



**Fourteenth Annual  
College Honors Symposium**

Wednesday, April 27, 2022

# Table of Contents

College Honors Mission Statement

College Honors Administration

College Honors Faculty

College Honors Student Executive Board

College Honors Advisory Board

Symposium Itinerary

College Honors Senior Project Abstracts

Senior Biographies

# COLLEGE HONORS MISSION STATEMENT

The Ramapo College Honors Program is a community of faculty and students dedicated to intellectual, creative, and moral engagement. Honors students seek excellence through continual guidance and a distinctive curriculum of critical thinking, intercultural and international understanding, experiential learning, service, and interdisciplinary studies. The end of the program is the beginning of an enriched and accomplished life. Ramapo College invites all who have the aspiration, potential, and passion for discovery to join.

## College Honors Administration 2021-22

Co-Director, Professor Rebecca Root  
 Co-Director, Professor Joost Monen  
 Special Program Coordinator, Donna Lee Schweizer  
 Graduate Assistant, Jennifer Seitis

## College Honors Faculty 2021-22

Rikki Abzug	Emily Leskinen
Todd Barnes	Huiping Li
Peter Campbell	Stephen Rice
Lisa Cassidy	Mihaela Serban
Pinar Kayaalp	Ed Shannon
Yvette Kisor	Leah Warner
Tae Yang Kwak	Marta Vides

## College Honors Student Executive Board 2021-22

Sannia Balgahoom	Cindy Lam
Anagha Brahmajosyula	Eric Mangru
Rianna Di Jesus	Paolo Miyashiro-Bedoya
Danielle Di Pentima	Nashari Payano
Leana Hacopian	Mariam Tinawi

## College Honors Advisory Board 2021-22

Naseem Choudhury – Psychology, SSHS  
 Donna Flynn - Nursing, TAS  
 Susan Hangen – Dean, HGS  
 Tae Kwak – History, HGS  
 Rebecca Leung – Journalism, CA  
 Huiping Li – International Business, ASB

Joost Monen – Biology, TAS  
 Bernard Roy – Philosophy, SSHS  
 Ruma Sen – Communications, CA  
 Mihaela Serban – Law & Society, SSHS  
 Gladys Torres-Baumgarten -  
 International Business, ASB

## Symposium Itinerary

### Opening Remarks - 4:00pm

Honors Co-Director Rebecca Root, Provost Susan Gaulden

### Poster Session I - 4:15pm

Vano Arouch, Noelle Bivona, Grace Byrne, McKenna Byrne, Allie Cheff, Tori D'Amico,  
 Nairi Diratsouian, Samuel Guttman, Jeffrey Joseph, Anxhela Kalia, Richard Klas,  
 Samantha Mistretta, Illiana Natale, Anjali Patel, Christine Sae, Channing Smith, Jesse  
 Valliere, Irene Vilgorin, Morgan Wall, Helen Witte

### Oral Presentations – 5:00pm

Moderated by Honors Co-Director Joost Monen

Aaron Acevedo, Leana Hacopian, Khalisah Hameed, Autumn Laird, Sanskar Marahata

### Poster Session II – 6:00pm

Melanie Cardoso-Lozano, Juhi Desai, Angelina Farallo, Michelle Fondacaro, Megan  
 Furbush, Katherine Gavin, Cindy Lam, Luka Marjanovic, James Martinez, Trisha Mehta,  
 Milos Miladinov, Kathryn Moskal, Stephen Owens, Amanda Reece, Gianna Spitaletta,  
 Gabriela Tactuk, Thomas Tragale, Ayano Ueda, Valerie Vengerov, Sarah Walus, Gavin  
 Wentworth

### Group Picture: 6:45pm

### Program Closes - 7:00pm

## College Honors Senior Project Abstracts

**Aaron R. Acevedo**

Communication Arts (Writing)

Business Essentials Certificate Program

*Thrills, Chills and Magic: Writing for Television and Its Various Intricacies*

Abstract: This independent study consists of two television screenplays, each written by my own hand. The first screenplay is a spec script based on the Disney animated series, "The Owl House," an animated fantasy-comedy series targeted towards younger audiences. Set in its own continuity after the mid-season finale of season two, this screenplay tested my abilities to write in various ways, from writing comedy and drama meant for children that could also appeal to older demographics to keeping a brisk pace throughout the story, seeing how animation typically flows quicker than live-action media. The second screenplay is an original thriller pilot, this one focusing on a woman whose successful life is turned upside-down when a doppelgänger starts unraveling her secret past and everything she holds dear. With the intent of writing a 45-minute long episode, trying to figure out the right pacing for the show was definitely a challenge. Furthermore, the story itself did present its own issues, as I had to learn how to properly form a mystery and lay out clues for audiences without being too obvious. Though this proved a challenge, I believe it came out well. With the time I spent forming these screenplays, I learned about the intricacies of screenwriting and the amount of work that goes into different genres, both in their similarities and differences. Planning out your stories is a must regardless of your topics, and what works for a 22-minute animated show may not work for a 45-minute thriller. No two screenwriting processes are the same, but with consistent writing, help from outside sources and several drafts, any screenplay can become a story worth telling. Thanks to Professor Scott, Professor Weinstock and my peers, I created two stories that show my versatility and creativity when it comes to writing.

Sponsor: Professor Neel Scott | Reader: Professor Stuart Weinstock

**Vano Arouch**

Accounting

*China's Economic Development and Its Implications for the United States*

Abstract: Although the United States has been a strong economic force for a long time, China has achieved this status only recently. Not until 1979 did China initiate major economic reforms that turned the country around and transformed it into the economic giant it is today. Before 1979, Chinese economic policy was dictated by Chairman Mao Zedong. During Chairman Mao's reign, the Chinese economy was centrally controlled, but very inefficient. Only after 1979, when the liberalization of trade occurred, did the Chinese economy start growing at a remarkable rate. The government incentivized farmers and other formerly state-run businesses by ceding ownership of land and other assets. From 1978 through 2011 the GDP of China grew at an

impressive 9.5% annual rate. From 2011 until 2019, that rate moderated to 6.5% (Macrotrends.net), as the Chinese economy became more mature. China has attracted enormous foreign direct investment. By the end of 2020, the FDI stock in China reached approximately \$1.92 trillion according to Statista.com. China accounted for 28.7% of global manufacturing output in 2019 (Statista.com). China does not intend to stop anytime soon, as its plan for the coming years, called “made in China 2025,” aims to shift its economic model from “made in China” to “designed in China.” China has set a goal to achieve 70% self-sufficiency in the high-tech industry. By 2049 China seeks to command the dominant position in the global marketplace (Made in China 2025). The plan is to shift the Chinese economy from resource extraction and low value-added, low-wage manufacturing to high tech, high productivity. In our proposed presentation, we will discuss China’s economic development, trade dominance, and technological ambitions; the implications of all this for the U.S. economy; and the challenges that lie ahead for US-China relations.

Sponsor: Professor Huiping Li | Reader: Professor Timothy Haase

**Noelle Elizabeth Bivona**

Biology

*Sexism in Medicine and Its Impact on Both Patient and Provider*

**Abstract:** In the world of medicine, whether the person facing discrimination is the patient or the provider, the problem of sexism is especially severe. The overwhelming focus of this sexism is on women, and the assumptions that are made regarding a female provider’s ability to care for their patient, but males in this field face discrimination as well. This project aims to discuss why sexism in medicine is a problem for everyone, regardless of your gender identity. Theoretically, when a patient arrives at an emergency department they should receive the same care no matter their gender or the gender of their care provider. However, a 2018 study focusing on the survival rate of heart attack patients found a gender bias between male and female patients. The results found that the patients of female physicians had a slightly higher survival rate than patients of male physicians and in all cases, the female patient survival rate was lower than the male patient survival rate. This difference in patient care extends beyond a heart attack as well. The basic medical model taught to care providers is typically a 165 pound white male. From diagrams, to hip replacements, and the surgical tools used in between, each is designed for or modeled after the male body, subtly excluding roughly half of the world population from the norm and sometimes even proving fatal. In a profession that caters to all humans, it is important to work towards removing systemic gender biases. This research done aims to bring these unnecessary differences to light to ensure that future generations of medical providers are able to work without the gender bias that can impact both themselves and their patients.

Sponsor: Professor Leah Warner | Reader: Professor Yan Xu

### McKenna Marie Byrne

Business Administration (Finance)

#### *How the Cookie Crumbles: An Analysis of Girl Scouts and Gender Stereotypes*

Abstract: The Girl Scouts of America is an organization founded on the idea of developing enhanced skills in young scouts across the country. Girl Scouts, though it is a youth organization, has long-lasting effects on its members. From the original Girl Scout Troop, there has been documented evidence of the organization encouraging girls to strengthen their life skills and resist traditional societal expectations. This organization emphasizes the importance of breaking gender stereotypes placed on women from a young age, specifically under the domains of appearance, role behaviors and occupations. The Girl Scout organization strategizes to battle the ever present stereotypes in society today.

