

CURRICULUM VITAE

Jefferson Archer Vaughan

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EDUCATION

1985	Ph.D.	Entomology	Virginia Polytechnic Institute & State University
1982	M.S.	Entomology	Virginia Polytechnic Institute & State University
1977	B.S.	Biology	Colorado State University

PROFESSIONAL EXPERIENCE

2012-Present	Professor.	Department of Biology, University of North Dakota, Grand Forks, ND
2004-2011	Associate Professor.	Department of Biology, University of North Dakota, Grand Forks, ND
2001-2004	Assistant Professor.	Department of Biology, University of North Dakota, Grand Forks, ND
2000-2001	Research Assistant Professor.	Department of Biology, University of North Dakota, Grand Forks, ND
1996-1999	Visiting Assistant Professor.	Department of Microbiology & Immunology, University of Maryland at Baltimore, Baltimore, MD
1996-1998	Visiting Scientist.	Virology Division, U.S. Army Medical Institute of Infectious Diseases, Fort Detrick, Frederick, MD
1995-1998	Research Associate.	Department of Molecular Microbiology & Immunology, Johns Hopkins School of Hygiene & Public Health, Baltimore, MD
1994-1996	Senior Fellow,	National Research Council, Diagnostic Systems Division, U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Frederick, MD
1990-1993	Research Associate,	Department of Molecular Microbiology & Immunology, Johns Hopkins School of Hygiene & Public Health, Baltimore, MD
1986-1989	Post-doctoral Fellow,	Department of Microbiology & Immunology, University of Maryland School of Medicine, Baltimore, MD
1982-1985	Ph.D. Graduate Research/Teaching Assistant,	Virginia Polytechnic Institute & State University
1979-1982	M.S. Graduate Research/Teaching Assistant,	Virginia Polytechnic Institute & State University

HONORS AND AWARDS

UND Foundation Thomas J. Clifford Faculty Achievement Award for Excellence in Research 2014
North Dakota Spirit Faculty Achievement Award 2013
UND SMHS Outstanding Block Instructor Award 2010, 2012
UND Faculty Star Award 2007
National Research Council Senior Fellowship 1994
Cunningham Dissertation Fellowship 1984

PUBLICATIONS

1. **Vaughan JA**, Hinson J, Andrews ES, Turell MJ. (2021) Pre-existing microfilarial infections of American Robins (Passeriformes: Turdidae) and Common Grackles (Passeriformes: Icteridae) have limited impact on enhancing dissemination of West Nile virus in *Culex pipiens* mosquitoes (Diptera: Culicidae). *J. Med. Entomol.* (in print).
2. Fecchio A, Bell JA, Bosholn M, **Vaughan JA**, Tkach VV, Lutz HL, Cueto VR, Gorosito CA, Gonzales-Acuna D, Stromlund C, Kvasager D, Comiche KGM, Kirchgatter K, Pinho JB, Berv J, Anciaes M, Fontana CS, Zyskowski K, Sampaio S, Dispoto JH, Galen SC, Weckstein JD, Clark NJ. 2019. An inverse latitudinal gradient in infection probability and phylogenetic diversity for *Leucocytozoon* blood parasites in New World birds. *J. Animal Ecol.* 89: 423-435.
3. Dreyer SM, D Leiva, M Magana, M. Pott, J. Kay, A. Cruz, NL Achee, JP Grieco, **Vaughan JA**. 2019. Fipronil and ivermectin treatment of cattle reduced the survival and ovarian development of field-collected *Anopheles albimanus* in a pilot trial conducted in northern Belize. *Malaria J.* 18: 296.
4. Dreyer SM, Morin KJ, **Vaughan JA**. 2018. Differential susceptibilities of *Anopheles albimanus* and *Anopheles stephensi* mosquitoes to ivermectin. *Malaria J.* 17: 148.
5. O'Donnell KL, Bixby MA, Morin KJ, Bradley DS, **Vaughan JA**. 2017. Potential of a northern population of *Aedes vexans* (Diptera: Culicidae) to transmit Zika virus. *J. Med. Entomol.* 54: 1354-1359.
6. **Vaughan JA**, Turell MJ. 2017. *Brugia malayi* microfilariae transport alphaviruses across the mosquito midgut. *PLoS ONE.* 12(2): e0172309.
7. Zollner G, Sattabongkot J, **Vaughan JA**, Kankaew P, Robert LL, Thimasarn K, Sithiprasasna R, Coleman RE. 2016. Longitudinal evaluation of malaria epidemiology in an isolated village in western Thailand: I. Study site and adult anophelines. *Southeast Asia J. Trop. Med. Pub. Health.* 47: 341-365.
8. Greiman SE, **Vaughan JA**, Elmahy R, Adisakwattana P, Van Ha N, Khalil A, Tkach VV. 2016. Real-time PCR detection and phylogenetic relationships of *Neorickettsia* spp. in digeneans from Egypt, Philippines, Thailand, Vietnam and the United States. *Parasitol. Int.* 66: 1003-1007.
9. Greiman SE, Rikihisa Y, Cain J, **Vaughan JA**, and Tkach VV. 2016. Germs within worms: localization of *Neorickettsia* sp. within life cycle stages of the digenean, *Plagiorchis elegans*. *Appl. Environ. Microbiol.* 82: 2356-2362.
10. **Vaughan JA** and MJ Turell. 2016. Connecting the dots: microfilariae, arboviruses and you. *Internat. Innov.* 22 Feb. 2016. (on-line; non-refereed). <http://www.internationalinnovation.com/connecting-dots-microfilariae-arboviruses/>
11. Greiman SE, Tkach M, **Vaughan JA**, and Tkach VV. 2015. Laboratory maintenance of the bacterial endosymbiont, *Neorickettsia* sp., through the life cycle of a digenean, *Plagiorchis elegans*. *Exp. Parasitol.* 157: 78-83.
12. Stone BL, Russart NM, Gaultney RA, Floden AM, **Vaughan JA**, and Brissette CA. 2014. The western progression of Lyme disease: infectious and non-clonal *Borrelia burgdorferi sensu lato* populations in eastern North Dakota. *Appl. Environ. Microbiol.* 81: 48-58.
13. M Russart NM, MW Dougherty, **JA Vaughan**. 2014. Survey of ticks (Acari: Ixodidae) and tick-borne pathogens in North Dakota. *J. Med. Entomol.* 51: 1087-1090.
14. Greiman SE, Tkach VV, and **Vaughan JA**. 2013. Transmission rates of the bacterial endosymbiont, *Neorickettsia risticii*, during the asexual reproduction phase of its digenean host, *Plagiorchis elegans*, within naturally infected lymnaeid snails. *Parasit. Vectors* 6: 303 (online journal, open access).
15. Tanabe K, Zollner G, **Vaughan JA**, Sattabongkot J, Khuntirat B, Honma H, Mita T, Tsuboi T, and Coleman R. 2013. *Plasmodium falciparum*: Genetic diversity and complexity of infections in an isolated village in western Thailand. *Parasitol. Internat.* 64: 260-266.
16. Mehus JO and **JA Vaughan**. 2013. Molecular identification of vertebrate and hemoparasite DNA within mosquito blood meals from eastern North Dakota. *Vector-Borne Zoon. Dis.* 13 (11): 818-824.
17. **Vaughan JA**, JO Mehus, CM Brewer, DL Kvasager, SL Bauer, JL Vaughan, HK Hassan, TR Unnasch, and JA Bell. 2012. Theoretical potential of passerine filariasis to enhance the enzootic transmission of West Nile virus. *J. Med. Entomol.* 49(6): 1430-1441.

