COVID-19 and SARS-CoV-2 Postdoctoral Fellowship at Baylor College of Medicine

An immediate opening for a post-doctoral fellowship to study the direct and indirect effects of SARS-CoV-2 infection on the nervous system is available in the Ray lab at Baylor College of Medicine in Houston, Texas (https://molecularneurobiology.org). Our laboratory takes a multidisciplinary approach using a variety of genetic, molecular, and viral techniques to target highly specific brainstem cell types for functional, molecular, and anatomical study in physiology, behavior, and disease.

This position will head an effort to use a series of humanized conditional on/off hACE2 expressing mouse models engineered in the Ray lab that are able to either 1) direct SARS-CoV-2 infection to a specific organ or cell type while leaving the remaining mouse uninfected, or conversely; 2) protect a specific organ or cell type in background of a whole body systemic SARS-CoV-2 infection. Mouse models will be assayed for cardio-respiratory function using a novel BSL-3 cardio-respiratory and metabolic measurement system and for behavior in both acute and recovery phases of infection (i.e. Long COVID).

The candidate should have a doctoral degree, strong research background, and initiative to lead projects. The ideal candidate would have experience in BLS3 animal studies. Experience in respiratory physiology, genetic mouse models, as well as statistical knowledge sufficient for handling datasets and addressing different variance components will also be helpful. However, highly motivated applicants with a successful and productive research track-record will be trained as needed for this project.

Additionally, our laboratory is active in the development of new tools for improved access and study of neural circuits and thus offers several training opportunities in mouse genetic model generation (including CRISPR/Cas9 techniques) and development of novel viral vectors, as well as a variety of animal physiology and behavioral assays.

Baylor College of Medicine offers an outstanding research environment at the Texas Medical Center with more than 50 non-profit institutions which offers one of the highest densities of clinical, translational, and basic science research facilities in the world. BCM and the Ray lab are equal opportunity employers committed to building a culturally diverse intellectual community and encourage applications from women and minorities.

Please respond with a cover letter including a description of work experience, C.V., and contact information for two references to:

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Email: russell.ray@bcm.edu.
Ray Lab Website: http://www.molecularneurobiology.org
BCM Website: https://www.bcm.edu/russell-ray-29268