017
R15 HD077515 -- (*Awarded but Declined*) (***$433,576***)
Title: Do absentee fathers or working mothers shape social cognition in offspring?

NIH: NICHD — Ophir, AG. (PI) — 2010-2013
R15 HD065604 (***$349,175***)
Title: Paternal care, affiliation and vasopressin: Mechanisms of monogamy.

Oklahoma State University — Ophir, AG. (PI) — 2012
Office of the Vice President for Research and Technology Transfer (***$153,000***)
Title: Development of NCU Infrastructure: *Renovation of Critical Research Facilities*

DoD: ARO — Ophir, AG. (PI) — 2011-2012
W911NF-11-1-0440 (***$149,987***)
Title: An etho-genetic variation appraisal system: Equipment to facilitate detection of individual differences in genes and behavior.

DoD: ARO — Ophir, AG. (Co-PI) — 2011-2012
W911NF-11-C-0225 (***$100,002***)
Title: Rugged Automated Training System. *(STTR: **PI: Kades, T**, Strategic Feasibilites; **Co-PI: Davis M**, OSU CVHS: OSU Portion $30,696)*

NIH: NICHD — Ophir, AG. (PI) — 2009-2014
K99 HD058031 -- (*Awarded but Declined*) (***$895,000***)
Title: Mechanisms of paternal care, aggression, and pairbonding: A monogamous suite.

Other Honors & Awards

Robert A. and Donna B. Paul Award for Excellence in Advising 2022
Kendall S. Carpenter Memorial Advising Award 2021
Stephen & Margery Russell Distinguished Teaching Award 2017
New Faculty Institute Participant 2015
Cornell Center for Teaching Excellence / inSPIRE Program
NIH K99 Pathway to Independence Fellow (*Declined*) 2009

Best Student Oral Presentation	2003
Society for Integrative & Comparative Biology (SICB), Div of Anim Behav (DAB)	
Exemplary Scholarly Achievement (*University of Texas at Austin)*	1998
Deans Honor Roll (*University of Texas at Austin)*	1996-1998

Publications:

[Supervised Postdoc (P), Graduate (G), Undergraduate (U), and High School (H) students]

66 Sailer LL[P], Park AH[U], Galvez A[U], **Ophir AG** (2022) DREADD activation of the lateral septum alters prosocial and antisocial behaviors, but not partner preferences in male prairie voles. *Communications Biology. in press*

65 Rice MA[G], Galindez SM[U], Garner JT[U], **Ophir AG** (2022) Effects of social and environmental contexts on multi-male mating and mixed paternity in socially monogamous female prairie voles. *Royal Society Open Science*. 220298.

64 Sailer LL[P], Patel PP[U], Park AH[U], Moon J[U], Hanadari-Levy A[U], **Ophir AG** (2022) Synergistic consequences of early-life social isolation and chronic stress impact coping and neural mechanisms underlying male prairie vole susceptibility and resilience. *Frontiers in Behavioral Neuroscience.* 16:931549.

63 Rice MA[G], Wong GH[U], **Ophir AG** (2022) Impacts of spatial learning on male prairie vole mating tactics in seminatural field enclosures are context dependent. *Animal Behaviour*. 191, 57-73.

62 Lo B[U], Freeman AR[P], Singh B, Hanadari-Levy A[U], Berman J[U], Chaves A[U], Choudhry A[H], **Ophir AG** (2022). Effects of a GnRH agonist on sex behavior in females of the southern giant pouched rat. *Integrative and Comparative Biology.* ICB-2022-0033 *(1st authorship is shared between Lo and Freeman).*

61 Finton CJ[G], **Ophir AG**. (2022) Developmental exposure to intranasal vasopressin impacts adult prairie vole spatial memory. *Psychoneuroendocrinology*. 141, 105750.

60 Forero SA[G], **Ophir AG** (2022) Multi-level effects driving cognitive and behavioral variability among prairie voles: Insights into reproductive decision-making from biological levels of organization. *Brain, Behavior, and Evolution*. 97, 225-240 [PMID: 35051922]

59 Finton CJ[G], Kelly AK[P], **Ophir AG** (2022). Support for the parental practice hypothesis: Subadult prairie voles exhibit similar behavioral and neural profiles when alloparenting kin and non-kin. *Behavioural Brain Research.* 417, 113571. [PMID: 34499932] [***Highlighted by:*** *Journal of Experimental Biology 224 (23)]*

58 Prior NH, Bentz EJ[P], **Ophir AG** (2021) Reciprocal processes of sensory perception and social bonding: an integrated social-sensory framework of social behavior. *Genes, Brain, and Behavior*. e12781. [PMID: 34905293]

57 Freeman AR[P], **Ophir AG** (2021). Sex differences in social odor discrimination by southern giant pouched rats (*Cricetomys ansorgei*). *Ethology.* 127, 1019-1032.

56 Kelly AM[P], Ong JY[U], Witmer RA[H], **Ophir AG** (2020) Paternal deprivation impairs social behavior putatively via epigenetic modification to lateral septum vasopressin receptor. *Science Advances.* 6, eabb9166. [PMID: 32917597]

55 Madrid JE[P], Parker KJ, **Ophir AG** (2020) Variation, plasticity, and alternative mating tactics: Revisiting what we know about the socially monogamous prairie vole. *Advances in the Study of Behavior*. 52, 203-242.

54 Solomon NG, **Ophir AG** (2020) Editorial: What's love got to do with it: The evolution of

monogamy. *Frontiers in Ecology and Evolution*. 8, 110. [PMID: 32782899]

53 Freeman AR[P], **Ophir AG**, Sheehan MJ (2020) The giant pouched rat (*Cricetomys ansorgei*) olfactory receptor repertoire. *PLoS ONE*. 15(4): e0221981. [PMID: 32240170]

52 Freeman AR[P], Aulino EA, Caldwell HK, **Ophir AG** (2020) Comparison of the distribution of oxytocin and vasopressin 1a receptors in rodents reveals conserved and derived patterns of nonapeptide evolution. *Journal of Neuroendocrinology*. 2020;00:e12828, 1-11. [PMID: 31925983]

51 Finton CJ[G], **Ophir AG** (2020) Prairie vole offspring only prefer mothers over fathers when mothers are a unique resource, yet fathers are the primary source of variation in parental care. *Behavioural Processes*. 171, 104022. [PMID: 31866260]

50 Prounis GS[G], **Ophir AG** (2020) One cranium, two brains not yet introduced: Distinct but complementary views of the social brain. *Neuroscience and Biobehavioral Reviews.* 108, 231-245. [PMID: 31743724]

49 Rice MA[G], Sanin G[U], **Ophir AG** (2019) Social context alters spatial memory in free living male prairie voles. *Royal Society Open Science*. 6, 190743. [PMID: 31827827]

48 Ahern TH, **Ophir AG**, Burn D (2019) Evaluating the stability of individual variation in social and nonsocial behavioural types using prairie voles (*Microtus ochrogaster*). *Behavioural Processes*. 169, 103961. [PMID: 31520675]

47 Prounis GS[G], **Ophir AG** (2019) The impact of perinatal and juvenile social environments on the effects of chronic intranasal oxytocin in the prairie vole. *Frontiers in Behavioral Neuroscience*. 213, 206. [PMID: 31572140]

46 Lee W, Hiura LC[G], Yang E, Broekman KA, **Ophir AG**, Curley JP (2019) Social status in mouse social hierarchies is associated with variation in oxytocin and vasopressin 1a receptor densities. *Hormones & Behavior.* 114, 104551. [PMID: 31279703]

45 Freeman AR[P], Sheehan MJ, **Ophir AG** (2019) Anogenital distance predicts sexual odour preferences in African giant pouched rats. *Animal Behaviour.* 148, 123-132.

44 Hiura LC[G], **Ophir AG**. (2018) Interactions between two stages of early life social experiences and sex shape nonapeptide receptor profiles. *Integrative Zoology*. 13, 745-760. [PMID: 29851289]

43 Hiura LC[G], Kelly AM[P], **Ophir AG** (2018) Age-specific and context-specific responses of the medial extended amygdala in the developing prairie vole. *Developmental Neurobiology*. 78, 1231-1245. [PMID: 30354021]

42 Prounis GS[G], Thomas K[U], **Ophir AG** (2018) Developmental trajectories and influences of environmental complexity on oxytocin receptor and vasopressin 1a receptor expression in male and female prairie voles. *Journal of Comparative Neurology.* 526, 1820-1842. [PMID: 29665010]

41 Kelly AM[P], Hiura LC[G], **Ophir AG**. (2018) Rapid nonapeptide synthesis during a critical period of development in the prairie vole: Plasticity of the paraventricular nucleus of the hypothalamus. *Brain Structure and Function.* 223, 2547-2560. [PMID: 29523998]

40 Kelly AM[P], Saunders AG[U], **Ophir AG**. (2018) Mechanistic substrates of a life history transition in male prairie voles: Developmental plasticity in affiliation and aggression corresponds to nonapeptide neuronal function. *Hormones and Behavior*. 99, 14-24. [PMID: 29407458] *(1st authorship is shared between Kelly and Saunders)*

39 Freeman AR[P], **Ophir AG** (2018) Scent marking behavior of the Southern African giant

pouched rat (*Cricetomys ansorgei*). *Journal of Mammalogy*. 99, 1430-1435.

38 Rice MA[G], Restrepo LF[U], **Ophir AG** (2018) When to cheat: Modeling dynamics of paternity and promiscuity in socially monogamous prairie voles (*Microtus ochrogaster*). *Frontiers in Ecology and Evolution*. 6, 141. doi: 10.3389/fevo.2018.00141

37 Stevenson TJ, Alward BA, Ebling FJP, Fernald, RD, Kelly AM[P], **Ophir AG**. (2018) The value of comparative animal research: Krogh's principle facilitates scientific discoveries. *Policy Insights from the Brain and Behavioral Sciences*. 5, 118-125.

36 Heller A, Ledbetter E, Singh B, Lee DN[P], **Ophir AG**. (2018) Ophthalmic examination findings and intraocular pressures in wild-caught African giant pouched rats (*Cricetomys spp*.) *Veterinary Ophthalmology*. 1-6. doi:10.1111/vop.12534 [PMID: 29251400]

35 Cullin, CO, Sellers MS[U], Rogers ER[U], Scott KE, Lee DN[P], **Ophir AG,** Jackson TA (2017) Intestinal parasites and anthelmintic treatments in a laboratory colony of wild-caught African pouched rats (*Cricetomys ansorgei*). *Comparative Medicine.* 67, 1-10. [PMID: 28935004]

34 Kelly AM[P], Hiura LC[G], Saunders AG[U], **Ophir AG**. (2017) Oxytocin neurons exhibit extensive functional plasticity due to offspring age in mothers and fathers. *Integrative and Comparative Biology*. 57, 603-618. [PMID: 28957529]

33 Rice MA[G], Hobbs LE[U], Wallace KJ[U], **Ophir AG** (2017) Cryptic sexual dimorphism in spatial memory and hippocampal oxytocin receptors in prairie voles (*Microtus ochrogaster*). *Hormones and Behavior*. 95, 94-102. [PMID: 28818500]

32 **Ophir AG** (2017) Navigating monogamy: Nonapeptide sensitivity in a memory neural circuit may shape social behavior and mating decisions. *Frontiers in Neuroscience.* 11, 397. doi: 10.3389/fnins.2017.00397 [PMID: 28744194]

31 Blocker TD[G], **Ophir AG** (2016) A preference to bond? Male prairie voles form pair bonds even in the presence of multiple receptive females. *Animal Behaviour*. 22, 89-97. [PMID: 28579618]

30 Okhovat M, Berrio A, Wallace GN, **Ophir AG**, Phelps SM (2015). Sexual fidelity trade-offs promote regulatory variation in the prairie vole brain. *Science*. 350, 6266, 1371-1374. [PMID: 26659055] [***Highlighted by:*** *Science, Science News, National Geographic, the Washington Post, Newsweek, the LA Times, and the New York Times*, among others]

29 Kelly AM[P], **Ophir AG** (2015) Compared to what: What can we say about nonapeptide function and social behavior without a frame of reference? *Current Opinion in Behavioral Sciences*. 6, 97-103. [PMID: 26858966]

28 Prounis GS[G], Foley L[U], Rehman A[U], **Ophir AG** (2015) Perinatal and juvenile social environments interact to shape cognitive behavior and neural phenotype in prairie voles. *Proceeding of the Royal Society B*. 282, 1819, DOI: 10.1098/rspb.2015.2236. [PMID: 26609086]

27 Blocker TD[G], **Ophir AG** (2015) Social recognition in paired but not single male prairie voles. *Animal Behaviour*. 108, 1-8. [PMID: 26365995] [***Highlighted by:*** *National Geographic, and Science News*]

26 Zheng D-J[G], Foley L[U], Rehman A[U], **Ophir AG** (2013) Social recognition is context dependent in single male prairie voles. *Animal Behaviour*. 86, 1085-1095. [PMID: 24273328]

25 **Ophir AG**, Sorochman G[U], Evans BL[U], Prounis GS[G] (2013) Stability and dynamics of forebrain V1aR and OTR during pregnancy in prairie voles. *Journal of Neuroendocrinology.* 25, 1-10. [PMID: 23656585]

24 Zheng D-J*, Larsson B[U], Phelps SM, **Ophir AG** (2013) Female alternative mating tactics, reproductive success and the social decision-making network. *Behavioral Brain Research.* 246, 139-147. [PMID: 23500897]

23 Blocker TD[G], **Ophir AG** (2013) Cryptic confounding compounds: A brief consideration of the influences of anthropogenic contaminants on courtship and mating behavior. *Acta Ethologica*. 16, 105-125. [PMID: 24244068] [*One of the 10 most downloaded papers in 2013*]

22 Kingsbury MA, Gleeson ED, **Ophir AG**, Phelps SM, Young LJ, Marler CA (2012) Monogamous and promiscuous rodent species exhibit discrete variation in the size of the medial prefrontal cortex. *Brain Behavior and Evolution*. 80, 4-14. [PMID: 22759599]

21 **Ophir AG**, Gessel A[U], Zheng D-J[G], Phelps SM (2012) Oxytocin receptor density is associated with male mating tactics and social monogamy. *Hormones and Behavior*. 61, 445-453. [PMID: 22285648] [***Highlighted by:** Faculty of 1000*]

20 **Ophir AG** (2011) Towards meeting Tinbergen's challenge. *Hormones and Behavior*. 60, 22-27. [Peer reviewed, Invited commentary] [PMID: 21497602]

19 **Ophir AG**, Schrader SB[U], Gillooly JF (2010) Energetic cost of calling: General constraints and species-specific differences. *Journal of Evolutionary Biology*. 23, 1564-1569. [PMID: 20456573]

18 Gillooly JF, **Ophir AG** (2010) The energetic basis of acoustic communication. *Proceedings of the Royal Society B: Biological Sciences.* 277, 1325-1331. [PMID: 20053641] [***Highlighted by:** Scientific American, Science Daily, and Discovery Channel / The Daily Planet*]

17 Phelps SM, Campbell P, Zheng D-J[U], **Ophir AG** (2010) Beating the boojum: Comparative approaches to the neurobiology of social behavior. *Neuropharmacology*. 58, 17-28. [PMID: 19591851]

16 Phelps SM, **Ophir AG** (2009) Monogamous brains and alternative tactics: Neuronal V1aR, space use and sexual infidelity among male prairie voles. In *Cognitive Ecology II*. (eds: Dukas R, Ratcliffe JM) Chicago: University of Chicago Press.

