

Professional Research Assistant

Jin Cha

EDUCATION

Bachelor of Science in Biological Sciences
University of Colorado at Denver – August 2020

RELEVANT COURSEWORK

Molecular and Cell Biology	Biochemistry	Organic Chemistry
Genetic	Microbiology	Biotechnology
Ecology	Virology	

LABORATORY SKILLS

- Western Blot
- Laboratory Techniques: Gram staining, Bacterial cell culture, Bacterial transformations
- Molecular Biology Laboratory Techniques: Purification and Isolation of DNA & RNA using minipreps, nucleotide quantification, restriction digests, agarose gel electrophoresis, PCR, DNA cloning, in silico analysis and design of synthetic DNA, PCR, TA cloning (bacteria), cDNA synthesis, real time quantitative PCR, isolation of genomic DNA, protein isolation, Gene knock out using CRISPR CAS9
- General Chemistry (I, II) & Organic Chemistry (I, II) Laboratory: Have experience with using infrared spectroscopy and elemental analysis of carbon 13, elemental analysis of ¹H NMR
- Culture and purify proteins using yeast and E. coli expression system
- Culture Mammalian Cells and Bacterial Cells
- BCA Protein Assay
- Experience with tumor animal models
- Ability to handle mice and administer an injection
- Induce macrophage using rats and collect samples
- Administer rat tail bleeding time trial after injection
- Ability to use anesthesia and euthanasia machine
- Management of small business with up to 30 employees.
- Business supervisor, inventory, and bookkeeping

EXPERIENCE

PROFESSIONAL RESEARCH ASSISTANT

ANSCHUTZ MEDICAL CAMPUS, DEPARTMENT OF SURGERY, DIVISION OF UROLOGY

APRIL 2022 – PRESENT

Neuro-urology studies using mice as a model system

Laboratory preparation, flow cytometry, molecular biology, immunostaining and confocal microscopy, small rodent surgery, physiological and behavioral recordings.

PROFESSIONAL RESEARCH ASSISTANT

ANSCHUTZ MEDICAL CAMPUS, DEPARTMENT OF SURGERY, PLASTICS AND RECONSTRUCTIVE DIVISION

JUNE 2021 – FEBRUARY 2022

Culture various proteins using yeast and E. coli expression system

Laboratory preparation, flow cytometry, ELISA (sandwich style), Working on murine (NSG type) as a model organism

Co-authorship of CRS manuscript title “CCR4-IL2 bispecific immunotoxin does not induce cytokine release syndrome” (in process of being reviewed for publication)

RESEARCH ASSISTANT

UNIVERSITY OF COLORADO DENVER

APRIL 2019 – MARCH 2020

Xenopus laevis as a model organism, Laboratory preparation, Extract Src from laevis, Phosphospecific Western Blotting, Membrane Imaging and use Sigma Plot to analyze Src activity

INDEPENDENT STUDY

UNIVERSITY OF COLORADO DENVER

JANUARY 2019 – MAY 2020

Independent Research Study at Src Research of Bradley Stith: Role of Src before fertilization and after fertilization, understand the role of calcium in fertilization