## Jennifer H. Shaw, Ph.D., CAS, OSU

Assistant Professor
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**Education:**

1991-1995: B.S. Biological Sciences, Florida State University, Tallahassee, FL.
1996 – 1998: University of South Alabama College of Medicine, Department of Pharmacology, Mobile, AL (transferred to Montana to complete Ph.D.)
1998 – 2000: Ph.D. Pharmacology, University of Montana, Department of Pharmaceutical Sciences/Pharmacology, Missoula, MT. Supported by Intramural Research Training Award, NIH; research conducted at the National Institute of Allergy and Infectious Diseases, Rocky Mountain Laboratories (Hamilton, MT)

**Academic Appointments:**

2012 – present: Assistant Professor, Department of Integrative Biology, Oklahoma State University
2009 -2012: Research Associate Professor, Department of Physiological Sciences, Oklahoma State University Center for Veterinary Health Sciences
2009 - 2012: Lecturer in Physiology, Department of Zoology, Oklahoma State University
2005 – 2006; 2008: Visiting Assistant Teaching Professor, Department of Zoology, Oklahoma State University
2003 – 2005: Family Leave
2001-2003: Field Applications Specialist, Promega Corporation

**Research Funding:**

**Current**
2015-2018: The Role of CT228 in Chlamydia trachomatis pathogenesis, NIH R15. Role: Co-PI.
2016-2019: Physiological Adaptation to Extreme Environments: Genes, Function, and Evolutionary Patterns. NSF IOS. Role: Co-PI.

**Past:**
2015-2016: The Role of Angiogenic Factors in the Development of Atherosclerosis During Chlamydia pneumoniae Infection, NIH CoBRE. Role: PI.
2012-2013: Development of a Shared Tissue Culture Facility. Oklahoma State University VP for Research & Technology Transfer Funds. Role: PI.
2013: The Effects of Chronic Oxidative Stress on Arteriogenic Factors. Oklahoma State University, Spring Travel Grant. Role: PI.
2013: The Effects of Shear Stress on Endogenous Production of Hydrogen Sulfide by Human Coronary Artery Smooth Muscle Cells, Summer Salary Research Grant, Oklahoma State University. Role: PI.
2010-11: Effect of hyperlipidemia on signaling pathways mediating exercise-induced vascular remodeling. Research Advisory Committee (RAC) Award, College of Veterinary Health Sciences, Oklahoma State University. Role: PI.

**Selected Publications**

1. Shaw JH, Behar AR, Snider TA, Allen NA, Lutter EI. Comparison of murine cervicovaginal infection by Chlamydial strains: Identification of extrusions shed in vivo. Frontiers in Cellular Infection & Microbiology, 7:18 doi: 10.3389/fcimb.2017.00018; 2017.

2. Tobler M, Passow CN, Greenway RS, Kelley JL, Shaw JH. The evolutionary ecology of animals inhabiting hydrogen sulfide rich environments. Annual Review in Ecology, Evolution and Systematics 47:239-62. doi: 10.1146/annurev-ecolsys-121415-032418; 2016.

3. Tobler M, Henpita C, Bassett B, Kelley J, Shaw JH. H2S exposure elicits differential expression of candidate genes in fish adapted to sulfidic and non-sulfidic environments. Comparative Biochemistry and Physiology: Part A: Molecular & Integrative Physiology 2014 175:7-14.

4. Xiang L, Varshney R, Rashdan N, Shaw JH, Lloyd PG. Placenta growth factor and vascular endothelial growth factor-A have differential, cell-type specific patterns of expression in vascular cells. Microcirculation 2014 (21) 5:368-79.

5. Shaw JH and Lloyd PG. Post-transcriptional regulation of placenta growth factor mRNA by hydrogen peroxide. Microvascular Research 2012 84: 155-160.

6. Shaw JH, Xiang L, Shah A, Yin W, Lloyd PG. Placenta growth factor expression is regulated by hydrogen peroxide in vascular smooth muscle cells. Am J Physiol Cell Physiol. 2011, 300 (2): C349-55.

7. Shaw, J. H., Grund, V. R., Durling, L., Crane, D., and Caldwell, H. D. Dendritic Cells Pulsed with a Recombinant Chlamydial Major Outer Membrane Protein Antigen Elicit a CD4+ Type 2 Rather than a Type 1 Immune Response that is not Protective. Infection and Immunity, 2002, 70 (3):1097-1105.

8. Shaw, J. H., Grund, V. R., Durling, L., and Caldwell, H. D. Expression of Genes Encoding Th1 Cell-Activating Cytokines and Lymphoid Homing Chemokines by Chlamydia-Pulsed Dendritic Cells Correlates with Protective Immunizing Efficacy. Infection and Immunity, 2001, 69 (7): 4667-4672.