/ | Phone:

-3059

**SUMMARY:** Analytical chemistry professional with a background in microbiology/biochemistry research. Looking to implement my skills and expertise in a collaborative laboratory environment.

#### **EDUCATION**

#### **Microbiology Post-Baccalaureate**

Oregon State University, Corvallis, OR 2010 - 2012, 90 graduate credits completed

#### Bachelors in Biochemistry and Biophysics, Honors degree

Oregon State University, Corvallis, OR 2005- 2009, *summa cum laude* 

#### **EXPERIENCE**

Pfizer, Bothell, WA, 2023 - Present

https://www.pfizer.com/

## Analytical Sciences, Method Development & Method Qualification

Continuation of antibody-drug conjugate (ADC) development work following Seagen's acquisition by Pfizer.

Seagen, Bothell, WA, 2022 - 2023

https://www.seagen.com/

## Analytical Sciences, Method Development & Method Qualification

- Developed and qualified analytical test methods for antibody-drug conjugates (ADCs).
- Supported investigational new drug applications through data acquisition, data analysis and drafting of IND sections.
- Performed a variety of assays to measure critical quality attributes of ADCs or in process conjugation impurities: icIEF, capillary electrophoresis, HPLC, GC.
- Communicated data through reports and presentations at internal meetings.

## VR Analytical (Element subsidiary), Bend, OR, 2021 - 2022

https://www.vranalytical.com

#### LC-MS Analyst, Instrument Operation & Data Analysis

- Quantitative and qualitative analysis of LC-MS/MS data for Extractables and Leachables studies.
- Created LC-MS data packages and client reports, and acted as a technical reviewer for quality assurance (QA).
- Operated, maintained, and qualified instruments, ensuring compliance with SOPs and cGMP principles.
- Contributed to development of high resolution mass accuracy compound databases.

## Chemtrace (UCTT subsidiary), Portland, OR, 2019 - 2021

http://www.chemtrace.com

#### Trace Metal Analyst, Lab Operations & Research

- Analyzed standard and research client samples through trace metal assays utilizing ICP-MS in a cleanroom environment.
- Performed daily instrument calibration and maintenance to ensure accurate results.
- Contributed to writing of work instructions, procedures, protocols and analytical methods.
- Maintained ISO 17025 accreditation, followed QC/QA protocols, and provided technical training to new analysts.

## EndoCanLab, Corvallis, OR, 2019

https://endocanlab.com/

## Lab Analyst

- Worked in a bootstrapped startup environment with a small team and limited resources.
- Processed samples and performed analysis using high performance liquid chromatography (HPLC).

#### Oregon State University, Corvallis, OR, 2010 - 2012

# **Graduate Research Assistant and Teaching Assistant**

- Development of antisense antibiotics for use in life-threatening diseases caused by antibiotic-resistant bacteria.
- Highly Pathogenic Avian Influenza vaccine development and testing in vivo (Biosafety level 3+).
- Elucidation of bacterial resistance to novel, synthetic antibiotics through transposon mutagenesis and screening.

- Development of novel assays to measure intracellular concentrations of target molecules using fluorescent probes.
- Managed day-to-day laboratory tasks: maintenance of bacterial cell cultures, macrophage tissue cultures, reagent preparation, instrument troubleshooting, and mentoring of undergraduate researchers.
- Assisted with lectures, recitations, labs and curriculum development for Genetics, Microbiology, Biochemistry, General Biology, and General Chemistry.

# Sarepta Therapeutics (Formerly AVI Biopharma), Corvallis, OR, 2009 - 2010

# https://www.sarepta.com/

#### **Research Assistant**

- Developed antibiotics for use in life-threatening diseases caused by antibiotic-resistant bacteria.
- Optimized drug delivery of therapeutics through screening of cell-penetrating peptide conjugates.
- Assessed more cost-effective in vivo models for antibiotic efficacy tests.
- Presented research progress to senior scientists and management team.
- Maintained bacterial cell cultures, macrophage tissue cultures, agar plate stocks, and reagents.

#### Oregon State University, Corvallis, OR, 2006-2009

#### **Undergraduate Research Assistant and Teaching Assistant**

- Investigated antisense antibiotics dose response in vitro and in vivo (mouse model).
- Maintenance of lab materials: bacterial cell cultures, macrophage tissue cultures, reagents, electrophoresis gels, agarose
  plates.
- Presentation of lab methods and student learning objectives, supervision of student lab activities and lab safety procedures.

#### **SKILLS**

- Operating lab equipment: HPLC, GC-FID, icIEF, capillary electrophoresis, ICP-MS, UHPLC Q-tof, flow cytometry, UV-Vis.
- Biological techniques: mammalian/bacterial cell culture, PCR, DNA purification, electrophoresis, transposon mutagenesis, ELISA, virus inoculation, hemagglutination, plaque assay.
- Animal Models: Chicken (avian), mouse (mammalian), and *C.elegans*.
- Experience with LIMS, eQMS, cleanroom practices, cGMP, cGLP, lean laboratory approach, and 21 CFR part 10 and 11.
- Python (Coding language)

## **PUBLICATIONS**

- Reese, K. A., Lupfer, C., Johnson, R. C.,
   Mullen, V. M., Geller, B. L., & Pastey, M. (2013). A Novel Lactococcal Vaccine Expressing a Peptide from the M2 Antigen of H5N2 Highly Pathogenic Avian Influenza A Virus Prolongs Survival of Vaccinated Chickens. Veterinary medicine international, 2013, 316926. https://doi.org/10.1155/2013/316926
- Puckett, S. E., Reese, K. A.,
   Mullen, V., Johnson, R. C., Pomraning, K. R., Mellbye, B. L., Tilley, L. D.,
   Iversen, P. L., Freitag, M., & Geller, B. L. (2012). Bacterial resistance to antisense peptide phosphorodiamidate
   morpholino oligomers. Antimicrobial agents and chemotherapy, 56(12), 6147–6153.
   https://doi.org/10.1128/AAC.00850-12
- Mellbye, B. L., Iversen, P. L., & Geller, B. L. (2009). Inhibition of intracellular growth of Salmonella enterica serovar Typhimurium in tissue culture by antisense peptide-phosphorodiamidate morpholino oligomer. Antimicrobial agents and chemotherapy, 53(9), 3700–3704. https://doi.org/10.1128/AAC.00099-09

## AWARDS

- OSU Presidential Scholarship (Full-ride)
- Andy Aitkenhead Memorial Scholarship
- Donald MacDonald Scholarship
- Augustin & Rita Gombart Medical Scholarship
- HHMI Undergraduate Research Grant
- OHSU Invent-a-thon 2020 Health Disparities prize winner