

NAGENDRA DHANIKONDA

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EDUCATION

Washington & Jefferson College

Bachelor of Arts in Biology, Minor in Chemistry
GPA 3.99

Washington, PA
December 2022

RESEARCH EXPERIENCE

Harvard Medical School, Center for Virology and Vaccine Research

Summer Research Internship, Jiang Laboratory

Boston, MA
Summer 2022

- Investigated how NFκB expression, in renal cell carcinoma, modulates the tumor microenvironment and immune landscape
- Sourced anti-NFκB antibodies, validated them via immunohistochemistry, and conjugated them with oligonucleotide markers
- Supported other projects by maintaining cell cultures
- Data collected will be presented in the W&J poster session

University of California San Francisco, Department of Radiation Oncology

Summer Research Internship, Barcellos-Hoff Laboratory (440 hours)

San Francisco, CA
Summer 2021

- Investigated the relationship between ionizing radiation and mammary tumor microenvironment
- Optimized a 21-color flow cytometry panel for analyzing mammary tumor immune infiltrate
- Optimized an 8-color flow cytometry panel for analyzing glioblastoma immune infiltrate
- Prepared and stained samples for flow cytometry and analyzed data
- Data collected was presented in the W&J poster session

Washington & Jefferson College

Lab course based, group research project in cell biology

Washington, PA
Fall 2021

- Investigated the effects of curcumin on apoptosis in HeLa cells
- Treated HeLa cells with various concentrations of curcumin
- Measured presence of apoptosis using immunofluorescence microscopy for various apoptotic markers as well as western blots for cleaved caspase

Washington & Jefferson College

Lab course based, group research project in intro to molecular and cell biology

Washington, PA
Fall 2019

- Explored the relationship between vegetation density and soil bacteria diversity
- Collected soil bacteria and established cultures on nutrient agar
- Extracted genomic DNA of morphologically different bacteria
- Amplified 16S rDNA using PCR and purified DNA using spin column
- Conducted Gel electrophoresis was for both whole and restriction digested 16S rDNA 16S rDNA were analyzed and taxonomy was determined using RDP and BLAST

SCIENCE COURSEWORK

Intro to Molecular and Cell Biology + lab
Organismal Biology + lab
Organic Chemistry I & II + lab
Cell Biology + lab
Intro to Physics I & II + lab
Medicinal Chemistry
Bioinformatics+ Lab (In Progress)

Analytical Chemistry + lab
Inorganic Chemistry + lab
Animal Physiology + lab
Medical Histology
Virology + lab
Biochemistry + lab

RESEARCH SKILLS

PCR
Plasmid transformation
Bacterial inoculation
Cell culture
Immunofluorescence microscopy
RFLP analysis
IHC
DNA extraction

Gel electrophoresis
Flow Cytometry
Multiplex imaging (CODEX)
Viral plaque assay
SDS PAGE
Western blot

INVOLVEMENT

W&J Homeless Initiative (Campus club)

August 2021 - Current

- Founder and President
- Organized knitting event with knitting club to donate scarves and beanies to homeless shelter
- Plan upcoming fundraisers and cooking events to assist local homeless populations

VOLUNTEER EXPERIENCE

Medical Street Outreach, Washington, PA

October 2021 - Current

- Completed 20 volunteer hours to date
- Volunteer once a week
- Perform rounds to homeless camps and provide medical care with Dr. Monica Speicher
- Took vitals and interviewed patients on symptoms and living situation/health history
- Organized winter knitting event with on campus club to donate with scarves/beanies

Veterans Hospital Nursing Home (VA Medical Center) Livermore, CA

2016 - 2019

- Over 200 hours completed
- Assisted veterans with limited mobility around the hospital
- Organized common area and set up activities/events for patients
- Socialized with veterans that did not have any visitors

SHADOWING

Forensic Pathologist, Dr. Leon Rozin, MD), Washington, PA

October - November 2021

- Observed 6 autopsies over 12 hours on different dates
- Learned basic autopsy protocols and procedures

Radiation Oncologist, Dr. Daphna Spiegel

July 2022

16 hours over 2 days

HONORS AND AWARDS

Alpha Scholar

- Maintain GPA above 3.85

Dean's List (6 semesters)

Merck Research Fellowship

March 2021 & March 2022

- Competitive award that supports W&J students in their pursuit of biomedical, summer research internships.

Donald W. Ebbert Award

April 2021

- Awarded to two W&J student's yearly who show desire to succeed in academics as well as other school activities and have gained the respect and friendship of faculty and friends alike.

Josephine Markley Prize in Physics

April 2021

- Students in introductory physics courses are eligible to take an examination, with the prize going to the student achieving the highest examination score.

