

KHUSHBOO HEMNANI

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EDUCATION

IOWA STATE UNIVERSITY, Ames, IA

Masters of Science, *Immunobiology*: May 2014

GPA: 3.55/4.0

Thesis title: "*Prevention of heterologous Porcine Reproductive and Respiratory Syndrome Virus (PRRSv) infection using an antibody-virus complex vaccine*"

IOWA STATE UNIVERSITY, Ames, IA

Bachelor of Science, *Microbiology*: December 2007

GPA: 3.2/4.0; Dean's List Fall 2007

PROFESSIONAL AND TEACHING EXPERIENCE

RESEARCH ASSISTANT, Doctors Hospital at Renaissance Health Institute for Research and Development, Edinburg, TX
October 2021-Present

- Provide general project management support to clinical trial study coordinators
- Ensure team members are trained to comply with Institutional, GCP, FDA and ICH guidelines

BIOLOGY LECTURER I, University of Texas, Rio Grande Valley, Department of Biology, Edinburg, TX

Spring 2018-Summer 2020

Courses taught- Biology 3401- General Microbiology Lab and Biology 3403- Medical Microbiology Lab

- Taught six-eight laboratory sections of General Microbiology and two sections of Medical Microbiology, trained students in conducting laboratory exercises related to microbiology curriculum as well as laboratory practices and concepts that will allow the students to be successful in other higher level laboratory courses and research experience
- Trained and supervised a group of undergraduate students in preparation of media and reagents
- Ensured smooth running of all microbiology labs including coordination of personnel and equipment, maintaining inventories, ordering required supplies and following safety guidelines
- Designed all teaching material, testing material for quizzes and exams, developed lab syllabus and schedules
- Blueprinted entire General Microbiology lab course on Blackboard according to Applying the Quality Matters Rubric standard
- Completed Applying the Quality Matters Rubric Workshop for online teaching

BIOLOGY LABORATORY COORDINATOR, Arizona State University, College of Integrated Sciences & Arts, Mesa, AZ

Fall 2016-Fall 2017

- Served as the laboratory coordinator for Biology, Anatomy & Physiology and Microbiology laboratories
- Purchased all materials, supplies and reagents associated with labs, improved chemical and biological inventory system
- Managed all Biology and Microbiology lab fee budget, kept detailed accounts of all purchases and followed university guidelines for reconciliation process
- Updated and maintained Standard Operating Procedures for all lab exercises for all lab courses as well as Ensured all labs pass through university's Environmental Health and Safety, BSL-2, IACUC and Fire Safety inspections
- Implemented and monitored safety compliance standards for all biology lab activities
- Worked with lab instructors to design and implement new innovative lab exercises
- Trained, supervised and mentored undergraduate student workers in preparation of reagents and solution, set-up and take-down of labs while adhering to safety compliance
- Organized laboratory course schedules
- Committed to university's sustainability goals- nitrile glove recycling, green labs

MICROBIOLOGY LABORATORY COORDINATOR, Missouri State University, Department of Biology, Springfield, MO

Fall 2015-Spring 2016

Courses taught- Biology 210- Elements of Microbiology and Biology 310- Fundamental Principles of Microbiology

- Served as the laboratory coordinator for 200- and 300-level microbiology laboratory sections as well as supporting upper division microbiology and immunology courses
- Trained and supervised a group of graduate students in preparation of media, reagents, set up of labs

PROFESSIONAL AND TEACHING EXPERIENCE CONT.

- Ensured smooth running of all microbiology labs including coordination of personnel and equipment, maintaining inventories, ordering required supplies and following safety guidelines
- Designed testing material for quizzes and exams, developed lab syllabus and schedules, Standard Operating Procedures (SOPs) for prep team
- Served as Academic advisor to students from freshmen to senior years, advising on class registration, academic success and application process to graduate and pre-professional schools. Successfully completed professional Academic Advisor Training offered by the institution

TEACHING SPECIALIST, University of Minnesota, Department of Biology Teaching and Learning, Twin Cities, MN
Fall 2014-Spring 2015

Course taught- Foundations of Biology I- Laboratory for majors

- Demonstrated several microbiology, molecular and analytical techniques that will help student in their research career
- Coached students to write scientific publications and discussed key techniques for a focused and efficient review of a publication
- Assisted in observing and assessing student's progress and behavior and consulted with educational experts to improve on methods used
- Evaluated student assignments and graded them on the basis of fundamental knowledge of the subject matter, thought process and approach to solve/answer a question

GRADUATE TEACHING ASSISTANT, Iowa State University, Department of Genetics, Development and Cell Biology, Ames, IA
Spring 2011, Fall 2012-Fall 2013

Courses taught-Principles of Biology laboratory I & II for majors and non-majors

- Familiarized students with the diversity of life, use of compound microscopes, exercises related to population and evolutionary genetics and with nature and workings of observation-based science

INTRODUCTORY BIOLOGY GRADUATE TEACHING FELLOW, Iowa State University

Introductory laboratory teaching assistant learning community (BTALC), Howard Hughes Medical Institute
Spring 2013-Fall 2013

- Learned instructional strategies that allowed students to learn metacognition and concept thinking
- Learned different ways to access student learning using different feedback strategies

RESEARCH EXPERIENCE

GRADUATE RESEARCH ASSISTANT, Iowa State University, Department of Biomedical Sciences, Ames, IA
(DR. JESSIE TRUJILLO), September 2009-May 2014

Large-scale animal vaccine-efficacy studies

- Assisted in large scale production and titration of viruses
- Performed serum neutralization assay using fluorescent focus titration and virus titer reduction assay
- Extracted viral RNA from serum, lungs and spleen using multiple formats, including high-throughput magnetic bead separation, for downstream applications such as PCR
- Trained in conducting ELISA assays on over 300 serum samples at a time
- Significant cell culture experience with multiple different lineages
- Significant experience with using statistical software such as SigmaPlot for data analysis and representation

RESEARCH ASSISTANT/LAB MANAGER, Iowa State University, Department of Plant Pathology, Ames, IA
DR. MARK GLEASON, September 2005-May 2008

- Responsible for lab supplies management, media and solutions preparation, equipment handling and developing new protocol
- Performed purification of fungal cultures using sterile techniques and placement into long term storage
- Assisted in DNA extraction, PCR amplification, purification and quantification of PCR product
- Prepared fungi inoculums for field experiments
- Trained and supervised undergraduate part time employees and assisted graduate students in research