#### **EDUCATION**

Brown University — Sc.B. in Biochemistry and Molecular Biology (w/ Honors)

Magna Cum Laude

### **PUBLICATIONS**

Cho, M.; Villanova, J.; **Ines, D. M.**; Chen, J.; Lee, S. S.; Xiao, Z.; Guo, X.; Dunn, J. A.; Stueber, D. D.; Decuzzi, P.; Colvin, V. L.. Sensitive T<sub>2</sub> MRI Contrast Agents from the Rational Design of Iron Oxide Nanoparticle Surface Coatings. *The Journal of Physical Chemistry C*, **2023**, *127*, 1057–1070. DOI: 10.1021/acs.jpcc.2c05390

#### ORAL AND POSTER PRESENTATIONS

- Ines, D.M., Villanova, J., Colvin, V.L. Stimuli-responsive Surface Coating Properties of T<sub>2</sub> MRI Contrast Agents. Oral Presentation given at 2022 Materials Research Society Fall Meeting; November 29<sup>th</sup>, 2022; Boston, MA.
- Ines, D.M., Villanova, J., Colvin, V.L. Stimuli-Responsive Surface Coatings for Molecular Imaging with T<sub>2</sub> MRI Contrast Agents. Poster presented at 2022 Biomedical Engineering Society Meeting; October 14<sup>th</sup>, 2022; San Antonio, TX.
- Ines, D.M., Villanova, J., Colvin, V.L. Stimuli-responsive Surface Coatings for Molecular Imaging with T<sub>2</sub> MRI Contrast Agents. Poster presented at ACS Northeast Regional Meeting; October 2<sup>nd</sup>, 2022; Rochester, NY.

### **WORK EXPERIENCE**

## The Colvin Lab at Brown University

June 2021 – June 2023

Graduation: May 2023

Research Assistant

- Works as a research assistant in a lab focusing on inorganic nanochemistry with biomedical applications
- Synthesizes various nanoparticles and analyzes them using a Transmission Electron Microscope
- Tailors nanoparticles for biomedical applications, such as molecular Magnetic Resonance Imaging (MRI)
- Uses peptide synthesis and nanoparticle conjugation to develop responsive imaging probes

#### **BIOL 0200 Teaching Assistant**

January 2021- May 2023

- Undergraduate teaching assistant for an introductory biology course (~ 250 students)
- Responsible for running a weekly lab section, exam review sessions, and grading exams

GoPeer, LLC

March 2020 - August 2020

**Tutor** 

• Engaged with students regularly to teach material, review practice problems, and develop study plans in subjects including Piano, Geometry, Algebra I, Algebra II, and SAT preparation

## Rensselaer Polytechnic Institute — Troy, New York

July 2018

Research Intern

- Learned about various bio-analytical research techniques used in medicine and biochemical research
- Worked under professors and with graduate students to create a presentation about topics including nuclear magnetic resonance, proteomics, and MRI

# Rems-Murr Clinic — Winnenden, Germany

July 2017

Hospital Work-Shadow

- Shadowed a team of general surgeons
- Watched surgeries, joined doctors on rounds, observed consultations, and learned about basic medical procedures (taking blood, reading x-rays, doing ultrasounds)

### Klingele Papierwerke GmbH & Co. — Grunbach, Germany

July 2017 - August 2017

Machine Worker

- Worked in a small team at a paper and cardboard manufacturing company
- Operated machinery that prepared, packaged, and sorted corrugated cardboard to be shipped to clients

## **VOLUNTEER ENGAGEMENT**

## **Biology Undergraduate Education at Brown University**

August 2022 - May 2023

Biology Peer Advisor

Acts as an academic peer advisor for underclassmen interested in concentrating in Biology-related fields

# Rhode Island Free Clinic — Providence, Rhode Island

January 2020 – May 2023

Medical Scribe

- Takes notes during patient appointments, orders lab work and medications for patients, and completes referrals for patients
- Devised a method for medical scribes to help patients apply for the Patient Assistance Program, a program that allows patients to get name-brand medications for free from pharmaceutical companies

- Fulbright-Austrian Marshall Plan Foundation Award for Research in Science and Technology March 2023
- David Rome Prize (For the best lyric essay by a currently enrolled Brown undergraduate) January 2023
- Summer 2021 UTRA (Undergraduate Teaching and Research Award of \$4,000) July 2021
- 2019 U.S. Presidential Scholars Program Candidate April 2019
- AP Scholar with Distinction July 2019
- National Merit Scholarship Corporation Finalist February 2019

# **SKILLS AND INTERESTS**

Intermediate proficiency in MATLAB, R, and SPSS; fluent in German; concert pianist for 12 years; symphonic trombone player for 7 years