Sponsor: Professor Leah Warner | Reader: Professor Kathryn Yeaton

### Grace Ann Byrne

Sociology

#### *Analyzing the Health of Brewing Yeast (*Saccharomyces cerevisiae*) under varying Alcohol Conditions*

Abstract: The brewing industry has more than doubled over the past decade as craft breweries emerge, seeking new and exciting flavors while steadily increasing the alcohol content of the average beer. One of the four main ingredients, yeast (*Saccharomyces cerevisiae*), is responsible for producing the alcohol while also adding to the overall flavor. The health of the yeast is critical to producing a consistent and delicious beverage as any brewer can tell you that unhappy yeast will produce all sorts of off flavors, making the beer undrinkable. In this study, we examined the health of twelve of the most commonly used brewing yeast strains by analyzing their growth rates under varying alcohol conditions up to 15%. The average log phase growth rate for the strains analyzed ranged from 1.5-2.8 mOD/min under non-alcohol conditions, indicating healthy yeast growth. As alcohol levels increased, the growth rates decreased with some strains able to tolerate higher levels of alcohol. These data highlight the importance of selecting the right strain depending on the intended alcohol levels of the finished product.

Sponsor: Professor Joost Monen | Reader: Professor Sarah Bolton Carberry

## Melanie E. Cardoso-Lozano

Nursing

Spanish minor

### *Child Language Brokering: More Than Just Translating*

**Abstract:** Language brokering is when a child interprets for parents or other relatives. This study focuses on the negative effects language brokering has on the 18,631,835 and counting Latinx children and adolescents in The United States (Kids Count Data Center, 2021). Negative effects can include: anxiety, depression, stress, and other psychological development troubles, as well as tension within the family. The study will explore how out of all undergraduate college students in the United States, the 21.7% Latinx students believe language brokering has affected their lives while balancing school and family obligations (Postsecondary National Policy Institute, 2020). Interviews will be conducted to elicit this information from Ramapo College of New Jersey students, and beyond if time allows. These interviews will provide more insight on the effects of language brokering and what can be done to ameliorate negative impacts. Another research goal is to understand why some medical professionals will use patient's children to relay medical information and risk miscommunication rather than using a medical interpreter, or other translation services that hospitals provide. Unfortunately, there is a great disparity between the 41 million native Spanish speakers and only about 100,000 medical interpreters (Time, 2020). Therefore, some healthcare providers do rely on child language brokers to interpret for them with their patients, which brings up the question of ethical medical practice and social justice.

Sponsor: Professor Paula Straile-Costa | Reader: Professor Natalia Santamaria-Laorden

## Allie Cheff

History and Secondary Education

### *Special Education History: 100 Days of Facts and Milestones*

**Abstract:** The project "Special Education History: 100 Days of Facts and Milestones" commemorates the 100 year anniversary of the Council of Exceptional Children. The 100 year anniversary of the foundation of the Council of Exceptional Children was in January 2022. This project worked to produce a 100 day countdown to the anniversary. Beginning in October 2021, a daily post about Special Education History was published on the project blog, which was prominently displayed on New Jersey's Council for Exceptional Children's website. The information produced ranged from important people, organizations, and laws, to interesting awards and publications. However, all daily posts dealt with the topic of Special Education History. The mission of this project was to create a greater awareness and understanding surrounding the origins of special education. Through the 100 day project, readers gained knowledge on how policies and practices have changed, leading to the current educational and societal situation surrounding special education and individuals with exceptionalities. The project's objectives fit into the larger goal of the Council for Exceptional Children to create a

community of informed professionals who are equipped with the proper knowledge to help their students succeed.

Sponsor: Professor Julie Norflus-Good | Reader: Professor Alexander Urbiel

### Tori D'Amico

Communication Arts (Digital Journalism and Writing)

*Everything Was Vermillion: A Study in Identity Through Poetry*

Abstract: The goal of this collection was to answer the question, "Who am I?" Instead, I uncovered that question is many questions; How have I become the person I am? How do I love others? How do I take care of my past self? Writing this collection was as much about revising as it was actually writing, if not more so. The process of revision asks the writer to see what writing has revealed about the experience which inspired it and evaluate the difference between what they expected to say and what they have said. This discovery changes the perception of the experience, and thus the relationship to it, which informs the process of revision. The poem at the core of this project, "Everything was vermillion," required me to see the experience differently and revise the poem according to my new perspective. In the end, this collection taught me not who I am, but how to know myself and allow my writing to be part of my internal growth.

Sponsor: Professor James Hoch | Reader: Professor Pinar Kayaalp

### Juhi Desai

Biology

*Isolation, Identification and Assessment of Anti-Bacterial, Anti-Fungal and Anti-Biofilm Activity of a Novel Temperature Resistant Thermophilic Actinomycete Gram Positive Bacteria Extracted from the Soil*

Abstract: Biofilms are a hallmark feature of various opportunistic pathogenic bacteria that allow them to communicate with each other. Pseudomonas aeruginosa is an opportunistic bacterium that results in serious infections in health-care settings, associating with over 70% of all clinical infections. Pseudomonas growing in biofilms exhibit adaptive resistance to essentially all antibiotics and there is an urgent need to work on new methods to supplement our current antibiotics. Therefore, the long-term goal of our research aims to develop anti-biofilm agents targeting polymicrobial communities rather than the planktonic bacteria. An Important group of soil bacteria, recognized as a source of commercially important enzymes and antimicrobials, is the largely underestimated, Actinomycetes. Considering the potential of discovering Actinomycetes that can produce enzymes and antimicrobials, this study is aimed to isolate Actinomycetes samples collected from sites across Ramapo College campus soils and test the antimicrobials with industrial and medical applications. Several strains were isolated and screened using standard Microbiology and Biochemical diagnostic tests. One strain was identified as a thermophile and based on the colony morphology, gram staining and the

diagnostic tests had identified it to be a gram positive bacteria belonging to the genus Actinomycetes. The isolated strain of Actinomycetes was further tested and the extracellular crude extract from the supernatant exhibited anti-bacterial and anti-fungal activity assessed by agar disk diffusion and agar well diffusion methods. It also exhibited anti-biofilm activity against the *Pseudomonas aeruginosa* biofilm. We are currently optimizing the protocols for purification of the antimicrobial peptides from the supernatant using standard techniques like ammonium sulfate precipitation and column chromatography. Our research addresses if pre-treatment of the bacterial biofilms with the purified supernatant increases their antibiotic susceptibility. A combined treatment of antibiotics with antibiofilm peptides may offer a very potent treatment of both biofilm and planktonic infections resulting in novel adjuvant therapies.

Sponsor: Professor Kokila Kota | Reader: Professor Yan Xu

### Nairi Diratsouian

Psychology

#### *U.S. Drug Policy Reform*

Abstract: The present study utilizes a sociological lens to explore the need for U.S. drug policy reform through an analysis of peer-reviewed articles. Decades of drug policy rest on the punitive approach, perpetuating the crisis and exacerbated collateral consequences. In understanding that eradicating drug use is impossible, this policy proposal advocates for drug decriminalization and demonstrates the need to base drug policy reform on harm-reduction principles. In addition, this study proposes the need to address drug use as a public health issue by incorporating safe-injection sites and government-funded rehabilitation. Finally, though there is a specific focus on mitigating the harmful effects of drug use, the study recognizes that drug use does not occur in a vacuum, necessitating comprehensive reform that considers tangential factors.

Sponsor: Dean Aaron Lorenz | Reader: Professor Patrick O'Connor

### Angelina Farallo

Law and Society

#### *The Use of Immigration Detention Centers in the United States and Abroad*

Abstract: Since the United States Constitution is commonly referred to as a "living document," over hundreds of years since its ratification, it has been interpreted by Congress to meet the needs of the people. This paper will explore the history of the relationship between immigrants without status and the Constitutional rights that they are protected by. Over many years, it has been argued that the Constitution only protects legal U.S. citizens, however, the Supreme Court has demonstrated through various cases that undocumented immigrants are in fact protected. However, even within those protections, the U.S. immigration system has not always succeeded in upholding them. The conditions of immigration detention centers has become widely

documented and have demonstrated the lack of safety and quality of life that those being held have suffered. Most importantly, the many children that are being held in these centers without proper medical care and other basic necessities have come to light. At what point do we decide to treat people that are immigrating to America, in hopes of a better life, with such poor treatment, especially children? What protections are provided under the Constitution and how can they be better enforced?

Sponsor: Professor Mihaela Serban | Reader: Professor Jeffrey Ellsworth

### Michelle Fondacaro

Marketing

Visual Arts minor

*Sustainability in Fashion*

Abstract: The fashion industry has evolved over our lifetime, but one consistency has been magazines. Fashion magazines are the perfect mix of business advertising and art. They show the latest trends, styles, designers, and more. As sustainable fashion becomes one of the hottest up-and-coming trends, why are there no magazines that touch upon this? Why does nobody within the industry acknowledge the negative environmental impact that fashion has? This magazine portrays sustainable and secondhand fashions in the way that a classical fashion magazine would portray the latest trends, along with beginning a conversation on how the fashion industry can become more environmentally friendly. In addition to research on topics in sustainable fashion, this magazine uses only sustainable brands and recycled or upcycled clothing. This magazine is a display of how an individual can follow current trends and fashion, while remaining sustainable.

Sponsor: Professor Christina Chung | Reader: Professor Jonathan Lipkin

### Megan Furbush

Elementary Education

*Community Involvement for Young Adolescents*

Abstract: As the COVID-19 pandemic closed down schools, many students lost their main opportunity for socialization. Socialization is an integral part of development and an important life skill as it helps individuals with their social awareness skills, communication skills, and helps them identify boundaries. Socialization in school is important for all individuals but specifically the Special Education community as it allows them to interact with others and learn secondary socialization skills and social norms that are different from the ones they were taught in their own homes. Because school was no longer accessible for some students due to the pandemic, Dr. Julie-Norflus Good and students of the MASE program at Ramapo developed a virtual game night. This game night invited teenagers and young adults with exceptionalities to participate in

various games and allowed these individuals the opportunity to meet and socialize with others while having a night of fun.

