

基于工程学的新型 DNA 分离系统

【项目描述】：DNA 分离技术在生物技术和医学的多个领域发挥着至关重要的作用，包括基因组测序、DNA 指纹识别、病原体鉴定以及用于诊断疾病的各种基因检测等。凝胶提取试剂盒、高效液相色谱仪（HPLC）和凝胶电泳是常用的 DNA 分离技术。然而，每种技术或系统都存在回收率低、数量少、程序复杂、成本高昂等缺点。因此，我们提出了一种新型 DNA 分离系统，它结合了多种工程技术来解决这些问题，从而旨在提供更好控制和更有竞争力的系统。此外，它还旨在最终将 DNA 分离系统制成商业产品。作为第一步，它包括实验测试和设计，最后设计出原型并进行测试，然后将其转入商业化流程。

【职位概述】：我们正在寻找一名积极主动的研究人员，她/他的专业可以是工程、科学或相关领域，尤其是与生物或生物医学工程相关。理想的候选人应非常愿意学习新技术或新领域，并将此视为自己的项目。她/他将通过管理、设计、实施、执行实验和分析数据，在实现该项目的过程中发挥关键作用。在与不同的研究人员和工程师团队密切合作的过程中，她/他需要积极撰写研究论文，并向著名期刊投稿；同时将能够有重点地、广泛地培养相关的研究和实践技能，从而增加晋升研究生或获得长期行业工作的机会。

【职位要求】：

- 拥有工程或科学领域或相关领域的硕士或学士学位，侧重于生物或生物医学工程或生物物理。
- 有实验测试和设计经验者优先。
- 有生物或生物医学技术方面的经验。

An engineering-based novel DNA Separation system

Project Description: DNA separation technology plays a crucial role in several fields of biotechnology and medicine, including genome sequencing, DNA fingerprinting, pathogen identification, and various genetic assays utilized to diagnose diseases. The Gel extraction kit, High Performance Liquid Chromatograph (HPLC), and gel electrophoresis are commonly used technologies for DNA separation. However, there are shortcomings in each technology, or system such as low recovery rate, small amount, complex procedure, high cost etc. Therefore, here we propose a novel DNA Separation system, which incorporates the several engineering technologies to solve those problems, and thereby targets to offer the better controlled and competitive system. Moreover, it aims at eventually making a commercial product in the DNA separation system as well. As the initial step, it encompasses the experimental test and design, and finally design a prototype and test it, prior to transiting it to the commercialization process.

Job Description: We are seeking a highly motivated and active research fellow specializing in any field of Engineering or Science, or related field with a focus on the bio, or biomedical engineering. The ideal candidate will be one who is very willing to learn the new technologies, or areas and furthermore consider this is his, or her own project (Ownership). The research fellow will play a key role in achieving this project by managing, designing, implementing, performing the experiment and analyzing the data. Collaborating closely with a diverse team of researchers and engineers, you will actively contribute to the development and submission of research papers in decent reputable journals. Throughout the experience as a Focused Research Extended Experience (FREE) research fellow, you will be able to cultivate the relevant research and practical skills in a focused and extensive manner such that enhancing your chances for advancing graduate studies or getting a long term well-paid industrial job.

This position commences in or after early 2024, with individuals anticipated to initiate their responsibilities no later than Spring 2024. The term of employment spans two years, and the contract is structured for annual renewal.

Qualifications:

- Master's or bachelor's degree in any field of Engineering or Science, or related field with a focus on the bio, or biomedical engineering, or biophysics.
- Plus on the experience with the experimental test, and design.
- Plus on the experience of the biological or biomedical technologies

For questions regarding this position, please contact Dr. Jeunghill Hanne, at jeunghill.hanne@scupi.cn