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Multiple PhD and Postdoctoral Associate Positions Open!

The Bajpayee lab at Northeastern University in Boston is looking for candidates with interest and expertise in chemical conjugation, peptide design and synthesis, particle formulation, drug delivery and animal studies. We are looking for highly motivated and independent researchers to carry out work in design of electrically charged protein, peptide and exosome based nanocarriers, drug conjugation, modeling transport properties in tissue culture models, examining the pharmacokinetics, biodistribution and tissue targeting efficacy of drugs in injury induced animal models of osteoarthritis. Experience in the following technical areas is preferred: rodent traumatic models of osteoarthritis, small animal surgery and in vivo imaging, molecular and cell biology, flow cytometry and FACS, and immunohistochemistry and imaging.

For post-doc position, prior experience in orthopedic labs and in-vivo models is desired. Individuals must have a Ph.D. and/or M.D., appropriate research experience, strong organizational, interpersonal, communication, and computer skills and be prepared to work in a dynamic multi-disciplinary team environment. Applicants with a strong training background and publication track record in material synthesizes, drug delivery or cartilage biology are highly encouraged to apply.

This is an ideal position for someone looking for experience in translational research to train for both academia and industry. Please email your CV with names of three references to a.bajpayee@neu.edu

About Bajpayee lab: (more at https://web.northeastern.edu/bajpayeelab/)
Bajpayee lab works on drug delivery to connective and charged tissues such as cartilage, meniscus, intervertebral disc and mucosal membranes. Their dense extracellular matrix, however, hinders penetration of most drugs. We utilize concepts of nanomedicine and bio-electrostatics to design polypeptides, protein and cell derived exosome-based carriers for targeted and sustained delivery of small molecule drugs, protein growth factors, antibodies and genetic materials to specific intra-tissue and intra-cellular target sites inside connective tissues. A main focus is on using charge interactions and other binding mechanisms to rationally design drug carriers that can penetrate through the dense matrix of avascular, negatively charged tissues. We are also interested in understanding mechanisms leading to degenerative joint diseases (e.g., osteoarthritis) due to ageing and traumatic injuries. The lab strives to combine basic science with translational research to develop biomedical technologies. Our Lab is highly interdisciplinary and collaborative with established collaborations with Harvard Medical School, MIT, BUMC and MGH.