



**Chau Duong '21.** Chau's original proposal involved lab research on the substrate of DnmA in *Dictyostelium discoideum*. When the lab closed to undergraduates, Chau used feedback she received on her original proposal to pivot to an exciting new project focused on science communication. Chau is creating a science blog that aims to make science information more accessible to the lay public by translating complex research findings from cutting-edge research in biochemistry and molecular biology for those with little background, while improving her own science writing and efficiency with reading primary literature.

*Chau majors in Biochemistry and Molecular Biology (faculty sponsor: Denis Larochelle Biology, Biochemistry and Molecular Biology).*

**Jadea (Jaey) T. Harris '21.** Mental health disparities have been noted across ethnic racial groups, including Black identifying individuals. Noting the historical salience of artistic expression within the Black American community as a mechanism for dealing with adverse experiences, Jaey argues that it is unfortunate that Black Americans are less commonly found in expressive arts therapy centers or clinics, despite the connection between the expressive arts and mental health interventions. Jaey will investigate Black American access barriers to expressive arts therapy, and study whether and how expressive arts therapy can provide an effective intervention through research using a qualitative interview design.

*Jaey is a Psychology major (faculty sponsor: Ana Marcelo, Psychology).*

**Morgan Hylton '21.** Morgan's proposed research examines the ways faith communities are engaging in activism around issues in the criminal justice system, with specific attention to the barriers preventing cooperation among conservative and progressive religious constituencies. Morgan will conduct an interview study that aims to generate new qualitative data focusing specifically on prison ministry workers and prison chaplains, their ideological stances towards criminal justice, and their interactions with both the existing criminal justice system and the reform movement.

*Morgan is double majoring in English and Community, Youth, and Education Studies, and is pursuing a concentration in Race & Ethnic Studies (faculty sponsor: Jack Delehanty, Sociology).*

**Arai Long '21.** Both queer people and adopted people must construct and participate in family structures that subvert the conventional, biological notion of family. Arai has planned one of the first ever studies to examine meaning making among people who are both adopted and LGBTQ+, with the goal to creatively challenge our beliefs about trauma, resilience, and family. Arai's qualitative study aims to enhance our understanding of the ways in which people make meaning of their traumas and as an activist scholar, they hope it can serve as a vital and radically optimistic contribution, with implications to better serve this population.

*Arai majors in Psychology and has created a self-designed major in Studies of Oppression and Liberation (faculty sponsor: Abbie Goldberg, Psychology).*

**Ivana López Nieves '22.** Ivana originally planned to synthesize organic molecules in the lab, but needed to rethink her Steinbrecher plans due to COVID-19. She creatively combined her interest in molecular biology with her passion for dance. Dance functions as physical exercise and a stress reliever. Ivana plans to examine the biochemical effects of dancing on the neurological system, studying how it can benefit our health. She plans on sharing her findings with broader audiences in ways that make the science of dance come to life.

*Ivana majors in Biochemistry and Molecular Biology and is completing the concentration in Health, Science and Society. (faculty sponsor: Charles Jakobsche, Chemistry).*

**Samuel Mescon '21.** What responsibilities does a documentary filmmaker have concerning the intersectional ethics of filming a community such as Worcester's Main South? After initially filming in Main South in 2018 with little reflection on this question, Sam will spend pre-production time over the summer familiarizing himself with the communities he is entering, with fundamental concerns of consent, communal impact, and representation guiding his interactions and choices. The work of the summer will feed into a documentary film that Sam will create as part of his senior year thesis.

*Sam majors in Screen Studies (faculty sponsor: Soren Sorensen, Screen Studies).*

**Sadie Murray '21.** The role of global carbon markets and the United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (REDD+) projects was the subject of the last United Nations Framework Convention on Climate Change Committee of Parties (UN COP), Yet there still remain a number of significant issues with evaluating the success or failure of land change modeling systems. This summer, using Madagascar as a case study to model deforestation, Sadie will test the accuracy of the currently used evaluative metrics to convey the success of modeling efforts.

*Sadie is double majoring in Geography and Biology with a minor in Data Science (faculty sponsor: R. Gil Pontius, Geography).*

**Baily Ross '21.** Have you ever considered why the southwestern US is undergoing a rapid transition from grasslands and savannas to woody shrublands? This summer Baily will work on a project analyzing how ants and rodents interact with native seeds in the grassland, savannah, and woody shrubland biomes in relation to converting vegetation patterns by seed dispersal. By studying the behaviors of these animals, as well as differences in their patterns across the day, Baily will contribute to better understanding these environmental changes.

*Bailey is an Environmental Science major (faculty sponsor: Kaitlyn Mathis, Biology).*

**Audrey Salmons '23.** Audrey will research the life of Albert Cashier, a transgender man who fought in the American Civil War, to understand how his fragmented and ambiguous history emerges from the curation and interpretation of the records of his life. The goal is not to create

an accurate representation of Cashier based on historical evidence, but to examine the cultural power structures through which such evidence becomes legible. They will publish the results of their research on a blog throughout the summer.

*Audrey majors in English with a minor in Geography (faculty sponsor: Mandy Gutmann-Gonzalez, English).*

**Kayleigh Watson '21.** Building on the prior work of Steinbrecher Fellow Linnea Menin '19 studying microbes in Walden Pond, Kayleigh aims to examine the interactions of cyanobacterial isolates and viruses that infect them through genomics analyses. Given senior researchers will help with some of the lab analyses due to COVID-19, Kayleigh will also spend time creating annotated bioinformatics workflows for future collaborators so they can easily understand and use these analyses which she found intimidating to learn. Kayleigh also will create an educational poster for the Visitor Center at Walden Pond that will share information about how human activities influence the nutrient inputs of the pond and can be dangerous to human health.

*Kayleigh majors in Biology and is pursuing a concentration in Health, Science and Society (faculty sponsor: Nathan Ahlgren, Biology).*