18. Tkach VV, Schroeder JA, Greiman SE, and **JA Vaughan**. 2012. New genetic lineages, host associations and circulation pathways of *Neorickettsia* endosymbionts of digeneans. *Acta Parasitologica* 57(3): 285–292.
19. **Vaughan JA**, VV Tkach and SE Greiman. 2012. Neorickettsial endosymbionts of the Digenea: diversity, transmission and distribution. *Adv. Parasitol.* 79: 253-297.
20. McNulty SN, AS Mullin, **JA Vaughan**, VV Tkach, GJ Weil and PU Fischer. 2012. Comparing the mitochondrial genomes of *Wolbachia*-dependent and independent filarial nematode species. *BMC Genomics* 13: 145-154.
21. McNulty SN, K Fischer, JO Mehus, **JA Vaughan**, VV Tkach, GJ Weil, PU Fischer. 2012. Absence of *Wolbachia* endobacteria in *Chandlerella quiscalis*: an avian filarial parasite. *J. Parasitol.* 98: 382-387.
22. Noden BH, **JA Vaughan**, CB Pumpuni, and JC Beier. 2011. Mosquito ingestion of antibodies against mosquito midgut microbiota improves conversion of ookinetes to oocysts for *Plasmodium falciparum*, but not *P. yoelii*. *Parasit. Internat.* 60: 440-446.
23. **Vaughan JA**, DA Focks and MJ Turell. 2009. Simulation models examining the effect of Brugian filariasis on dengue epidemics. *Am. J. Trop. Med. Hyg.* 80: 44-50.
24. Tkach VV, SD Snyder and **JA Vaughan**. 2009. A new species of blood fluke (Digenea: Spirorchidae) from the Malayan box turtle, *Cuora ambionensis* (Cryptodira: Geomydidae) in Thailand. *J. Parasitol.* 95: 743-746.
25. Poudel SK, RA Newman and **JA Vaughan**. 2008. Rodent *Plasmodium*: Population dynamics of early sporogony within *Anopheles stephensi* mosquitoes. *J. Parasitol.* 94: 999-1008.
26. **Vaughan JA** 2008. West Nile fever. In: *Encyclopedia of Plagues, Pestilence and Pandemics*. Greenwood Press, USA. (non-refereed).
27. **Vaughan JA** 2007. Population dynamics of *Plasmodium* sporogony. *Trends Parasitol.* 23: 63-70.
28. **Vaughan JA**, JA Bell, MJ Turell and DD Chadee. 2007. Passage of ingested *Mansonella ozzardi* (Spirurida: Onchocercidae) microfilariae through the midgut of *Aedes aegypti* mosquitoes (Diptera: Culicidae). *J. Med. Entomol.* 44: 111-116.
29. Coleman RE, J Sattabongkot, S Promstaporm, N Maneechai, B Tippayachai, A Kengluetcha, N Rachapaew, G Zollner, RS Miller, **JA Vaughan**, K Thimasarn and B Khuntirat. 2006. Comparison of PCR and microscopy for the detection of asymptomatic malaria in a *Plasmodium falciparum/vivax* endemic area in Thailand. *Malaria J.* 5: 121-127.
30. Zollner GE, N Ponsa, GW Garman, S Poudel, JA Bell, J Sattabongkot, RE Coleman and **JA Vaughan**. 2006. Population dynamics of sporogony for *Plasmodium vivax* parasites from western Thailand developing within three species of colonized *Anopheles* mosquitoes. *Malaria J.* 5: 68-83.
31. Bell JA, CM Brewer, NJ Mickelson, GW Garman and **JA Vaughan**. 2006. West Nile virus epizootiology, central Red River valley, North Dakota and Minnesota, 2002-2005. *Emerg. Infect. Dis.* 12: 1245-1247.
32. Bell JA, NJ Mickelson, and **JA Vaughan**. 2005. West Nile virus in host-seeking mosquitoes within a residential neighborhood in Grand Forks, North Dakota. *Vector-Borne and Zoonotic Dis.* 5: 373-382.
33. Kuzmin Y, VV Tkach and **JA Vaughan** 2005 *Rhadias kongmongthaensis* sp. n. from *Polypedates leucomystax* (Amphibia, Anura, Rhacophoridae) in Thailand. *Folia Parasitologica* 52: 339-342.
34. Zollner GE, N Ponsa, RE Coleman, J Sattabongkot, and **JA Vaughan**. 2005. Efficacy of sampling techniques for determining absolute density of *Plasmodium vivax* ookinetes in *Anopheles dirus* mosquitoes. *J. Parasitol.* 91: 453-457.
35. **Vaughan, JA**, DE Sonenshine and AF Azad. 2002. Kinetics of ingested host immunoglobulin G in hemolymph and whole body homogenates during nymphal development of *Dermacentor variabilis* and *Ixodes scapularis* ticks (Acari: Ixodidae). *Exp. Appl. Acarol.* 27: 329-340.
36. Lal, A, PS Patterson, JB Sacci, **JA Vaughan**, C Paul, WE Collins, RA Wirtz, and AF Azad 2001. Anti-mosquito midgut antibodies block development of *Plasmodium falciparum* and *Plasmodium vivax* in multiple species of *Anopheles* mosquitoes and reduce vector fecundity and survivorship. *Proc. Nat. Acad. Sci.* 98: 5228-5233.
37. **Vaughan, JA**. 2000. Which routes do *Plasmodium* sporozoites use for successful infections of vertebrates? (Letter to the Editor - Author's Reply). *Infect. Immun.* 68: 3064-3065.
38. **Vaughan, JA**, M Trpis and MJ Turell 1999. *Brugia malayi* microfilariae enhance the infectivity of Venezuelan equine encephalitis virus to *Aedes* mosquitoes. *J. Med. Entomol.* 36:758-763.

