The Silver lab at Duke University School of Medicine seeks a highly motivated postdoctoral research fellow for a funded position to investigate RNA localization and local translation in the developing brain. The postdoctoral fellow will have the exciting opportunity to implement and integrate cutting edge approaches in transcriptomics, live imaging, RNA biology and cortical development. Our lab recently discovered that RNA is actively transported to distal compartments of neural stem cells in the developing brain, where it is locally translated (Pilaz et al, Current Biology, 2016; Pilaz and Silver, FEBs Letters, 2017). These discoveries establish a new in vivo paradigm for studying local regulation of gene expression and for investigating new biological processes within neural stem cells.

The successful applicant will have a strong and productive scientific record, be highly collaborative, diligent, and passionate about have previous experience in one or more of the relevant fields: RNA biology, developmental neurobiology, and mouse genetics.

The Silver lab investigates genetic and cellular mechanisms controlling cerebral cortex development, and contributing to neurodevelopmental pathologies and brain evolution. To tackle these questions we employ mouse genetics and embryology, fixed and live imaging of embryonic brain slices and neural progenitors, and genomics. The lab collaborates with RNA biologists, stem cell biologists, and developmental neurobiology labs at Duke and is a member of the Center for RNA Biology, Regeneration Next Initiative, and Duke Institute for Brain Sciences. Our lab offers a vibrant and rigorous training environment for postdoctoral fellows. Successful applicants will join a team of researchers passionate about brain development and RNA regulation.

Our other recent accomplishments include: discovery of novel post-transcriptional mechanisms controlling neural progenitor function and contributing to microcephaly (Pilaz, McMahon et al, Neuron, 2016; Mao, McMahon et al, PLOS Genetics, 2016; Mao et al, J. Neuroscience, 2015) and discovery of genetic mechanisms relevant for brain evolution (Boyd et al, Current Biology, 2015; Silver, Bioessays, 2016). Please see: https://sites.duke.edu/silverlab/

Interested applicants can contact debra.silver@duke.edu, who will refer you to an online application link.

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