Sponsor: Professor Julie Norflus-Good | Reader: Professor Ellen Kaiden

### **Katherine G. Gavin**

Theater (Directing/Stage Management & Theater Studies)

Political Science minor

*DNA: The Process of Directing*

Abstract: Dennis Kelly's play DNA depicts the lives of a group of teenagers as they deal with the fallout of the murder of their friend, Adam, that they have committed. It explores themes of power dynamics and social hierarchy amongst teenagers, and views their actions for what they truly are: gruesome and visceral acts of brutality. This paper will address the process of taking Dennis Kelly's DNA and adapting it to the stage, from my perspective as the director. It will go through the beginning process of deciphering the text and the dramaturgical aspects that are necessary to build a foundation for the play. Following that it will examine the process of working through the text to find and build a concept to be shared with designers, and how that concept is expanded upon through technical aspects, such as light and sound. Finally, this paper will look at the collaborative process between director and designers, and director and actors, that are vital to creating a successful show; one that is able to present my concept as a director, and the themes of power within the play text, clearly through visuals and performance.

Sponsor: Dean Peter Campbell | Reader: Professor Stephen Rice

### **Samuel Guttman**

History and Secondary Education

*Mud and Metal: Late War Combat of the First World War*

Abstract: This project examines the transition from 19th century warfare into the modern era via the First World War. After Western Europe became bogged down in trench warfare within a year after the beginning of World War I, the war stagnated greatly. The mighty armies of Europe sat in heavily defended and fortified positions, and any attack made would be incredibly costly. However, German innovation on the Eastern Front saw mobility return to the battlefields of France in 1917, and the development of the German *stosstruppen* or "storm troops" would revolutionize the role of infantry on the offensive. The German's new doctrine for both infantry and artillery would be the cornerstone for modern military tactics. Using purposeful bombardment combined with swift action at the squad and individual level, the German fighting force became one of the most elite and specialized in the world at that time, and future militaries would emulate these same tactics in modern conflicts of the 21st century. *Mud and Metal: Late War Combat of the First World War* is a simulation that accurately depicts force compositions of the French and German militaries in the late stages of World War I. This

creation reflects the developments of offensive and defensive doctrine by 1918. Participants are able to play out a historically accurate skirmish between French and German armies using a rulebook specifically designed to embody the strategies, abilities, and resources of both militaries at the time.

Sponsor: Professor Sam Mustafa | Reader: Professor Stephen Rice

## Leana Hacopian

Biochemistry

Neuroscience and Public Health minors

*Automobile Therapy: Cars & Trucks as Treatment for Cancer - An Interdisciplinary Study Discussing the Potential Use of Engineered Fourth Generation Chimeric Antigen Receptor T-Cells Redirected for Antigen-Unrestricted Cytokine-Initiated Killing for the Treatment and Potential Cure of Triple-Negative Breast Cancer*

**Abstract:** Cancer is a debilitating disease that continually sparks major global public health concerns and thus requires better treatment options for patients. Breast cancer is one of the biggest health challenges for women across the globe and treatments for it remain sub-optimal. The most severe form of breast cancer includes Triple-Negative Breast Cancer (TNBC), which affects 30% of women who have been diagnosed with breast cancer. As TNBC lacks all the major receptors used for current breast cancer therapy, treatments for it remain ineffective. That is why researchers should turn to immunology for TNBC therapy. Current immuno-oncological therapies for other cancer types include a specialized and engineered T cell, a major cell a part of the adaptive immune response. By engineering a T cell's receptor, its most important component, it can become a Chimeric Antigen Receptor T cell, or a CAR-T cell. CAR-T cells can therefore be engineered to recognize and eliminate any molecule found on a cell's surface, including receptors on a TNBC cell. However, many CAR-T cells have been ineffective in treating solid tumor cancers, including TNBCs. A 4th generation CAR-T cell, known as a T-Cell Redirected for Antigen-Unrestricted Cytokine-Initiated Killing, or a TRUCK, is a new generation of CAR-T cells that may provide a solution to solid tumor cancers. No study has been conducted to date that attempts to use a TRUCK on TNBC. That is why this study proposes a TRUCK design that can be useful in treating TNBC. The TRUCK design includes an EGFRvIII CAR with a 4-1BB Co-Stimulatory Domain and CD247 Transmembrane Domain with an IL-12 Cytokine Enhancing Domain, all which are molecules known to target TNBC effectively. The combination and use of all these domains and cytokines as administered within the TNBC tumor environment may act as a better treatment for TNBC than has ever been seen before.

Sponsor: Professor Loraine Tan | Reader: Professor Suma Somasekharan

**Khalisah S. Hameed**

Music Production

Creating Writing minor

*The Gospel According to My Kin*

Abstract: The topic of my senior project is how storytelling is an integral part in Black liberation movements, and why culturally competent representation of Black stories has been important in these movements. The key finding I have gathered in my research is the idea that culture and group identification are basic human needs that need to be met before one is able to reach self-actualization. In this context, the construction and uplifting of stories that build a positive image of community and one's humanity is needed to affirm that they are worthy of basic human treatment. The creative project that I have put together is a collection of experiences, both lived and told about, that highlight what the human experience looks like for some people in my community. This research supports the work by identifying the ways in which seeing oneself in art, especially traditional "high art" such as poetry, allows space for people to destigmatize their experiences and find home within a literary tradition that has somewhat defined what being Black in America looks like.

Sponsor: Professor Mack Brandon | Reader: Professor Indiya Jackson

**Jeffrey Jaick Joseph**

Biology

Neuroscience minor

*Unexamined Biases and Decision Making Involved with Race and Mask Wearing*

Abstract: This study investigated if participants' implicit biases towards specific races of people affected their attitudes towards individuals who wear or do not wear a mask. The level of comfort that participants had with approaching and being surrounded by individuals wearing a mask or not was analyzed. This study specifically measured participant bias toward Asian versus Black faces and Asian versus White faces, and views of mask wearing as either alarming or assuring. Fifty-nine adults completed the Implicit Association Test (IAT) followed by questions that assessed comfort level in either being in the presence of people of different races (Asian, Black, White) with or without facial masks, and comfort-levels in asking people to wear a mask. While there was a main effect for mask-wearing, findings suggest significant race and gender interactions.

Sponsor: Professor Naseem Choudhury | Reader: Professor Leah Warner

**Anxhela Kalia**

Psychology

Neuroscience and Crime &amp; Justice Studies minors

*The Effect of Childhood Trauma on Adult Mental Health*

Abstract: Childhood trauma has a tremendous impact on the way in which an individual's life experiences are formed. This project examines various studies that analyze the way in which childhood trauma affects mental health, with physical health also being impacted later on in life as well. The various forms of interventions and therapies for children and adults are also discussed, specifically pertaining to Cognitive Behavioral Therapy. Several risk factors such as socioeconomic status, race, and gender are also examined as they relate to their impact on childhood trauma and the resources available for various individuals. Through the analysis of various articles and studies, it can be concluded that childhood trauma has a direct impact on an individual's mental and physical functioning later on in life.

Sponsor: Professor Mary C. Starke | Reader: Professor Elena Feliciano-Wu

**Richard M Klas III**

Accounting

Economics minor

*State Level Income Taxes and Free Agency in Major League Baseball*

Abstract: The diverse nature of state level income tax regimes presents questions as to whether this system impacts free agent decisions in Major League Baseball since players may be inclined to play in a state with no or low state level income tax. Much of the existing research on this topic is old and possibly outdated, examines only all-star players, or studies other sports. While most of the existing research found that state level taxes did impact free agency by requiring higher salaries for teams that played in high tax states, additional research was in order. After examining existing research on baseball salary determination and tax rates and migration, I compiled five seasons of free agent hitter salaries and playing statistics. Using a logit model, I examined this data and found that tax change does not significantly impact a player's decision to re-sign or move. Potential reasons for this result contrary to existing research include limited player bargaining power or preferences other than tax savings such as increased playing time or increased chance of winning a title.

Sponsor: Professor Alexandre Olbrecht | Reader: Timothy Haase

## Autumn Yvonne Laird

Biology

Neuroscience and Public Health minors

*Assessing visual and auditory attentional processes and the role of DRD4 gene repeat alleles on P300 characteristics*

**Abstract:** Attention-related disorders are one of the most prevalent forms of developmental learning disorders affecting school children and persisting through adulthood in some cases. Successful deployment of attentional processes is required for everyday adaptive functioning, and numerous studies have shown that difficulties in attentional control at the behavioral level are related to atypical activation of neuronal networks (Kulke, Atkinson & Braddick, 2016). EEG/ERP paradigms are particularly well-situated to assess attentional processes at both the sensory and cognitive levels. In addition to EEG/ERP studies, the potential influence of genetics on attention related disorders has been studied. The DRD4 gene is one that has been widely studied in relation to ADHD populations. This gene codes for the D4 dopamine receptor which has a role in neuronal signaling. While the DRD4 gene has been studied in relation to clinical diagnosis of ADHD, the potential correlation between certain VNTR repeats within the gene and endogenous potentials in neural processing has not been fully understood. The goal of the study is to determine if there is a correlation between the presence of certain alleles in the DRD4 gene and the amplitude and latency characteristics of endogenous P300 potentials in visual and auditory sensory processing.

