**Ashley Neal Haines, Ph.D.**

Associate Professor, Department of Biology

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# **PERSONAL DATA**

# **Birth:** Enid, OK; October 8, 1972

**Citizenship:** U.S.

**Personal Data:** Married (James C. Haines, Jr., 2000); two children (Dylan, 18 and Emily, 10)

**Hobbies:** Camping, sailing, volleyball, environmental volunteerism, CrossFit

# **PROFESSIONAL PREPARATION**

**Ph.D. Zoology**, Clemson University, Clemson, SC August 2002, Thesis Title: Investigations into potential routes for transport of passive immunity in elasmobranch fishes

**B.S. Biology**, Virginia Polytechnic Institute and State University, Blacksburg, VA, December 1993, Thesis Title: fRNA coliphages as an indicator of fecal contamination of oyster harvesting grounds. Minor in Literature.

**PROFESSIONAL APPOINTMENTS**

**Professor,** Norfolk State University, Department of Biology, Norfolk, VA, 2022 – present

**Associate Professor**, Norfolk State University, Department of Biology, Norfolk, VA, 2015 – present

**Assistant Professor**, Norfolk State University, Department of Biology, Norfolk, VA, 2010 – 2015

**Visiting Assistant Professor**, Department of Biology, College of William and Mary, Williamsburg, VA, 2007 – 2010

**Research Specialist Senior**, Department of Environmental & Aquatic Animal Health, Virginia Institute of Marine Science, Gloucester Pt, VA. Oct 2006 – Aug 2007

**Postdoctoral Research Associate**, Department of Environmental & Aquatic Animal Health, Virginia Institute of Marine Science, Gloucester Pt, VA. Jan 2006 – Sept 2006

**Postdoctoral Fellow**, Department of Microbiology and Immunology, University of Maryland Medical School, Baltimore, MD. Jun 2002 – Jan 2006

**Research Technician**, Department of Oral and Craniofacial Biological Sciences, University of Maryland Dental School, Baltimore, MD. Aug 2000 – 2002

**Graduate Assistant**, Department of Biological Sciences, Clemson Univ., Clemson, SC. 1994 – 2000

**PEER-REVIEWED PUBLICATIONS AND BOOK CHAPTERS**

\*Denotes undergraduate co-authors

1. Gauthier, D. T., **A., Haines**, M. W., Vogelbein. (2021). Elevated temperature inhibits Mycobacterium shottsii infection and Mycobacterium pseudoshottsii disease in striped bass (Morone saxatilis). Diseases of Aquatic Organisms. 144: 159-174.
2. Iacoangeli, A., Lui, **A., Haines**, A., Ohta, Y., Flajnik, M., & Hsu, E. (2017). Evidence for Ig Light Chain Isotype Exclusion in Shark B Lymphocytes Suggests Ordered Mechanisms. The Journal of Immunology, 199(5), 1875-1885.
3. Hoenig, J. M., Groner, M. L., Smith, M. W., Vogelbein, W. K., Taylor, D. M., Landers, D. F., Swenarton, J., Gauthier, D. T., Sadler, P., Matsche, M., **Haines, A.,** Small, H. J., Pradel, R., Choquet, R. and Shields, J. D. (2017) Impact of disease on the survival of three commercially fished species. Ecological Applications. 27(7):2116-2127.
4. **AN Haines**, E Nebergall, E Besong\*, K Council\*, O Lambert\*, DT Gauthier. (2016) Draft Genomes for Seven *Streptococcus parauberis* Isolates from Wild Fish in Chesapeake Bay. Genome Announcements. 4(4): e00741-16.
5. Bluford JT\*, Cosanto M, Gauthier DG, Rhodes M, Vogelbein W, **Haines, AN**. (2016). Identification of virulence genes in Vibrio sp. isolates from the 2009 Bermuda reef fish mortality event. Journal of Fish Diseases. doi:10.1111/jfd.12532.
6. **Haines A**, Arnold J. (2014) Elasmobranch Blood Cells. In: Immunobiology of the Shark. Eds.: Smith S, Sim B, Flajnik, M. CRC Press. Boca Raton, FL. Pg 89-104.
7. **Haines AN**, Gauthier DT, Nebergall EE, Cole SD, Nguyen KM, Rhodes MW, Vogelbein WK. (2013) First report of Streptococcus parauberis in wild finfish from North America. Veterinary Microbiology. 166(1-2):270-5.
8. Hadfield K, **Haines A**, Clayton L, Whitaker B. (2010) Cross matching of blood in Carcharhiniform, Lamniform, and Orectolobiform sharks. J Zoo Wildl Med. 41(3): 480–486.
9. Zwollo P, **Haines A**, Rosato P, Gumulak-Smith J. (2008) Molecular and cellular analysis of B-cell populations in the rainbow trout using Pax5 and immunoglobulin markers. Developmental and Comparative Immunology. 32:1482–1496.
10. Kaattari SL, Brown G, Kaattari I, Ye J, **Haines A**, Bromage E. (2008) The Cellular and Developmental Biology of the Teleost Antibody Response. In: Fish Defenses, Vol.1: Immunology. Eds.: Manning, M.J., Secombes, C.J., and Kapoor, B.G. Science Pub Inc., New Hampshire, USA.
11. **Haines AN**, Flajnik MF, Wourms JP. (2006) Histology and immunology of the placenta in the Atlantic sharpnose shark, *Rhizoprionodon terraenovae*.Placenta. (11-12):1114-23.
12. Heiden TC, **Haines AN**, Manire C, Lombardi J, Koob TJ. (2005) Structure and permeability of the egg capsule of the bonnethead shark, Sphyrna tiburo. Journal of Experimental Zoolog A Comp Exp Biol. 303(7):577-89.
13. **Haines A**, Flajnik M, Rumfelt L, Wourms J. (2004) Immunoglobulins in the eggs of the nurse shark, *Ginglymostoma cirratum*. Developmental and Comparative Immunology. 29(5):417-30.
14. Ambalavanar R, Moritani, M, **Haines A**, Hilton T, Dessem D. (2003) Chemical phenotypes of muscle and cutaneous afferent neurons in the rat trigeminal ganglion. Journal of Comparative Neurology. 460: 167-179.
15. Luo P, **Haines A**, Dessem D. (2001) Elucidation of neuronal circuitry: protocol(s) combining intracellular labeling, neuroanatomical tracing and immunocytochemical methodologies. Brain Research Protocols. 3:222-34.