39. **Vaughan, JA**, Scheller, LF, RA Wirtz and AF Azad 1999. Comparative infectivity of *Plasmodium berghei* sporozoites to mice when delivered by intravenous inoculation versus infectious mosquito bite: implications for sporozoite vaccine trials. *Infect. Immun.* 67: 4285-4289.
40. **Vaughan, JA**, RE Thomas, GE Silver, N Wisznewski and AF Azad 1998. Quantitation of cat immunoglobulins in the hemolymph of cat fleas after bloodfeeding. *J. Med. Entomol.* 35(4): 404-409.
41. **Vaughan, JA** and MJ Turell. 1996. Facilitation of Rift Valley fever virus transmission by *Plasmodium berghei* sporozoites in *Anopheles stephensi* mosquitoes. *Am. J. Trop. Med. Hyg.* 55: 407-409.
42. Jaworski DC, JA Higgins, S. Radulovic, **JA Vaughan**, and AF Azad. 1996. Presence of calreticulin in vector fleas (Siphonaptera). *J. Med. Entomol.* 33: 482-489.
43. **Vaughan, JA** and MJ Turell. 1996. Dual host infections: enhanced infectivity of eastern equine encephalitis virus to *Aedes* mosquitoes mediated by *Brugia* microfilariae. *Am. J. Trop. Med. Hyg.* 54: 105-109.
44. Noden, BH, CB Pumpuni, **JA Vaughan**, and JC Beier. 1995. Noninfectious sporozoites in the salivary glands of a minimally susceptible anopheline mosquito. *J. Parasitol.* 81: 912-915.
45. Noden BH, **JA Vaughan**, MS Ibrahim and JC Beier. 1994. An immunological factor which affects *Anopheles gambiae* survival. *J. Am. Mosquito Control Assoc.* 11: 45-49.
46. **Vaughan JA**, L Henley and JC Beier. 1994. Sporogonic development of *Plasmodium yoelii* in five anopheline mosquitoes. *J. Parasitol.* 80: 674-681.
47. Noden BH, PS Beadle, **JA Vaughan**, CB Pumpuni, MD Kent and JC Beier. 1994. *Plasmodium falciparum*: the population structure of mature gametocyte cultures has little effect on their innate fertility. *Acta Tropica* 58: 13-19.
48. **Vaughan JA**, BH Noden and JC Beier. 1994. Prior blood feeding effects on susceptibility of *Anopheles gambiae* (Diptera: Culicidae) to infection with cultured *Plasmodium falciparum* (Haemosporida: Plasmodiidae). *J. Med. Entomol.* 31: 445-449.
49. **Vaughan JA**, BH Noden and JC Beier. 1994. Sporogonic development of cultured *Plasmodium falciparum* in six species of laboratory-reared *Anopheles* mosquitoes. *Am. J. Trop. Med. Hyg.* 51: 233-243.
50. **Vaughan JA** and AF Azad. 1993. Patterns of erythrocyte digestion by bloodsucking insects: constraints on vector competence. *J. Med. Entomol.* 30: 214-216.
51. Beier JC, MS Beier, **JA Vaughan**, CB Pumpuni, JR Davis and BH Noden. 1992. Sporozoite transmission by *Anopheles freeborni* and *Anopheles gambiae* experimentally infected with *Plasmodium falciparum*. *J. Am. Mosquito Control Assoc.* 8: 1-5.
52. **Vaughan JA**, BH Noden and JC Beier. 1992. Population dynamics of *Plasmodium falciparum* sporogony in laboratory-infected *Anopheles gambiae*. *J. Parasitol.* 78: 716-724.
53. Beier JC, **JA Vaughan**, A Madani and BH Noden. 1992. *Plasmodium falciparum*: release of circumsporozoite protein by sporozoites in the mosquito vector. *Exp. Parasitol.* 75: 248-256.
54. Beier JC, RS Copeland, R Mtalib and **JA Vaughan**. 1992. Ookinete rates in afrotropical anopheline mosquitoes as a measure of human malaria infectiousness. *Am. J. Trop. Med. Hyg.* 47: 41-46.
55. **Vaughan JA**, D Narum and AF Azad. 1991. *Plasmodium berghei* ookinete densities in three anopheline species. *J. Parasitol.* 77: 758-761.
56. **Vaughan JA**, BH Noden and JC Beier. 1991. Concentration of human erythrocytes by anopheline mosquitoes during feeding (Diptera: Culicidae). *J. Med. Entomol.* 28: 780-786.
57. Beier JC, JR Davis, **JA Vaughan**, BH Noden and MS Beier. 1991. Quantitation of *Plasmodium falciparum* sporozoites transmitted in vitro by experimentally-infected *Anopheles gambiae* and *Anopheles stephensi*. *Am. J. Trop. Med. Hyg.* 44: 564-570.
58. **Vaughan JA** and AF Azad. 1990. Acquisition of murine typhus rickettsiae by fleas. *Ann. New York Acad. Sci.* 590: 70-75.
59. **Vaughan JA**, RA Wirtz, VE do Rosario and AF Azad. 1989. Quantitation of anti-sporozoite immunoglobulins in the hemolymph of *Anopheles stephensi* after bloodfeeding. *Am. J. Trop. Med. Hyg.* 42: 10-16.
60. **Vaughan JA**, AE Jerse and AF Azad. 1989. Rat leucocyte response to the bites of the Oriental rat flea, *Xenopsylla cheopis* (Siphonaptera: Pulicidae). *J. Med. Entomol.* 26: 449-453.

