

HONORS PROGRAM

SENIOR THESIS

RESEARCH CONFERENCE

Friday, December 3, 2021

CLASS OF 2022

Amanda Allender Madeline Bishop Erin Burtzlaff Caroline Canally Gillen Curren **Lily Day** Marco Delsanto Matthew DiCarali Chris DiLullo Nicole Garcia **Austin Glass Emma Guilbault Helena Gunther** Elise Hall **Alec Henderson Katie Kelly Emily Mahoney**

Erica Mallon Audrey McCleary Hannah Medsker **Grace Metzger** Kristella Muvunankiko **Julianna Nails Jourdyn Nicholson Morgan Palumbo** Olivia Pfeiffer Kaitlyn Quijano **Erin Rodriguez Christopher Saladino Dylan Sawyer Hannah Simon Sydney Stewart Bridget Sullivan** Julia Sullivan

Anne Quinn Welsh Director:

Anna Bonta Moreland, Ph.D

Associate Director:

Madeline Reynolds

Assistant Director:

Kimberly Hidore



HONORS PROGRAM

Program Coordinator:

Jaime Haughton

Program Assistant:

Christine Ciocco

Graduate Assistants:

Franki Rudnesky Lauren Alexander Growing Your Own Pharmaceuticals:
An Exploration of Plants as Medicine
During Pre-Modern Times and the
Influence of Medicinal Plants on the
American Pharmaceutical Industry



Amanda Allender

Major: Biochemistry & Humanities
Tutor: Dr. Mark Shiffman
Reader: Dr. Aimee Eggler

Amanda is a Biochemistry and Humanities double major from Springfield, Oregon. She is involved with biochemistry research in the Eggler lab, studying the effect of small molecules on the mitigation of oxidative stress in cellular systems. She has been an EMT for over two years and is the Captain of Villanova Emergency Medical Service. After graduation, Amanda will continue her studies at Villanova for a fifth year, during which she will get her Master's degree in Chemistry. Her research on small molecules in the Eggler lab, some of which are found naturally in plants, helped formulate the questions that she will be asking in her thesis. Amanda is researching the role that medicinal plants have held in premodern medicine and how the American pharmaceutical industry has approached the concept of medicinal plants in the context of pharmaceutical development.

Gendered Power Dynamics within Sex Work in the Digital Age



Madeline Bishop

Major: Economics & Gender and

Women's Studies

Tutor: Dr. Cheryl Carleton

Reader: Dr. Melissa Hodges

Madeline Bishop is a senior double majoring in **Economics and Gender and Women's Studies and** minoring in Irish Studies from New Rochelle, NY. In her thesis, she plans on combining aspects from both Economics and Gender and Women's Studies to research the different roles that gender and identity play within sex work and how their intersection affects workers' experiences in the industry. She is particularly interested in which groups have been advantaged or disadvantaged with the introduction of new technologies, as well as the pandemic's effect on sex work, and will look at quantitative economic figures alongside news and accounts of workers' experiences. Maddy is involved in POWER and the Villanova Costume Shop, and she is also a barista on the side. She was also a Connelly-Delouvrier Scholar and studied abroad in Galway, Ireland her sophomore year.

Why We Can't Think For Ourselves:
The Rise of Technological
Dependence and the Decline of
Independent Thought



Erin Burtzlaff

Major: Philosophy

Tutor: Dr. Justin Humphreys

Reader: Dr. John Doody

Alumni Mentor: Alyssa Suhm '15, MSc

Erin Burtzlaff is from Dallas, Texas. She is currently a caseworker for the Philadelphia Justice Project for Women and Girls, working on commutation and wrongful conviction cases. Besides her passion for social justice, she simply loves learning. Her Philosophy studies have allowed her to explore many different academic disciplines from countless perspectives and have entirely changed the way she thinks. Her thesis research stems from her fascination with the exponential increase in modern technological development. While she applauds the incredible developments and progress in technology in the last decade, she firmly believes that if we are not careful, technology will cause great rifts in society. Think Black Mirror meets class conflict meets political revolution. Outside of school, she's very passionate about personal fitness and health, specifically pilates and crossfit. She also has a love of music - though she says she has no musical talent herself, she tries to listen and appreciate music of all different genres and decades. Her favorite genres are classic rock and hip hop and she spends a portion of every Sunday making a playlist based on a new artist or genre she's never heard of before.