15 Campbell P, **Ophir AG**, Phelps SM (2009) Central vasopressin and oxytocin receptor distributions in two species of singing mice. *Journal of Comparative Neurology*. 516, 321-333. [PMID: 19637308]

14 **Ophir AG,** Zheng D-J[U], Eans S[U], Phelps SM (2009) Social investigation in a memory task relates to natural variation in septal expression of oxytocin receptor and vasopressin receptor 1a in prairie voles (*Microtus ochrogaster*). *Behavioral Neuroscience.* 123, 979-991. [PMID: 19824764]

13 Campbell P, Reep R, Stoll M, **Ophir AG**, Phelps SM (2009) Conservation and diversity of Foxp2 expression in muroid rodents: Functional implications. *Journal of Comparative Neurology*. 512, 84-100. [PMID: 18972576] [***Highlighted by:** Scientific American*]

12 **Ophir AG,** Campbell P, Hanna K[U], Phelps SM (2008). Field tests of *cis*-regulatory variation at the prairie vole *avpr1a* locus: Association with V1aR abundance but not sexual or social fidelity. *Hormones and Behavior.* 54, 694-702. *(1st authorship is shared with Campbell)* [PMID: 18722379]

11 **Ophir AG**, Wolff JO, Phelps SM (2008) Variation in neural V1aR predicts sexual fidelity and space use among prairie voles in semi-natural settings. *Proceedings of the National Academy of Sciences, USA*. 105, 1249-1254. [PMID: 18212120]

10 **Ophir AG**, Phelps SM, Sorin AB, Wolff JO (2008) Social but not genetic monogamy is associated with greater breeding success in prairie voles. *Animal Behaviour*. 75, 1143-1154. [***Highlighted by:*** *Nature, Faculty of 1000, Science News, Science Daily, the Observer, and BBC Wildlife*]

9 Wolff JO, **Ophir AG**, Phelps SM (2008) Asynchronous breeding in the socially monogamous prairie vole. *Canadian Journal of Zoology*. 86, 339-343.

8 **Ophir AG**, Crino OL, Wilkerson QC^{U}, Wolff JO, Phelps SM (2008) Female-directed aggression predicts paternal behavior, but female prairie voles prefer affiliative males to paternal males. *Brain Behavior and Evolution.* 71, 32-40. [PMID: 17878716]

7 **Ophir AG**, delBarco-Trillo J (2007) Anogenital distance predicts female choice and male potency in prairie voles. *Physiology and Behavior.* 92, 533-540. [PMID: 17537467]

6 **Ophir AG**, Phelps SM, Sorin AB, Wolff JO (2007) Morphological, genetic, and behavioral comparisons of two prairie vole populations in the field and laboratory. *Journal of Mammalogy.* 88(4), 989-999.

5 **Ophir AG**, Persaud KN, Galef BG Jr. (2005) Avoidance of relatively aggressive male Japanese quail *(Coturnix japonica)* by sexually experienced conspecific females. *Journal of Comparative Psychology*. 119(1), 3-7. [PMID: 15740424]

4 **Ophir AG**, Galef BG Jr. (2004) Sexual experience can affect use of public information in mate choice. *Animal Behaviour.* 68(5), 1221-1227.

3 **Ophir AG**, Galef BG Jr. (2003) Female Japanese quail affiliate with live males that they have seen mate on video. *Animal Behaviour.* 66(2), 369-375. [***Highlighted by:*** *Discovery Channel / the Daily Planet, and the Globe and Mail*]

2 **Ophir AG**, Galef BG Jr. (2003) Female Japanese quail that 'eavesdrop' on fighting males prefer losers to winners. *Animal Behaviour.* 66(2), 399-407. [***Highlighted by:*** *Reuters, New Scientist, Science News, CBC's Quirks and Quarks, Science World, and Canadian Wildlife*]

1 Burmeister SS, **Ophir AG**, Ryan MJ, Wilczynski W (2002) Information transfer during cricket frog contests. *Animal Behaviour.* 64(5), 715-725.

Non-Refereed Publications:

A. Preprints:

1 Lu AT, Fei Z, Haghani A, Robeck TR, Zoller JA, et al. … **Ophir AG** … Sailer LL^{P} … Horvath S (2021) Universal DNA methylation age across mammalian tissues. *bioRxiv.* doi.org/10.1101/2021.01.18.426733

2 Li CZ, Haghani A, Robeck TR, Villar D, Zhang J, Faulkes CG, Vu H, et al. … **Ophir AG** … Sailer LL^{P} … Horvath S (2021) Epigenetic predictors of maximum lifespan and other life history traits in mammals. *bioRxiv.* doi.org/10.1101/2021.05.16.444078

3 Sailer LL^{P}, Haghani A, Zoller JA, Li CZ, **Ophir AG,** Horvath S (2020) Pair bonding slows epigenetic aging and alters methylation in brains of prairie voles. *bioRxiv.* doi.org/10.1101/2020.09.25.313775. *(Last authorship is shared between Ophir & Horvath)*.

B. Technical Reports:

1 Finton CJ^{G}, Kelly AM^{P}, **Ophir AG** (2018) Cannulation and microinjection stereotaxic surgeries in the prairie vole (*Microtus ochrogaster*). *Kopf Carrier.* #94.

2 Hofmann H, Rubenstein DR, Akcay E, Alonso S, Archie B, Beery A, Calisi RM, Carleton K, Chow B, Dubnau J, Elekonich MM, Grozinger CM, Ketterson E, Leifer A, Links T, Mendelson T, MacManes M, Martin L, McGraw K, McGraw L, O'Connell L, **Ophir AG**, Remage-Healey L, Renn S, Roth TC, Tung J, Woolley S. (2014). New frontiers for the integrative study of animal behavior: White Paper. *National Science Foundation*.

Edited Volumes:

1 What's Love Got to Do with It: The Evolution of Monogamy. Research Topic in *Frontiers in Ecology and Evolution*. https://www.frontiersin.org/research-topics/6252/ Eds **Ophir AG**, Solomon NG.

Invited Presentations:

44 University of Toronto, Mississauga, Department of Psychology. May 19, 2022. Virtual

43 University of California, Berkeley, Department of Biology seminar series. April 28, 2022. Berkeley, CA.

42 Utah State University, Department of Biology seminar series. April 26, 2022. Logan, UT.

41 Center for Vertebrate Genomics VERGE seminar series. March 8, 2022. Ithaca, NY.

40 44th Annual Meeting of the Japan Neuroscience Society. *Symposium*. Chair: Katsuhiko Nishimori. July 28-31, 2021. Kobe, Japan. *CANCELED*

39 J. B. Johnson Club. *Symposium*: Peace through herpetofauna: A tribute to Walt Wilczynski. Chairs: Kathleen Lynch & Belinda McClelland. April 2, 2021. Virtual.

38 Newcastle University, Newcastle upon Tyne (UK), Centre for Behaviour and Evolution. April 21, 2020. Virtual.

37 *2020 QUAD symposium*, AAALAS. April 30, 2020. Mashantucket, CT. *Canceled*

36 University of Texas, Department of Psychology, Prof Tim Schallert Seminar. March 25, 2020. Austin, TX. *Canceled*

35 NASA's Johnson Space Center. Biology Workshop between Department of Defense and NASA. June 17-20, 2019. Houston, TX, USA.

34 NSF Research Collaboration Network on Sociogenomics. June 14, 2019. Ithaca NY

33 *13th World Congress on Neurohypophysial Hormones*. Symposium: Neuronal networks and brain circuits of the OXT/AVP system. Chair: Alexa Veenema. April 8-11, 2019. Ein Gedi, Israel.

32 Cornell University, Dept. of Animal Science. Reproductive Physiology/Endocrinology Seminar Series, March 6, 2019. Ithaca, NY.

31 University of Regensburg, Dept. of Behavioural and Molecular Neurobiology, October 8, 2018. Regensburg, Germany.

30 International Summer Institute: *The Other-Minds Problem: Animal Sentience and Cognition*. June, 2018. Montreal, QB.

29 Miami University, Ohio, Department of Biology. April 12, 2018. Oxford, OH.

28 University of Mississippi, 4th Annual Neuroscience Research Showcase (Keynote Lecture), Department of Biology. April 6, 2018. Oxford, MS.

27 *International Symposium of Integrative Zoology (ISIZ)*. Symposium: Neurobiology of Motivated Behaviors. Chairs Zuoxin Wang & Mohamed Kabbaj. August 27-31, 2017. Xining, Qinghai Province, China

26 NASA's Ames Research Center. Biology Workshop between Department of Defense and NASA. July 31-Aug 3, 2017. Mountain View, CA, USA.

25 McGill University, Department of Biology. April 27, 2017. Montreal, QB.

24 Columbia University, Department of Psychology. September 26, 2016. New York, NY.

23 University of Manitoba, *University Public Lecture*. Co-hosted by the Department of Biology and

the Department of Psychology. November 13, 2015. Winnipeg, MB.

22 *Society for Behavioral Neuroendocrinology*. Symposium: Evolutionary and Phenotypic Plasticity of Neuropeptide Regulation of Social Behavior. Chair Hans Hofmann. Asilomar Conference Grounds. June 11, 2015. Pacific Grove, CA.

21 *4th annual EvoDay*. Hosted by EvoGroup, Cornell University. May 8, 2015. Ithaca, NY.

20 *IU Animal Behavior Conference,* Goodson Symposium. Hosted by Center for the Integrative Study of Animal Behavior (CISAB), Indiana University. March 28, 2015. Bloomington, IN.

19 Randolph-Macon University, Department of Psychology. March 3, 2015. Ashland, VA.

18 University of Toronto Mississauga, Department of Biology. October 10, 2014. Toronto, ON.

17 *Collaborative Biomedical Research Conference on the Vole*. Oregon Health & Science University, July 25-26, 2014. Portland, OR.

16 *Science Café*. Hosted by *Sigma Xi*, January 22, 2013. Stillwater, OK.

15 Cornell University, Department of Psychology. December 10-11, 2012. Ithaca, NY.

14 Oklahoma State University, Dept. of Animal Sciences. September 23, 2011. Stillwater, OK.

13 Northeastern State Univ., *Science & Technology Seminar Series.* Oct 27, 2010. Tahlequah, OK.

12 Florida State University, *Emerald Coast Distinguished Lecture Series*. Hosted by the Psychology Club. April 22, 2010. Panama City, FL.

11 University of Oklahoma, Department of Biology. December 9, 2009. Norman, OK.

10 University of Tulsa, Department of Biological Sciences. October 30, 2009. Tulsa, OK.

9 *NSF Sponsored Vole Research Workshop*, Emory University, February 28, 2009. Atlanta GA.

8 Oklahoma State University, Department of Zoology. February 11, 2008. Stillwater, Oklahoma.

7 Wright State University, Department of Psychology. January 28, 2008. Dayton, Ohio.

6 University of Cincinnati, Department of Biological Sciences. January 22, 2008. Cincinnati, Ohio.

5 *NSF Rodent Social Behavior and Mechanisms Workshop*, NSF. August 2005. Washington, D.C.

4 University of Florida, Department of Zoology. April 20, 2004. Gainesville, FL.

3 University of Memphis, Department of Biology. February 26, 2004. Memphis, TN.

2 Queens University, Department of Biology. October 23, 2003. Kingston, Ontario.

1 McMaster University, Department of Psychology. April 19, 2002. Hamilton Ontario.

Invited Workshops:

NIH BRAIN Initiative workshop: *Brain and Behavioral Quantification and Synchronization (BBQS).* Organizers: Dana Schloesser, Sarah "Holly" Lisanby, Holly Moore, David McMullen, Lizzy Ankudowich, Sandeep Kishore. March **2022**. Virtual.

Cultural Competency Workshop. Organizers: Avery Russel, Cameron Jones. Sponsored by the Animal Behavior Society. July **2019**. Chicago, IL.

The Future of Behavioral Neuroscience. Organizers: Mark Baxter, Eliza Bliss-Moreau, Bita Moghaddam, Rebecca Shansky. Sponsored by the Department of Behavioral Neuroscience at Oregon Health & Science University. April **2019**. Portland, OR.

National Academy of Sciences Expert Meeting: Developing informed animal models of social aging. Organizer: Tina Winters. May **2017**. Washington DC.

NSF Increasing the Accessibility of Behavioral Data. Organizer: Mike Webster (Cornell Univ.) October **2016**. Cortland, NY.

NSF New Frontiers for the Integrative Study of Animal Behavior. Organizers: Hans Hofmann (Univ. of Texas) & Dustin Rubenstein (Columbia Univ.). August **2014**. New York, NY.

NSF Rodent Social Behavior and Mechanisms Workshop. Organizer: Steven Phelps (Univ. of Florida). August **2005**. Washington, D.C.

Conference Presentations:

[Supervised Postdoc (P), Graduate (G), Undergraduate (U), and High School (H) students]

116 Freeman AR[P], Lo B[U], Chavez A[U], Choudhry A[H], Singh B, **Ophir AG** (2022) How does a GnRH agonist affect vaginal patency in African giant pouched rats? Society for Integrative and Comparative Biology (SICB), Virtual / Phoenix, AZ hybrid. January, 2022. ***Published Abstract***

115 Laser RS[G], **Ophir AG** (2021) Huddling in the neonatal prairie vole. Society for Vole Research Meeting. Virtual. August 2021.

114 Madrid J[P], **Ophir AG** (2021) Early rearing environment influences female partner decisions to form pairbonds. Society for Vole Research Meeting. Virtual. August 2021.