61. Ribeiro JMC, **JA Vaughan** and AF Azad. 1989. Characterization of the salivary apyrases of three rodent flea species. *Comp. Biochem. Physiol.* 95: 215-218.
62. **Vaughan JA** and EC Turner Jr. 1989. Diurnal microdistribution of immature *Culicoides variipennis* (Coq.)(Diptera: Ceratopogonidae) at Saltville, VA, USA. *J. Agric. Entomol.* 6: 175-182.
63. Azad AF, **JA Vaughan** and RA Wirtz. 1989. Host anti-parasite IgG: Transport across the gut epithelial lining, and its influence on the infectivity of arthropod vectors. *Proc. 2nd Symp. Host Regulated Developmental Mechanisms in Vector Arthropods.* pp. 163-170.
64. Rosario VE, A Appiah, **JA Vaughan** and MR Hollingdale. 1989. Administration of anti-sporozoite antibodies during sporogony induce *Plasmodium falciparum* sporozoites no longer neutralized by human immune CS vaccine sera. *Trans. Royal Soc. Trop. Med. Hyg.* 83: 305-307.
65. Rosario VE, **J Vaughan**, M Murphy, V Harrod and R Coleman. 1989. Effect of chloroquine on the sporogonic cycle of *Plasmodium falciparum* and *Plasmodium berghei* in anopheline mosquitoes. *Acta Leidensia* 57: 53-60.
66. Coleman RE, **JA Vaughan** and VE do Rosario. 1989. Effect of mefloquine and qinghaosu on the sporogonic cycle of *Plasmodium berghei* ANKA in *Anopheles stephensi* mosquitoes. *Acta Leidensia* 57: 61-74.
67. Rosario VE, **JA Vaughan** and RE Coleman. 1989. A model for analysis of the sporogonic development of *Plasmodium falciparum* and *Plasmodium berghei* in anopheline mosquitoes. *Parassitologia* 1: 103-113.
68. **Vaughan JA** and AF Azad. 1988. Passage of host immunoglobulin G from bloodmeal into hemolymph of selected mosquito species. *J. Med. Entomol.* 25: 472-474.
69. **Vaughan JA**, V Rosario, P Leland, A Adjepong, J Light, G Woollett, MR Hollingdale and AF Azad. 1988. *Plasmodium falciparum*: Ingested anti-sporozoite antibodies affect sporogony in *Anopheles stephensi* mosquitoes. *Exp. Parasitol.* 66: 171-182.
70. Despins JL, **JA Vaughan** and EC Turner Jr. 1988. Interspecific and intraspecific predation in the lesser mealworm, *Alphitobius diaperinus* (Coleoptera: Tenebrionidae). *Coleop. Bull.* 42: 211-216.
71. **Vaughan JA** and EC Turner Jr. 1987. Seasonal microdistribution of immature *Culicoides variipennis*(Coq.)(Diptera: Ceratopogonidae) at Saltville, Virginia. *J. Med. Entomol.* 24: 340-346.
72. **Vaughan JA** and EC Turner Jr. 1987. Development of immature *Culicoides variipennis* (Coq.)(Diptera: Ceratopogonidae) from Saltville, Virginia, at constant laboratory temperatures. *J. Med. Entomol.* 24: 390-395.
73. **Vaughan JA** and EC Turner Jr. 1985. Spatial distribution of immature *Culicoides variipennis* (Coq.). *Proc. Internat. Symp. on Bluetongue and Related Orbiviruses.* *Prog. Clin. Biol. Res.* 178: 213-219.
74. **Vaughan JA**, EC Turner Jr. and PL Ruszler. 1984. Infestation and damage of poultry house insulation by the lesser mealworm, *Alphitobius diaperinus* (Panzer). *Poultry Sci.* 63: 1094-1110.
75. **Vaughan JA** and EC Turner Jr. 1984. Residual and topical toxicity of various insecticides to the lesser mealworm, *Alphitobius diaperinus* (Panzer)(Coleoptera: Tenebrionidae). *J. Econ. Entomol.* 77: 216-220.
76. Beck AF, **JA Vaughan** and EC Turner Jr. 1983. Bay Vi-7533 insect growth regulator: effect on house fly emergence and caged layer egg production when administered in layer feed. *J. Georgia Entomol. Soc.* 18: 159-163.

INVITED RESEARCH PRESENTATIONS

- Title: Invasion of the Arboviruses. Altru Continuing Medical Education program, Altru Hospital, Grand Forks, ND, March 1, 2017. 45 minute oral presentation with question/answer session
- Title: Emergence of Lyme disease in North Dakota: where and how is it being sustained? Altru Continuing Medical Education program, Altru Hospital, Grand Forks, ND, 12 August 2015. 45 minute oral presentation with extended question/answer session.
- Title: Trouble across the border: Host-seeking mosquitoes in northeastern North Dakota. 70th Annual meeting . Entomological Society of Manitoba. 31 October – 1 November 2014. Invited speaker, 20 minute oral presentation..
- Title: Quit buggin' me: the skinny on insect repellents. Altru Continuing Medical Education program, Altru Hospital, Grand Forks, ND, 4 June 2014. 45 minute oral presentation with extended question/answer session.