The effect of using a small molecule inhibitor of Brd2, a critical gene regulator, on the developing excretory system in zebrafish



Caroline Canally

Major: Biology

Tutor: Dr. Angela DiBenedetto

Caroline Canally is an Honors Biology major with a minor in Spanish from Concord, MA. On campus, she writes for the Villanovan and enjoys her role as an Honors Ambassador, as well as participating in volunteer clubs such as RUIBAL and Service and Justice Experiences to El Paso, Texas and Hickory, North Carolina. She spent the summer in Dr. DiBenedetto's lab as a VURF grantee, researching the role of Brd2, a transcriptional co-regulator, on early zebrafish development. Specifically, she is looking at the pronephros, a blood filtration organ in embryonic zebrafish, akin to kidney nephrons in mammals. To track the ongoing role of Brd2 in the development of the pronephros, she will use a small molecule that inhibits Brd2, called BIC1. Through her research, she will investigate the late-stage window when Brd2 activity is needed in the development of the excretory system in embryonic zebrafish for it function normally. She hopes researching Brd2, which is highly conserved across many species, including humans, can inform future therapies for diseases such as chronic kidney disease, among others. After graduation, she looks to pursue a career in biotechnology or pharmaceuticals, and eventually go back to school to get her MS in the field.

Comparing the Heavy Metal Concentrations of Estuarine Organisms from Different Estuaries on the East Coast



Gillen Curren

<u>Major:</u> Environmental Science and Geography

<u>Tutor:</u> Dr. Nathaniel Weston

Gillen Curren is a senior Environmental Science and Geography major minoring in Spanish and Biology from Wilmington. Delaware. She was worked in Dr. Weston's lab since the summer after her sophomore year, assisting in field and lab research in estuarine ecosystems like the Plum Island Estuary. Her project will assess heavy metal concentrations with estuarine organisms and how those concentrations differ between species and trophic levels. Since some of the organisms studied within the thesis are consumed by the public, part of her research will be to determine whether the heavy metal concentrations within these organisms are safe to consume according to FDA and EPA standards.

Song discrimination and male aggressive behavior within a songbird hybrid zone



Lily Day

Major: Biology

Tutor: Dr. Robert Curry

Reader: Dr. Brittany Coppinger

Lily Day is a Biology major with a minor in Philosophy from Allentown, PA. She has been a member of Dr. Curry's lab since her freshman year at Villanova, conducting field and lab research to study chickadees within a hybrid zone where two species, Black-capped and Carolina chickadees, interbreed. Her thesis project is an experimental investigation of the role of male song in extra-pair paternity within this hybrid zone. On campus, Lily is a clarinetist in the Villanova Band and a TA for general chemistry, and outside of school, she enjoys spending time outdoors and baking Celiac-friendly recipes. Lily plans to attend graduate school to pursue molecular ecology research. She is particularly interested in climate-driven evolution and genes relevant to climate change adaptations.

From Setbacks to Solutions: A Review of Autism Spectrum Disorder (ASD) in United States' Public Schools



Marco Delsanto

Major: Psychology

Tutor: Dr. Christa Bialka

Marco Delsanto is a Senior from
Woodbridge, Connecticut. He is a
Psychology Major with Honors Business
and Italian Minors. He is planning on
pursuing a graduate degree in School
Psychology where he will be able to
work with children in school settings.
His thesis looks at the experience of
autistic students in United States' public
schools and specifically examines the
barriers that they face in their
educational journeys. He will also review
and propose solutions to break down
these barriers with a focus on Universal
Design for Learning (UDL).

An Ounce of Prevention is Worth a Pound of Cure: The Ethics and Implications of Preventive Medicine



Matthew DiCarali

Major: Biology & Humanities
Tutor: Dr. Sarah-Vaughan Brakman

Matt is a Biology and Humanities double major and Spanish minor from Long Island, New York. As a student soon about to begin medical school and enter the medical field. Matt is interested in the physician's role as a member of a moral community. Considering Goodness, Truth, and Beauty in medicine and human wellness, Matt is exploring the moral ends of medicine, arguing that preventive medicine and health promotion are critical means to the ultimate end of medicine, which is the health of the patient. He also hopes to discuss how a shift toward this type of medicine will address the rising costs of healthcare and disparities in the health outcomes of the United States. After graduating from Villanova, Matt is taking a gap year before medical school, during which he plans to gain clinical experience as a scribe and volunteer, both at home and abroad.