Sponsor: Professor Naseem Choudhury | Reader: Professor Joost Monen

## Cindy Lam

Biology

*The Effect of Drug Use on Choosing a Romantic Partner and Perception of Other Personality Traits*

**Abstract:** This study examined if knowledge of drug use (marijuana, cocaine, and opioids) leads to differences in attitudes when considering potential romantic partners. Despite the prevalence of drug use, few studies have looked at how drug use relates to choosing romantic partners. The impact of nationwide changes surrounding the legalization of marijuana is explored in people's attitudes about individuals who use marijuana. We hypothesized that the drug conditions would be rated in the following order: control, marijuana, opioids, and cocaine with negativity increasing from control to cocaine. The study is based on an online survey of 202 adult participants rating personality traits (e.g., attractiveness, intelligence, trustworthiness) of target photographs and descriptions using a 5-point Likert scale. Participants receive four trials, one for each drug use condition (no drug use/control, marijuana, cocaine, and opioids) crossed with one of four ethnicities. A Latin squares design was used to counterbalance drug conditions

and target ethnicities. Separate repeated measures ANOVAs followed by post-hoc Tukey's HSD confirmed our hypothesis. For attractiveness, participants were most attracted to control and marijuana targets and least attracted to cocaine and opioids targets. For likelihood of dating, participants were equally likely to date control and marijuana targets and equally less likely to date opioid and cocaine targets. Both trustworthiness and responsibility had the same pattern: control targets were rated highest, followed by marijuana targets, and opioid and cocaine targets were equally rated as the least trustworthy. For intelligence, control targets were rated as the most intelligent, followed by marijuana targets, then opioid targets and cocaine targets were rated as the least intelligent. The findings of this study have implications for how drug use influences choice of romantic partners and how changes in legislation can lead to changes in people's perception of drug use.

Sponsor: Professor Shaziela Ishak | Reader: Professor Leah Warner

### Sanskar Raj Marahata

Computer Science

Mathematics minor

*Anglo-Nepal War: A Case Study of English Colonialism in South Asia*

Abstract: English colonialism was a major factor in South Asia after the decisive victory in the Battle of Plassey in 1757. Despite the first landmark victory being a military one, the Anglo East-India Company managed to both gain and consolidate power through various diplomatic means. This paper will present a case study of the Anglo-Nepal war as an archetype of the English expansion into South Asia.

Sponsor: Professor Tae Yang Kwak | Reader: Professor Sam Mustafa

### Luka Marjanovic

Theater (Acting)

Creative Writing minor

*The Fake Croatian: A One Man Show by Luka Marjanović*

Abstract: The Fake Croatian is a one man show written and performed by Luka Marjanovic, a theater major with a creative writing minor, and directed by Kate Gavin and stage managed by Alyssa Blake. The whole performance is centered on an experience of a Bosnian immigrant in the United States, how his past actions and relationships affect his present, as well as the culture shock he has been experiencing for the past four years. Writing and performing his life was a healing process, and hopefully an educational one, as he researched how to properly write an autobiographical piece and perform alone on the stage. The biggest takeaway for Marjanovic at the end of the performances (December 2nd, 3rd, and 4th of 2021) were the countless other international students who came up to him, telling him how much they connected to the overall feeling that the show was exhibiting, despite its specificity and differences in their lived

experiences. The Fake Croatian might have been Marjanovic's story when he started writing it during the summer of 2021, but it is now equally Gavin's and Blake's story as well, and he would never want to perform it again without Gavin's blessing and Blake being there with him, every step of the way, running the show.

Sponsor: Dean Peter Campbell | Reader: Professor Edward Shannon

### James Martinez

Bioinformatics

#### *Microbiomes & miRNA's: Analyzing miRNA & Gastrointestinal Tract Microbiota Interaction Studies for the Creation of a Pilot Relational Database Concept: miR.Gut*

**Abstract:** MicroRNAs(miRNA) are traditionally associated with functionality as post-transcriptional suppressors of messenger RNA(mRNA), where they promote mechanistic cleavage or translational inhibition to strands of mRNA. Applications within gene expression studies, diagnostic testing, and therapeutic drugs have expanded upon the knowledge surrounding the utility of individual miRNAs. Advancements in sequencing technology, such as RNA-seq using Next Generation Sequencing(NGS) data, have assisted in the computational identification of various RNA types and expression levels within organisms. Microbiomes refer to individual communities of microorganisms such as bacteria, archaea, fungi, and viruses, that inhabit areas ranging from plant roots to the human gastrointestinal tract. The human gut microbiome contains large biodiversity of microorganisms exceeding the total number of human cells; differing microbial compositions can have effects on immunity, digestion, and other aspects of the host. Fecal microbial transplantation has become a prevalent tool in microbiome studies due to its ability to alter gut microbiome composition for studying the effects of different microbe populations on the host's health. Evidence of fecal transplantation containing foreign miRNA affecting gut microbial communities has offshoot newer studies investigating the role of host miRNAs on gut microbiota. Interactions between miRNAs and gut microbiota have been mainly characterized by: (1) Gut microbiota products influencing miRNA gene expression in host cells, (2) Vesicle enclosed host miRNAs being taken up by microbes affecting microbe gene expression, and (3) Foreign miRNA's entering the host and then taken up by the microbiome. The rapid expansion of microbiome and miRNA studies from creation of new sequencing technologies, has generated large amounts of interaction data that has yet to be organized into formal database formats. The concept of miR.Gut, a database keeping track of known(and possibly predicted) miRNA/Gut Microbiota interactions, serves as a prototype method for interaction classification and possible disease annotation.

Sponsor: Professor Ashley Stuart | Reader: Professor Kokila Kota

## Trisha K Mehta

Biology and Osteopathy

### *Understanding Discrimination Towards Students of Asian Descent at Ramapo*

**Abstract:** The purpose of this study was to determine the amount and types of racial discrimination occurring towards students who are Asian American or International students of Asian descent at Ramapo College. Information in this study was obtained by interviewing students currently attending the college and those who have recently graduated to better understand their experiences. An analysis of the data collected from conducted interviews found that students at Ramapo who are Asian American or International students of Asian descent are most subjected to indirect racial discrimination, including stereotyping, assumptions of ethnicity, the whitewashing of Asian cultures and concepts, and microaggressions towards skin color and inclusivity within Greek life and club equality. The few reports of direct racial discrimination were found to be in relation to the Covid-19 virus and pandemic. Students who reported not facing discrimination also reported being subject to stereotyping and were unaware that stereotyping was a form of microaggressive discrimination. Many of these students also expressed that they had either not spent enough time on campus interacting with others due to online learning to identify sources of racial discrimination, or that they may have unknowingly faced discrimination. It was additionally found that the lack of reporting racial discrimination incidents was caused by a common feeling amongst students that no action would be taken to address said incidents and those involved in them, due to previous negative experiences with reporting. Students also expressed that racial discrimination towards Asians both historically and currently is not adequately addressed in classes or events where racial discrimination is meant to be discussed. In summary, all participants agreed that Ramapo needs to improve cultural sensitivity and awareness towards Asian cultures and needs to provide additional and continued training for staff and students regarding the racial discrimination faced both previously and currently by Asian Americans or individuals of Asian descent not just at Ramapo, but also in the United States.

Sponsor: Professor Leah Warner | Reader: Professor Tae Yang Kwak

## Milos Milandinov

Computer Science

Mathematics minor

### *Clamor App*

**Abstract:** Clamor is a desktop chat application with a fully integrated front and back-end. The purpose of the application is to be able to send and receive messages in a chat-room based application that can handle multiple rooms and multiple channels per room. A big emphasis on security and scalability has been put on this project. For security, this includes creating a secure

line of communication between the server and client, addressing vulnerabilities with the technologies used, and implementing a secure login and authentication system. As for scalability, several features were added that would ensure the application can handle an increase of traffic. These include migration to the cloud, load balancing, database selection, and ID generation. Many of these topics are afterthoughts when applications are being developed as they are time consuming and require a depth of knowledge in order to understand and consider all edge cases. For those reasons, these topics were particularly interesting and were worthwhile implementing.

Sponsor: Professor Kenneth McMurdy | Reader: Professor Scott Frees

### **Samantha Mistretta**

Communication Arts (Writing)

Creative Writing minor

*Genre Exploration: A Take on Crime Fiction*

Abstract: As a growing writer, this project intended to build my skills as a writer, explore new genres that interest me, and learn my strengths and weaknesses to understand my writing style. While working on this story, I learned how to get my creative juices flowing, fight past writer's block, and understand how a new genre excited me while writing. Within this story, you can read my first attempts at exploring crime fiction set in the modern-day. This story focuses on a college student's journey with her education and the work she wants to accomplish after graduation. Readers will see growth in the main character Jordan, her skills with forensics and investigation, and the uncovering of secrets *buried* in her town.

Sponsor: Professor Regina Clark | Reader: Professor Edward Shannon

### **Kathryn Moskal**

Nursing

Spanish for Health Care and Human Service Professionals Certificate

*Risk Factors and Long Term Care of Pediatric Patients with Congenital Heart Defects*

Abstract: Numerous children around the world are diagnosed with congenital heart diseases that have lasting effects on their future development, mental health, and quality of life. Young children diagnosed with congenital heart disease (CHD) undergo a variety of invasive diagnostic tests, procedures, and surgeries to improve their cardiac function. Many of these tests and surgeries start when they are infants and toddlers, when they are too young to understand the need for these highly invasive procedures. Studies have reported that these children can experience neurological damage, decreased physical capabilities, post-traumatic stress disorder (PTSD), and difficulties with social interactions (Day et al., 2018). The severity of these factors has been linked to the severity of the disease experienced by the individual (Gowland et al., 2021). The quality of life in children with CHD has been statistically lower than those of their

healthy counterparts (Day et al., 2018). It is also noted that these negative experiences can cause lack of adherence to treatment and result in poor outcomes that can continue into adulthood (Day et al., 2018). Children with CHD suffer from numerous factors including body image issues, social impairment, anxiety, and stress which all have negative effects on their quality of life. It is important to take a holistic approach and monitor both physical status and assess patient and caregiver quality of life.