- Title: Bug-bites: Step one in vector-borne pathogen transmission. Altru Continuing Medical Education program, Grand Forks, ND, 26 June 2013. Invited 40 minute oral presentation.
- Title: Worms and germs: perspectives from a medical entomologist. Altru Continuing Medical Education program, Grand Forks, ND, 6 June 2012. Invited 40 minute oral presentation.
- Title: Arthropod vectors and vector-borne diseases in North Dakota. Invited presentation to Grand Forks Rotary Club, Grand Forks, ND, 9 August 2011. Invited 15 minute oral presentation.
- Title: Arthropod vectors and vector-borne diseases in North Dakota. Altru Continuing Medical Education program, Grand Forks, ND, 18 May 2011. Invited 40 minute oral presentation.
- Title: What's buggin' you? Vector biology research at UND. President's Faculty Lecture Series. North Dakota Museum of Art. 9 September 2010. Invited 50 minute oral presentation.
- Title: Arthropod vectors and vector-borne disease within North Dakota: The role of research & development. The Red River Valley Research Corridor R & D Showcase. 29 September 2010. Invited 20 minute oral presentation.
- Title: The worms crawl in, the worms crawl out: a new paradigm for arbovirus transmission by mosquitoes. The University of Winnipeg Department of Biology, Winnipeg, CANADA, 26 March 2007.
- Title: Population dynamics of *Plasmodium* sporogony in *Anopheles* mosquitoes. Department of Biology, University of North Dakota, October 2006
- Title: Estimating the efficiency of *Plasmodium vivax* sporogony in western Thailand. Vivax Malaria Research: 2005 and Beyond. Rockville, MD, 9-10 December 2005
- Title: Neorickettsial endosymbionts of Digenea. 56th Annual Midwestern Conference of Parasitologists, Mankato, MN; 10-12 June 2004.
- Title: Mosquito research at the University of North Dakota. UND Chapter of Sigma Xi, November 2002.
- Title: Microfilarial enhancement of arboviral transmission. Yale University Epidemiology Division, New Haven, CT April 2002.
- Title: Antibodies directed against the mosquito midgut can block transmission of malaria. Vivax Malaria Research: 2002 and Beyond, Bangkok, THAILAND, February 2002
- Title: Malaria parasite development in mosquitoes: implications for malaria vaccines. Department of Biology, University of North Dakota, February 2001
- Title: Mosquito-borne parasites can facilitate transmission of mosquito-borne viruses Department of Entomology. North Dakota State University, November 2001.
- Title: Do parasites enhance mosquito transmission of viruses? Department of Biology, University of North Dakota, March 2000
- Title: Can mosquito-borne parasites enhance transmission of mosquito-borne viruses? Department of Microbiology & Immunology, University of Maryland at Baltimore, Baltimore MD May 1999
- Title: The effect of mosquito-borne parasites on the ability of mosquitoes to transmit arboviruses. Symposium at the Entomological Society of America, National meeting, Nashville, TN, Dec. 1997.
- Title: Fate of host blood components in bloodsucking insects: influence on pathogen receptivity. Department of Entomology, North Carolina State University, Raleigh, NC April 1997.
- Title: Passage of host IgG from bloodmeal to hemolymph: implications for vaccine design. Fourth International Symposium on Ectoparasites of Pets. Riverside, CA, April 1997.
- Title: Parasite enhancement of arboviral transmission by mosquitoes: a new paradigm. U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD Dec. 1995.
- Title: Microfilarial enhancement of arboviral transmission by mosquitoes. Vector Biology Forum, Johns Hopkins University. Baltimore, MD Feb. 1995.
- Title: Ecology of larval *Culicoides variipennis* at Saltville, VA. 26th Annual Biting Fly Workshop. Horsehead Wildlife Sanctuary, Easton, MD, June 1994.
- Title: Malaria: mosquito-parasite interactions. Tropical Medicine Dinner Club of Baltimore. April 1994.
- Title: Population dynamics of malarial sporogony. Universidade Nova de Lisboa, PORTUGAL. Nov. 1993.
- Title: Digestive physiology of bloodsucking insects and ticks: influence on vector competence. Universidade Nova de Lisboa, Lisbon, PORTUGAL. Nov. 1993.
- Title: Population dynamics of malarial parasites within mosquitoes. Department of Immunology & Infectious Diseases, Johns Hopkins University, Baltimore, MD Feb. 1993.

- Title: Bloodmeal processing by bloodsucking arthropods and its implications for vector competence. University of Maryland at College Park, Oct. 1992.
- Title: Development of malaria parasites in mosquitoes. Department of Entomology, Virginia Tech, Blacksburg VA March 1992.
- Title: *Plasmodium falciparum* sporogonic development in vectors: one in a million odds for success? Joint meeting of the Trop Med Dinner Club of Baltimore and the Helminthol Soc. of Wash.. Baltimore, MD April 1991.
- Title: Ingested anti-malarial antibodies can affect malaria development within the mosquito vector. Department of Entomology, Virginia Tech, Blacksburg VA Oct. 1988.
- Title: *Plasmodium falciparum* sporogonic development within the mosquito vector is affected by ingested anti-sporozoite antibodies. Department of Preventive Medicine, New York University, NY May 1987.

HISTORY OF EXTRAMURAL GRANTS & CONTRACTS

Title: *Novel application of isoxazoline veterinary drugs to streamline reservoir-targeted abatement of tick-borne zoonoses*

Source: National Institutes of Health 1R21 AI154045

Personnel: **Jefferson Vaughan, PI**

Award Period: 1 September 2020 – 31 August 2022

Title: *Endectocide use in livestock as a tool to help eliminate malaria in Central America*

Source: National Institutes of Health 1R21 AI119771

Personnel: **Jefferson Vaughan, PI**

Award Period: 5 March 2017 – 31 December 2019

Title: *Potential enhancement of Zika virus transmission by microfilarial nematodes*

Source: National Science Foundation RAPID award

Personnel: **Jefferson Vaughan, PI**

Award Period: 15 May 2016 – 30 April 2018

Title: *Passerine filariasis and West Nile virus transmission*

Source: National Institutes of Health 1 R21 AI105662

Personnel: **Jefferson Vaughan, PI**

Award Period: 1 April 2013 – 31 March 2017

Title: *Surveillance of ticks and tick-borne pathogens in eastern North Dakota*

Source: North Department of Health, Division of Disease Control

Personnel: Jefferson Vaughan, PI

Award Period: 15 May 2014 – 15 August 2014

Title: *Melatonin: pacemaker nocturnal periodicity of microfilarial parasites*

Source: National Institutes of Health 1R03 AI092306-01

Personnel: **Jefferson Vaughan, PI**

Award Period: 1 December 2010 – 30 November 2013

Title: *Zoonotic cycle and transmission dynamics of Neorickettsia*

Source: National Institutes of Health 1 R15 AI092622

Personnel: Vasyly Tkach, PI, **Jefferson Vaughan, Co-PI**

Award Period: 1 December 2010 – 30 November 2013

Title: *Mosquitocidal immunity in cattle to augment zooprophylaxis*

Source: Bill & Melinda Gates Foundation, Explorations II

Personnel: **JA Vaughan, PI**

Award Period: 5/1/ 2009 – 11/30/2010

Title: *Tick and tick-borne pathogens of North Dakota*
Source: North Dakota Game and Fish Department
Personnel: **JA Vaughan**, PI
Award Period: 5/15/2010 – 5/14/2011

Title: *Surveillance of ticks and tick-borne pathogens of North Dakota*
Source: North Dakota Department of Health
Personnel: **JA Vaughan**, PI
Award Period: 5/15/2010 – 12/31/2010

Title: *Mosquito Magnets: Concentric trapping test*
Source: Woodstream Products Inc.
Personnel: **JA Vaughan**, PI
Award Period: 07/09/2008 – 12/31/2008

Title: *Testing for West Nile virus-infected mosquitoes in Grand Forks*
Source: City of Grand Forks Public Health Department
Personnel: **JA Vaughan**, PI
Award Period: 7/5/06 – 9/5/06

Title: *Testing mosquitoes for West Nile virus in Grand Forks*
Source: City of Grand Forks Public Health Department
Personnel: **JA Vaughan**, PI
Award Period: 6/22/05 – 8/31/05

Title: *Microfilarial enhancement of dengue transmission*
Source: National Institutes of Health 1R01AI43678
Personnel: **JA Vaughan**, PI; Michael J. Turell and Dana Focks, Co-Investigators
Award Period: 04/01/01 - 03/30/04

