ANODYNE
Nanotech

Postdoctoral Researcher (Full-time; Tufts University, Medford)

Position Overview

A _Postdoctoral Research Associate_ position is available September 2021 at **Tufts University**, in the lab of **Prof. Sameer Sonkusale** as part of an academia-industry partnership focused on the development of different aspects of a breakthrough drug delivery system that facilitates transdermal delivery of mAbs and peptides in clinically relevant dosages.

The successful candidate will be an employee of **Anodyne Nanotech Inc.**, working on grant supported research. This is an excellent opportunity to gain experience in both academia and industry, with ample opportunities for professional advancement.

About Anodyne

At Anodyne Nanotech, we believe that the delivery of necessary medication should not and will not be a painful process, for anyone involved. For hundreds of years, needles and syringes have been used to deliver medications, and innovation is long overdue.

The company's patent-pending, porous microneedle technology provides the first practical and cost-effective platform, Hero Patch, to deliver clinically meaningful doses of macromolecules or small molecules, and the ability to begin replacing antiquated and cumbersome injections.

The Hero Patch is based on new class of macro-porous microneedle and set of patent-pending fabrication technologies initially developed at Tufts University and further matured at Anodyne Nanotech Inc.

Description

The ideal candidate possesses both a high level of technical skill and an innate passion to build exciting technologies. Most importantly, you must be willing to contribute in a team environment where ego is meaningless. You will play a key role in characterizing several aspects of the company's porous, polymeric microneedle technology. The use of equipment including: SEM, UHPLC-MS, DLS and others to evaluate both physical and chemical properties of the system. Drug candidates will include small molecules, therapeutic peptides, monoclonal antibodies, and others. Various polymeric materials will be characterized as well. There will be a focus on any drug-polymer interactions and resulting drug stability profiles.

Responsibilities

- Master the use of systems including: Scanning Electron Microscopy, Dynamic Light Scattering Instrument, Ultra-High Performance Liquid Chromatography and Mass Spectrometry
- Investigate drug/polymer interactions for various formulations
- Design analytical and formulation testing protocols
- Determine stability profiles for drugs including: small molecules, therapeutic peptides, monoclonal antibodies, and others.
- Act as the main resource for training other users on the above equipment
- Responsible for maintaining equipment, and ensuring users are properly trained

Qualifications

- A PhD in Mechanical, chemical, or pharmaceutical engineering, chemistry, materials science, or a related engineering or pharmaceutical science field
- Extensive experience with UPLC/HPLC, LC-MS, and SEM-based analytics
- Experience working with a variety of drug molecules
- Experience investigating drug-polymeric interactions
- Must be highly organized with an attention to detail
- NMR and FTIR experience preferred
- Excellent verbal and written communication skills