Media on Media: How Media Trade Publications View Streaming Services Compared With Legacy Media



Chris DiLullo

Major: Communication
Tutor: Dr. Allyson Levin
Reader: Dr. John O'Leary

Chris is a Communication and Spanish double major from Farmington, Connecticut. Chris has always been fascinated by media and its role in human society. He has performed research with Dr. Allyson Levin in the Department of Communication on TikTok and its role in spreading information and experiences related to the COVID-19 pandemic. Chris has also interned at HBO Max, developing an in-depth, first-hand understanding of streaming services and how they are changing the media industry. Through his thesis, he will examine how the media industry itself is responding to the emergence of streaming services. He will study the nature of articles produced by media trade publications about both streaming services and legacy media, which is considered to be theatrical films and cable or network television, and will determine the role of these articles in developing both the media industry's perception and the general public's understanding of streaming services.

NMR Analysis of Polyisoprene:
Optimizing Coordination
Polymerization Conditions
Using Iron (II) Catalysts



Nicole Garcia

Major: Chemistry **Tutor:** Dr. Deanna Zubris

Nicole Garcia is a senior Chemistry major minoring in Peace & Justice and Sustainability studies from Long Island, New York. While at Villanova, she has been a captain of the Club Soccer team, chair of the RUIBAL service program, and a member of the inaugural class of IGR messengers. She has worked in Dr. Zubris' inorganic chemistry lab since her freshman year, synthesizing and characterizing organic ligands and iron based catalysts for use in sustainable polymerization. Nicole is passionate about increasing sustainability efforts of chemical production and plans to pursue a research career in this field upon graduation. For her thesis, she will be analyzing NMR spectroscopy data to optimize coordination polymerization conditions for the production of polyisoprene using earth metal-based catalysts.

Value & Trust: Exploring the Relationship between Income Inequality and Social Trust Globally in the 21st Century



Austin Glass

Major: Economics (VSB)
Tutor: Dr. Maira Reimão

Austin Glass, from Lancaster PA, is studying Economics (VSB) with minors in Spanish, Business Law, and Finance. His participation in the Honors Politics, Philosophy, and Economics cohort and semester at the University of Cambridge were influential in fostering his postgrad plans to attend law school. The thesis opportunity allowed Austin to create a culminating work that fuses his interests in policy, economics, and social impacts.

Water Sprouts: The Development of Epicormic Shoots in Avicennia Germinans Mangroves Encroaching Northward through Florida Salt Marshes



Emma Guilbault

Major: Biology

Tutor: Dr. Samantha Chapman

Emma Guilbault is a senior Biology major from Norwalk, CT. She has worked in Dr. Samantha Chapman's ecosystem ecology lab since her sophomore year, helping graduate students as a lab assistant and completing a Research **Experience for Undergraduates over the** course of her junior year, where she studied the growth of mangrove canopies using image analysis software. Her thesis focuses on the development of fast-growing epicormic shoots ("water sprouts") in mangrove populations as they encroach up through the salt marshes of northeastern Florida, as a result of changing coastal climates. Following graduation, she plans to attend graduate school for ecology and/or botanical agriculture, with the goal of becoming a professor. Outside the classroom, her interests include playing tennis, baking and adding to her collection of household plants.

Growing Up Too Fast: A Study of the
Good Childhood, the Failure of Schools to
Nurture the Childhood of Students of
Historically Underserved Backgrounds,
and How We Can Do Better



Helena Gunther

Major: Humanities

<u>Tutor:</u> Dr. Michael Tomko <u>Reader:</u> Dr. Mark Shiffman

Alumni Mentor: Mary Grace Mangano '14, MeD

Helena is a Humanities major and Education minor from Long Island, NY. Her thesis focuses on the way her Humanities classes inform an understanding of childhood and schooling that is based on the recognition and uplifting of the dignity and individuality of the human person. She will be exploring what it means to be a child, what elements help create a "good childhood" and how the school systems have contributed to the systemic robbing of these elements of childhood from students of color and of lower-socioeconomic backgrounds. The thesis will conclude with a study and celebration of individuals and schools that are doing the work to remedy these failures. Helena's thesis is motivated by her passion for educational equity, which has been fostered both in her classes and in her experiences volunteering in Philadelphia schools each week through Campus Ministry. She is excited to continue this work as she plans to pursue a Master's of Education while teaching in a school serving historically disadvantaged students with the hopes of someday working in school policy.

