Columbia Science Student
70 Morningside Drive (1234)
New York, NY 10027
(212) 123-4567 • css1234@columbia.edu

EDUCATION

Columbia University, Columbia College, New York, NY
Bachelor of Arts, Biochemistry; GPA: 3.7   Expected May 2020

Relevant Coursework: Introductory Biology, Physics, Intensive General Chemistry, General Chemistry Laboratory, Introduction to Computer Science (Java), Introduction to Probability and Statistics

HONORS AND GRANTS

Honor Honor, Columbia University Program (2016 – Present)
Research Research Silver Medal (2017)
Program Summer Research Funding Grant (2017)
U.S. Presidential Scholar Semifinalist (2016)

RESEARCH EXPERIENCE

Columbia University, Biological Sciences and Engineering Departments
Research Program Fellow, May – November 2017
Advisors: Scientist Scientist, Scientist Scientist, Scientist Scientist
Designed and engineered probiotics to specifically invade cancer cells and release shRNAs into the cytoplasm to knockdown oncogenes, resulting in cancer cells dying or turning into normal cells, depending on target gene. Developed project goals and methods, built and tested the genetic circuits with cloning and cell culture work. Led introductory workshops and lab tour in synthetic biology to elementary, middle, and high school students, in partnership with HYPOTHEkids and ThinkSTEAM.

Brookhaven National Laboratory, Department of Biology
High School Research Program Intern, June 2015 – August 2016
Advisor: Scientist Scientist
Developed method to express target protein in *E. coli* and purify protein for crystallization. Collaborated with PI to crystallize protein for X-ray crystallography to determine protein structure and function. Performed bioinformatics analysis of the protein using BLAST, JPred, PSIPRED, and SWISS-MODEL.

PRESENTATIONS

The Symposium Symposium, Boston, MA, November 2017. Student, S. "shRNA Induced Oncogene Silencing as a Therapeutic Method for Cancer-specific Gene Therapy" (lecture).

Science Research Symposium, Columbia University, New York, NY, July 2017. Student, S; Student, A; Student, B; Scientist, S. "shRNA Induced Oncogene Silencing as a Therapeutic Method for Cancer-specific Gene Therapy" (poster).

Brookhaven High School Research Program Poster Session, Upton, NY, December 2015. Student, S. "Expression, purification, crystallization, and bioinformatics analysis of histone demethylase from *Arabidopsis* that is involved in the plant defense system" (poster).

LEADERSHIP/SERVICE

Columbia University Biology Biology Club
Secretary, Committee Officer, Workshops Lead, September 2017 – Present
Record meeting notes and correspond with collaboration organizations. Develop and execute biology projects locally as citizen scientists. Organize events to unite local students interested in biology and present student projects in synthetic biology. Design and teach biology workshops to students.

Columbia University Association Association
Committee Officer, September 2017 – Present
Guide members in finding a research position and throughout the research projects' progression. Organize events to expose members to different kinds of medical research.

ArchCare at Terence Cardinal Cooke Health Care Center
"At Your Service" Volunteer, February 2017 – May 2017
Assisted nurses with patient care, emotionally supported patients to enhance patient experience.

MEMBERSHIP

American Physician Scientist Association (2017–Present)
Charles Drew Pre-Medical Society, Columbia University, Member (2016–Present)
Chandler Society (Chemistry), Columbia University (2017–Present)
Girls Who Code, Columbia University (2017)
Brookhaven Women in Science, Brookhaven National Laboratory (2014–2017)

TECHNICAL SKILLS

Computational: AutoDock Vina, AutoDock Tools, PyRx, PyMol, JMol, WinCoot (COOT for Windows), BLAST, JPred, PSIPRED, SWISS-MODEL, Arduino, MobaXterm, Sublime Text 3 (with Java), Cyberduck, Microsoft Office Suite, R, Benchling

Wet Laboratory: Genetic engineering and cloning, expression of target protein in *E. coli* using auto-inducing media with shaking, purification of target protein using metal affinity and size exclusion chromatography, SDS-PAGE (sodium dodecyl sulfate polyacrylamide gel electrophoresis)

LANGUAGES
Chinese (fluent)
French (conversational)