113 Forero SA[G], Sailer L[P], Gircyte A[U], Madrid J[P], **Ophir AG** (2021) Pair bond strength variation in the female prairie vole. Society for Vole Research Meeting. Virtual. August 2021.

112 Sailer L[G], Park A[U], Galvez A[U], **Ophir AG** (2021) Chemogenetic activation of the lateral septum alters sociality but not pair bonding behaviors in male prairie voles. Society for Vole Research Meeting. Virtual. August 2021.

111 Laser RS[G], **Ophir AG** (2021) Huddling in the neonatal prairie vole. Animal Behavior Society (ABS), July 2021. Virtual.

110 Forero SA[G], Sailer L[P], Gircyte A[U], Madrid J[P], **Ophir AG** (2021) Pair bond strength variation in the female prairie vole. Animal Behavior Society (ABS), July 2021. Virtual.

109 Forero SA[G], Sailer L[P], Gircyte A[U], Madrid J[P], **Ophir AG** (2021) Neural Mechanisms of Social Bonding Across Contexts. Society for Neuroendocrinology (SBN). Virtual. June 2021.

108 Sailer L[P], Park A[U], Galvez A[U], **Ophir AG** (2021) Chemogenetic activation of the lateral septum alters sociality but not pair bonding behaviors in male prairie voles. Society for Neuroendocrinology (SBN). Virtual. June 2021.

107 Sailer L[P], Park A[U], Galvez A[U], **Ophir AG** (2021) Chemogenetic activation of the lateral septum alters sociality but not pair bonding behaviors in male prairie voles. Society for Social Neuroscience (S4SN). Virtual. February 2021.

106 Sailer LL[P], Haghani A, Zoller JA, Li CZ, **Ophir AG**, Horvath S (2021) Pair bonding slows epigenetic aging and alters methylation in brains of prairie voles. Society for Neuroscience (SfN) Global Connectome. Virtual. January 2021. ***Published Abstract***

105 Freeman AR[P], Lo B[U], Choudhry A[H], Singh B, **Ophir AG** (2021) 'I'm open to it': African giant pouched rat females signal vaginal patency to potential mates and competitors via altered signal composition but not behavior. Society for Integrative and Comparative Biology (SICB), Virtual / Washington DC hybrid. January, 2021. ***Published Abstract***

104 Nowicki JP, Sailer LL[P], **Ophir AG**, Gardner MG, Coker DJ, O'Connell LA (2021) Neural correlates of vertebrate affiliative evolution. Society for Integrative and Comparative Biology (SICB), Virtual / Washington DC hybrid. January, 2021. ***Published Abstract***

103 Forero SA[G], Pendergraft L[U], Lee NS[U], Rice MA[G], **Ophir AG** (2020) Pair bonding impacts socio-spatial recognition in male prairie voles. Animal Behavior Society (ABS), July 2020. Virtual.

102 Madrid, JE[P], Slavinsky MT[U], Smullen ME[U], **Ophir AG** (2020) Early rearing environment influences prairie vole adult mating tactics. Animal Behavior Society (ABS), July 2020. Virtual.

101 Freeman AR[P], **Ophir AG** (2020) Individual and self-recognition by female but not male African giant pouched rats. Animal Behavior Society (ABS), July 2020. Virtual.

100 Freeman AR[P], Lo B[U], Choudhry A[H], Singh B, Lerer A, Cheong SH, **Ophir AG** (2020) Reversible vaginal closure is signaled by female African giant pouched rats to potential mates. Animal Behavior Conference (CISAB), Bloomington, Indiana. *Conference cancelled after talk acceptance due to COVID-19 pandemic.*

99 Finton CJ[G], Jeyasingh PD, **Ophir AG** (2020) Stardust in the brain: Toward using chemical elements as a guide to link the connectome and behavior. Animal Behavior Conference (CISAB), Bloomington,

Indiana. *Conference cancelled after poster acceptance due to COVID-19 pandemic*

98 Choudhry A[H], Lo B[U], Freeman AR[P], **Ophir AG** (2020) Female African giant pouched rats scent mark at similar rates despite reproductive differences. Society for Integrative and Comparative Biology (SICB), Austin, Texas. January, 2020. ***Published Abstract***

97 Freeman AR[P], **Ophir AG,** Sheehan MJ (2020) Doing more with less: African giant pouched rats specialize in olfaction with a typical olfactory receptor repertoire. Society for Integrative and Comparative Biology (SICB), Austin, Texas. January, 2020. ***Published Abstract***

96 Johnston M, Finton CJ[G], Brass K, **Ophir AG**, Campbell P. (2020) Central oxytocin and vasopressin receptor distributions in the house mouse, *Mus domesticus*, and non-commensal congeners, *M. spretus and M. spicilegus* Society for Integrative and Comparative Biology (SICB), Austin, Texas. January, 2020. ***Published Abstract***

95 Wu W[P], Yiu E, **Ophir AG,** Smith DM (2019) Spatial firing patterns of hippocampal CA1 neurons are not sensitive to changes in the social context. Society for Neuroscience (SfN), Chicago, Illinois. October, 2019. ***Published Abstract***

94 Forero SA[G], **Ophir AG** (2019) The role of the nucleus accumbens in dynamic social bonding. Center for Brain, Behavior and Evolution Vole Meeting, Austin, Texas. August, 2019.

93 Finton CJ[G], **Ophir AG** (2019) The effect of hippocampal lesions on mating tactics in the prairie vole. Center for Brain, Behavior and Evolution Vole Meeting, Austin, Texas. August, 2019.

92 Hiura LC[G], Lazaro VA[U], **Ophir AG** (2019) Interactions of maternal care and paternal presence impact the nonlinear trajectories of offspring social development. Center for Brain, Behavior and Evolution Vole Meeting, Austin, Texas. August, 2019.

91 Kelly AM[P], **Ophir AG** (2019). Stable but subtle responses in brain and behavior to social context: Insights from the neural social behavior network**.** Animal Behavior Society (ABS) / Behaviour, Chicago, IL, July 2019.

90 Freeman AR[P]**,** Cheong SH, Allen J, Lerer A, Singh B, Blank B, Jeffery D, Lee DN, **Ophir AG** (2019). *Open for business: Some female pouched rats lack a vaginal opening; only those with open vaginas are choosy.* Animal Behavior Society (ABS) / Behaviour, Chicago, IL, July 2019.

89 Hiura LC[G], Lazaro VA[U], **Ophir AG** (2019) Interactions of maternal care and paternal presence impact the nonlinear trajectories of offspring social development. Society for Behavioral Neuroendocrinology (SBN), Bloomington, Indiana. June, 2019.

88 Rice MA[G], Galindez SM[U], **Ophir AG** (2019). Female biased sex ratios lead to multi-male mating and mixed paternity in socially monogamous female prairie voles. Society for Integrative and Comparative Biology (SICB), Tampa, Florida. January, 2019. ***Published Abstract***

87 Freeman AR[P], Sheehan MJ, **Ophir AG** (2019). Anogenital distance predicts sexual odour preference in African giant pouched rats. Society for Integrative and Comparative Biology (SICB), Tampa, Florida. January, 2019. ***Published Abstract***

86 Finton, CJ[G], **Ophir AG** (2019). Is spatial memory impacted by intranasal administration of oxytocin or vasopressin? Chronic intranasal vasopressin influences spatial memory in male prairie voles. Society for Integrative and Comparative Biology (SICB), Tampa, Florida. January, 2019. ***Published Abstract***

85 Freeman AR[P], Sheehan MJ, **Ophir AG** (2018). Scent-detection of reproductive ability by African giant pouched rats. 35th Anniversary of the Institute of Biotechnology at Cornell University, Ithaca, New York. October 2018. ***Invited talk***.

84 **Ophir AG,** Kelly AM[P] (2018) Early-life family environment impacts behavior, nonapeptides, and the epigenome of offspring. International Congress of Neuroendocrinology (ICN) & Society for Behavioral Neuroendocrinology (SBN), Toronto, Ontario. July, 2018. ***Peer reviewed and accepted for a Talk***.

83 Hiura LC[G], **Ophir AG** (2018) Variations in rearing experiences influence open field test performance in prairie vole parents. International Congress of Neuroendocrinology (ICN) & Society for Behavioral Neuroendocrinology (SBN), Toronto, Ontario. July, 2018.

82 Prounis GS[G], **Ophir AG** (2018) Social environments influence the effect of intranasal oxytocin on male prairie vole behavior. International Congress of Neuroendocrinology (ICN) & Society for Behavioral Neuroendocrinology (SBN), Toronto, Ontario. July, 2018.

81 Allen JJ[P], Bryant BS, Singh B, Jeffery D, Cheong SH, **Ophir AG**. (2018) Changes in vaginal cytology, fecal steroids, and serum progesterone during the estrous cycle of the African giant pouched rat (*Cricetomys ansorgei*). Society for the Study of Reproduction (SSR). New Orleans, Louisiana. July, 2018

80 **Ophir AG** (2018) Early-life social experience alters cognitive, exploratory and social behavior. Winter Animal Behavior Conference (WABC) XL, Steamboat Springs, Colorado. January 2018. ***By invitation only***.

79 Kelly AM[P], **Ophir AG** (2017) The impact of the early life family environment on behavior, nonapeptides, and the epigenome of offspring. Society for Social Neuroscience (S4SN), Washington DC. November, 2017.

78 Kelly AM[P], Hiura LC[G], **Ophir AG** (2017) Nonapeptide neural plasticity throughout development: Early anatomy and function in the prairie vole. Society for Behavioral Neuroendocrinology (SBN), Long Beach, California. June, 2017.

77 Freeman AR[P], Sheehan MJ, **Ophir AG** (2017). Social and non-social odor discrimination by African giant pouched rats. Animal Behavior Society (ABS), Toronto, Ontario. June, 2017.

76 Galindez SM[U], Rice MA[G], Garner J[U], **Ophir AG** (2017). Role of operational sex ratio in shaping prairie vole mating tactics. Animal Behavior Society (ABS), Toronto, Ontario. June, 2017.

75 Powell JM[U], Prounis GS[G], **Ophir AG** (2017). *The ontogeny of independence: Nest egression in prairie voles*. Animal Behavior Society (ABS), Toronto, Ontario. June, 2017.

74 Rice MA[G], Dolman R, Pendergraft L[U], Garner J[U], **Ophir AG** (2017). Influences of parental brain and behavior and nest composition on offspring social behavior. Animal Behavior Society (ABS), Toronto, Ontario. June, 2017.

73 Kelly AM[P], **Ophir AG** (2017) The influence of family dynamics on developmental trajectories and modulation of social behavior in prairie voles. Society for Integrative and Comparative Biology (SICB), *Symposium*: The Development and Mechanisms Underlying Inter-individual Variation in Pro-social Behavior. New Orleans, Louisiana. January, 2017. ***Published Abstract***

72 Lee DN[P], **Ophir AG** (2017) Novelty responses and individuality of African giant pouched rats. Society for Integrative and Comparative Biology (SICB), New Orleans, Louisiana. January, 2017. ***Published Abstract***

71 Rice MA[G], Sanin G[U], **Ophir AG** (2017) Effects of operational sex ratio on spatial memory, reproductive success, and neural phenotype in prairie voles (*Microtus ochrogaster*). Society for Integrative and Comparative Biology (SICB), New Orleans, Louisiana. January, 2017. ***Published Abstract***

70 Restrepo LF[U], Rice MA[G], **Ophir AG** (2017) Mechanics of monogamy: Modeling dynamics of paternity and promiscuity in prairie voles (*Microtus ochrogaster*). Society for Integrative and Comparative Biology (SICB), New Orleans, Louisiana. January, 2017. ***Published Abstract***

69 Araujo J, Ngwenya A, Prounis GS[G], **Ophir AG**, Iwaniuk AN (2016) Density and distribution of oxytocin and vasopressin recpetors in male and female Richerdson's ground squirrels. Society for Neuroscience (SfN), San Diego, California. November, 2016. ***Published Abstract***

68 Heller AR, Ledbetter EC, Singh B, Lee DN[P], **Ophir AG** (2016) Ophthalmic examination findings and intraocular pressures in wild-caught African giant pouched rats (*Cricetomys spp.*). American Academy of Ophthalmology (AAO), Chicago, Illinois. October, 2016.

67 Kelly AM[P], Hiura LC[G], Saunders A[U], **Ophir AG** (2016) Neuropeptide responses to offspring separation: A comparison of the maternal and paternal brain. Society for Behavioral Neuroendocrinology (SBN), Montreal, Quebec. July, 2016.

66 Hiura LC[G], **Ophir AG** (2016) Early life social experiences shape nonapeptide receptor expression profiles. Society for Behavioral Neuroendocrinology (SBN), Montreal, Quebec. July, 2016.

65 Prounis GS[G], **Ophir AG** (2016) Developmental trajectories and impact of socio-spatial complexity on OTR and V1aR in male and female prairie voles. Society for Behavioral Neuroendocrinology (SBN), Montreal, Quebec. July, 2016.

64 **Ophir AG**, Blocker TB[G] (2016) A preference to bond? Male prairie voles form pair bonds in the presence of multiple receptive females. Animal Behavior Society (ABS), Columbia, Missouri. July, 2016.

63 Lee DN[P], **Ophir AG** (2016) Examining individual behavior variation of African giant pouched rats. Animal Behavior Society (ABS), Columbia, Missouri. July, 2016.

62 Cadet EB[U], Lee DN[P], **Ophir AG** (2016) Stress coping responses of African giant pouched rats. Animal Behavior Society (ABS) and Turner Program, Columbia, Missouri. July, 2016.

61 **Ophir AG** (2016) Only the lonely: Might mating tactics be shaped by early life social experience? Winter Animal Behavior Conference (WABC) XXXVIII, Steamboat Springs, Colorado. January 2016. ***By invitation only***.

60 Rice MA[G], **Ophir AG** (2016) Sex differences in spatial memory, hippocampal volume, and oxytocin receptor density in prairie voles *Microtus ochrogaster*. Society for Integrative and Comparative Biology (SICB), Portland, Oregon. January, 2016. ***Published Abstract***

59 Blank, BS, Lee DN[P], Singh, BS, Prounis GS[G], **Ophir AG** (2015) Techniques for restraint and vaginal cytology collection in the African giant pouched rat (*Cricetomys ansorgei*). American Association for Laboratory Animal Science (AALAS), Phoenix, Arizona, November 2015.

58 Prounis GS[G], **Ophir AG** (2015) Does developmental social and spatial context influence socio-spatial memory or neural phenotype? Society for Behavioral Neuroendocrinology (SBN), Asilomar Conference Grounds. Pacific Grove, California. June 2015.

