Ku Kim

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Education

University of California, Berkeley   GPA: 3.62

Bachelor's degree, Molecular and Cell Biology 2018-2019

University of California, San Diego   GPA: 3.87

Bachelor's degree, General Biology 2016-2018

Single Bachelors Degree obtained from UC Berkeley on 12/20/19

Research Experience

Research Associate | Zymo Research Corp   (February 2020 - Nov 2020)
- Research and Development of Zymo's urine nuclease stabilizing reagent
  - Creating data sheets, protocols, and conducting experiments for clinical applications
- Extraction of nucleic acids and quantification of human saliva and urine samples

Research Associate | Promis Diagnostics   (December 2020 - Current)
- Development of colorectal cancer, UTI, and bladder cancer assays
  - Experimental design and planning, data analysis, and documentation to satisfy CLIA and CAP requirements
- Creation of automated methods for accessioning, liquid handling, and extraction

Lab Techniques

- Protein purifications assay through elution fractions, Bradford and Malachite Green assays, COOMASSIE Staining, and Western Blot
- Bacterial digestion with Restriction enzymes, ligation, and transformation (Ligation and transformation of Green Fluorescence Protein into E Coli)
- Sample processing(Nucleic Acid extraction) from stool, urine, blood, saliva, and swab samples
  - Manual column and KingFisher extraction methods and troubleshooting
  - DNA quantification via PCR, nanodrop, and Qubit
- Epigenetics based protocols, namely bisulfite conversion and Linear targeted enrichment-qualitative methylation specific real time PCR (LTE-qMSP)

Automation

- Kingfisher Flex (Thermofisher BindIt Software) - developed protocols for automated urine extraction in 24 and 96 well formats
- Hamilton Starlet - fully automated PCR plating for a UTI assay consisting of a 16 pathogen panel (10 and 5ul rxn vol) on 384-well plates
- Microsoft Power-automate - streamlined accessioning of patient information and test-result delivery through Twilio and Bitly leading to an increased covid-19 testing capacity from ~200 to ~1500 samples daily

    Non-Research Skills - Google advertising, facebook and instagram marketing, Creation of marketing material pamphlets, data sheets, and newsletters, website design, Python