

Postdoctoral Researcher and PhD graduate Research Associate Position

An NIH-funded postdoctoral researcher and a PhD graduate research associate position are available in Dr. Yasuko Rikihisa's lab at The Ohio State University to study Virulence Factors of Obligatory Intracellular Bacteria. The project focuses on mechanisms of intracellular bacterial invasion and replication mediated by a novel bacterial surface protein (invasin) and Type IV secretion effectors in human and tick cells, and bacterial factors that cause TLR-independent inflammation. These studies can facilitate our understanding of pathogenesis of obligatory intracellular bacteria and the development of more effective intervention strategies against infection with these bacteria and the disease they cause in humans and animals.

The laboratory belongs to Center for Microbial Interface Biology and Public Health Preparedness for Infectious Diseases Program, offering state-of-the-art equipment and core facilities. Highly motivated candidates skilled in cloning and mutating bacterial and human genes for transfection and protein-protein-interaction studies, confocal microscopy, cryoEM, and culturing intracellular bacteria are encouraged to apply. The successful candidate will join an existing team of a research scientist, postdoctoral researchers, and graduate students. Competitive salary is commensurate with experience. Candidates should submit a cover letter, CV, and 3 references to Dr. Yasuko Rikihisa by email: rikihisa.1@osu.edu.

For selected publications of the lab, please visit:

<http://riki-lb1.vet.ohio-state.edu/ehrlichia/publications.php>

Related recent publications from the Rikihisa laboratory:

- 1 Cheng, Z., M. Lin, and Y. Rikihisa. (2014) *Ehrlichia chaffeensis* proliferation begins with NtrY/NtrX and PutA/GlnA upregulation and CtrA degradation induced by Proline and Glutamine uptake. *mBio* **5**: e02141-14 . [PMCID: PMC4251998] |
- 2 Mohan-Kumar, D., M. Yamaguchi, K. Miura, M. Lin, M. Los, JF Coy, and Y. Rikihisa. (2013) *Ehrlichia chaffeensis* Uses Its Surface Protein EtpE to Bind GPI-Anchored Protein DNase X and Trigger Entry into Mammalian Cells. *PLoS Pathog* **9**: e1003666. [PMCID: PMC3789761]
- 3 Niu, H., Q. Xiong, A. Yamamoto, Mitsuko Hayashi-Nishino, and Y. Rikihisa. (2012) Autophagosomes Induced by a Bacterial Beclin 1-binding Protein Facilitate Obligatory Intracellular Infection. *Proc. Natl. Acad. Sci.* **109**: 20800-20807. [PMCID: PMC3529060]
- 4 Liu, H., W. Bao, M. Lin, H. Niu, and Y. Rikihisa. (2012) *Ehrlichia* type IV secretion effector ECH0825 is translocated to mitochondria and curbs ROS and apoptosis by upregulating host MnSOD. *Cell. Microbiol.* **14**: 1037-1050. [PMCID: PMC3371182]
- 5 Xiong, Q. and Y. Rikihisa. (2012) Subversion of NPC1 pathway of cholesterol transport by *Anaplasma phagocytophilum*. *Cell. Microbiol.* **14** (4): 560-576. [PMCID: PMC3604884] |
- 6 Rikihisa, Y. (2011) Mechanisms of Obligatory Intracellular Infection with *Anaplasma phagocytophilum*. *Clin. Microbiol. Rev.* **24**: 469-489. [PMCID: PMC3131063]
- 7 Rikihisa, Y. (2010) *Anaplasma phagocytophilum* and *Ehrlichia chaffeensis*, subversive manipulators of host cells. *Nat. Rev. Microbiol.* **8**: 328-339.

- 8 Niu, H., V. Kozjak-Pavlovic, T. Rudel, and Y. Rikihisa. (2010) *Anaplasma phagocytophilum* Ats-1 is Imported into Host Cell Mitochondria and Interferes with Apoptosis Induction. *PLoS Pathog.* **6**: e1000774. [PMCID: PMC2824752]
- 9 Rikihisa, Y., M. Lin, and H. Niu. (2010) Type IV Secretion in Obligatory Intracellular Bacterium *Anaplasma phagocytophilum*. *Cell. Microbiol.* **12**: 1213-1221. [PMCID: PMC3598623]
- 10 Xiong, Q., M. Lin, and Y. Rikihisa. (2009) *Anaplasma phagocytophilum* acquires cholesterol through low-density lipoprotein uptake pathway. *PLoS Pathog.* **5**: e1000329. [PMCID: PMC2654415]



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