57 Rice MA[G], Sanin G[U], Garner J[U], **Ophir AG** (2015) Effects of operational sex ratio on spatial memory. IU Animal Behavior Conference. Hosted by Center for the Integrative Study of Animal Behavior (CISAB), Indiana University. Bloomington, IN. March, 2015.

56 Prounis GS[G], **Ophir AG** (2015) The dynamic peaks and valleys of oxytocin and vasopressin receptor expression during forebrain development in prairie voles. IU Animal Behavior Conference. Hosted by Center for the Integrative Study of Animal Behavior (CISAB), Indiana University. Bloomington, IN. March, 2015.

55 Prounis GS[G], Foley L[U], Rehman A[U], **Ophir AG** (2014) Pre- and post-wean early life social environments interact to shape socio-spatial memory in prairie voles. Society for Neuroscience (SfN), Washington, D.C., November 2014. ***Published Abstract***

54 Rice MA[G], Hobbs LE[U], **Ophir AG** (2014) Sex differences in spatial memory, hippocampal volume, and oxytocin receptor density in prairie voles (*Microtus ochrogaster*). Society for Social Neuroscience (S4SN), Washington, D.C., November 2014.

53 Prounis GS[G], Foley L[U], Rehman A[U], **Ophir AG** (2014) Pre- and post-wean early life social environments interact to shape socio-spatial memory in prairie voles. Society for Social Neuroscience (S4SN), Washington, D.C., November 2014.

52 Okhovat M, Berrio A, Wallace GN, **Ophir AG**, Lysak N, Phelps SM (2014). Balancing selection promotes epigenetic variation in prairie vole spatial memory circuit. Society for Social Neuroscience (S4SN), Washington, D.C., November 2014.

51 Cullin C, Sellers M[U], Lee DN[P], **Ophir AG**, Rogers E[U], Scott K, Jackson T (2014) Occurrence of gut parasites and anthelmintic treatments in a laboratory colony of wild-caught Gambian pouched rats (*Cricetomys* sp.). American Association for Laboratory Animal Science (AALAS), San Antonio, Texas, October 2014.

50 Rice MA[G], **Ophir AG** (2014). The effects of operational sex ratio on spatial memory, reproductive

success, and neural phenotype. Animal Behavior Society (ABS), Princeton, New Jersey, July 2014.

49 Hobbs LE[U], Rice MA[G], **Ophir AG** (2014) Sex differences in spatial memory, hippocampal volume and oxytocin receptor density in prairie voles. Animal Behavior Society (ABS), Princeton, New Jersey, July 2014.

48 Huang KJ[G], **Ophir AG** (2014) Aggression in mating behavior of prairie voles (*Microtus ochrogaster*). Southwestern Association of Naturalists (SWAN), Stillwater, Oklahoma, April 2014.

47 Okhovat M, Berrio A, **Ophir AG**, Lysak N, Phelps SM (2013). Balancing selection promotes epigenetic variation in prairie vole spatial memory circuit. Society for Integrative and Comparative Biology, Austin, Texas, January 2014. Vol 54, P E326. ***Published Abstract***

46 Prounis GS[G], **Ophir AG** (2013) The influence of socio-spatial experience on dynamics of oxytocin receptor development in the prairie vole. Society for Neuroscience (SfN), San Diego, California, November 2013. ***Published Abstract***

45 Rice MA[G], Sanin G[U], **Ophir AG** (2013) The effects of operational sex ratio on neural phenotype and spatial navigation. Society for Neuroscience (SfN), San Diego, California, November 2013. ***Published Abstract***

44 Cullin C, Sellers M[U], Rogers E[U], Scott K, Lee DN[P], **Ophir AG**, Jackson T (2013) Depression and decreased fecal production in a Gambian pouched rat (*Cricetomys gambianus*). ['*What's your diagnosis*' session] American Association for Laboratory Animal Science (AALAS), Baltimore, Maryland, October 2013.

43 Scott K, Sellers M[U], Rogers E[U], Cullin C, Lee DN[P], **Ophir AG**, Jackson T (2013) Blood collection techniques in Gambian pouched rats (*Cricetomys gambianus*). American Association for Laboratory Animal Science (AALAS), Baltimore, Maryland, October 2013.

42 Rogers E[U], Lee DN[P], **Ophir AG** (2013) Environmental factors controlling estrous cycling in *Cricetomys gambianus*. Merial-NIH National Veterinary Scholars Symposium. Michigan State University, East Lansing, Michigan. August 2012.

41 Huang KJ[G], **Ophir AG** (2013) Intraspecific aggression as a function of offspring defense in prairie voles (*Microtus ochrogaster*). Animal Behavior Society (ABS), Boulder, Colorado, July 2013.

40 Rice MA[G], Dolman R, Garner J[U], Pendergraft L[U], **Ophir AG** (2013). Like father, like son? Genetic and epigenetic effects on exploratory behavior and neural phenotype. Animal Behavior Society (ABS), Boulder, Colorado, July 2013.

39 Sanin G[U], Rice MA[G], **Ophir AG** (2013) Effects of operational sex ratio on spatial learning ability in prairie voles. Animal Behavior Society (ABS), Boulder, Colorado, July 2013.

38 Okhovat M, Lysak N, **Ophir AG**, Phelps SM (2013). Non-microsatellite CIS-regulatory sequence polymorphisms predict Neuronal V1aR abundance in prairie voles. Center for Brain, Behavior, and Evolution 3rd Annual Symposium, Austin, Texas, February 2013.

37 Huang KJ[G], Evans BL[U], Zheng D-J[G], **Ophir AG** (2012) Influence of neural vasopressin on monogamy and reproductive tactics in prairie voles. Oklahoma Academy of Science (OAS), Edmond, Oklahoma, November 2012.

36 **Ophir AG,** Zheng D-J[G], Larsson B[U], Phelps SM (2012) OTR and V1aR density in the social decision-making network predicts female prairie vole decisions to mate and reproductive success within alternative mating tactics. Society for Neuroscience (SfN), New Orleans, Louisiana, October 2012. ***Published Abstract***

35 Prounis GS[G], **Ophir AG** (2012) OTR and V1aR expression is dynamic, plastic and demonstrates profound individual variation in developing prairie vole pups. Society for Neuroscience (SfN), New Orleans, Louisiana, October 2012. ***Published Abstract***

34 Zheng D-J[G], Larsson B[U], Phelps SM, **Ophir AG** (2012) OTR and V1aR density in the social decision-making network predicts female prairie vole decisions to mate and reproductive success within alternative mating tactics. Society for Social Neuroscience (S4SN), New Orleans, Louisiana, October

2012.

33 Evans B[U], Zheng D-J[G], **Ophir AG** (2012) Septal V1a receptor knockdown and its effects on the monogamous behavior of male prairie voles (*Microtus ochrogaster*). Merial-NIH National Veterinary Scholars Symposium. Colorado State University, Loveland, CO. August 2012.

32 Prounis GS[G], **Ophir AG** (2012) Dynamic changes in oxytocin receptor expression during development in *Microtus ochrogaster.* Society for Behavioral Neuroendocrinology (SBN), Madison, Wisconsin, June 2012.

31 Okhovat M, Lysak N, **Ophir AG**, Phelps SM (2012). Non-microsatellite CIS-regulatory sequence polymorphisms predict Neuronal V1aR abundance in prairie voles. Society for Behavioral Neuroendocrinology (SBN), Madison, Wisconsin, June 2012.

30 Zheng D-J[G], Phelps SM, **Ophir AG** (2012) Female monogamy, reproductive success and the social decision-making network. Animal Behavior Society (ABS) & Human Behavior and Evolution Society (HBES), Albuquerque, New Mexico, June 2012.

29 Rice M[G], Dolman R, Franks M[U], Pendergraft L[U], **Ophir AG** (2012) Pups reared without fathers show more social curiosity but reduced boldness. Animal Behavior Society (ABS), Albuquerque, New Mexico, June 2012.

28 Rehman A[U], Foley L[U], Zheng D-J[G], **Ophir AG** (2012) Male prairie vole social recognition depends on social context. Animal Behavior Society (ABS), Albuquerque, New Mexico, June 2012.

27 Blocker TD[G], **Ophir AG** (2012) Cryptic confounds: Consideration of the influence of contaminants on mating behavior. Animal Behavior Society (ABS), Albuquerque, New Mexico, June 2012.

26 Okhovat M, Lysak N, Campbell P, **Ophir AG**, Phelps SM (2011) Complex associations of cis-regulatory sequence polymorphisms with neuronal V1aR abundance: Implications for social behavior and genome-wide association studies. Society for Neuroscience (SfN), Washington, D.C., November 2011. ***Published Abstract***

25 **Ophir AG** (2011) Navigating Monogamy: Socio-spatial neural mechanisms and alternative mating tactics. Animal Behavior Society (ABS) & International Ethological Conference (IEC), Bloomington, Indiana, July 2011.

24 Zheng D-J[G], Larsson B[U], **Ophir AG** (2011) Socially monogamous male prairie voles recognize male, but not female identity. Animal Behavior Society (ABS) & International Ethological Conference (IEC), Bloomington, Indiana, July 2011.

23 **Ophir AG**, Gessel A[U], Zheng D-J[G], Phelps SM (2010) A socio-spatial memory neural circuit predicts male monogamy in the field. Society for Neuroscience (SfN), San Diego, California, November 2010. ***Published Abstract***

22 Zheng D-J[G], Larsson B[U], Phelps SM, **Ophir AG** (2010) Girls gone mild: Patterns of fidelity and neuropeptide receptor expression in female prairie voles. Society for Behavioral Neuroendocrinology (SBN), Toronto Ontario, Canada, July 2010

21 Gessel A[U], Zheng D-J[G], Phelps SM, **Ophir AG** (2010) Monogamy and memory: Neuropeptide receptor expression in areas associated with spatial learning and memory relate to patterns of space use associated with social monogamy. Society for Behavioral Neuroendocrinology (SBN), Toronto Ontario, Canada, July 2010

20 **Ophir AG**, Schrader SB[U], Gillooly JF (2009), General rules for animal sounds: Insights from energetic constraints and metabolism. Animal Behavior Society (ABS), Pirenópolis, Brazil, June 2009.

19 Campbell P, **Ophir AG**, Phelps SM (2009) Central vasopressin and oxytocin receptor distributions in two species of singing mice. Society for Behavioral Neuroendocrinology (SBN), East Lansing, Michigan, June 2009.

18 **Ophir AG**, Zheng D-J[U], Eans S[U], Phelps SM (2008) Social investigation in a memory task relates to natural variation in septal expression of oxytocin receptor and vasopressin receptor 1a. JB Johnstone Club (JBJC), Washington DC, November 2008. Brain Behavior and Evolution. 72, 83. ***Published***

Abstract

17 **Ophir AG**, Gillooly JF (2008) Energetic constraints on acoustic signaling: A broad comparative view. International Society for Behavioral Ecology (ISBE), Ithaca, New York, August 2008.

16 Gillooly JF, **Ophir AG** (2008) Energetic constraints on acoustic communication. Fourth International Conference in Africa for Comparative Physiology & Biochemistry (ICA-CPB) Maasai Mara National Reserve, Kenya, July 2008.

15 **Ophir AG**, Phelps SM, Wolff JO (2007). Monogamous brains? Context dependent selection on behavioral and brain phenotypes. International Ethological Conference (IEC), Halifax, Nova Scotia, August 2007.

14 **Ophir AG**, Zheng D-J^{U}, Wolff JO, Phelps SM (2006). Neuropeptide receptor expression related to patterns of space use, but not mating status, in field populations of prairie voles. Oxytocin, Vasopressin and Emotional Regulation: New Frontiers in Basic Neuroscience and Translational Opportunities Workshop, Atlanta, Georgia, 13 October 2006.

13 **Ophir AG**, Zheng D-J^{U}, Wolff JO, Phelps SM (2006). Neuropeptide receptor expression related to patterns of space use, but not mating status, in field populations of prairie voles. Society for Neuroscience (SfN), Atlanta, Georgia, October 2006. ***Published Abstract***

12 Crino O**, Ophir AG**, Phelps SM, Wolff JO (2006). Female prairie voles prefer masculine males but not good fathers. Animal Behavior Society (ABS), Snowbird, Utah, August 2006.

11 **Ophir AG**, Wolff JO, Phelps SM (2006). V1aR expression and alternative mating tactics in male prairie voles: A field study. Society for Behavioral Neuroendocrinology (SBN), Pittsburg, Pennsylvania, July 2006. ***Published Abstract***

10 **Ophir AG**, Phelps SM, Wolff JO (2006). Selection for social but not genetic monogamy in the prairie vole. Society for Integrative and Comparative Biology (SICB), Orlando, Florida, January 2006. ***Published Abstract***

9 **Ophir AG**, Phelps SM, Wolff JO (2005). Defining mating system using information theory: space use and parentage in the prairie vole. Animal Behavior Society (ABS), Snowbird, Utah, August 2005.

8 Sorin AB, **Ophir AG**, Wolff JO (2005). Paternity in prairie voles, evidence for monogamy or promiscuity? Animal Behavior Society (ABS), Snowbird, Utah, August 2005.

7 **Ophir AG**, Galef BG Jr. (2003). Once bitten, twice shy: Female Japanese quail learn to avoid more dominant males. Animal Behavior Society (ABS), Boise, Idaho, July 2003.

6 **Ophir AG**, Galef BG Jr. (2003). Losers win in the end: Female Japanese quail that eavesdrop on fighting males prefer the losers. Society for Integrative and Comparative Biology (SICB), Toronto, Ontario, January 2003. ***Published Abstract***

5 **Ophir AG**, Galef BG Jr. (2002). Female Japanese quail modify their mate choices using information acquired from moving video images. Animal Behavior Society (ABS), Bloomington, Indiana, July 2002.

4 **Ophir AG**, Galef BG Jr. (2001). Male Japanese quail mate-choice copy, while avoiding females seen mating. Animal Behavior Society (ABS), Corvallis, Oregon, July 2001.

3 **Ophir AG**, Galef BG Jr. (2001). Male Japanese quail avoid a female after seeing her mate, but are attracted to females that look like her. Ontario Ecology and Ethology Colloquium (OEEC) Guelph, Ontario, March 2001.