Title: *Population dynamics of sporogony in Thailand*
Source: National Institutes of Health 1R01AI48813
Personnel: **JA Vaughan**, PI; Russell E. Coleman, MAJ US Army, Co-Investigator
Award Period: 09/01/01 - 08/31/05

UNIVERSITY GRANTS & AWARDS (INTRAMURAL)

Title: *Use of ivermectin in cattle to kill mosquitoes and eliminate malaria*
Source: UND Faculty Seed Money award
Personnel: **Jefferson Vaughan**, PI
Award Period: 15 May 2015 – 14 April 2016

Title: Graduate Student Bridge Award
Source: ND EPSCoR
Personnel: **Jefferson Vaughan**
Award Period: 4 April 2013 – 4 May 2013

Title: ND EPSCoR Small Award
Source: ND EPSCoR
Personnel: **Jefferson Vaughan** & Vasyl Tkach
Award Period: 23 February 2012

Title: ND EPSCoR Infrastructure Improvement Program EQUIPMENT grant
Source: ND EPSCoR
Personnel: **Jefferson Vaughan** & Vasyl Tkach
Award Period: 11 May 2012

Title: Faculty Travel Award
Source: UND Senate Scholarly Activities Committee
Personnel: **Jefferson Vaughan**
Award Period: 10 May 2012

Title: *Monitoring mosquito biting rates on roosting birds at night with use of infra-red cameras*
Source: UND Senate Scholarly Activities Committee
Personnel: **Jefferson Vaughan, PI**
Award Period 10/29/07 – 09/01/08

Title: *Xenomonitoring: Feasibility of using PCR technology to detect remnant bird parasite DNA in wild-caught mosquitoes*
Source: UND Department of Biology Research Committee Award
Personnel: **Jefferson Vaughan, PI**
Award Period: 11/21/07 – 11/22/09

Title: *Microfilaremic birds as amplifying hosts for West Nile virus transmission*
Source: UND Faculty Research Seed Money
Personnel: **Jefferson Vaughan, PI**
Award Period: 4/18/08 – 4/30/09

Title: Summer 2007 Graduate Research Professorship
Source: UND Graduate School
Personnel: **Jefferson Vaughan, PI**
Award Period: 05/18/07 – 07/13/07

Title: *Potential of filarial parasites of birds to enhance the infectivity of West Nile virus to mosquitoes*
Source: UND Biology Research Committee
Personnel: **JA Vaughan, PI**
Award Date: 4/28/06

Title: Vivax Malaria Research 2005 and Beyond
Source: UND Research Development and Compliance Travel Award (EPSCoR)
Personnel: **JA Vaughan**
Award Period: 11/07/05

Title: *Potential of avian filarial worms to enhance mosquito transmission of West Nile virus among birds in the northern Great Plains*
Source: UND Faculty Research Seed Money
Personnel: **JA Vaughan, PI**
Award Period: 7/01/04 – 06/30/05

Title: *Monitoring mosquito dispersal in Grand Forks, ND*
Source: New Faculty Scholar Award
Personnel: **JA Vaughan, PI**
Award: 03/25/2003 – 10/30/03

Title: Optical Microscopy Resource
Source: EPSCoR Infrastructure Improvement Program
Personnel: S Pyle, PI, P Meberg & **JA Vaughan**, Co-Investigator
Award: April 22, 2002

Title: *Impact of parasitism on the ecology, evolution and conservation of the Northern Great Plains vertebrate fauna*
Source: EPSCoR Research Networks for Enhancing Science and Technology (RNEST)
Personnel: I Schlosser PI, C Austin & **JA Vaughan**, Co-investigators
Award: 05/01/2002 – 04/30/05

TEACHING AND STUDENT MENTORSHIP

CLASSROOM TEACHING ACTIVITIES AT UNIVERSITY OF NORTH DAKOTA

- Course: “Parasitology” (BIOL 364, 2 credits, Spring, Fall 2001, Spring 2002, Fall 2002, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019). Role: Instructor
- Course: “Parasitology Laboratory” (BIOL 364L, 2 credits, Fall 2001, Spring 2002, Fall 2002, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019). Role: Instructor
- Course: “General Entomology” (BIOL 363, 4 credits, Fall 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018). Instructor
- Course: “Ecology & Evolution of Infectious Diseases” (BIOL 491/503, 1 credit, Fall 2011). Role: Co-instructor.
- Course: “Medically Important Arthropods” (BIOL 522 graduate level, 2 credits, Fall 2004, 2007) Role: Instructor
- Course: “Ecology of Wildlife Diseases” (BIOL 503/590 graduate level, 2 credits, Fall 2003). Role: Co-instructor.
- Course: “General Biology” (BIO 151, 3 credits, last half of semester, Spring 2002). Role: Instructor
- Lecture: “Medical Microbiology” (Block VIII, 2nd year medical students, Spring 2001-2016). Role: Deliver one 50 minute lecture (*Parasites of the skin*).

PRIOR CLASSROOM TEACHING EXPERIENCE AT OTHER INSTITUTIONS

- Course: “Vector Biology & Vector-borne Diseases” (Course # 260.650, graduate level, 3 units, Johns Hopkins School of Hygiene & Public Health, Spring 1998, 1999). Role: Co-Instructor
- Course: “Vector Biology Laboratory” (Course # 260.261, graduate level, 4 units, Johns Hopkins School of Hygiene & Public Health, Spring 1998). Role: Course Instructor
- Course: “Special Studies in Parasitology” (upper level undergraduate, University of Maryland at College Park, Spring 1997 & 1998). Role: Laboratory session (topic: filariasis).
- Course: “Medical Microbiology” (MMIC 520, 2nd year medical students, Univ. Maryland at Baltimore, Fall 1996 - 1998). Role: lecture & laboratory session (topic: vector-borne diseases).
- Course: “Vector Biology & Vector-borne Diseases” (graduate level, Johns Hopkins School of Hygiene & Public Health, Spring 1991-96. Role: 1-3 lectures (various topics)
- Course: “Malariaology” (graduate level, Johns Hopkins School of Hygiene & Public Health, Spring 1991 & 1992). Role: lecture (topic: plasmodial development in mosquitoes).
- Course: “Biological Basis of Public Health” (graduate level, Johns Hopkins School of Hygiene & Public Health, Fall 1990). Role: lecture (topic: malaria).