Sponsor: Professor Julie Fitzgerald | Reader: Professor Anne-Marie Flatekval

## Illiana Rose Natale

Economics

### *Industrial Italy in the Face of Regional Divisions*

**Abstract:** Italy is known for its rich history and culture, two attributes that rank the Italian nation among the most visited in the world. Italy is responsible for Europe's fourth largest economy, and its economy is largely dependent on several industries. While Italy is admired for its beauty and influence on other nations throughout history, it is also notorious for the severe division experienced between the northern and southern regions. The north has been able to achieve industrialization and modernization in the face of a changing world, but the south is plagued by unemployment, underdevelopment, and lack of innovation. The duality within Italian borders is explained using Comparative Economic Systems principles, and these disparities are analyzed further using three integral industries, such as the fashion, agricultural, and tourism industries. Each region is distinct and has its own advantages: the north benefits from the fashion sector, the south benefits from the agriculture sector, and both regions reap benefits from the tourism industry. Overall, northern Italy has been able to demonstrate affluence and success while southern Italy suffers from a state of stagnation. These disparities became more pronounced at the onset of the Coronavirus Pandemic in 2020. Because the Italian government had difficulties acquiring adequate aid as well as taking proper precautions at the onset of the crisis, the nation quickly became one of the hardest hit countries worldwide. While the pandemic presented tragedy, it also granted Italy an opportunity to restructure itself to reclaim its prior position on the world stage. Italy has an important decision to make: it can choose to proceed on a stagnant path that may not be sustainable for much longer, or it can choose to employ measures to fix its system from the inside out, improving the lives of citizens in the north and the south.

Sponsor: Professor Teresa Hutchins | Reader: Professor Tufan Ekici

## Stephen Owens

Environmental Science

*The Decline of White Ash Trees (Fraxinus americana) Due to an Emerald Ash Borer (Agrilus planipennis) Outbreak at Apshawa Preserve*

Abstract: Over the Summer of 2021, I went to Apshawa Preserve in West Milford with Luis Navarro and Karyssa Cendaña twice a week to locate and record data about the health about every *Fraxinus americana* (White Ash) tree that we could find. These trees have been in decline following the rise of the Emerald Ash Borer, an invasive insect species. We found that most of the trees were dead and that nearly all showed signs of damage from the insects. If this trend continues, which is expected, it could mean the eradication of the White Ash from the Eastern United States. This could have a drastic effect on the forests of this region.

Sponsor: Professor Eric Weiner | Reader: Professor Dominador Elefante

## Anjali Patel

Law and Society

Political Science, American Studies, and Civic & Community Leadership minors

*Maternity Leave Policies Comparative Analysis and Proposal*

Abstract: This research aims to evaluate parental leave policies in effect in the United States and compare the policies to those of Canada, Italy, and the United Kingdom to analyze how parental leave can be enhanced domestically. Upon comparisons of the parental leave policies in the United States to those of the aforementioned countries, it is evident that United States policies are catered to be more in favor of the employer to the employee, potentially due to the capitalistic nature of the economy and United States work environment, which makes the well-being of the labor force in the United States lag behind in workplace productivity.

Sponsor: Professor Mihaela Serban | Reader: Professor Sanghamitra Padhy

## Amanda Rae Reece

Social Work

*Solutions to the Motherhood Wage Penalty*

Abstract: Gender-based wage discrimination is well known and addressed in present-day media and politics. A less commonly discussed phenomenon is wage discrimination based on one's parenthood status, specifically mothers. Working mothers have historically been making less than both men and childless women due to various forms of discrimination from employers and a lack of community and policy support. Within the United States, there are no policies to support and protect working mothers effectively. This paper combines information from interlacing research to fully conceptualize the scope and reality of the motherhood wage

penalty within the United States and elsewhere through a comprehensive literature review. This study aims to discover the history of the social problem, address the different variables that influence the penalty, analyze other countries' responses to the problem, and lastly propose different levels of interventions that can be accomplished within the United States on the community, corporate, and policy levels.

Sponsor: Professor Kathleen Ray | Reader: Professor Dolly Sacristan

### Christine Sae

Nursing

#### *Global Perspective of Postpartum Hemorrhage*

Abstract: This independent study focused on the Global Perspective of postpartum hemorrhage (PPH) seeks to provide an in-depth analysis of PPH leading to maternal mortality and morbidity worldwide. This independent study will encompass a comprehensive review of literature for the most recent information available on risk factors, the best practices to prevent and treat PPH. This independent study will also cover global and national implications of PPH, and bias in healthcare affecting PPH care. PPH is a healthcare issue not exclusive to the United States of America and has implications worldwide and is arguably the leading cause of maternal mortality all over the globe.

Sponsor: Professor Andrea Centrella-Nigro | Reader: Professor Kaneez Odgers

### Channing Marie Smith

Communication Arts (Digital Filmmaking) and Music Production

#### *Pancakes Out of Place - The Harsh Realities in Food Retail*

Abstract: Every day, customers go to restaurants to eat food and socialize with friends and family. These restaurants are employed by people who work hard to serve the customers with a smile. While this is simple on paper, the harsh reality is that customers become entitled, expecting perfect service from employees, which in turn, creates a toxic work environment for them. With money being an essential part of survival, especially after the COVID-19 pandemic, workers are forced to work full-time for minimum wage pay under a toxic environment. "Pancakes Out of Place" is a mockumentary that demonstrates these stories from workers in an informative, yet comedic way to spread awareness to audiences in order to have customers think about more than just their food. While it will be in a similar style to "The Office," it will also present customers' points of view during interactions with employees and customers; however, the mockumentary will display the inner workings of the restaurant to showcase the unrealistic high expectations within the establishment.

Sponsor: Professor Renata Gangemi | Reader: Professor Paul Pittman

## Gianna Spitaletta

History

Museum and Exhibition Studies minor

*No Business Like Show Business: The Golden Age of Broadway and American Society*

Abstract: The Golden Age of Broadway, which lasted from 1943 to 1959, correlated with an era of American history where a lot of events were occurring that would affect the social climate. The stage composers of this age were influenced by these happenings to send a message to the public and attempt to help in making the society better. The musicals from the Golden Age would become household names for the time, and the themes were revolutionary for the period that they came out. However, these creators were also influenced with implicit biases and stereotypes that affected how the more marginalized people in the country were viewed.

Sponsor: Professor John Gronbeck-Tedesco | Reader: Professor Yvette Kisor

## Gabriela Tactuk

Biology

*The Genetics of Brewing: A Characterization of Yeast (Saccharomyces cerevisiae) Genes that Influence Flavor and Aroma*

Abstract: The craft beer industry (projected to be worth \$190 billion by 2027) has become a booming, competitive, and lucrative business due to the global demand for new and exciting flavors. Brewers, motivated by this worldwide pressure, have made huge innovations in their recipes by selecting the right combination of hops, grains and water attributes needed to produce quality beer. The last and most critical ingredient is the budding yeast, *Saccharomyces cerevisiae*, which will determine the overall flavor and aroma profile of the finished product. Yeast, not only make alcohol during fermentation, but also produce a variety of desirable (and undesirable) aromatic compounds via secondary metabolic pathways. Because every beer style seeks to have a different flavor and aroma profile, brewers have artificially selected for yeast strains that will impart the attributes they desire. As a result, hundreds of strains exist, but their genetic backgrounds are largely uncharacterized. By understanding the role that yeast genetics play in imparting flavor and aroma during fermentation, brewers can begin to refine their craft even further. In order to investigate the role that genetics play during fermentation, we compared 12 of the most popular yeast strains in the industry by sequencing three genes (ATF1, ATF2, and IAH1) known to be involved in pathways producing ethyl acetate (fruity) and isoamyl acetate (banana), which are desirable in some beers and undesirable in others. We identified a number of mutations that existed in all of the strains characterized. While all of the mutations identified in the ATF1 genes between the strains were silent, there were a number of missense mutations seen in both the ATF2 and IAH1 genes that could play a role in the enzymatic activity of their respective gene products. Notably however, there were no frameshift or nonsense

mutations in any of the strains for any of the genes sequenced, indicating that the genes must play an important metabolic role, despite the different levels of aromatic compounds generated by different strains.

Sponsor: Professor Joost Monen | Reader: Professor Yan Xu

### Thomas C. Tragale

Bioinformatics

Neuroscience minor

#### *Characterization of Saccharomyces cerevisiae YDR444W by Computational Techniques*

Abstract: YDR444W is an uncharacterized gene found in *Saccharomyces cerevisiae*. Its open reading frame (ORF) encodes a 684 aa protein containing a domain of unknown function. Current research indicates the protein is a hydrolase acting on ester bonds. In this experiment, computational techniques and bioinformatics databases were used to analyze YDR444W at the chromosomal, transcriptional and protein level. The analysis focused on genetic expression and transcript regulation. As well as protein structure and function. The limitations of bioinformatics/computational methods are discussed. The culmination of this analysis is a prediction of YDR444W's role in yeast function based on prior research and in silico predictions.

