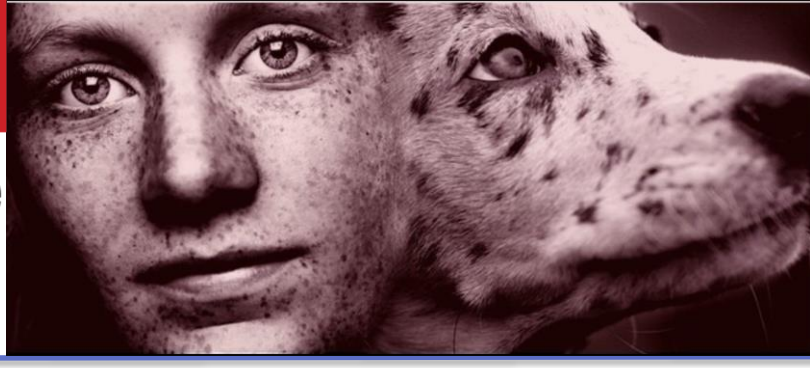
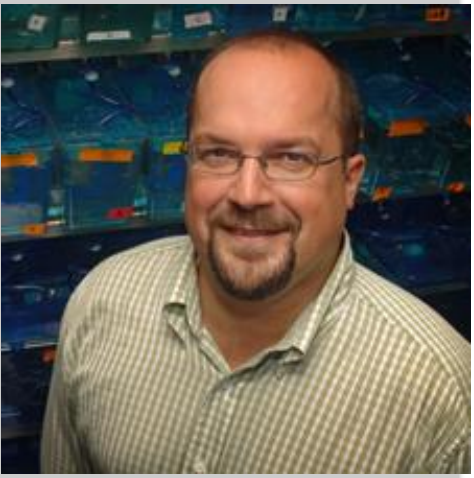
NC STATE UNIVERSITY

Comparative Medicine Institute



Jeff Yoder



Associate Professor of Innate Immunity

B.S. in Biotechnology, Worcester Polytechnic Institute, Worcester, MA, USA
Ph.D. in Cell & Developmental Biology, Harvard University, Cambridge, MA, USA

Address:
Department of Molecular Biomedical Sciences
College of Veterinary Medicine
North Carolina State University
1060 William Moore Drive
Raleigh, NC 27607
Phone: 919-515-7406
Email: jayoder@ncsu.edu
Phone: xxx-xxx-xxxx
Email: jayoder@ncsu.edu

http://www4.ncsu.edu/~jayoder/

Innate Immunity and Immunotoxicity

Research emphasis:

The overall focus of my laboratory is on identifying novel mediators of innate immunity. My lab uses the zebrafish 1) to study the genetic and functional evolution of innate immune receptors, 2) for examining the immunotoxicological effects of environmental chemicals, and 3) as a model for identifying novel mediators of immunity. I have special interests in comparative immunology, comparative genomics, genome engineering and transgenic approaches. Most recently I have become interested in how ubiquitination mediates leukocyte function as well as the molecular mediators of cytokine production.

Application:

- Zebrafish as a model for human health
- Genome engineering and transgenics in zebrafish
- Comparative and evolutionary genomics
- Immunotoxicity

Collaboration potential:

- Developing genetic disease models in zebrafish
- Developing infection/immune models in zebrafish
- Chemical/drug screens for immune function

Selected publications:

McConnell SC, Hernandez KM, Wcisel DJ, Kettleborough RN, Stemple DL, Yoder JA, Andrade J, de Jong JL. 2016. Alternative haplotypes of antigen processing genes in zebrafish diverged early in vertebrate evolution. *Proc Natl Acad Sci U S A*. In press. PubMed PMID: 27493218

Wcisel DJ, Yoder JA. 2016. The confounding complexity of innate immune receptors within and between teleost species. *Fish Shellfish Immunol*. 53:24-34. PubMed PMID: 26997203

Dirscherl H, Yoder JA. 2015. A nonclassical MHC class I U lineage locus in zebrafish with a null haplotypic variant. *Immunogenetics*. 67(9):501-13. PubMed PMID: 26254596

Deiters A, Garner RA, Lusic H, Govan JM, Dush M, Nascone-Yoder NM, Yoder JA. 2010. Photocaged morpholino oligomers for the light-regulation of gene function in zebrafish and *Xenopus* embryos. *J Am Chem Soc*. 132(44):15644-50. PubMed PMID: 20961123