POST-DOCTORAL TRAINEES

Dr. Gabriel E. Zollner (2003 – 2006); stationed in Bangkok, THAILAND)

UNIVERSITY OF NORTH DAKOTA GRADUATE COMMITTEES

- Committee **Chair:** Kelsey Morin, candidate for Ph.D., University of North Dakota Department of Biology (2017 – present)
- Committee **Chair:** Staci Dryer, candidate for Ph.D., University of North Dakota Department of Biology (2014 – 2015 as M.S., bypassed to Ph.D. option in 2016)
- Committee **Chair:** Michael Dougherty, candidate for Master of Science, University of North Dakota Department of Biology (2012 – 2015; Graduated Summer 2015)
- Committee **Chair:** Chad Stromlund, candidate for Master of Science, University of North Dakota Department of Biology (2012 – 2015; Graduated Summer 2015)
- Committee **Chair:** Sarina Bauer, candidate for Master of Science, University of North Dakota Department of Biology (2011 – 2015; Graduated Summer 2015)
- Committee **Chair:** Danielle Kvasager, candidate for Master of Science, University of North Dakota Department of Biology (2009 – 2015; Graduated Winter 2015)
- Committee **Chair:** Joseph Mehus, candidate for Ph.D., University of North Dakota Department of Biology (2007 – 2013; Graduated Summer 2013)
- Committee **Chair:** Nathan Russart, candidate for Master of Science, University of North Dakota Department of Biology (2009 – 2013; Graduate Spring 2013)
- Committee **Chair:** Erika Olson, candidate for Master of Science (non-thesis), University of North Dakota Department of Biology (2007 – 2011; Graduated Winter 2011)
- Committee **Chair:** Jay Schroeder, candidate for Master of Science, University of North Dakota Department of Biology (2006 – 2009; Graduated Winter 2009)
- Committee **Chair:** Gabriel Garman, candidate for Master of Science, University of North Dakota Department of Biology (2002 – 2007; Graduated Spring 2007)
- Committee **Chair:** Shreekanta Poudel, candidate for Master of Science, University of North Dakota Department of Biology (2003 – 2006; Graduated Summer 2006)
- Committee **Chair:** Christina Brewer, candidate for Master of Science, University of North Dakota Department of Biology (2003 – 2006; Graduated Spring 2006)
- Committee Member: Tyler Achaz, candidate for Ph.D., University of North Dakota Department of Biology (2016 - present)
- Committee Member: Melissa Sisson, candidate for Ph.D., University of North Dakota Department of Biology (2016 - present)
- Committee Member: Kyle O'Donnell, candidate for Ph.D., University of North Dakota Department of Basic Sciences, UND School of Medicine & Health Sciences (2016-2018; Graduate Spring 2018).
- Committee Member: Travis Alvine, candidate for Ph.D., University of North Dakota Department of Basic Sciences, UND School of Medicine & Health Sciences (2014-2017; Graduated summer 2017).
- Committee Member: Jeffrey Bell, candidate for Ph.D., University of North Dakota Department of Biology (2012-2016; Graduated Spring 2016)
- Committee Member: Kaylyn Patitucci, candidate for Master of Science, University of North Dakota Department of Biology (2012-2015; Graduated Summer 2015)
- Committee Member: Melanie Firkins, candidate for Master of Science, University of North Dakota Department of Biology (2012-2015; Graduated Summer 2015)
- Committee Member: Susana Rios, candidate for Master of Science, University of North Dakota Department of Biology (2012-2015; Graduated Summer 2015)
- Committee Member: Steven Greiman, candidate for Ph.D., University of North Dakota Department of Biology (2011-2015; Graduated Spring 2015)
- Committee Member: Heidi Connahs, candidate for Ph.D., University of North Dakota Department of Biology (2011-2014; Graduated Spring 2014)
- Committee Member: Jake Mertes, candidate for Master of Science, University of North Dakota Department of Biology (2010-2012; withdrew)

Committee Member: Julia Beard, candidate for Master of Science, University of North Dakota Department of Biology (2011-2013; withdrew)

Committee Member: Matt Flom, candidate for Master of Science, University of North Dakota Department of Biology (2009-2011; Graduated Summer 2011)

Committee Member: Nirosha Ranawaka, candidate for Master of Science, University of North Dakota Department of Biology (2009-2011; Graduated Summer 2011)

Committee Member: Kyle Gustafson, candidate for Master of Science, University of North Dakota Department of Biology (2008-2010; Graduated Spring 2010)

Committee Member: Taylor Campbell, candidate for Master of Science, University of North Dakota Department of Biology (2008-2010; withdrew)

Committee Member: Janna Mabey, candidate for Master of Science, University of North Dakota Department of Biology (2008-2011; Graduated Spring 2011)

Committee Member: Sara Konschak, candidate for Master of Science, University of North Dakota Department of Microbiology and Immunology (2007 – 2009; Graduated Fall 2009)

Committee Member: Tom Henderson, candidate for Ph.D., University of North Dakota Department of Microbiology and Immunology (2004 – 2010; Graduated Summer 2010)

Committee Member: Ron Loggins, candidate for Ph.D., University of North Dakota Department of Biology (2003-2008; Graduated Fall 2008)

Committee Member: Sara Fischer, candidate for Master of Science, University of North Dakota Department of Biology (2003-2005; Graduated Fall 2005)

Committee Member: Matthew Hahn, candidate for Master of Science, University of North Dakota Department of Biology (2001 – 2002; Graduated Spring 2002)

Committee Member: Allison Poff, candidate for Master of Science, University of North Dakota Department of Biology (2001 – 2002; Graduated Spring 2002)

Committee Member: James Maskey, candidate for Ph.D., University of North Dakota Department of Biology (2004 – 2008; Graduated Spring 2008)

Committee Member: Anne M. Coyle, candidate for Ph.D., University of North Dakota Department of Biology (2003 – 2007; Graduated Spring 2008)

UNDERGRADUATE RESEARCH AND DIRECTED STUDIES (BIO 492 & 493).