Sponsor: Professor Ashley Stuart | Reader: Professor Joost Monen

### Ayano Michelle Ueda

Nursing

#### *A Growing Problem: Prevention and Early Intervention of Childhood Obesity*

Abstract: Childhood obesity is a serious issue that is growing globally. There is a multitude of biological factors, such as how obesity is connected to certain genotypes and ethnicities. Non-biological factors include lack of parental knowledge about nutrition, culture, and availability of resources. The consequences of childhood obesity are serious since childhood obesity is likely to lead to obesity in adulthood. This increases one's risk of chronic conditions such as hypertension and type 2 diabetes mellitus. Childhood obesity affects the individual mentally, causing issues with body image and self-esteem. Economically, childhood obesity has a high cost for patients and healthcare systems. There are various interventions to prevent and intervene with the issue, and it can be categorized into primary, secondary, and tertiary levels of prevention. Primary prevention focuses on health promotion, regardless of age. Examples are teaching in primary care settings such as schools and using health guidelines that establish healthier habits. Nurses can advocate for policy changes at this level for legislation to prevent childhood obesity. Secondary prevention uses screening and focuses on the at-risk populations and targets them through individualized care. Treatment is more individualized at this level. Tertiary prevention is to prevent further progression of the obesity issue and chronic issues due

to it. Pharmacotherapy and strict lifestyle modifications are utilized. Education and lifestyle changes must be emphasized to alleviate the childhood obesity crisis. Certain demographics require culturally adapted care, so nurses must consider that when creating a plan of care. Adjusting treatment plans to be customized for the individual and their daily routine allows the patient to feel supported and will be more likely to adhere to the care plan. Nurses serve a crucial role in how patients receive health education, screenings, and other necessary measures to prevent and treat childhood obesity.

Sponsor: Professor Andrea Centrella-Nigro | Reader: Professor Anne-Marie Flatekval

### Jesse Valliere

Bioinformatics

#### *Identification of the Optimal pH for a Tris Buffer Used to Isolate & Extract Protein Contents in Calendula, Mentha, and Salvia Species*

Abstract: Understanding the proper materials and buffers needed to extract proteins is imperative to downstream protein research. While many studies have been performed in regards to protein extractions of mammalian cells, not many have been performed on the vast majority of plant species. Experimental studies were performed to identify the optimal pH of a Tris buffer used to extract plant proteins, and their respective yields were documented. The results indicated that a higher pH, of 8 or 9, was most effective in yielding the highest protein concentrations in Mentha and Salvia species, whereas the Calendula species had generally low yield. It was also found that batching the extractions led to higher average protein concentrations. Overall, this study identified an optimal pH of a Tris buffer for protein extraction in two major plant genres, and provides the framework for future buffer research to be performed.

Sponsor: Professor Yan Xu | Reader: Professor Ashley Stuart

### Valerie Vengerov

Psychology

Crime and Justice Studies minor

#### *A Cross-Cultural Comparison of Mental Health Perceptions and Subsequent Treatments and Policies*

Abstract: Mental illness maintains a negative attitude globally, based on various connotations and perceived stigma throughout both the United States and Spanish cultures. In the United States, such a perception continues to be internalized through labeling, a concept oscillating between the symptoms of mental illness ostracizing an individual from society or the label of the illness itself. Spain presents the issue of a lack of integration between those who are mentally ill, and those who are not. Both the U.S and Spain, further the distinction between the two groups

of fit and unfit, promoting stigma and discrimination that results in decreased benefits, resources, and opportunities.

Sponsor: Professor Leah Warner | Reader: Professor Natalia Santamaria-Laorden

### Irene Golda Vilgorin

Biology

Neuroscience minor

#### *An Exploration of Intersex Individuals*

Abstract: Intersex is a general term used for a variety of conditions in which a person is born with a reproductive or sexual anatomy that does not seem to fit the typical definitions of female or male. Around 1.7% of the population is intersex, which is about the same amount of people with red hair, and there are an a plethora of gradations when it comes to intersex conditions. Due to their anatomical differences, many intersex individuals undergo nonconsensual surgeries in order to “normalize” their physique, and these procedures have been shown to have detrimental affects on intersex individuals’ lifestyles. Overall, these surgeries can be postponed until the intersex individual can decide for themselves whether or not to undergo these procedures, and for this reason, a greater effort must be placed in order to end these nonconsensual surgeries, and provide parents with a better understanding of intersex conditions.

Sponsor: Professor Emily Leskinen | Reader: Professor Rebecca Root

### Morgan Wall

Communication Arts (Digital Filmmaking)

#### *Producing A Podcast: “Lights. Camera. Espionage”*

Abstract: Producing a Podcast: “Lights, Camera, Espionage” is a creative endeavor encompassing the conception, research, production, and post-production of a historical story-telling podcast. Though different, careers in entertainment and espionage are so often distorted in media and in the eyes of society. Yet, when looked at in an honest light, these professions reveal much more about those employed in them and the world around these individuals. In a two-episode long-form structure, “Lights, Camera, Espionage” takes an earnest look at its subjects and their lives away from the spotlight. Combining an educational and informative tone with a storytelling style, get to know the subjects through first-hand accounts, lighthearted anecdotes, and acceptance of imperfections of those in the spotlight.

Sponsor: Professor Kelly Dolak | Reader: Professor Neel Scott

## Sarah Walus

History

Political Science minor

*Warmaiden: Molly Pitcher's Legend and its Historiography*

Abstract: Warmaiden is a historiographical study revolving around the American collective memory of Molly Pitcher, a local legend about a Revolutionary War heroine. Historiography focuses on “telling” of history over time, so the project seeks to define the way Molly Pitcher’s story has been told within textbooks, monuments, advertisements, and other namesakes. The legend did not surface until the nineteenth century, and since then, her story has been largely associated with two women over time: Mary Hays McCauley and Margaret Corbin. Modern historians agree that “Molly Pitcher” exists as a composite term used to describe the endeavors of valiant camp-follower women from the American Revolution who helped on and off the battlefield—whether through nursing, bringing water to thirsty soldiers, or taking up arms themselves. Despite the inconsistencies within historians’ representation of the heroine over time, the public has been presented a narrative in which Mary Hays McCauley indisputably was Molly Pitcher. This notion has been cemented deeply within the American collective memory of the story, and every source has a reason for doing so. Following the second wave feminism of the 1960s, textbooks seek to cement a female within the American Revolutionary story. Monuments, advertisements, and namesakes all have reason for skewing the story, lest they miss out on tourism or profit. Through looking at Molly Pitcher’s legend, one can perceive the degree to which history is skewed and then ingrained into the public’s memory.

Sponsor: Professor Sam Mustafa | Reader: Professor Jeremy Teigen

## Gavin T. Wentworth

Biology

Neuroscience minor

*Bypass Neurotherapy Systems*

Abstract: Contemporary technological adaptations that have been made in orthotic and prosthetic fields open neurotherapy to new possibilities. Nerve damage in the peripheral nervous system can devastate the abilities of those who suffer from traumatic injury. By using new technology that exists today, the modern medical field can make paralysis a thing of the past.

Sponsor: Professor Naseem Choudhury | Reader: Professor Mark Younan

**Helen B. Witte**

Political Science

*The Aftermath of the 2020 Election: The Impact of Voter Laws on People with Disabilities*

**Abstract:** The 2020 election resulted in record turnout among the general populace and among people with disabilities. After the 2020 election, some political officials expounded claims of voter fraud, leading to the implementation of legislation that addressed these claims, while others used the COVID-19 pandemic to expand voting rights. I analyzed the voter laws of Texas, New Jersey, and Georgia from 2000 until 2022 through the lens of the Punctuated Equilibrium Theory. Then, I predicted the effects that these laws could have on voter turnout among people with disabilities. I found that while the Punctuated Equilibrium Theory cannot be used to explain the legislative pattern of voter laws in Texas and New Jersey, it can partially be used to explain the voter laws in Georgia. Future research should be conducted to see whether a different theory of public policy, such as the multiple streams framework, can be used to explain the pattern of voter laws in these states in the twenty-first century.

Sponsor: Professor Michael Unger | Reader: Professor Dean Chen

## Senior Biographies

### Aaron R. Acevedo

Aaron Acevedo is a Communication Arts – Writing major with a Business Essentials certificate program being finalized. As part of his writing endeavors, he has partaken in several operations, from being the Web Editor for The Ramapo News, to writing medical blogs and marketing materials for Alliance Media Productions to writing about entertainment news for various sources. With everything he has learned from the Honors Program, his professors and his peers, he hopes to find a career in editing or publishing and publish his own work professionally in the future.

### Vano Arouch

Vano Arouch is a senior at Ramapo College. He is an accounting major, and he will be coming back for my master's next year. He joined the Honors Program in order to make friends and further his academics by being open to more opportunities. I will be pursuing my master's next year while studying for the CPA and have an internship this summer with one of the big four accounting companies, KPMG, doing audit work.

### Noelle Elizabeth Bivona

Noelle has spent the last four years pursuing a degree in biology. During this time she was inducted into Alpha Phi Omega and the Beta Beta Beta National Biological Honor Society. She also volunteered in RASA and as an HDG Leader. Noelle's interest in medicine is what prompted her research, focusing on sexism in medicine and the negative impact it has on both providers and patients. She wishes to bring attention to and challenge the societal norm that "women are nurses and men are doctors", as well as the gender bias that leads to the mistreatment of patients. After graduation she hopes to attend Physician Assistant School, and in the meantime she will continue volunteering as an EMT and working as a phlebotomist.