The Ethanolamine Utilization
Bacterial Microcompartment:
Developing a method for its
cloning and isolation



Elise Hall

Major: Biology

Tutor: Dr. James Wilson

Reader: Dr. Angela DiBenedetto

Elise Hall is a biology major and global health minor with honors from Wilmette. Illinois. She has been working in Dr. James Wilson's lab since sophomore year, supporting his work on the 1,2propanediol and ethanolamine utilization bacterial microcompartments. Her primary focus has been on the Eut microcompartment in Salmonella enterica and the transfer of the EutMCP operon into Escherichia coli. Her thesis work will elaborate on the project she has been doing starting her junior year--finding a way to easily purify the E. coli conjugants, as well as studying the wider concepts of bacterial microcompartments and their engineering applications.

Mapping Habitat Suitability of the American Chestnut in Pennsylvania: Can we Restore this Foundational Tree to our Forests?



Alec Henderson

Major: Environmental Science
Tutor: Dr. Jennifer Santoro
Reader: Dr. Peleg Kremer

Historically, the American chestnut was an incredibly important species—ecologically, economically, and culturally—in Pennsylvanian forests. In the early 20th century, an invasive chestnut blight wiped out nearly all the mature American chestnuts throughout their native range. There are current efforts to create a blightresistant chestnut but restoring the tree to its native range will require better understanding of chestnut habitat suitability. For my project, I am using known chestnut locations in Pennsylvania to model habitat across the whole state to assist in reintroduction efforts. A habitat suitability model will help with both finding more surviving mature chestnuts and identifying areas to replant blight-resistant chestnuts. American chestnut range is expected to shift with climate change, so habitat suitability maps accounting for climate change will be necessary to highlight areas to replant future forests.

The (Exogenous) Responsibility Hypothesis: Economic Voting in a Post-Brexit Ireland



Katie Kelly

<u>Major:</u> Political Science & Economics <u>Tutor:</u> Dr. Ryan Weldzius

Katie Kelly is a Political Science and **Economics double major and French &** Francophone Studies minor from Leesburg, VA. As a member of the Philosophy, Politics, & Economics (PPE) cohort, she spent a semester abroad at the University of Cambridge, where she focused her studies on European politics and international economics. Katie's thesis combines these interests, looking at how the international economic change caused by Brexit has influenced domestic Irish politics, specifically through the context of economic voting, looking at how economic conditions shape electorate attitudes towards the government.

On the Ethics of Reproductive Genetic Engineering for Human Enhancement



Emily Mahoney

Major: Biochemistry and Cognitive +
Behavioral Neuroscience
Tutor: Dr. Sarah-Vaughan Brakman

Emily Mahoney is a senior Biochemistry and Cognitive & Behavioral Neuroscience double major with a minor in psychology from Scranton, Pennsylvania. She performs biochemistry research in the lab of Dr. Jennifer Palenchar, working on the characterization of essential enzymes in the trypanosome parasite. Emily has previously worked as a tutor for The Learners' Studio and is currently a TA for General Chemistry I Lab. She is very involved in Phi Sigma Pi, the National Honors Fraternity on campus, and enjoys working out and playing sports. In her thesis, she is discussing the ethical arguments for and against reproductive genetic engineering for human enhancement. She will analyze genetic engineering techniques and then present the ethical implications of using this technology to select and design children. After graduation, Emily intends to pursue her Ph.D. in Neuroscience, Clinical Psychology, or **Human Genetics**.