Summer 2018, 2019. Dawn Cleveland, Mary Wesson, Jakson Mertens (mosquito and tick studies)

Summer 2016, 2017. Kelsey Morin, McKenzie Bixby (parasite studies)

Spring 2016. Kelsey Morin (McNair Scholar) (mosquito physiology)

Summer 2014, 2015. Rae Ann Schulte, Katy Neil, John Kryda (parasite and tick studies)

Spring 2013. Chelsea Galipeau, Mark Williamson, Katy Neil, RaeAnn Schulte (parasite studies)

Spring 2011. Andrew Mills, Sarina Bauer, Katy Neil, Max Tkach, Koutney Dropps (parasite studies)

Summer 2009. Alex Droske and Bo Chung (bird parasite studies)

Spring 2006. Jared Glick (bird parasite studies)

Summer 2005. Amber Huls and Eric Homstad (rodent malaria studies)

Summer 2004. Nathonia Ruud (mosquito identification)

Summer 2004. Pablo Oleiro, International Programs, Minnesota State University (neorickettsia)

Spring 2004. Ryan Goedecke (Neorickettsia), Todd Dupong (mosquito biology)

Fall 2003. Carrie Hendrix (screening for rickettsial DNA within Digenea trematodes)

Spring 2002. Christina Brewer, Nathan Mickelson, Abby Byzewski (mosquito and rodent malaria)

MENTOR FOR ND EPSCoR ADVANCED UNDERGRADUATE RESEARCH AWARD (AURA)

Spring 2011. Devon Peightal (endosymbionts of trematode parasites)

Summer 2009. Stephen Greiman, University of North Dakota (filarial parasites of birds)

Summer 2007. Rachel Krein, University of North Dakota (endosymbionts of trematode parasites)

Summer 2007. Eric Strand, University of North Dakota (endosymbionts of trematode parasites)

Summer 2003. Joseph Mehus, Mayville State University (mosquito behavior)

STUDENT SUPERVISED RESEARCH PROJECTS AT OTHER INSTITUTIONS

- * Bruce Noden, Ph.D. candidate. 1990-1993. Johns Hopkins School of Hygiene.
 - Ibrahim El-Sasaam, Ph.D. candidate. Rotation Spring 1993. Johns Hopkins School of Hygiene.
 - * Lisa Hensley, B.S. candidate. Summer 1993. Johns Hopkins School of Hygiene.
 - * Aya Madani, M.S. candidate. Rotation Spring 1991. Johns Hopkins School of Hygiene.
 - Inca Ghosh, Ph.D. candidate. Rotation Winter 1990. Johns Hopkins School of Hygiene.
 - Ruth Barrett, Ph.D. candidate. Rotation Winter 1990. Johns Hopkins School of Hygiene.
 - * David Narum, Ph.D. candidate. Rotation Winter 1989. University of Maryland School of Medicine.
- * *indicate projects that have resulted in refereed publications with students listed as co-authors.*

ACADEMIC COMMITTEES & OTHER SERVICE ACTIVITIES

DEPARTMENTAL COMMITTEES AND ADMINISTRATIVE DUTIES

Spring - Summer 2016. Interim Department Chair
2007 – 2010; 2011-2014; 2016-2019. UND Biology Executive Committee (Chair in 2010, 2014, 2019)
Fall 2004 – 2007. UND Biology Research Committee
Spring 2002 – Spring 2005. Steering Committee, RNEST Biocomplexity project.
Fall 2003 – May 2004. Chair, faculty search committee, Infectious Disease position.
Spring 2003 – present. Curator, Invertebrate Museum, UND Biology Department.
Fall 2002 – Fall 2003. Member, faculty search committee, Infectious Disease position.

UNIVERSITY COMMITTEES

2010-present: Institutional Animal Care and Use Committee
2002-present Institutional Biosafety Committee
2015-2017 College of Arts & Sciences Resources and Infrastructure Committee
2010-2012 Institutional Review Board
2004-2007 Invention and Disclosure Committee

PROFESSIONAL MEMBERSHIPS

American Society of Tropical Medicine & Hygiene (Program Committee 2013-present; Travel Award Committee 2012-present; American Committee of Medical Entomology [Chair from 2008-2009])
American Society of Parasitologists
Entomological Society of America
Society of Vector Ecologists
Midwestern Conference of Parasitologists

JOURNAL PEER REVIEW ACTIVITIES

Acta Tropica
American Journal of Tropical Medicine and Hygiene
Bulletin of Entomological Research
FMES Microbiology Letters
Infection and Immunity
Infection, Genetics and Evolution
Insect Molecular Biology
International Journal of Parasitology
International Journal of Environmental Research and Public Health
Journal of Agricultural Entomology
Journal of American Mosquito Control Association
Journal of Insect Physiology
Journal of Medical Entomology
Journal of Parasitology
New England Journal of Medicine
Malaria Journal

Medical and Veterinary Entomology
Microbes and Infection
Parasites and Vectors
Parasitology
Parasitology Research
PLoS Neglected Tropical Diseases
PLoS ONE
PLoS Pathogens
Trends in Parasitology
Vector Borne and Zoonotic Diseases

GRANT PROPOSAL PEER REVIEW ACTIVITIES

NIH-NIAID Study Section for R01 & R21 grants, 2016, 2017, 2018, 2019, 2020.
Biotechnology and Biological Sciences Research Council, 2020.
Wellcome Trust Training Fellowships in Public Health and Tropical Medicine; 2015.
NIH Study Section for R15 AREA grants, 2012 (member), 2013 (Chair)
Panel Member. National Center for Environmental Health, Special Emphasis Panel, Centers for Disease Control & Prevention. 2009.
Chair, Peer Review Panel for US Military Vector Control Research, Joint Medical Technology Workshop 2003.
National Science Foundation (FastLane)

SCIENCE OUTREACH

2016. Entomology demonstration for junior high-school children
2014. Guest on Studio One, University of North Dakota television show (Topic: Lyme disease)
2014. North Dakota Science Fair. Entomology demonstration
2014. Entomology demonstration for ca. 20 four-year old children
2014. Entomology demonstration for Kid's Club, 8 – 10 year old children)
2012. Guest on Studio One, University of North Dakota television show (Topic: Yellowjackets)
2007. Entomology demonstration “Bug show!”, Head Start Program (3 – 5 year old children)
2007. Entomology demonstration Cub Scouts, Northwood, ND
2006. Television interview, WDAZ. Topic: Testing mosquitoes for West Nile virus.
2004. Red River High School, Topic “Parasites: What’s eatin’ you?” (three 1-hour lecture/demo)
2005. Biology Department “Bug show!” Head Start Program (3 – 5 year old children)
2004. Newspaper interview; Prairie Voices, Grand Forks Herald: “UND’s Mosquito Man”.
2004. Red River High School, Topic “Parasites: What’s eatin’ you?” (30 minute demonstration)
2004. Call-in radio interview (20 minutes), KNOX, Topic; Mosquitoes.
2003. Entomology demonstration for UND foreign exchange students. American Language Academy, Grand Forks, ND (30 minute demonstration)
2002. Guest on Studio One, University of North Dakota television show (Topic: Mosquitoes)
2000. Career Day. Kelly Elementary School, Grand Forks, ND (Topic: Being a scientist)
1994-1998. Annual entomology demonstrations for elementary school children, Grades K through 5, Immanuel Lutheran School, Baltimore, MD (Topic: Bugs!)