Erdenejargal Tumurbaatar

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY   *2014 - 2017*
Bachelor of Science in Chemical & Biomolecular Engineering   **Georgia, USA**
- Senior Capstone Project: Production Optimization of Lay's Potato Chip

UNIVERSITY OF PEOPLE   *2024 – 2026*
Online Bachelor of Science in Health Science   **California, USA**

EXPERIENCE

RESEARCH ASSOCIATE II   **Redwood City, CA**
Natera   *March 2022 - September 2022*
- Executed end-to-end verification experiments for the automated cfDNA oncology process workflow.
- Utilized molecular biology techniques, including cfDNA quantification, the NGS library assay preparation process, ddPCR, and PCR amplification.

LIFE SCIENCE RESEARCH PROFESSIONAL I   **Palo Alto, CA**
Stanford University   *November 2020 - March 2022*
- Prepared high-throughput, cost-effective NGS library assays for plant, fish, and reptile samples, supporting efforts to research the diversity of ecological species in the face of environmental distraction.
- Maintained day-to-day lab resources, administrative duties, and safety protocols according to EHS guidelines.
- Executed experiments to develop the hTERT immortalization protocol to establish novel cell lines from several species of fish models for future experiments.
- Implanted and optimized gDNA extraction protocol for plant tissue samples.

STAFF RESEARCH ASSOCIATE   **San Francisco, CA**
University of California, San Francisco   *December 2019 - November 2020*
- Conducted the PBMC isolation using SepMate™ for a streamlined scRNA-seq process.
- Performed freeze/thaw procedures for cryopreserved PBMC samples for multiple sequencing projects.
- Extracted mRNA samples from lymphocytes to study haplotype-specific differences using RT-qPCR.
- Performed Gibson Assembly cloning procedures and bacterial transformation duties.
- Conducted a protein characterization technique (western blot) to analyze haplotype-specific differences in protein molecules translated from mRNAs.

RESEARCH ASSISTANT   **Redwood City, CA**
Genapsys, Inc   *May 2018 - December 2019*
- Synthesized composition of DNA-polymer conjugates in an aseptic laboratory environment as a result signal loss decreased from 100% to ~50%; significantly improved the sequencing performance and read length.
- Contributed to the discovery of oligonucleotide conjugation chemistries exploring monomer composition, length, and charge in relation to signal loss.
- Contributed to CMOS chip manufacturing protocol transfer efforts working closely with the development team.

TECHNICAL SKILLS

MOLECULAR BIOLOGY   DNA/RNA extraction, NGS library assay, PBMC cryopreservation, cloning, gel electrophoresis, NGS assay QC (Tapestation, Qubit, Plate Reader).

SOFTWARE   Linux, MS Office, JIRA, RedCap.

LANGUAGE
English and Mongolian