**GRANTS AND AWARDS**

* National Science Foundation, Coastlines and People Award, $5,000,000, 2022-2027 (PI)
* National Fish and Wildlife Federation Award, $1,000,000, 2022-2025 (Co-PI)
* Howard Hughes Medical Institute Inclusive Excellence Award, $1,000,000, 2018- 2024 (PD)
* National Science Foundation Research Initiation Award, $200,000, June 2015-2020 (PI)
* National Science Foundation Research Initiation Award Supplement, $38,600, June 2016-2020 (PI)
* National Science Foundation, Centers for Research Excellence in Science and Technology, Center for Renewable Energy and Advanced Materials, $1,984,542, July 2016-June 2019 (Co-PI)
* NSU, Department of Biology, Outstanding Researcher of the Year Award, 2020-2021
* NSU, Department of Biology, Outstanding Researcher of the Year Award, 2018-2019
* NSU, Department of Biology, Outstanding Research Mentor of the Year Award, 2018-2019
* NSU, Department of Biology, Outstanding Researcher of the Year Award, 2017-2018
* NSU, Department of Biology, Outstanding Research Mentor of the Year Award, 2016-2017
* NSU, Department of Biology, Outstanding Research Mentor of the Year Award, 2015-2016
* NSU, Department of Biology, Outstanding Research Mentor of the Year Award, 2014-2015
* Norfolk State University, Favorite Faculty Award, Spring 2014
* Thurgood Marshall College Fund/Department of Defense Research and Engineering/Air Force Office of Scientific Research (DoD AFOSR) Undergraduate Research in STEAM Grant, $25,000, June 2013 (Co-PI)
* Thomas F. & Kate Miller Jeffress Memorial Trust Research Grant, $30,000, June 2012 -2014 (PI)
* Grace J. Blank Professional Development Fund Award from William and Mary, recognizing service in teaching of microbiology, August 2008
* Outstanding Faculty Recognition, Phi Mu Fraternity of William and Mary, May 2008
* Lerner Gray Grant for Marine Research, American Museum of Natural History, July 1998
* Slocum Lunz Foundation, Research Grant, March 1998