2 Burmeister S, **Ophir A**, Wilczynski W (1998). The functional significance of graded aggressive signals in cricket frogs. American Zoologist, 38 (5): 170A. Society for Integrative and Comparative Biology (SCIB), Denver CO, January 1999. ***Published Abstract***

1 **Ophir A**, Burmeister S, Wilczynski W (1997). The effects of stimulus calls on the behavioral outcome of a simulated agonistic interaction in male cricket frogs. American Zoologist, 37(5): 33A. Society for Integrative and Comparative Biology (SCIB), Boston MA, January 1998. ***Published Abstract***

Undergraduate Symposium Presentations:

*(Supervised Postdoc/Graduate = *; Undergraduate = † students; • = Highschool student)*

45 Hanadari-Levy A[U], Huang L[U], Chaves A[U], Singh B, Berman J[U], Lo B[U], Freeman AR[P], **Ophir AG**. (2021) Effects of a GnRH agonist on mate choice behavior in African giant pouched rats. *3rd annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 2021.

44 Lo B[U], Freeman AR[P], Singh B, Choudhry A[H], Place N, Cheong SH, **Ophir AG**. (2019). The effect of estradiol on vaginal patency and scent marking in female African giant pouched rats. *Developmental Biology New York Undergraduate Conference*, Ithaca College, Ithaca, NY, November 16, 2019.

43 Lazarro VA[U], Hiura LC[G], **Ophir AG** (2019) The interplay of parental involvement in prairie vole parents. *2nd annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 2019.

42 Wong G[U], Rice MA[G], **Ophir AG** (2019) Mating tactics and spatial learning ability in prairie voles. *2nd Cornell Undergraduate Psychology Conference*, Cornell University, Ithaca, NY, May 2019.

41 Zheng R[U], Prisco L[U], Freeman AR[P], **Ophir AG** (2019). Social scent discrimination by African giant pouched rats. *2nd annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 2019.

40 Lo B[U], Arenas S[U], Freeman AR[P], **Ophir AG** (2019). *Central distribution of vasopressin 1a receptor in the African giant pouched rat. 2nd annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 2019.

39 Arenas S[U], Lo B[U], Freeman AR[P], **Ophir AG** (2019). *Central distribution of oxytocin receptor in the African giant pouched rat. 2nd annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 2019.

38 Lazarro, VA[U], Hiura LC[G], **Ophir AG** (2019) The interplay of parental involvement in prairie vole parents. *Cornell Undergraduate Research Board (CURB) Spring Forum*. Ithaca, New York. May 2, 2019.

37 Lazarro V[U], Hiura LC[G], **Ophir AG** (2018) The interplay of parental involvement in prairie vole parents. *Cornell Undergraduate Research Board (CURB) Fall Forum*, Cornell University, Ithaca, NY, Nov 13, 2018.

36 Kwon H[U], Freeman AR[P], **Ophir AG** (2018) Female but not male African giant pouched rats exhibit individual recognition. *1st annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 12, 2018.

35 Galindez SM[U], Rice MA[G], **Ophir AG** (2018) Nonapeptide receptor distribution and the functional organization of the hippocampus. *1st annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 12, 2018.

34 Horowitz R[U], Kelly, AM[P], **Ophir AG** (2018) Characterization of context-specific neural activity within the social behavior network of the prairie vole. *1st annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 12, 2018.

33 Nolan A[U], Prounis GS[G], **Ophir AG** (2018) Social environments influence the effect of intranasal oxytocin on male prairie vole behavior. *1st annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 12, 2018.

32 Zhao A[U], Prounis GS[G], **Ophir AG** (2018) Immediate and long-term effects of intranasal oxytocin on male prairie vole behavior, as mediated by early life experience. *1st annual Cornell Undergraduate Psychology (CUP) Conference*, Cornell University, Ithaca, NY, May 12, 2018.

31 Powell JM[U], Prounis GS[G], **Ophir AG** (2016) The impact of early social environment on egression in prairie voles (*Microtus ochrogaster*). *41st Ecology & Evolutionary Biology Graduate Student Symposium*, Cornell University, Ithaca, NY, December 6, 2016.

30 Powell JM[U], Prounis GS[G], **Ophir AG** (2016) The impact of early social environments on juvenile egression in *Microtus ochrogaster*. Cornell Summer Institute for Life Sciences Sixth Annual

Undergraduate Symposium. Cornell University, Ithaca, NY, August 8, 2016.

29 Diaz N[U], Hiura LC[G], **Ophir AG** (2016) Measuring social motivation and partner preference in socially monogamous prairie voles. CienciAmerica Info Blitz Symposium, Cornell University, Ithaca, NY, August 4, 2016.

28 Agudelo N[U], Rice MA[G], **Ophir AG** (2015) Mechanisms of spatial memory: Hippocampal oxytocin receptor knockdown in prairie voles. *CienciAmerica Info Blitz Symposium*, Cornell University, Ithaca, NY, July 30-31, 2015.

27 Ong JY[U], **Ophir AG** (2015) The impacts of early life family structure and foraging on maternal care and the behavioral development of offspring. *Annual Cornell Biological Sciences Honors Research Symposium*, Cornell University, Ithaca, NY, May 5, 2015.

26 Lee N[U], **Ophir AG** (2015) Does social context alter the probability that males approach receptive females? *Annual Cornell Biological Sciences Honors Research Symposium*, Cornell University, Ithaca, NY, May 5, 2015.

25 Trejo J[U], Prounis GS[G], Foley L[U], Rehman A[U], **Ophir AG** (2014) Pre- and post-ween early life social environments influence OTR density in male prairie voles. *4th Annual Summer Institute for Life Sciences Undergraduate Research Symposium*, Cornell University, Ithaca, NY, August 8, 2014.

24 Foley L[U], **Ophir AG** (2013) Who and where are the people in your neighborhood? Developmental effects of socio-spatial memo rub prairie voles (*Microtus ochrogaster*). *Niblack Research Scholars Colloquium*, Oklahoma State University, Stillwater, OK, October 4, 2013.

23 Rogers FD[U], **Ophir AG** (2013) The effects of parental care in early development on opposite-sex social recognition in *Microtus ochrogaster* (the prairie vole). *Niblack Research Scholars Colloquium*, Oklahoma State University, Stillwater, OK, October 4, 2013.

22 Hobbs, LE[U], Rice MA[G], **Ophir AG** (2013) Sex differences in spatial memory, hippocampal volume and oxytocin receptor expression in prairie voles. National Science Foundation Research Experience for Undergraduates: *Mechanisms of Human and Animal Behavior*. Poster Symposium. July 26, 2013. Oklahoma State University. Stillwater, OK.

23 Rogers E[U], Lee DN[P], **Ophir AG** (2013) Environmental factors controlling estrous cycling in *Cricetomys gambianus*. NIH / Oklahoma State University. *Veterinary Medicine Summer Research Training Program*. Poster Symposium. July 29, 2013. Oklahoma State University. Stillwater, OK.

21 Garner J[U], Rice MA[G], **Ophir AG** (2013) Parental variation in *Microtus ochrogaster*. *Karen L. Smith Undergraduate Research Symposium*. April 19, 2012. Stillwater, OK.

20 Thomas KJ[U], Prounis GS[G], **Ophir AG** (2012) Context specificity and developmental trajectory of forebrain nonapeptide receptors in prairie voles. *Karen L. Smith Undergraduate Research Symposium*. April 19, 2012. Stillwater, OK.

20 Rogers FD[U], Blocker TD[G], **Ophir AG** (2013) Vole daddy daycare: The effects of paternal deprivation on limbic dopamine in *Microtus ochrogaster* (the prairie vole). *National Conference of Undergraduate Research*, University of Wisconsin - LaCrosse, LaCrosse, WI, April 11, 2013

19 Sanin G[U], Rice M[G], **Ophir AG** (2013) Effects of operational sex ratio on spatial learning ability in prairie voles. *Georgia State Undergraduate Research Conference*. Poster Symposium. March 13, 2013. Georgia State University. Atlanta, GA.

18 Rogers FD[U], Blocker TD[G], **Ophir AG** (2013) Vole daddy daycare: The effects of paternal deprivation on limbic dopamine in *Microtus ochrogaster* (the prairie vole). Oklahoma Experimental Program to Stimulate Competitive Research (EPSCoR): Research Day at the Capitol, Oklahoma City, Oklahoma, February 26, 2013.

17 Rogers FD[U], Blocker TD[G], **Ophir AG** (2013) Vole daddy daycare: The effects of paternal deprivation on limbic dopamine in *Microtus ochrogaster* (the prairie vole). 24th Annual OSU Research Symposium, Stillwater, Oklahoma, February 21, 2013.

16 Foley L[U], Rehman A[U], **Ophir AG** (2013) Who and where are the people in your neighborhood:

Developmental effects of socio-spatial memory in prairie voles (*Microtus ochrogaster*). 24th Annual OSU Research Symposium, Stillwater, Oklahoma, February 21, 2013.

15 Thomas K^{U}, Prounis GS^{G}, **Ophir AG** (2012) Effects of environmental complexity on female prairie vole oxytocin receptor. *Karen L. Smith Undergraduate Research Symposium*. November 30, 2012. Stillwater, OK. (***Awarded best presentation***).

14 Suppiah LP^{U}, Rice M^{G}, **Ophir AG** (2012) The role of paternal care on pup exploration and sociality. *Karen L. Smith Undergraduate Research Symposium*. November 30, 2012. Stillwater, OK.

13 Rehman A^{U}, Foley L^{U}, **Ophir AG** (2012) Early Life Influences Affect Socio-Spatial Recognition In Male Prairie Voles. *Karen L. Smith Undergraduate Research Symposium*. November 30, 2012. Stillwater, OK.

12 Evans B^{U}, Zheng D-J^{G}, **Ophir AG** (2012) Septal V1a receptor knockdown and its effects on the monogamous behavior of male prairie voles (*Microtus ochrogaster*). NIH / Oklahoma State University. *Veterinary Medicine Summer Research Training Program*. Poster Symposium. July 30, 2012. Oklahoma State University. Stillwater, OK.

11 Sanin G^{U}, Rice M^{G}, **Ophir AG** (2012) Effects of operational sex ratio on spatial learning ability in prairie voles. National Science Foundation Research Experience for Undergraduates: *Mechanisms of Human and Animal Behavior*. Poster Symposium. July 28, 2012. Oklahoma State University. Stillwater, OK.

10 Rogers FD^{U}, Blocker TD^{G}, **Ophir AG** (2012). The effects of paternal care on limbic dopamine in *Microtus ochrogaster*. Freshman Research Scholars Colloquium. April 20, 2012. Oklahoma State University. Stillwater OK. (***Awarded best presentation***).

9 Foley L^{U}, Rehman A^{U}, Zheng D-J^{G}, **Ophir AG** (2012) Who are the people in your neighborhood: Social recognition, spatial context, and monogamy. Lew Wentz Research Scholar Symposium. April 13, 2012. Oklahoma State University. Stillwater OK.

8 Foley L^{U}, Larsson B^{U}, Zheng D-J^{G}, **Ophir AG** (2011) Social recognition in socially monogamous prairie voles. Biochemistry and Molecular Biology Graduate Student Association Annual Research Symposium. September 22-23, 2011. Oklahoma State University. Stillwater OK.

7 Lam M^{U}, Zheng D-J^{G}, **Ophir AG** (2011) Neural-phenotypic engineering through biodegradable microparticles in prairie voles. National Science Foundation Research Experience for Undergraduates: Mechanisms of Human and Animal Behavior. Poster Symposium. July 30, 2011. Oklahoma State University. Stillwater, OK.

6 Aketa M^{U}, Blocker T^{G}, Stoutermire B^{U}, **Ophir AG** (2011) Do males simultaneously form multiple 'monogamous' pair bonds? Oklahoma IDeA Network of Biomedical Research Excellence Summer Research Symposium. July 22, 2011. University of Oklahoma Health Science Center. Oklahoma City, OK.

5 Foley L^{U}, Larsson B^{U}, Zheng D-J^{G}, **Ophir AG** (2011) Social recognition in socially monogamous prairie voles. Freshman Research Scholars Colloquium. April 15, 2011. Oklahoma State University. Stillwater OK. (***Awarded honorable mention***).

4 Gessel A^{U}, Zheng D-J^{G}, **Ophir AG** (2010) Monogamy and memory: Neuropeptide receptor expression in areas associated with spatial learning and memory relate to patterns of space use associated with social monogamy. Lew Wentz Research Scholar Symposium. April 16, 2010. Oklahoma State University. Stillwater OK. (***Awarded best presentation in Science***).

3 Schrader SB^{U}, **Ophir AG**, Gillooly JF (2009) What is the cost of acoustic communication? April 9, 2009. Undergraduate Research Assistantship Program. University of Florida. Gainesville, FL.

2 Zheng D-J^{U}, **Ophir AG**, Wolff JO, Phelps SM (2007). Neuropeptide receptor expression related to patterns of space use, but not mating status, in field populations of prairie voles. Undergraduate Research Assistantship Program. University of Florida. Gainesville, FL.

1 Eans S^{U}, **Ophir AG**, Phelps SM (2007) Variation in social and spatial memory and neuropeptide correlates in male *Microtus ochrogaster*. Undergraduate Research Assistantship Program. University

of Florida. Gainesville, FL.

