Lily Tran

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**SUMMARY**

Associate Scientist with four years of process development experience in downstream purification, including chromatography and UF/DF filtration for viral vectors and mRNA. Proven ability to translate bench-scale results into scalable processes for cGMP manufacturing. Demonstrates strong skills in experimental design, statistical analysis (JMP), technical documentation and presentation to ensure robust process optimization.

**SKILLS**

* **Software & Data Tools**: JMP, GraphPad Prism, LabVantage LIMS, Benchling, MATLAB, PRO/II, SolidWorks.
* **Unit Operations**: AKTA chromatography (affinity, ion exchange), TFF and TFDF, bioreactors, qPCR, Nanodrop, Unchained Labs Stunner, Pendotech, Filtration-based methods.
* **Lab & Process Skills**: Aseptic technique, GLP, GxP, technical documentation, Experimental design (DOE).

**PROFESSIONAL EXPERIENCE**

**ElevateBio Basecamp Apr 2023 - Present**

*Associate Scientist II, Process Development*

* Designed and executed robust downstream purification experiments using TFF filtration and affinity chromatography at bench and pilot scale for lentiviral vector (LVV) and mRNA platforms to demonstrate feasibility.
* Prepared buffers and samples while meticulously recording and analyzing experimental data to support process optimization and scale-up strategies, ensuring documentation for cGMP compliance.
* Developed in vitro transcription (IVT) and purification processes for mRNA by optimizing reaction conditions, raw materials, and process parameters to meet process development requirements.
* Generated and maintained comprehensive downstream documentation, including SOPs, protocols, electronic lab notebooks (ELNs), and technical reports.
* Document experimental results and present findings through internal oral and written presentations.
* Collaborated cross-functionally with R&D, Facilities & Engineering, Tech Ops, QC, and QA to facilitate technology transfer and implement robust downstream processes, acting as a resource for team members.

**ElevateBio Basecamp May 2021 - Apr 2023**

*Associate Scientist I, Process Development*

* Implemented downstream unit operations for LVV and AAV purification processes—encompassing nuclease treatment, chromatography (AKTA Affinity/IEX), and filtration (clarification/TFF/TFDF)—to refine protein purification techniques.
* Authored technical documents, including DOEs and SOPs, to support process understanding and development for both process development and manufacturing teams.
* Analyzed experimental data using JMP statistical software to optimize viral vector purification platforms, providing data-driven insights and contributing to continuous process improvements.

**Applied BioCode Inc. Aug 2020 - Apr 2021**

*Manufacturing Associate*

* Produced Barcode Magnetic Beads (BMB), molecular reagents, in-vitro diagnostic (IVD) and research use only (RUO) products such as SARS-CoV-2 Assay Kits.
* Followed SOPs and QSRs in compliance with cGMP through documenting procedure in the Batch Recorded and multi-task to meet deadlines specified in overall project schedules.
* Utilized BioCode MDx-3000 medical device for multiplex molecular detection of different pathogen panels.

**Keck Graduate Institute Jun 2019 - Jul 2019**

*Medical Device Development Intern*

* Applied best practices in manufacturing, assembly, quality, and operations for commercialization of medical devices by following cGMP and other regulatory guidelines.
* Developed a low-cost microfluidic device prototype that can identify 9 different UTI-causing pathogens at POC using various methods like MATLAB, Solid Works, 3D printers and laser cutters.

**EDUCATION**

**University of California, Irvine Sep 2016 - Jun 2020**

*B.S. Chemical Engineering, Innovation and Entrepreneurship*

* GPA: 3.7
* Coursework:Process Control, Separation Processes, Reaction Kinetics, Engineering Laboratory