



Women & Infants'



BROWN

Alpert Medical School

Post-Doctoral Position in Perinatal Brain Research Laboratory

Women & Infants Hospital of Rhode Island

A Post-doctoral Position is available in the Perinatal Brain Research laboratory of Barbara S. Stonestreet, M.D. in the Department of Pediatrics at Women & Infants Hospital of Rhode Island to define the effects of brain ischemia on blood-brain barrier permeability to cytokines and potential anti-cytokine neuroprotective strategies using the fetal sheep model during development. The work will potentially yield neuroprotective strategies that will prevent the development of cerebral palsy in premature infants. The overall goal of the proposal is to determine the role of pro-inflammatory cytokine specific blocking antibodies in attenuating ischemia-related damage to the neurovascular unit measured functionally by changes in blood-to-brain transport of alpha-aminoisobutyric acid and radiolabeled cytokines, and by rearrangement and changes in the components of the tight junction. A multidisciplinary collaborative approach will use physiological, biochemical, pathological, immunohistochemical, and molecular methods to determine if systemic cytokines can enter and injure the fetal brain.

The position involves participation in experiments in pregnant sheep, which include surgical preparation, physiologic studies, molecular biology, immunohistochemistry, immunological analysis and EEG analysis in the fetal sheep brain and computerized analysis of hemodynamic measures in the fetus. This exciting neuroscience opportunity in an extremely productive laboratory will permit the successful post-doctoral candidate extensive opportunity for publication in prestigious peer review journals.

Requirements: The candidate needs to be highly motivated to perform developmental fetal animal research, to have expertise in neuroscience, in addition to familiarity with neuroscience bench work methodology including molecular biology, immunohistochemistry, cell culture, antibody, protein production and proven writing ability. Experience with surgical procedures, radioactive materials, data acquisition and statistical analysis is also preferred. Ph.D. degree is strongly preferred (though in special cases, an MS will be considered).

This is an ideal position for a recent Ph.D. graduate willing to make a commitment for 3 years to a funded RO1 grant. Interested candidates should send a CV and a cover letter to Dr. Barbara Stonestreet by email Bstonestreet@wihri.org or contact her by phone: (401) 274 – 1122 x1229.