Courses Taught:

Cornell University:
Hormones and Behavior (PSYCH/BIONB 3220)
Evolution of Human Behavior (PSYCH 3260)
Cognitive Behavioral Ecology (PSYCH 4260/6260)
Graduate Research Seminar (PSYCH 6000)
Graduate Professionalism Seminar (PSYCH 6001)
Mechanisms of Social Behavior (PSYCH 6271)

Oklahoma State University:
Behavioral Neuroendocrinology (ZOOL 4293/5293)
Graduate Orientation and Academic Development (ZOOL 5003)
Neurophysiology (ZOOL 4020/5020; *even years*)
Contemporary, Historical, & Integrative Principles in Zoology:
Neuroendocrine Mechanisms of Behavior (ZOOL 5020)
Mammalian Physiology (ZOOL 4215)

University of Florida:
Evolution Ecology & Behavior (BSC 2008)
Vertebrate Zoology (ZOO 2303)

McMaster University:
Animal Behaviour and Learning (2TT3)
Abnormal Psychology II (3NN3)

Teaching Workshops:

2018	Gender and Pedagogy Workshop (Teaching in-between Science and the Humanities); *Feminist, Gender, and Sexuality Studies (FGSS) Across the Disciplines*
2017	Flipping the Classroom; *Cornell Center for Teaching Excellence*
2015	New Faculty Institute Participant; *Cornell Center for Teaching Excellence / inSPIRE Program*

Students Supervised:

(Underrepresented minorities (URM) are in bold; women are underlined)

A. Postdoctoral Associates:

Past

2012 – 2016	*Dr.* ***Danielle Lee*** *TED Fellow* *Currently: Assistant Professor, Southern Illinois University, Edwardsville*
2014 – 2018	*Dr. Aubrey Kelly* *NIH National Research Service Award (NRSA) Fellow* *Currently: Assistant Professor, Emory University*

2017 – 2018 *Dr. Jeremy Allen*
Currently: Adjunct Lecturer, Cornell University CVM

2016 – 2019 *Dr. Wen-Yi Wu*
Currently: Postdoctoral Associate, Cornell University (D. Smith)

2017 – 2021 *Dr. Angela Freeman*
Currently: Assistant Professor, Salisbury University

Current

2019 – Pres *Dr.* ***Jesus Madrid***
Cornell NextGen Future Professors Fellow

2019 – Pres *Dr.* ***Lindsay Sailer***
NIH National Research Service Award (NRSA) Fellow

2020 – Pres *Dr. Ehren Bentz*
NSF Postdoctoral Research Fellowship in Biology (PRFB) Fellow

B. Graduate Students:

Past

2009 – 2013 *Da-Jiang (David) Zheng (Oklahoma State University)* (MS)
NSF Graduate Research Fellow (2010095944)
Currently: PhD Univ. of Texas, Postdoc at Univ. of Utah

2009 – 2015 ***Tomica Blocker*** *(Oklahoma State University)* (PhD)
NSF Graduate Research Fellow (2010103297)
NSF Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) Bridge to the Doctorate Fellow
Currently: MD Univ Kansas Medical Center; Residency in Pediatrics
Univ Texas Southwestern / Children's Medical Center

2011 – 2018 *George Prounis (Cornell University)* (PhD)
NSF Graduate Research Fellow – two-time Honorable Mention
Postdoc at University of California, Berkeley
Currently: Private sector: Machine Learning Engineer / Scientist

2015 – 2020 *Lisa Hiura (Cornell University)* (PhD)
NSF Graduate Research Fellow (2016196111)
Currently: Postdoc at University of Colorado, Boulder

2011 – 2020 ***Marissa Rice*** *(Cornell University)* (PhD)
NSF Graduate Research Fellow (2012142934)
NSF Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) Bridge to the Doctorate Fellow
Currently: Postdoc at Cornell University, Dept of Human Development

2016 – 2021 *Caitlyn Finton (Cornell University)* (PhD)
NSF Graduate Research Fellow – Honorable Mention
Currently: SciComm Postdoc at Harvard University, Dept of Psychology

Current

2018 – Pres ***Santiago Forero*** *(Cornell University)* (PhD)
NSF Graduate Research Fellow (2019285657)

2020 – Pres ***Rikki Laser*** *(Cornell University)* (PhD)
Dean's Excellence Fellow

NSF Graduate Research Fellow (2021325465)

2021 – Pres	*Susanna Zheng (Cornell University)*	(PhD)
2022 – Pres	*Rachael Beaumont (Cornell University)*	(PhD)

C. Graduate Student Committee Member (replaced on committee because I moved; ** did not finish):*

2009 – 2015	Bart Kensinger *(Oklahoma State University)*	(PhD)
2010 – 2013	David Haines *(Oklahoma State University)*	(PhD)
2010 – 2013	Blake Stevison *(Oklahoma State University)*	(MS)
2011 – 2013*	Medhavi Ambardar *(Oklahoma State University)*	(PhD)
2011 – 2013*	Matt Waselik *(Oklahoma State University)*	(MS)
2012 – 2013	Brandon Auer *(Oklahoma State University)*	(PhD)
2012 – 2014*	Chris Varnon *(Oklahoma State University)*	(PhD)
2012 – 2014	Tess Doumas *(Oklahoma State University)*	(MS)
2015**	Natasha Pettifor *(Cornell University, Animal Science)*	(PhD)
2014 – 2017**	Ryu Uchiyama *(Cornell University, Psychology)*	(PhD)
2015 – 2017	Gandalf Li *(Cornell University, Psychology)*	(PhD)
2015 – 2017	Juliana Arujo *(University of Lethbridge, Neuroscience)*	(PhD)
2015 – 2019	Steve Strycharz *(Cornell University, Psychology)*	(PhD)
2015 – 2020	Carmen Sanchez *(Cornell University, Psychology)*	(PhD)
2015 – 2020	Katerina Faust *(Cornell University, Psychology)*	(PhD)
2016 – 2020	Kacie Armstrong *(Cornell University, Psychology)*	(PhD)
2018 – Pres	Dev Subramanian *(Cornell University, Psychology)*	(PhD)
2018 – 2019**	David Katz *(Cornell University, Psychology)*	(PhD)
2018 – Pres	Tom Ryan *(Cornell University, EEB)*	(PhD)
2019 – Pres	Emma Murrugarra *(Cornell University, Human Development)*	(PhD)
2019 – Pres	Mary Elson *(Cornell University, Psychology)*	(PhD)
2020 – Pres	Enrique Basurto *(Autonomous University of Tlaxcala, Mexico)*	(PhD)
2022 – Pres	Madeleine Dwortz *(University of Texas, Neuroscience)*	(PhD)

D. External Examiner:

2017	Juliana Arujo *(University of Lethbridge, Neuroscience)*	(PhD)
2018	Cait Williamson *(Columbia University, Psychology)*	(PhD)

E. Undergraduate Students:

McMaster University (PhD), University of Memphis (Postdoc), University of Florida (Postdoc):

Listed are co-authors and/or students that have gone to post-graduate training.
***Of 13 mentees**: 8 women, 3 African American, 1 Native American.*

2000 – 2004	Nav Mangat	***Medical School (MD)***
2005 – 2006	**Quiana Wilkerson**	***Florida State Univ. (MS)***
2005 – 2006	Tiffany Rinaldi	***Univ. of Alabama (MS)***
2006 – 2007	Molly Philips	***Univ. of Manitoba (MS)***
2006 – 2007	**Shaineal Eans**	***Univ. of Florida (PhD)***
2005 – 2007	Da-Jiang Zheng	***Univ. of Texas (PhD)***
2005 – 2008	Stavros Moysidis	***Medical School (MD)***
2006 – 2008	**Kristen Hanna**	***Law School (LD)***
2007 – 2009	Steven Schrader	***Medical School (MD)***

Oklahoma State University:

Listed are co-authors and/or students that have gone to post-graduate training.

***Of 28 mentees**: 18 women, 1 African American, 4 Native American.*

2009 – 2010	Ana Gessel	***Texas A&M Univ. (DVM)***
2010 – 2011	Brita Larsson	***Oklahoma State Univ. (DVM)***
2011 – 2011	**Molly Franks**	OSU Zoology Major (2011)
2011 – 2012	Devin Carney	***Oklahoma State Univ. (DVM)***
2011 – 2012	Grace Sorochman	OSU Zoology Major (2012)
2011 – 2012	**Loma Pendergraft**	***Univ. of Washington (PhD)***
2011 – 2012	**Linsea Howard**	***Oklahoma State Univ. (DO)***
2012	Holly Wehde	***Oklahoma State Univ. (MS)***
2012	Tara Elliot	***Oklahoma State Univ. (MS)***
2012	Stephany James	***Univ. of Oklahoma (PA)***
2010 – 2013	Lauren Foley (*Honors*)	***Oklahoma State Univ. (DVM)***
2011 – 2013	Asad Rehman	***Oklahoma State Univ. (DO)***
2011 – 2013	Forrest Rogers	***University of Calif, Davis (PhD), Postdoc Princeton***
2012 – 2013	Leena Suppiah	***Tufts Univ. Vet Med, (MS)***
2012 – 2013	Kyle Thomas	OSU Physiology Major (2015)
2012 – 2013	**Josh Garner**	***Oklahoma State Univ. (MS)***

Cornell University:

*Listed are closely advised former students; **Of 86 mentees**: 86 women, 6 African American, 8 Latina/o, 2 SE Asian/Pacific Islander.*

2013 – 2015	Nicole Lee (*Honors*)	***Univ. Mass. / Smith College (PhD), Teaching Fellowship at Colgate Univ., Postdoc UC Berkeley***
2013 – 2015	**Jie Ong** (*Honors*)	***Queens University (PhD)***
2013 – 2015	Iris Sydney	Cornell NBB Major (2015)
2014 – 2015	**Kelly Wallace**	***Univ. of Texas (PhD), Postdoc Emory***
2014 – 2015	Eileen Chun	***Florida State Univ. (PhD)***
2014 – 2015	Juan (Jenny) Du	Cornell Animal Science Major (2015)
2014 – 2015	Jaclyn Frandolig	Cornell NBB Major (2015)
2014 – 2015	SooWon Jo	***Chungnam National Univ. (MD) & Univ. Chicago (MA, Social Sciences)***
2014 – 2015	Minghao (Steven) Li	Cornell Biological Sciences Major (2016)
2014 – 2015	Han Sol Park	***Emory Univ (MD)***
2014 – 2015	Emily Woodford	Cornell Psychology Major (2015)
2015	**David Luglio**	Cornell Biological Sciences (2018)
2014 – 2015	Kelsey Sheronas	Cornell Psychology Major (2016)
2015 – 2015	Weisi Chen	Continuing Ed / Exchange
2014 – 2015	Kasey Han	Cornell Biological Sciences Major (2018)
2014 – 2015	Patrick O'Neill	***NYU (PhD)***
2014 – 2016	Chang Kim	Cornell Psychology Major (2015)
2014 – 2016	Alyssa Phelps	***Boston Univ. School of Medicine (RA)***
2014 – 2016	Allison LaRocco	***Drexel Univ. (MD)***
2015 – 2016	Jeremy Pustilnik	Cornell Biological Sciences Major (2018)
2016	Alisha Heximer	***University of Michigan (MD)***
2015 – 2016	**Leticia Collado**	Cornell Animal Sciences Major (2017)
2015 – 2016	Attila Mendi	Continuing Ed / Exchange (2017)
2016	**Marcos Moreno**	*(Udall Scholar)* Cornell Human Development (2018)
2014 – 2017	Rachel Margariti	***NYU (DDS)***

2015 – 2017	Alex Saunders (*Honors*)	Cornell Psychology Major (2017)
2015 – 2017	Johnna Graham	***Univ. Wisconsin, Madison (DVM)***
2015 – 2017	Marissa L Rice	Cornell NBB Major (2017)
2015 – 2017	**Ebony Cadet**	Cornell Animal Sciences Major (2017)
2016 – 2017	Jintana Cunningham	Cornell Biology & Society Major (2017)
2016 – 2017	Jeanne Powell (*Honors*)	***NIH IRTA Fellow, Emory Univ. (PhD)***
2016 – 2017	**Luis Restrepo**	Cornell Engineering Major (2017)
2016 – 2017	Rachel Gardner	Cornell Psychology Major (2017)
2016 – 2017	Sarah Wright	Cornell Animal Sciences Major (2018)
2017	Danielle Li	Cornell Human Biology Major (2018)
2017	Deepthi John	Cornell Biological Sciences Major (2018)
2014 – 2018	**Sydney Galindez**	***Tulane Univ. School of Medicine (MD)***
2016 – 2018	Isabelle Hashim	Cornell Biology & Society Major (2018)
2016 – 2018	Janet Wang	Cornell Psychology Major (2018)
2016 – 2018	Kelly Pellegrino	Cornell Biological Sciences Major (2018)
2017	**Calvin Sowah**	Cornell Biological Sciences Major (2020)
2016 – 2018	Allison Nolan	Cornell Biology & Society Major (2018)
2017 – 2018	Kara Abbott	Cornell Animal Sciences Major (2019)
2017 – 2018	Elaine Caceres	Cornell Animal Sciences Major (2019)
2017 – 2018	Marissa Ritchie	Cornell Animal Sciences Major (2019)
2017	Sara Glickman	Cornell Nutritional Sciences Major (2019)
2017 – 2018	Josh Roman	Cornell Psychology Major (2019)
2017 – 2018	Alice Zhao	Cornell Biological Sciences (2020)
2018	Emily MacArthur	Cornell VetMed DMV Student
2016 – 2019	**Vanessa Lazaro**	***University of Chicago (PhD)***
2017 – 2019	Helen Kwon	***Lewis Katz School of Medicine (MD)***
2018	Oscar Liu	Cornell Biological Sciences Major (2022)
2018 – 2019	Lauren Prisco	Cornell Biological Sciences Major (2019)
2018 – 2019	Rachel Zheng	***Stanford University (MS), & University of Wisconsin (DVM)***
2018 – 2019	Joanne Li	Cornell Biology & Society (2019)
2018 – 2019	**Gogoate Lemea**	Enrolled (Biological Sciences, 2021)
2018 – 2019	Winston Lee	Enrolled (Economics, 2020)
2019	Victoria Schneller	Cornell Psychology Major (2019 Fall)
2017 – 2020	**Samanta Arenas**	***Medical Scribe***
2017 – 2020	Rebecca Horowitz	Cornell Psychology Major (2020)
2017 – 2020	Mandy Chan *(Honors)*	Cornell Biological Sciences Major (2020)
2018 – 2020	Pooja Patel *(Honors)*	***Tufts University (MS)***
2018 – 2020	Gavin Wong	***University of Virginia (LD)***
2018 – 2020	Beverly Lo (*Honors)*	***California Northstate University (MD)***
2018 – 2020	Sara O'Malley	***Duke University (MS)***
2019 – 2020	Jackie Berman	Cornell Biological Sciences Major (2020)
2019 – 2020	Mary Slavinsky	Cornell Biological Sciences Major (2020)
2019 – 2020	Molly Smullen	Cornell Biological Sciences Major (2020)
2019 – 2020	Zach Bates	Cornell Biological Sciences Major (2020)
2019 – 2020	**Pedro Guicardi**	Cornell Biological Sciences Major (2020)
2019 – 2020	**Abigail Galvez**	*(McNair Scholar)* Cornell Biological Sciences Major (2020, Fall)
2018 – 2021	Shalini Gundamraj *(Honors)*	Cornell Biology & Society (2021)
2019 – 2021	**Alexandra Chaves**	Cornell Biological Sciences (2021)
2020 – 2021	Lucy Huang	Cornell Biological Sciences (2022)

2019 – Pres	Ashley Park	Cornell Psychology, & Biol Sci (2022)
2019 – Pres	Nicole Sullivan	Cornell Biology & Society (2021)
2019 – Pres	Johanna Bergstrom *(Honors)*	***NIH IRTA Fellow***
2020 – Pres	**Bianca Beckwith**	Cornell Biological Sciences (2022)
2020 – Pres	Travis Covitz (*Honors*)	Cornell Animal Sciences (2022)
2021 – 2022	Rachel Katz	Cornell Biological Sciences (2022)
2020 – Pres	Amit Hanadari-Levy	Cornell Biological Sciences (2023)
2020 – Pres	Joanna Moon	Cornell Biological Sciences (2023)
2021 – Pres	Sydney Liu	Cornell Biology & Society (2023)
2021 – Pres	Krinal Thakkar	Cornell Psychology (2023)
2021 – Pres	Katlyn Loder	Enrolled (Undeclared, 2023)
2021 – Pres	**Ben Dever-Mendenhall**	Enrolled (Undeclared, 2024)
2021 – Pres	Tram Huynh	Enrolled (Undeclared, 2024)
2022 – Pres	Rayan Islam	Enrolled (Undeclared, 2024)
2022 – Pres	**Kaycee Lopez**	Enrolled (Undeclared, 2024)

Summer Undergraduate Research Projects:

2019-2020 Aiste Gircyte — Newcastle University
Funding: Newcastle University, United Kingdom.
Program: *100,000 Strong - CienciAmerica*.

