A postdoctoral position is immediately available under the mentorship of Dr. Michael Decker at Case Western Reserve University School of Medicine.

We are seeking a highly motivated candidate with interests and skills in respiratory physiology/high-altitude physiology/hypoxia/systems neuroscience. The Decker lab engages in both pre-clinical and clinical research studies to investigate the effects of hypoxia on neural structure and function. Funding sources include the National Institutes of Health (NIH) and the Department of Defense (DoD).

Established skill in signal processing, specifically familiarity with functional near infrared spectroscopy and/or Magnetic Resonance Imaging acquisition and analyses, is required. Our lab collects and analyzes all data using PC software thus extensive experience and expertise in PC software such as Microsoft Office (Word, Powerpoint, Excel, Teams, Access etc.) is required. Experience in measurement of hypoxic ventilatory responsiveness, electroencephalography, and bioanalytical statistics is highly desired. Past clinical research experience a plus.

The new postdoctoral team member will lead two DoD-funded projects: (1) to define the neurophysiologic response to non-steady state hyperoxia during normobaric and hypobaric exposures; and (2) to identify the impact of military training flights on measures of acute cognitive dysfunction as it relates to fatigue, sleeping patterns, and proinflammatory cytokine patterns. Additionally, he/she will participate in an ongoing NIH-funded project to quantify and compare the structural integrity of dopaminergic circuits and the functional activity in cortical brain regions associated with cognitive performance between post-hypoxic former preterm children versus healthy control children.

We welcome recent or forthcoming PhD/MD/DO graduates with a strong background in biomedical and/or electrical engineering, statistics, biophysics, neuroscience, or physiology and an eagerness to work in an interdisciplinary team to develop novel approaches for the measurement of brain structure and function.

The Decker lab is located in the Department of Physiology and Biophysics on the campus of Case Western Reserve University in the School of Medicine. Collaborations reach across the Case Western Reserve University campus to the Case School of Engineering, the College of Arts and Sciences, the School of Nursing, and University Hospitals Cleveland Medical Center. The lab is partially supported by the Department of Defense through collaborations with the Naval Medical Research Unit (NAMRU-D) located at Wright Patterson Air Force Base, Dayton, OH. Excellent research facilities and resources are available at the University as well as at Wright Patterson Air Force Base.

Additionally, Cleveland is a diverse and interesting city with much to offer.

Applicants must be U.S. citizens or hold permanent residency status.

The Case School of Medicine is the largest biomedical research institution in Ohio and highly ranked among the nation's medical schools for research funding from the National Institutes of Health. A primary goal of the School is to conduct cutting-edge biomedical research that leads to improvement in clinical care and the development of new knowledge in the biomedical sciences. Emphasis is placed on programs that promote interdisciplinary research and innovation. The research mission of the Department of Physiology and Biophysics benefits from a rare combination of faculty who address important translational problems in physiology and biophysics across a broad spectrum of
integration—from the level of the atomic structure of molecules, through living cells and organ systems, and up to the whole organism.

Please send by email to Dr. Michael Decker (mjd6@case.edu):

- Your C.V.
- a cover letter describing your scientific interests and skills
- contact information for 3 references.