### McKenna Marie Byrne

McKenna Byrne is a Business Administration Major with a concentration in Finance. McKenna is a member of three Honor Societies: Beta Alpha Psi, Omicron Delta Kappa, and Gamma Sigma Alpha. McKenna is an active member in several organizations including Alpha Phi Omega, Ramapo Chorale, and the Honors Program. She works on campus as a Resident Assistant in The Village and Student Assistant at Roadrunner Central. After graduation, McKenna plans to find a career that combines her passion for music and affinity for numeracy. She hopes to continue volunteering and giving back to her community wherever her life may lead.

### Grace Ann Byrne

Grace Byrne is currently a senior sociology major also studying on the pre-medicine track. She transferred to Ramapo from Marist College in fall of 2019 and was accepted into the honors program at the same time. Following graduation she plans to pursue a graduate degree in Labor Studies with the intention of attending law school.

### Melanie E. Cardoso-Lozano

Melanie is a Nursing major with a minor in Spanish. During her time at Ramapo she has been a part of the executive board for ALMA (Association of Latinos Moving Ahead). She is currently the President of Spanish Club, and Apparel Chair of the Nursing Student Organization. She presented her work at the 2022 Northeast Regional Honors Conference. Melanie is a member of Sigma Theta Tau, Sigma Delta Pi, and Chi Alpha Epsilon Honors Societies. After graduation, she plans to pass the NCLEX and work in a New Jersey hospital.

### Allie Cheff

Allie Cheff is a history and education major. She holds a 3.93 GPA and is part of the Phi Alpha Theta History Honors Society and the Kappa Delta Pi International Honor Society in Education. Allie has also been involved in off –campus activities and organizations. This includes her volunteer work and tutoring positions. Allie is passionate about learning and teaching; post-graduation Allie will continue her education at Ramapo to receive a M.A. in Special Education and wishes to teach history at the high school level.

### Tori D’Amico

Tori D’Amico is a storyteller. She chose a major in communications with a concentration in journalism to tell true stories and a minor in creative writing to learn about telling her own. She has been a member of The Ramapo News since her freshman year, where she is now Editor-in-Chief. In her four years at Ramapo, she was published in print through the newspaper, the Trillium and her self-published poetry collection.

### Juhi Desai

Juhi Desai is from Jackson, NJ. Concurrent to pursuing a Biology degree, she also served as a member of the professional community service fraternity, Alpha Phi Omega, in which I held the positions of treasurer and president. Currently, she is conducting research projects investigating microbial biotechnology with Dr. Kokila Kota, who continually inspires her to be relentless in her pursuit of knowledge. After graduating this May, she will be attending Lake Erie College of Osteopathic Medicine to study dental medicine. Outside of academia, her hobbies include horticulture, photography and being an avid coffee lover.

### **Nairi Diratsouian**

Nairi Diratsouian is a senior psychology student enrolled in the Honors Program, minors in Crime and Justice Studies, Public Policy, and Political Science. She is a member of Psi Chi, Omicron Delta Kappa Honor Society, and Alpha Lambda Delta. At Ramapo, Nairi has been active in several organizations, including working as a research assistant in the psychology department and serving as the Vice President of both the Psychology Affiliation and Armenian Students Association. Nairi's passion for her heritage is evident through her participation in several Armenian organizations, including serving on the executive board of the NJ "Arsen" Chapter and the Central Hai Tahd Council of the Armenian Youth Federation, Homenetmen of New Jersey Scouts, Armenian Relief Society "Shakeh" Chapter, and Hamazkayin Nayiri Dance Ensemble. After graduation, she plans to continue her position as Communications Director for the Armenian National Committee of America Eastern Region and pursue a master's degree in public policy.

### **Angelina Farallo**

Angelina Farallo is a Law and Society student who has a passion for advocacy and is an aspiring attorney. She has worked at an immigration law firm for the past two years and will be attending Law School in the fall.

### **Michelle Fondacaro**

Michelle Fondacaro is a graduating Senior, with a major in Marketing and a minor in Visual Arts. She is extremely lucky to have spent her four years at Ramapo College involved with the Peer Facilitation program, Theta Phi Alpha sorority, and of course, Ramapo Honors Program. As of May, she will be the fifth member of her family to graduate from Ramapo. After graduation, she plans to work in social media marketing and digital marketing. Outside of school, she is an artist; she loves photography, especially, and her dream in life is to incorporate this into her work.

### **Megan Furbush**

Megan Furbush is an elementary education major and is a part of the Master of Arts in Special Education program here at Ramapo College. She is a member of the Ramapo Honors Program and the Future Teachers of America at Ramapo. She is currently student-teaching in Ramsey as a 5th grade math and science teacher and hopes to continue her teaching career as an upper elementary and special education teacher.

### **Katherine G. Gavin**

Katherine Gavin is a senior theater major with a concentration in directing/stage management and theater studies with a minor in political science. She has been a member of the Honors Program since her freshman year and is an active participant in not only the Honors community, but the Ramapo College community as a whole. She is also very involved in the theater program, specifically participating in multiple mainstage productions in directing, acting, and technical capacities, as well as serving as the chair of the program's Season Selection Advisory Committee, after serving as a student representative for two years. Katherine's senior thesis is a mainstage production of Dennis Kelly's DNA that was produced in the Adler Theater by the theater department and performed nine shows in the span of a week. It is a culmination of her work as a theater major, and more importantly as a director. After graduation, Katherine hopes to continue to pursue theater as a career, and hopefully have an income doing so.

### **Samuel Guttman**

Over the course of his four years at Ramapo College, Samuel studied history and secondary education with aspirations to teach high school social studies as well as coach varsity sports. Alongside his academics, he was a part of the men's soccer team. After he graduates, he plans to study an additional year at Ramapo to obtain my master's degree in special education.

### **Leana Hacopian**

Leana Hacopian is a senior Biochemistry major with minors in Neuroscience and Public Health. She works for the Honors Program as a Student Assistant and is the head of the Honors Executive Board. She is also involved in TAS Honors Research with Dr. Loraine Tan. Outside of college, Leana is involved in organizations dedicated to promoting her Armenian culture, like the Armenian Youth Federation and Antranig Dance Ensemble. She has a passion for studying immunology and hopes to pursue a career in drug discovery. Leana is going to pursue a Master's in Chemical Biology at the Stevens Institute of Technology in the fall.

### **Khalisah S. Hameed**

Khalisah Hameed is a graduating senior studying Music Production with a minor in Creative Writing. Serving as the Student Office Manager for The Women's Center & LGBTQ+ Services, and president of Ramapo College's Kappa Upsilon Chapter of Zeta Phi Beta Sorority, Incorporated, she is a student leader with passions for social justice, racial and gender equity, and community service. Khalisah has been an active member of the Black Student Union since her freshman year, and intends to continue doing the work to uplift her communities.

### Jeffrey Jaick Joseph

Jeffrey Joseph is a biology major with a neuroscience minor. He is also a member of the Alpha Lambda Delta Honor Society. At Ramapo, Jeffrey has been active in several organizations and activities, including Leaders in Service (LIS), Newman Catholic Club, Tutoring, and Rally Cap Sports. He serves as the community service chair and is currently the vice president of Newman Catholic and has planned events with MEVO and Soup kitchens nearby. Jeffrey has helped students through tutoring, especially by tutoring a subject such as biology which he loves and helping to tutor students with special needs through OSS.

### Anxhela Kalia

Anxhela Kalia is a Psychology major with minors in Neuroscience and Crime and Justice Studies. She is currently a Crisis Counselor through Crisis Text Line and an intern through Advance Housing, and has enjoyed being involved on campus through her roles as a Resident Assistant, as well as the President of Psi Chi Honors Society and the president and founder of the Psychology Club on campus. She has also presented her work at the Northeast Regional Honors Conference in 2019 and the National Collegiate Honors Council in 2021 as well. She hopes to pursue a degree in Clinical Psychology after graduation, and eventually become a Clinical Psychologist in her future career.

### Richard M Klas III

Richard Klas is an accounting major with a minor in economics. He is a member of Alpha Kappa Psi, a professional fraternity, where he has served as chapter secretary, by-laws chair, and scholarship chair. He is also a member of Alpha Lambda Delta, Beta Alpha Psi, and Beta Gamma Sigma honor societies. After graduation, Richard will be joining Unilever as a financial analyst.

### Autumn Yvonne Laird

Autumn Laird is a Senior Biology major with a double minor in Neuroscience and Public Health. She is in the Ramapo College Honors program, is President of the American Cancer Society Club on Campus, is a member of the Global Roadrunners, a member of the Alpha Phi Omega Professional service fraternity, and the National Society of Leadership and Success. Around campus, you can find Autumn at the tutoring center where she tutors for Cell and Molecular Biology, at the front desk of the Center for Student Involvement where she works, or in Dr. Choudhury's neuroscience research lab. Currently, Autumn is the laboratory manager for the Palestroni Integrated Neuroscience Lab on campus where she is doing neuroscience and genetics research with Dr. Naseem Choudhury and Dr. Joost Monen.

### **Cindy Lam**

Cindy Lam of Parsippany, N.J. is a third-year Biology major and part of the Honors and EOF Program. She has made the Dean's List every semester. At Ramapo, Cindy participated being a Ramapo Admission Student Ambassador, Co-President of United Asian Association and Biology Club, an E-Board member of the Honors Program, and an SGA Senator-At-Large/EOF Liaison. She is also researching at the Cognitive Development Lab under her mentor, Dr. Ishak and with Dr. Xu on an analysis of herbs. In the future, she plans to attend medical school and become a physician that can serve in underserving areas.

### **Sanskar Raj Marahata**

Sanskar Raj Marahata is a Senior Computer Science Major and a Mathematics Minor.