**PROFESSIONAL PRESENTATIONS**

* Presenter: CUREs: Finding the Right Fit, Southeastern Regional PULSE Institute III (Virtual), May 26, 2022.
* Diversity Ambassador and Panelist, Mid-Atlantic Microbial Pathogenesis Meeting, Feb 12-14, 2019, Wintergreen, VA.
* Presenter: PULSE CUREs Workshop and Poster Presentation: Biology Curriculum Transformation at NSU: Taking the PULSE and finding the CUREs Association of Southeastern Biologists 78TH Annual Meeting, Mar 29 – Apr 1, 2017, Montgomery, AL.
* Global Transcriptome Analysis of Streptococcus parauberis Strains in Response to Temperature and Host Immune Factors, Mid-Atlantic Microbial Pathogenesis Meeting, Feb 12-14, 2017, Wintergreen, VA.
* Comparative genomics of *Streptococcus parauberis* in fish and cattle. Virginia Academy of Science, May 18-20, 2016. University of Mary Washington, Fredericksburg, VA.
* Identification of genes subject to positive selection in fish strains of *Streptococcus parauberis*: A comparative genomics approach, Eastern Fish Health Workshop, Apr 11-15, 2016. Atlantic Beach, NC.
* Whole Genome Comparisons of *Streptococcus parauberis* from Fish and Cattle, Eastern Fish Health Workshop, Mar 2-6, 2015. Charleston, SC.
* Host specificity and molecular epidemiology of the emerging pathogen *Streptococcus parauberis*. Hampton University Biology Department Seminar Series, Nov 14, 2014. Hampton, VA.
* Who is *Streptococcus parauberis*?. Tidewater Gathering of the American Society for Microbiology. October 25, 2014. Norfolk, VA.
* Host specificity and molecular epidemiology of the emerging pathogen *Streptococcus parauberis.* Christopher Newport University Department of Molecular Biology and Chemistry Seminar Series. September 26, 2014. Newport News, VA.
* An Introduction to Bioinformatics and its uses in Comparative Bacterial Genomics. 2014 NSU MathBio Workshop. April 25, 2014. Norfolk, VA.
* Comparative Genomics of *Streptococcus parauberis* from Bovine and Piscine Hosts. Eastern Fish Health Workshop. April 28 – May 2, 2014, Shepherdstown, WV.
* Pan‐Genomic Analyses of *Streptococcus parauberis* from Bovine and Piscine Hosts (Poster). American Society for Microbiology General Meeting. May 17-20, 2014. Boston, MA.
* First Report of *Streptococcus parauberis* in Wild Finfish from North America, American Society for Microbiology Virginia Branch Meeting, November 5, 2011, Blacksburg, VA.

**PROFESSIONAL AFFILIATIONS**

* Circle Member, Partnership for Undergraduate Life Science Education (PULSE) Southeastern Regional Circle, 2019-2022.
* American Society for Microbiology, Virginia Branch, President 2015-2016, member
* American Association for the Advancement of Science, member

**RESEARCH STUDENTS**

Past Graduate Advisees/Committees:

* Gugu Rutherford, Doctoral Student, Center for Materials Research, Norfolk State University, 2018.
* Amanda Pomposini, Master’s Student, Dept. of Biological Sciences, Old Dominion University, 2017.
* Stephen Cole, Master’s Student, Department of Biology, College of William and Mary, 2011 (Assistant Professor, Clinical & Molecular Microbiology, University of Pennsylvania School of Veterinary Medicine)
* Christina Gargan Camillo, Master’s student, Department of Medical and Research Technology, University of Maryland Medical School, 2005. (Clinical Coordinator, Medical Laboratory Science Program, Department of Health Sciences, Salisbury University)

Past Undergraduate Researchers:

1. Armonee Avent (2016 NSU Graduate, Graduate Student at Morehouse School of Medicine)
2. Elvira Besong (2017 NSU Graduate, MS George Washington University, Millipore Corp.)
3. Asia Bey (2014 NSU Graduate, Senior Scientist, VA Consolidated Laboratory Services)
4. Jordan Bluford (2016 NSU Graduate, PhD Candidate at Rice University, Biochemistry & Cell Biology Graduate Program)
5. Jensyn Carr (Junior)
6. Dr. Stephen Cole (Assistant Professor of Clinical Microbiology, University of Pennsylvania School of Veterinary Medicine)
7. Dr. Adrianne Colton (OBGYN Physician, Virginia Physicians for Women, Chesterfield, VA)
8. Dr. Ian Copeland (2015 NSU Graduate, PhD Baylor College of Medicine, Department of Molecular and Human Genetics)
9. Kimaya Council, (2017 NSU Graduate, MS, Virginia Commonwealth University)
10. Andre Dualan (2019 NSU Graduate)
11. Blanche Fields, (2013 NSU Graduate, PhD Camdidate at Columbia University)
12. Christina Gargan (Clinical Coordinator, Medical Laboratory Science Program, Salisbury University)
13. Michelle Gillespie (Resident Physician at OSU Medical Center/Nationwide Children's Hospital)
14. To’niah Harrison (Junior)
15. Lauren Holman (Senior)
16. Katelyn Jenkins (Graduate Student, North Carolina State University)
17. Lauren Karr
18. Michaela Lindo (Junior)
19. Dan Lefler (Chief Resident Physician at Hospital of the University of Pennsylvania)
20. Amaya Looper, (2020, Master’s student, University of Delaware)
21. Grace McGinnis (MS, University of Michigan)
22. Alicia Mitchell, Senior
23. Tia Morton (Junior)
24. Emily Nebergall (Washington State Public Health Laboratory, Seattle, WA)
25. Dr. Khris Nguyen (Pediatrician, Mercy Hospital St. Louis)
26. Chazz Offord (Senior)
27. Cory O’Neal (2013 NSU Graduate, 2017 Duke University, Master of Divinity)
28. Dr. Chrissy Papageorge (General Surgery Resident, Univ. of Wisconsin)
29. Jenn Quigley (Physician Assistant Graduate, Duke University)
30. Shianne Randolph, (College of William and Mary Undergraduate)
31. Sondai Riddick (Senior)
32. Bonita Simmons (2016 NSU Graduate, Medical Student, American University of Antigua)
33. Keaira Thornton (2016 NSU Graduate, DDS from University of Kentucky Dental School)
34. Marcus Walker (Junior)
35. Ezekiel Wamble, (2019 NSU Graduate, PhD. student, North Carolina A&T)
36. Sara Williams (PhD. Northeastern University Marine Science Center)

**PROFESSIONAL SERVICE ACTIVITIES**

* Member, NSU Equity, Inclusion and Diversity Committee. 2022-present.
* Organizer & Presenter. Active Learning Faculty Show & Tell Workshop. May 2022
* Organizer. Mobile Summer Institute on Scientific Teaching (MoSI), July 2021.
* Southeastern Regional PULSE (SERP) III Planning Committee Member, 2018-present.
* Organizer and Convener, Navigating Career Paths in Microbial Pathogenesis, Mid-Atlantic Microbial Pathogenesis Meeting, Feb 2019.
* Director of Education and Outreach, Centers for Research Excellence in Science and Technology, Center for Renewable Energy and Advanced Materials, Norfolk State University, 2017-2019.
* Panel Reviewer, National Science Foundation HBCU Up 2017 & 2018.
* Coordinator, Water Monitoring Team, Hampton Waterways Restoration Project, 2016-2019.
* Volunteer Educator, Elizabeth Lake Oyster Sanctuary, 2016-present
* Co-organizer of the 2015 Virginia Branch meeting of the American Society for Microbiology in Richmond, VA
* Chair, Special session on Comparative Genomics and Molecular Epidemiology of Aquatic Pathogens, Eastern Fish Health Workshop, 2015, Charleston, SC
* Organizer, VAS Posters on the Hill, Virginia Academy of Science Education Committee, 2015.
* Member, Virginia Academy of Science Education Committee, 2015-2017
* Reviewer, Aquaculture journal, 2016-2019
* Reviewer, Journal of Fish Biology, 2015-2016
* Reviewer, Journal of Fish Diseases, 2015-2016
* Reviewer, Louisiana Board of Regents Research Competitiveness Subprogram, 2013 & 2014
* Co-organizer of the 2014 Tidewater meeting of the American Society for Microbiology in Norfolk, VA
* Reviewer, Comparative Biochemistry and Physiology, 2013
* Research Mentor, Science and Technology Academicians on the Road to Success (STARS) 2011-present
* Advisor, Norfolk State University Biology Society, 2015-present
* Volunteer Scientist, Cooperating Hampton Roads Organizations for Minorities in Education (CHROME) Club, York Middle School, York County, VA, 2010-2018
* Judge, Microbiology Section, Newport News Public Schools City Science Fair, 2016
* Judge, Virginia Junior Academy of Sciences, 2011, 2014 and 2016
* Mentor, STARS High School Summer Research Program, 2011, Mentee: Lamar McArthur
* Mentor, York County Cooperative Education Program, 2009-2010, Mentee: Katelyn Jenkins
* Reviewer, Florida International University’s NICHD funded Faculty Research Enhancement Award Program (FREA) Competitive Grants Program, 2009