2019 Joshua Jolton — University of Nebraska
Summer Volunteer

2017 Ruben de Klerk — Amsterdam University College
Funding: Amsterdam University College.
Program: *AUC Internship Program*.

2016 **Luisa Alejandra Diaz Arias** — Universidad de Los Andes
Funding: Universidad de Los Andes, Colombia.
Program: *100,000 Strong - CienciAmerica*.

2015 **Nathalie Agudelo Duenas** — Universidad de Los Andes
Funding: Universidad de Los Andes, Colombia.
Program: *100,000 Strong - CienciAmerica*.

2014 **Jenifer Trejo Guerra** — Universidad Panamericana
Funding: Mexican Ministry of Education / Fulbright Mexico.
Program: *100,000 Strong - CienciAmerica*.

2013 Lauren Hobbs — Univ. of Massachusetts, Amherst
Funding: NSF / Oklahoma State University REU.
Program: *Biological Basis of Human and Animal Behavior*.

2013 Erin Rogers — Oklahoma State University
Funding: NIH / Oklahoma State University ($350)
Program: *Veterinary Medicine Summer Research Training Program.*

2012 **Gloria Sanin** — Georgia State University
Funding: NSF / Oklahoma State University REU.
Program: *Biological Basis of Human and Animal Behavior*.

2012 Brittany Evans — Oklahoma State University
Funding: NIH / Oklahoma State University ($350)
Program: *Veterinary Medicine Summer Research Training Program.*

2012 Sarah West University of Minnesota
Summer Volunteer

2011 Mino Aketa Northeastern State University
Funding: NIH / Univ of Oklahoma Health Sciences Center. ($2,200)
Program: *IDeA Network of Biomedical Research Excellence (INBRE) Summer Research Program*.

2011 Marjie Lam Princeton University
Funding: NSF / Oklahoma State University REU.
Program: *Biological Basis of Human and Animal Behavior*.

2011 **Brittany Stoutermire** Langston University
Funding: NSF / Langston University HBCU-UP implemented project.
Program: *Langston's Integrated Network College (LINC)*.

High School Student Mentoring:

2019 Aumena Choudhry; Thomas Jefferson High School (VA)

2018 Montserrat Cubilla; Paraguay

2018 Emily Mao; Hong Kong international School

2018 Stephanie Krin; Livingston High School (***Cornell Univ. Summer College***)

2016 Hallie Malina; Ithaca High School

2016 Ruth Witmer; Ithaca High School (***New Visions Program***)
http://tstboces.org/career-and-technical-education/new-visions/life-sciences-program/

Professional Associations:

2021 – Pres American Psychological Association (APA)
2010 – Pres Society for Social Neuroscience (S4SN)
2006 – Pres Society for Neuroscience (SfN)
2006 – Pres Society for Behavioral Neuroendocrinology (SBN)
2006 – 2010 J.B. Johnston Club (JBJC)
1999 – Pres Animal Behavior Society (ABS)
1997 – 2008 Society for Integrative and Comparative Biology (SICB)

Service:

A. To the Academic Community:

Editing:

2018 – Pres Associate Editor: *Behavioral Ecology and Sociobiology* (Springer)
2017 – 2020 Associate Editor: *Royal Society Open Science*
2013 – 2020 Review Editor: *Frontiers in Ecology and Evolution*
2012 – 2019 Ethics Editor & Editorial Board Member: *Animal Behaviour* (Elsevier)
2010 – 2017 Associate Editor: *Acta Ethologica* (Springer)

Grant Review:

2020 NIH *Study Section Member*: ZRG1 F02A-K (20) L
2020 NIH *Study Section Member*: ZRG1 BBBP-Y (50)
2018 NIH *Study Section Member*: ZRG1 BBBP-B 91

2013 – 2017 NIH *Study Section Member*: Biobehav Regulation, Learning & Ethology
2015 NSF *Pre-Proposal panel*: IOS, Neural Systems Cluster
2015 NSF *DDIG panel*: IOS, Behavioral Systems Cluster
2011 NIH *Early Career Reviewer Program,* BRLE Study Section Member

Other service:

2022 – 2025 Committee on Animal Research & Ethics: American Psychological Assoc
2012 – 2019 Animal Care Committee Chair: Animal Behavior Society
2005 – 2012 Animal Behavior Society: Animal Care Committee
2006 Moderator: Society for Integrative and Comparative Biology
2004 Organizational and Technical Volunteer: 65th Annual Meeting of the Association of Southern Biologists (ASB)
2002 Advertising and Publicity Committee Chair: Ontario Ecology and Ethology Colloquium (OEEC)

B. To the University & Department:

2021 – 2022 Cornell Univ, Search Committee: Director of the Center for Animal Resources and Education and Attending Veterinarian
2021 – Pres Faculty Mentor: Squirrel Watching Club, Cornell University
2019 – 2021 Cornell Univ, Dept of Psychology Super-Department Implementation Committee
2018 – 2021 Cornell Psychology, Director of Student Engagement
2018 – Pres Cornell Psychology, Diversity, Inclusion, and Equity Committee
2018 – 2020 Co-Director: Cornell Psychology, Colloquium Committee
2016 – Pres Faculty Mentor: Psi Chi International Honors Society in Psychology, Cornell University
2016 – 2022 Faculty Mentor: Bread Club, Cornell University
2017 – 2020 Cornell Psychology, Technology & Computing Committee
2016 Undergraduate Neuroscience Webpage Committee
2014 – 2018 Cornell Psychology, Graduate Executive Committee
2014 – 2016 Cornell Psychology, Majors Approval Committee
2014 Cornell Psychology, Diversity Committee
2013 – 2016 Co-Director: Psychology Honors Program, Cornell University
2012 – 2013 OSU Zoology, Seminar Committee
2011 – 2013 OSU Pre-Health Advisory Committee
2011 – 2013 OSU IACUC Committee, Alternate
2010 – 2013 Director: Non-Centralized Animal Care Unit, Dept. Zoology, OSU
2010 – 2013 Public Health Student Organization, Faculty Sponsor, OSU
2009 – 2012 OSU Zoology, Graduate Committee
2009 – 2010 OSU IACUC Committee
2001 – 2003 Senior Graduate Student Departmental Representative: McMaster University, Dept. of Psychology, Neuroscience & Behaviour

2001	Department Chair Selection Committee - Graduate Student Committee Member; McMaster University, Dept. of Psychology, Neuroscience & Behaviour
2000	In-House Conference Organizational Committee: McMaster University, Dept. of Psychology, Neuroscience & Behaviour

C. A*d Hoc* Reviewer:

Grants: Department of Defense (US Army Research Office); Leakey Foundation; National Geographic; National Institutes of Health (NIH); NIH Director's Early Independence Award (DP5); National Science Foundation; Natural Sciences and Engineering Research Council of Canada (NSERC).

Journals: ACS Chemical Neuroscience; Acta Ethologica; Acta Theriologica Sinica; Aggressive Behavior; Alcohol and Alcoholism; American Journal of Primatology; Animal Behaviour; Animal Biology; Behavioral and Brain Sciences; Behavioral Brain Research; Behavioral Ecology; Behavioral Ecology & Sociobiology; Behaviour; Behavioural Processes; Bioacoustics; Biological Journal of the Linnean Society; Biological Psychiatry; Biology Letters; Brain Research; Brain Structure & Function; Brain Behavior & Evolution; Current Opinion in Physiology; Current Research in Psychology; Current Biology; Current Zoology; Environmental Epigenetics; Ethology; Evolution & Human Behavior; Frontiers in Behavioral Neuroscience; Frontiers in Ecology and Evolution; Frontiers in Endocrinology; Frontiers in Psychology; Frontiers in Public Health; Hormones & Behavior; Integrative and Comparative Biology; Integrative Zoology; Journal of Canadian Zoology; Journal of Comparative Psychology; Journal of Comparative Physiology A; Journal of Psychology; Journal of Ethology; Journal of Experimental Biology; Journal of Mammalogy; Neuropsychopharmacology; Neuroscience; Neuroscience & Biobehavioral Reviews; Notheastern Naturalist; NW Journal of Zoology; Oecologia; Oikos; PeerJ; Philosophical Transactions of the Royal Society; Physiology & Behavior; PLoS; PNAS; Proceeding of the Royal Society B; Psychoneuroendocrinology; Science - Translational Medicine; Scientific Reports; Social Neuroscience; Translational Psychiatry; Trends in Ecology and Evolution.

Mentoring Programs:

*(^{O}Funds to Ophir; *Funds to PI; † Funds to Students)*

2021	Department of Psychology SURF Research Grant. *Student*: ***Ashley Park***, Cornell Univ.	***($3,000)†***
2021	Department of Psychology SURF Research Grant. *Student*: ***Travis Covitz***, Cornell Univ.	***($3,000)†***
2020	Department of Psychology SURF Research Grant. *Student*: ***Pooja Patel***, Cornell Univ.	***($3,000)†***
2020	Department of Psychology SURF Research Grant. *Student*: ***Gavin Wong***, Cornell Univ.	***($3,000)†***
2016	Tanner Dean's Scholars Research Grant. *Student*: ***Jeanne Powell***, Cornell Univ.	***($3,000)†***
2015-2016	DoD/AEOP Undergraduate Research Apprenticeship Program. *Student*: ***Ebony Cadet***, Cornell Univ.	***($4,860)$^{O}***
2015-2016	DoD/AEOP Undergraduate Research Apprenticeship Program.	***($4,860)$^{O}***

Student: ***Leticia Collado***, Cornell Univ.

2012–2013 OSU Niblack Research Scholar. ***($10,100)†***
Student: ***Forrest Rogers***, Oklahoma State Univ.

2012–2013 OSU Niblack Research Scholar. (Mentor: Ophir). ***($10,100)†***
Student: ***Lauren Foley***, Oklahoma State Univ.

2012–2013 OSU Wentz Research Scholar. (Mentor: Ophir). ***($4,500)†***
Title: Who and where are the people in your neighborhood: Developmental effects of socio-spatial memory in prairie voles.
Student: ***Lauren Foley***, Oklahoma State Univ. (*Awarded, but Declined*)

2011–2014 NSF/ REU (PI: Kennison, Listed Mentor: Ophir) ***($346,237)****
Title: The Biological Basis of Human & Animal Behavior.
http://psychology.okstate.edu/faculty/kennison/osunsfreu.htm

2011–2016 NSF / URM (PI: Baum; Listed Participant: Ophir) ***($779,996)****
Title: Preparing Biologists through Stewardship, Professionalism & Practice.
Student: ***Josh Garner***, Oklahoma State Univ.

2011 NIH / Univ of Oklahoma Health Sciences Center ***($2,200)°***
IDeA Network of Biomedical Research Excellence (INBRE) Summer Research Program.
Student: ***Mino Aketa***, Northeastern State Univ.

2011–2012 OSU Wentz Research Scholar. ***($4,500)†***
Title: Who are the people in your neighborhood? Social recognition, spatial context and monogamy.
Student: ***Lauren Foley***, Oklahoma State Univ.

2009–2010 OSU Wentz Research Scholar. ***($4,500)†***
Title: The role of vasopressin in male aspects of mammal monogamy.
Student: ***Ana Gessel***, Oklahoma State Univ.

Lab Outreach:

*(Supervised Postdoc/Graduate = * and Undergraduates = †)*

A. Lectures & Talks:

Ophir AG (2021). Lab Tours. Freshman Seminar Series. *Biology Scholars Program.* March 17, 2021.

Ophir AG (2020) Invited Scientist. *Neuroscience REU at FAU*. July 9, 2020.

Freeman AR* (2019). Weird Science: Accidental discoveries in animal behavior. Science on Tap Lecture Series, Ithaca, NY. June 26, 2019.

Ophir AG (2017) **Invited Lecture.** Science is a wonderful thing. Animal Behavior Society Diversity Committee Undergraduate Luncheon and Reception. *University of Toronto at Scarborough*, Toronto, ON, CANADA. June 13, 2017

Ophir AG (2016) **Invited Lecture.** *What's love got to do with it?: Lessons on love and bonding from prairie voles*. *Alice Cook House, House Fellow Seminar Series*. October 12, 2016. Ithaca, NY.

Ophir AG (2016) **Invited Lecture.** Why go to Graduate School (at Cornell). Animal Behavior

Society Diversity Committee Undergraduate Luncheon and Reception. *University of Missouri*, Columbia, MO. August 1, 2016

Rice MA* (2015) Applying for Fellowship/Cornell Database Fellowship. *McNair Scholars Summer Research Program*. Aug 5, 2015 Ithaca, NY. (I spent a majority of the talk speaking with students and advising how to apply for the NSF GRFP).

Ophir AG (2015) **Invited Lecture.** What's love got to do with it?: The myths and mysteries of the monogamous prairie vole. *American Association for Laboratory Animal Science (AALAS), Upstate New York Branch (UNYB) meeting*. March 18, 2015. Syracuse, NY.

