



Duke University

DURHAM
NORTH CAROLINA
27708-0281

DEPARTMENT OF BIOMEDICAL ENGINEERING
PRATT SCHOOL OF ENGINEERING
CIEMAS 1395
BOX 90281

TELEPHONE: (919) 660-5510
FAX: (919) 684-4488

Postdoctoral Fellow in Genome Editing for Cardiac Muscle Regeneration

We are looking for a highly motivated postdoctoral fellow with experience in genome engineering technologies, including CRISPR/Cas9 editing and next generation sequencing. The project involves therapeutic applications of genome editing in stimulation of endogenous regeneration and exogenously induced repair of infarcted or failing heart. The postdoctoral fellow will be expected to generate new human pluripotent stem cell lines by CRISPR/Cas9 editing and perform gRNA library screening to identify candidate effector genes in human cells of cardiovascular or immune system lineage. Tissue engineering of human cardiac muscle from hiPSCs will be further utilized for *in vitro* mechanistic studies, and obtained knowledge will be applied to *in vivo* regenerative therapy studies. This work is a part of a large international project involving cardiac cell and developmental biologists, bioengineers, and clinical scientists with ample opportunities for collaborations and exchange of scientific ideas.

Qualifications include PhD and 0-3 years of postdoctoral experience in molecular biology, genetics, and other relevant areas of biomedical sciences. The ideal candidate will be highly self-motivated and possess strong training in molecular biology, genome (CRISPR/Cas9) editing, NGS, pluripotent stem cell culture and differentiation, and biochemical and histological assays. Candidates with experience in bioinformatics, cardiac biology research, and animal handling will be given a preference. Postdoctoral fellows are expected to publish research findings in peer-reviewed journals, participate in conferences, engage in existing and new collaborations within and outside Duke University, and assist with training of undergraduate and graduate students, as needed. The training environment of the Bursac group (<http://bursaclab.pratt.duke.edu/>) is highly interdisciplinary and provides ample opportunities for scientific growth and pursuit of both academic and industry careers. Interested candidates should send their resume, statement of research goals, and at least three names for recommendation letters to Dr. Nenad Bursac (nbursac@duke.edu)