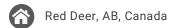
# KRISTEN STEENBERGEN

Bioinformatician





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http://KSteenbergen.github.io



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# SUMMARY

Enthusiastic soon-to-graduate bioinformatics master's student with extensive biotech lab experience and strong molecular biology background. Motivated to perform well individually and as a team with a proven history of producing quality results promptly while working independently with minimal oversight. Looking to use strong R and Python programming skills to conduct bioinformatics analyses. Experienced in writing, testing, and debugging code, as well as working with high-dimensional -omics data. Interested and available for part-time or project-based remote work.

# EDUCATION

### **MASTER'S DEGREE**

M.S. Biotechnology Concentration: Bioinformatics Johns Hopkins University Current GPA: 4.0 2019 - Present

**Expected Graduation: May 2022** 

### **BACHELOR'S DEGREE**

Agriculture: Biotechnology Minor: Chemistry **Dordt University** GPA: 3.9

# SKILLS

2004 - 2008

- Python and R / Bioconductor
- MySQL
- Linux
- **RStudio**
- Git
- **Cloud Computing**
- Statistics
- LaTeX

# WORK EXPERIENCE & PROJECTS

### **RESEARCH VOLUNTEER**

University of Texas Health San Antonio, Alexander Bishop Lab via The Bioinformatics **Research Network** January 2021 - Present

- Analyzed transcriptomic changes and R-loop dynamics in Ewing sarcoma cell lines treated with a splicing inhibitor.
- Completed differential gene expression, and differential transcript usage analysis using R/Bioconductor on RNA-Seq data.
- Presented results and code in RMarkdown reports at regular lab meetings.
- Collaborating remotely using Github, Slack, and Zoom.
- Middle authorship expected at publication.

### **GRADUATE STUDENT**

**Johns Hopkins University** Academic project highlights: 2019-Current

- Created an application to allow users to browse mutations in h-CoV-2019 Variants. This project utilized a SQL database, python CGI scripts, JQuery, CSS, and HTML5, and can be found at www.covidvariantbrowser.com.
- · Completed a research manuscript as part of a group to detail our research regarding the analysis of a novel SNP reported in the literature.

#### RESEARCH TECHNOLOGIST

Government of Alberta, Field Crop Development Centre, Biotechnology Lab 2008 - 2014

- Participated in various research projects including high throughput genotype screening for various SNPs in barley cultivars, and assay development for detecting Fusarium graminearum.
- Programmed automated Liquid Transfer Workstation robot to autonomously complete DNA extractions and PCR plate preparation increasing lab efficiency.
- Utilized various biotechnology applications. Lab skills listed on the following page.
- Completed technical writing and editing for reports, posters, and publications.
- Analyzed data, and facilitated experiment design, scheduling, and troubleshooting.

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# LAB SKILLS

- qRT-PCR
- High Throughput Screening
- DNA/RNA Extraction
- ELIZA
- Western Blot
- Affinity Chromatography
- Fungal Culture
- Media Preparation
- Electrophoresis

# PROFESSIONAL DEVELOPMENT

- DataCamp: ChIP-seq with Bioconductor
- DataCamp: Data Visualization with ggplot2

# **VOLUNTEER**

- Waskasoo Community
   Association Board –
   Director-at-Large
   2013 Present
- Waskasoo Community Gardens Committee – Member 2016 - Present

# WORK EXPERIENCE (CONTINUED)

### STUDENT PRACTICUM

Plasmapheresis Department, Hematech Inc.

Spring 2008

- Completed a research project involving protein purification of colostrum from transgenic cattle.
- Analyzed data and compiled results that optimized the purification process and enhanced internal efficiency.

### CHEMISTRY LAB TEACHING ASSISTANT

**Dordt University** 

Fall 2005

 Provided instructional assistance, grading, and tutoring to students during lab hours.

#### STUDENT INTERNSHIP

Canadian Pacific Genetics Centre, Abbotsford Veterinary Clinic Summer 2005

- Assisted with embryo transfer and in vitro fertilization procedures for dairy cows.
- Performed media preparation, embryo processing, cryopreservation, and embryo culturing.

# RESEARCH

- K.Kumar; J. Zantinge; K. Xi; K. Steenbergen; P. Juskiw; S. Waterman; M. Holtz. Plant Pathogen Interaction Enzyme Expression (PPIEE) assay for linking enzymes to fusarium head blight resistance in barley. Poster presented at: Plant Pathology Society of Alberta Annual Meeting; October 2014; Canmore, AB.
- K.Kumar; P. Juskiw; K. Xi; S. Lohr; K. Steenbergen; J. Zantinge; M. Holtz. Evaluation
  of Seed Assay to Screen Barley for Fusarium Head Blight Resistance. Poster
  presented at: Plant Pathology Society of Alberta Annual Meeting; November 2013;
  Brooks. AB.
- K. Kumar; K. Steenbergen; P. Juskiw; K. Xi; J. Zantinge; M. Holtz. Detection of resistance in barley to Fusarium graminearum through an in vitro seed germination assay. Poster presented at: 7th Canadian Workshop on Fusarium Head Blight; November 2011; Winnipeg, MB.
- S. Xue; J. L. Zantinge; K.J. Steenbergen; and P.E. Juskiw. Molecular markers identified that are linked to resistance or susceptibility of barley to scald. Poster presented at: Plant Pathology Society of Alberta Annual Meeting; October 2010; Lethbridge, AB.

REFERENCES AVAILABLE UPON REQUEST