Ophir AG (2013) **Invited Lecture.** Cowboys & Behavior: Why you should consider Graduate School. Animal Behavior Society Diversity Committee Undergraduate Luncheon and Reception. *University of Colorado*, Boulder, CO. July 29, 2013

Ophir AG (2013) **Invited Lecture.** What's love got to do with it? Talk given to undergraduates participating in the NSF-REU Program "Biological Basis of Human and Animal Behavior". *Oklahoma State University*, Stillwater, OK. June 11, 2013

Ophir AG (2012) **Invited Lecture.** What's love got to do with it? Talk given to undergraduates participating in the NSF-REU Program "Biological Basis of Human and Animal Behavior". *Oklahoma State University*, Stillwater, OK. June 27, 2012

Ophir AG (2012) **Invited Lecture.** Animal Behavior and Learning: How to teach a rat to sit. Mrs. Lisa Brooks' 5th Grade Class. *Sangre Elementary School*, Stillwater, OK. January 20, 2012

Ophir AG (2011) **Invited Lecture.** Cowboys & Behavior: The Biological Basis of Human and Animal Behavior REU Program. Invited talk for the NSF-REU Program at the Center for the Integrative Study of Animal Behavior (CISAB), "Data Blitz". *Indiana University*, Bloomington, IN. July 28, 2011

Ophir AG (2011) **Invited Lecture.** Why study animal behavior? Invited talk for the Oklahoma 4-H Youth Teen Leaders. 4-H Companion Animal Programs, *Oklahoma State University*, Stillwater, OK. July 14, 2011

Ophir AG (2011) **Invited Lecture.** What's love got to do with it? Talk given to undergraduates participating in the NSF-REU Program "Biological Basis of Human and Animal Behavior". *Oklahoma State University*, Stillwater, OK. July 20, 2011

Ophir AG (2011) **Invited Lecture.** On love, fidelity and spatial memory. PSYCH 2593 Human Sexuality, February 11, 2011. *Oklahoma State University*, Stillwater OK.

Ophir AG (2010) **Invited Lecture.** Perspectives in neuroscience: Mechanisms of social behavior. Oklahoma State University Neurology Club, April 1, 2010. *Oklahoma State University*, Stillwater OK.

Ophir AG (2009) **Invited Lecture.** Love, Sex and Reproductive Decisions. Tri-Beta Honors Society. Feb. 19, 2009. *Oklahoma State University*. Stillwater, OK.

B. Programs & Other Lab Activities:

Learning it, doing it, living it: Realization of how developmental environments impact lives through animal behavior research, supported by Engaged Cornell. *[Ophir]*

This on-going effort fosters an awareness of research on the impacts of early-life experience on development. We integrate undergraduate students into a community engagement project, by training and preparing them to lead outreach activities that we designed. We partner with Urban 4H to reach a sizable population of grade-school

children that are Burmese refuges living in Ithaca Neighborhood Housing Services to excite them about developmental research and animal behavior. The K-12 students participate in weekly guided discussions and perform experiments with invertebrates.

CV & Resume workshop, hosted by Psi Chi International Honors Society. *[Ophir]*

I regularly host a formal discussion and workshop on how to build and improve a CV or resume for the Psi Chi International Honors Society in Psychology at Cornell. The workshop discusses the difference between a CV and resume, the key elements that go into each, and how these documents should evolve and develop as professional goals and accomplishments progress or change. This 90 min workshop ends with an extended Q&A and troubleshooting session to help students create and improve existing CV/resumes. *(Spring 2016, Fall 2017, Spring 2018, Fall 2018, Fall 2019)*

Cornell Undergraduate Research Board (CURB) Spring Dinner Series. *[Ophir]*

Sociology & Psychology Dinner. The Dinner Series is a program that aims to introduce freshmen and sophomores to research opportunities on campus by allowing them to interact with professors in a casual dinner setting. I participated in the dinner centered around Sociology and Psychology research on campus, and discussed research in Integrative Neuroethology. May 3, 2018.

Alice Cook House (ACH) – 2016-2017 House Fellow *[Ophir]*

West Campus House System at Cornell is a living-learning community of upper level students, faculty, and community leaders gathered in a spirit of inquiry and active citizenship. House Fellows are an important part of that community and contribute to the "learning where you live" experience of ACH residents. Activities include varied interactions with residents, participating in Cook Community receptions and House dinner, and creating and participating in frequent events to discuss academic and professional pursuits, and personal interests. House Fellows also work with ACH staff to plan student program activities (ideally once a semester), and serve as a guest discussant in the ACH weekly seminar.

Graduate Student School Outreach Program (GRASSHOPR)

*PhD students and Postdocs from Ophir lab teach a mini-course on basic topics in neurobiology and animal behavior to students at a local elementary, with hands-on experiments and group activities repeatedly over the course of each semester. Teaching modules are proposed, and prepared if accepted in the preceding Fall. (**Hiura**: Spring 2016, **Finton**: Spring 2017, **Forero**: Spring 2019, **Sailer/Forero** Spring 2020, **Laser/Sailer/Forero** Spring 2021, Spring 2022)*

Cornell Elderly Partnership (CEP) (monthly, 2015-2016) ***[Hiura]***

The CEP transports students to elderly homes around Ithaca on a weekly basis, and fosters relationships and community between the elderly and Cornell students. Lisa Hiura (PhD student from Ophir lab) joins them monthly to discuss behavioral neuroscience.

Expanding Your Horizons (EYH) program (annually)

*EYH is a one-day conference for 7th-9th grade girls. The girls participate in short workshops throughout the day to stimulate interest in math and science through hands-on activities. The EYH program provides the girls with female scientist role models, and fosters awareness of opportunities in math and science-related careers. Several female members of the lab help organize the Neuroscience workshop (Brains!) for the Psychology Dept., and lead the girls in sheep brain dissections. [Lab Participants/Leaders: **Sailer, Finton, Hiura, Kelly, Rice, & Lee**]*

NSF GRF Scholars Panel (annually) ***[Rice]***

Marissa Rice (PhD Student) is a member of a group of GRFP fellows that host information sessions every fall on how to apply for the GRF. The panel shares excerpts from their essays that highlight different ways to address broader impacts and intellectual merit.

McNair Scholars Program. (annually) ***[Rice]***

Marissa Rice (PhD Student) has been involved as a mentor since Fall 2013. She attends monthly meetings and meets with students one-on-one as needed or when requested. She functions as a resource and provides advice/counsel to McNair scholars as they navigate undergraduate research, balancing coursework, and applying to graduate programs.

Tech Savvy program hosted by American Association for University Women (AAUW) of Virginia Beach. (annually) ***[Rice]***

Tech Savvy is a conference to encourage middle school girls in STEM careers. Marissa Rice (PhD Student) participates annually in this program, which invites women practicing or pursuing STEM careers and/or women dedicated to middle school girls' STEM education. Presenters introduce middle school girls to STEM through engaging and hands-on workshops in their field of expertise. Presenters also inform and encourage parents/guardians to support their daughters to stay pursue careers in STEM, specifically as women scientists. Parent/guardians participate in sessions addressing how to support their girls' interest in STEM.

In Marissa's workshop for girls, called BRAAAAAAAINS!, she discusses behavioral neuroscience by demonstrating a sample of the behavioral experiments we do in the lab, and has the participants re-create them using fun interactive games. Her adult workshop is called Exploration, Discovery, and Exposure. In this talk she explains how she got interested in STEM and how parents/guardians can best encourage and provide opportunities for their daughters to excel in STEM fields. Because Marissa is originally from Virginia Beach, she also gives a joint talk with her mother called How to Support your Daughter in STEM.

Army Educational Outreach Program (AEOP) Undergraduate Research Apprenticeship Program (URAP)

The URAP provides opportunities for STEM apprenticeship of promising undergraduate students to work in a structured research environment under the direction of ARO sponsored principal investigators (PIs) serving as mentors. URAP program goals are to: Provide authentic science and engineering research experience to undergraduate students, Educate students about the Army's interest and investment in science and engineering research and the associated educational opportunities available to students through the Army Educational Outreach Program (AEOP) and Department of Defense Graduate Fellowships, Provide participants with experience in developing and presenting scientific research, Benefit from the expertise of a scientist or engineer as a mentor for professional and academic development purposes, and Develop students' skills and background to prepare them for competitive entry to science and engineering education programs and careers. **2015-2016** ***[Ophir & Lee], 2019 [Ophir & Freeman]***

Sangre Elementary School Outdoor Day (annually through 2013)**.** ***[Ophir & Lee]***

Lab members play show and tell with a brief discussion of rodent behavior and diversity, followed by question and answer session. Next we allow students to observe and interact with African giant pouched rats. Finally students compose poems based

on what they learned. This event is an annual all-day event where several (grade K-5) classes are rotated from learning station to learning station.

National Lab Day (annually through 2013). ***[Ophir, Zheng, Rice]***

Lab members introduce high school students from across Oklahoma to behavioral neuroscience in a module called A Brief Introduction to Neuroscience. We begin with a short discussion about the brain and social behavior. Then we give students a chance to slice a portion of a rodent brain, observe live animals, and participate in Nissl staining. This event is an annual all-day event where up to three groups of 4-8 top students (grades 9-12) are rotated from lab to lab across OSU.

Upward Bound Summer Program. Oklahoma State University, In collaboration with Pawnee High School and Perkins High School. ***[Ophir, Zheng & Blocker]***

Lab members mentored a small group of two high school students daily for a week discussing experimental design, demonstrating lab techniques in behavior and neuroscience, and encouraging critical thought.

Graduate Preparation Outreach Program with Langston University (2010-2013) ***[Blocker]***

Established by Tomica Blocker (PhD student from Ophir lab), this ongoing collaborative program began in January 2010. The Ophir lab partners with Langston University (an HBCU) to mentor undergraduates from the Science, Technology, Engineering & Mathematics (STEM) fields in preparation for graduate careers. We schedule monthly meetings and talks at Langston University to prepare these students for professional careers.

Consultation:

2010 Expert in Rodent Behavior. DoD sponsored fact-finding mission: Evaluation of non-traditional animals used for explosives biodetection. July – Aug 2010. South Africa, Tanzania & Mozambique.

2012 – 2013 Expert in African Giant Pouched Rat Behavior and Husbandry. Provided support and advice on handling, husbandry and experimental design procedures for a DoD sponsored STTR research project between Barron Associates and University of Virginia. Dec 2012 – Aug 2013.

Public Interest:

The Science Show. Prairie voles a model for human love and attachment. Robyn Williams. Australian Broadcasting Corporation (ABC) Radio National. 25 May 2019.
https://www.abc.net.au/radionational/programs/scienceshow/prairie-voles-a-model-for-human-love-and-attachment/11147510#transcript

The Science Show. Pouched rats sniff for land mines and medical samples. Robyn Williams. Australian Broadcasting Corporation (ABC) Radio National. 18 May 2019.
https://www.abc.net.au/radionational/programs/scienceshow/pouched-rats-sniff-for-land-mines-and-medical-samples/11124508

Science News. *Forgetful male voles more likely to wander from mate*. Dec 14, 2015.
https://www.sciencenews.org/article/forgetful-male-voles-more-likely-wander-mate?tgt=nr

Science News. *What really changes when a male vole settles down*. Vol. 188, no. 8, 17 Oct 2015, p. 4.

National Geographic. When single male rodents settle down, they're changed forever. Rachel Becker. 3 September 2015.
http://news.nationalgeographic.com/2015/09/150903-prairie-voles-sex-love-animals-science/

NBC Channel 4 KFOR (OKC) local news. *Trust in a Bottle?* Sarah Stewart. 9 May 2011.
http://www.kfor.com/news/local/kfor-news-trust-in-bottle-story,0,2313798.story

Freedom 43 news. *OK Scientist studies how rodents could save soldier lives*. Sarah Stewart. 27 April 2011. http://www.kfor.com/kaut-rats-save-lives-explosives-story,0,4454568.story

AOLnews. *Army Eyes African Giant Rat as Bomb Detector*. Sharon Weinberger, 15 March 2011.

Tulsa World. *Oklahoma State rat research could save soldiers' lives*. Sara Plummer. In print & on-line: 21 March 2011.

CBS Channel 9 KWTV (OKC) and Channel 6 KOTV (Tulsa) local news. *OSU Researching Studying If Rats Can Sniff Out Bombs.* Adrianna Iwasinski, 7 March 2011. http://www.news9.com/global/story.asp?s=14191983

NewsOK.com (The Oklahoman). *OSU professor to study explosive-detecting rats*. Jennifer Palmer, 9 March 2011.

Scientific American. *Do all animals sound the same?* 60-Second Science (podcast). Karen Hopkin, 14 Jan. 2010.

Discovery Channel. Highlighted research from Gillooly & Ophir (2010, PRS) on *The Daily Planet*. CTV. Canada, Agincourt, ON. 6 Jan. 2010.

Science Daily. *From crickets to whales, animal calls have something in common*. 6 Jan. 2010. (Article also featured in over 50 news outlets, including US News & World Reports, Live Science, & YahooNews.com.)

Scientific American. *What can singing mice teach us about language? The complicated story of the FOXP2 gene.* Mary Bates, 7 July 2009.

Nature. *'Monogamous' vole in love-rat shock.* Vol. 451, 6 Feb 2008, p 617. doi:10.1038/451617a

BBC Wildlife. *Prairie vole is not so monogamous.* Paul Simons, Feb 2008.

The Observer. *Don't call them love rats. Virtuous voles turn out to be all too human.* Robin McKie, 10 Feb. 2008.

Science Daily. *Lusty voles, mindless of damage, mate like rabbits*. 2 Feb. 2008.

Science News. *Faithful voles have hidden infidelities.* Vol. 168, no. 9, 27 Aug 2005, p. 142.

Canadian Wildlife. *Quail females prefer losers.* Dave Butvill. Vol. 9 no. 5, Winter 2004, p. 44.

Science World. *Advice for the love & struck: think dating and the flood of emotions that come with courtship are reserved for humans? Think again.* Emily Costello, 12 Jan. 2004.

Quirks & Quarks. *Quail on Film*. CBC Radio. Canada, Toronto, ON. 27 Sept. 2003. To visit Quirks & Quarks and listen to the segment use the following URL: http://www.cbc.ca/quirks/archives/03-04/sep27.html

Science News. *Some female birds prefer losers*. Vol. 164, no. 5, 2 Aug. 2003, p. 78.

New Scientist. *Biggest not always the daddy in mating game*. Betsy Mason, 30 July 2003.

Reuters. Big, assertive guys don't always get the girls. London England: 30 July 2003. (Appearing in 12 or more languages in over 190 sources, e.g. **CNN.com, ABCnews.com, MSNBC.com, The Boston Globe).**

Globe and Mail. *Study uses avian 'porn' to expand bird science.* Jonathan Fowlie. Thursday, 13 February 2003, Page A7.

Discovery Channel. *Arousing visuals?* Daily Planet. CTV. Canada, Agincourt, ON. 20 Jan. 2003.