### **Luka Marjanovic**

Luka Marjanović is an international senior from Bosnia and Herzegovina. He wants to thank his director (and friend!) Kate Gavin, his stage manager (and friend!) Alyssa Blake, his mentor Peter Campbell, the Honors Program, and every other person who worked on getting this show up for indulging him in his art. He would also like to thank his family back home and in the USA for supporting him in his theater endeavors, and all his friends who make the United States bearable. You all know who you are. Volim vas.

### **James Martinez**

James A. Martinez from the Borough of Fairview, NJ is a Senior Bioinformatics major enrolled in the Ramapo's Honors Program. He has accumulated a 3.680 GPA over his college career and has been inducted into the Alpha Lambda Delta Honor Society, Beta Beta Beta Biology Honor Society, and the Gamma Sigma Alpha National Academic Greek Honor Society. His future career plans after graduate school are (1) to go into Medical Informatics Research and Development & (2) to teach the growing world of Bioinformatics as a professor.

### **Trisha K Mehta**

Trisha Mehta is a senior biology and osteopathy major at Ramapo. Aside from science, her interests include cooking, dancing, crochet, and spending time with her friends. She is currently the president of Naach club for South Asian dances, VP of the RCNJ Dance Company, and a volunteer EMT at her local town squad. She will be attending Lake Erie School of Osteopathic Medicine this July after graduating.

### **Milos Milandinov**

Milos Milandinov is a graduating computer science major who loves exploring topics in scalability, reusability, and security. Outside of his studies, he likes to rock climb, snowboard, and compete in long distance races.

### **Samantha Mistretta**

Samantha Mistretta is a senior communication arts major with a concentration in writing and a minor in creative writing. With her love of reading and writing, she aspires to have a novel published within the next few years after graduation.

### **Kathryn Moskal**

Kathryn Moskal is a senior Nursing Major with a certificate in Spanish for Health Care and Human Service Professionals. She is very dedicated to the ongoing research in long term care of patients with CHD as well as advancements of interventions to improve quality of life for patients with chronic conditions. She plans on working as a Registered Nurse in the upcoming year and is excited for what the bedside nursing experience will provide.

### **Illiana Rose Natale**

Illiana Natale is a senior Economics major. She originally came to Ramapo hoping to become an elementary school teacher but quickly discovered her passion for economics and the business field. She is a member of the Beta Gamma Sigma honor society for business students, and she served as an Honors Development Group Leader in the Honors Program as well as Secretary of the Psychology Affiliation on campus. Outside of Ramapo, Illiana enjoys working part-time and traveling. Upon graduation, Illiana looks forward to gaining professional experience in her chosen field before potentially pursuing a Master of Business Administration.

### **Stephen Owens**

Stephen Owens is an Environmental Science major in his senior year at Ramapo College. He loves being outdoors and learning about the natural world's many wonders. His goal is to graduate this semester and eventually become either a scientist working in the field or a park ranger in one of America's many state and national parks.

### **Anjali Patel**

Anjali Patel of Woodbridge, N.J. has a 3.9 GPA, is on Dean's List, and is a member of Sigma Alpha Pi, Omicron Delta Kappa, Order of Omega, Gamma Sigma Alpha, and Alpha Lambda Delta Honor Societies. Anjali was elected as Student Body President in May of 2020, reelected in May of 2021. She is also in Alpha Omicron Pi Sorority and is Editor-in-Chief for the Ramapo College Journal of Law and Society, and has interned with the NJ Office of the Secretary of Higher Education. After graduating, Anjali wants to prepare for a career in law and politics.

### **Amanda Rae Reece**

Amanda Rae Reece of Hillsborough, New Jersey, is a transfer student and is a senior majoring in Social work. She has a 4.0 GPA and has consistently been on the Dean's List since starting at Ramapo. She enjoys embroidering, baking, and road trips with close friends. Amanda works on campus at the Civic and Community Engagement Center, where she and her coworkers organize community service trips and events focused on political engagement. Post-graduation, she hopes to continue and earn her master's degree in social work and aspires to make lasting changes within the realm of domestic violence.

### **Christine Sae**

Christine Sae is a senior nursing student at Ramapo College and a part of the College Honors program. Her inspiration for this thesis stemmed after learning about the racial disparities associated with postpartum hemorrhage mortality. In her future nursing practice, she hopes to provide culturally competent care and help eliminate bias in the workplace. She is a first-generation college graduate and during her time at Ramapo College, she has served as a Peer Facilitator, Orientation Leader, and as a mentor for the Nursing Student Organization. She currently serves as President of InterVarsity Christian Fellowship. Post-graduation, she plans to practice as a Registered Nurse.

### **Channing Marie Smith**

Channing Smith is a Digital Filmmaking and Music Production major with a GPA of 3.8 and being part of the Dean's List every semester. At Ramapo College, she has been active in several organizations and activities as well as having hard work and dedication toward her creations. Her greatest achievement is obtaining the "Underlying Best Storyline" award for her "Ai No Scenario Music Video" at Ramapo's Film Festival in 2019. Channing hopes to obtain a job in video editing with music composing and voice acting after graduation.

### **Gianna Spitaletta**

Gianna Spitaletta is a senior at Ramapo College of New Jersey. She is a member of the college's honors program as a history major with a minor in museum and exhibition studies. She is also the president of the campus's Harry Potter club, Dumbledore's Army, as well as the vice president of the campus's Disney Club. Gianna has been accepted into the Washington Internship Institute for the Fall 2022 semester, which will assist her in obtaining an internship in Washington DC after she graduates.

### **Gabriela Tactuk**

Gabriela Tactuk is a biology major from Englewood, N.J. She is a member of the Educational Opportunity Fund (EOF) Program and the Honors Program. She has been involved on campus as a Biology Lab Teaching Assistant and a Supplemental Instructor. She currently works as a medical scribe under a surgeon and a neurologist. She is also an avid volunteer at Englewood Health and hopes to improve the healthcare field from within. After graduation, Gabriela hopes to get a master's degree in Biology and eventually matriculate into medical school.

### **Thomas C. Tragale**

Thomas Tragale of Ringwood, New Jersey is a Bioinformatics Major and Neuroscience Minor. He has a 3.86 GPA and will be graduating with Honors in the Spring. He is a member of the Honors College and a Dean's List student. In 2018 he attained the rank of Eagle Scout, learning discipline and leadership skills which help guide him towards greater goals.

### **Ayano Michelle Ueda**

Ayano Ueda is a nursing major and has been involved in the College Honors Program's admissions team for three years, where she promoted the program to prospective students at admissions events. She is the president of the Nursing Student Organization, which she has been a part of since her freshman year. As president of the Zeta Zeta chapter of Phi Beta Delta International Honor Society, she encourages international and intercultural education and excellence. After graduation, she plans to pass the NCLEX over the summer. In August, she will work in the Clinical Decision Unit as a registered nurse through the Valley Health System Nurse Residency Program.

### **Jesse Valliere**

Jesse Valliere is a senior Bioinformatics major planning to graduate in May 2022 with Summa Cum Laude honors. Along with being a member of the Honors College, Jesse is a brother in Alpha Phi Omega, a member of the Professional Fraternity Council, and a member of the National Society for Leadership and Success. After graduation, Jesse plans to continue his education in a doctoral program.

### **Valerie Vengerov**

Valerie Vengerov is a senior-year honors college student with an advanced fluency in Spanish and Russian, in addition to an intermediate fluency in Italian. She studied abroad in Spain, upon the completion of +500 hours of volunteer and internship services. She is also a member of honors societies, humanitarian clubs, as well as active participant in student-lead leadership programs, symposiums, and conferences.

### Irene Golda Vilgorin

Irene Golda Vilgorin is a senior biology major and neuroscience minor at Ramapo College. After graduating from Ramapo she plans on taking a gap year to try to determine what career path she would like to pursue, and traveling. Some of her hobbies include cooking, dancing, singing, playing piano, biking, hiking, reading, and spending time with her loved ones!

### Morgan Wall

Morgan Wall is a Communication Arts major with a concentration in Digital Filmmaking. She is a member of Alpha Phi Omega and the co-creator of student-led collaborative zine Cettle Kooked. You can also find Morgan at the Center for Student Involvement, where she is a student manager and social media assistant. Morgan has also been an editorial assistant for the Jane Addams Papers and co-hosted a show on WRPR 90.3 FM Mahwah.

### Sarah Walus

Sarah Walus is an aspiring professional academic who intends to shift her sights towards graduate school following her Ramapo experience. A first-generation college student, she majors in history and minors in political science. She hones her studies upon women's history and historiography, with ambitions to focus on French history throughout the future of her academic career. Given her interest in historiography, Sarah takes pleasure in highlighting the shifting narrative of history over time—a notion pinpointed within her research on Molly Pitcher.

### Gavin T. Wentworth

Gavin Wentworth's family has dedicated themselves to the pursuit of helping others and those we love. To be able to use his Honors project to research and develop therapeutic modes that can make paralysis a bygone diagnosis means the world to him.

### Helen B. Witte

Helen Witte is a senior Political Science major at Ramapo College of New Jersey. As a person who identifies as deaf/hard-of-hearing, Helen's undergraduate research focuses on political advocacy for, and among, people with disabilities. A community college graduate, Helen published "Disabilities and Capabilities: A Challenge to Martha Nussbaum's Central Capabilities" in the first edition of the John Hopkins Richard Macksey Journal in September 2020. After graduation, Helen plans to work in local or state government. She hopes to apply to law schools to become a Civil Rights Attorney, with a focus on disability rights.