

Postdoctoral position in Chattopadhyay Lab, University of Toledo

The Chattopadhyay Lab at The University of Toledo College of Medicine and Life Sciences is looking for a postdoctoral fellow and/or research associate in the Department of Medical Microbiology and Immunology. Our laboratory is interested in studying how the interferon system protects against virus infection. In this context, we are focusing on the key transcription factor Interferon Regulatory Factor 3 (IRF3), whose activities are required to inhibit viral replication *in vitro* and *in vivo*. We have shown that in addition to performing transcriptional functions, IRF3 also triggers direct apoptosis in virus-infected cells and the apoptotic pathway is critical for its antiviral activity (*Glanz et al, Viruses 2020, Chattopadhyay et al Immunity 2016, J. Virol 2013, 2011, EMBO J 2010*). We are interested to study, using knockout and knock-in mouse models, how this pathway regulates viral or non-viral diseases. IRF3, upon activation by virus infection, transcriptionally induces many antiviral genes, such as interferons and interferon stimulated genes (ISGs) (*Chattopadhyay et al EMBO Rep 2015, mBio 2013*). The protein products of these ISGs inhibit specific stages of viral life cycle, thereby inhibiting virus replication. Because all viruses cannot be inhibited by a single ISG, it is important to investigate virus-specific ISGs. Using high throughput screening approaches, we began to identify novel viral restriction mechanisms (*Subramanian et al, JBC 2020, PLOS Pathogens, 2018*). In future, these mechanisms will be tested *in vivo* using appropriate viral pathogenesis models. Currently, we have several ongoing projects in our laboratory to study both pathways of IRF3 in viral and non-viral pathogenesis. Interested candidates should apply using this link [Chattopadhyay Lab Position](#). The University of Toledo is committed to diversity and equal opportunity. EO/AA/Employer M/F/D/V.