Investigation of the Effect of the Dsk2 Shuttle Protein on Proteasomal Degradation



Erica Mallon

Major: Biochemistry
Tutor: Dr. Daniel Kraut
Reader: Dr. Aimee Eggler

Erica Mallon is a Biochemistry major with Spanish and Medical Humanities minors from Madison, Connecticut. On campus, she is a facilitator for the Service Learning Community, Vice President of the Jazz Band, and a member of the Villanova Band. She has been working in Dr. Kraut's research lab, where she studies the proteasome and protein degradation, since her junior year. In her thesis, Erica specifically examines how the shuttle protein Dsk2 affects the proteasome's unfolding ability, or its efficiency at unfolding a substrate. After graduation, Erica plans to do a year of service and then attend dental school. In her free time, she enjoys reading and baking.

Foreign Aid Dependency, Development, and Democratization



Audrey McCleary

Major: Political Science
Tutor: Dr. Olukunle Owolabi
Reader: Prof. Shigehiro Suzuki

Audrey McCleary is a senior Political Science major with minors in Peace & Justice, Humanities, and Public Administration. Audrey is from Centreville, VA. She is on the executive board for Villanova Relay for Life as well as an Office Assistant in the Honors Department. Her interest in foreign aid policy stems from curiosity about global development, global organizations such as the World Bank. Audrey is enrolled in the Political Science 5-year BA/MA program.

Art as Education: Promoting the United Nations' Sustainable Development Goals



Hannah Medsker

<u>Major:</u> Neuroscience and Humanities <u>Tutor:</u> Dr. Ruth McDermott-Levy Reader: Dr. Michael Tomko

Hannah Medsker is a senior Neuroscience and Humanities double-major minoring in Global Health and Psychology. She grew up in Boston and now lives in Charlotte, North Carolina. For her thesis, Hannah is researching the effectiveness of public art as an educational tool, and will be using her training as an artist to create on-campus art installations to raise awareness for the United Nations' Sustainable Development Goals, Next year, Hannah plans to attend grad school to study Global Health in the UK or Scandinavia. She hopes to unite her passions for science and social justice by mitigating social determinants of health in developing countries.

Virtuous Dependence: Why and How We Need Other People



Grace Metzger

Major: Humanities; Communication

Tutor: Dr. Anna Moreland Reader: Dr. Helena Tomko

Alumni Mentor: Megan Hopkins '15, MA

Grace is a proud Humanities and

Communication double-major from Media, PA. At Villanova, Grace spends most of her days sipping iced green tea in the Connelly Center, and most of her nights directing shows with her friends at Villanova Student Theatre. Above all else, her thesis will serve as a love letter to the Humanities department, the place where she realized that a virtuous life is one full of vulnerability. Using theological, philosophical, and literary sources throughout her thesis, Grace will showcase how dependence is at the heart of meaningful family relationships, friendships, and faith communities.

It's Immortality, My Darlings: How 2000s and 2010s Teen Television Shows Capture Our Adolescence



Kristella Muvunankiko

Major: Philosophy

<u>Tutor:</u> Dr. John Carvalho <u>Reader:</u> Dr. Allyson Levin

Kristella is a Philosophy major and Business from Bentonville, Arkansas. With the rise of social media and how that influences pop culture, she always been interested in the evolution of how television shows, music. and movies have changed over time and wanted to find a way to tie it to her love for philosophy. Television shows have been a major part of American culture and the introduction of teen shows has allowed for young stars to have career-defining roles that remain forever. Her thesis was inspired by the relevance teen shows have on our adolescence and wanted to examine the teen shows that have shaped those growing up in the 21st century. Through the focus on 21st century teen television shows, it centers on two teen shows that defined the 2000s & 2010s, The OC & Pretty Little Liars and hopes to examine the possible differences between the two decades and how they portray teenagers. Both television shows defined their decade in different ways and through these two shows, it will connect to Aristotle's Poetics, detailing the definition of a tragedy that teen shows use today. The thesis hopes to examine themes such as romance, mental health, & family to express how teenagers are feeling with mostly focusing on how friendships has continued to be a

large part of teen experience.

Is There Really a Mental Health Crisis Among Today's College Students?



Julianna Nails

Major: Psychology
Tutor: Dr. John Kurtz

Julianna Nails is a senior Psychology major with minors in Counseling and Philosophy from Yardley, Pennsylvania. She has always been interested in understanding the nature of mental illness, and has pursued this interest through work with Pyramid Healthcare, Inc. and the National Suicide Prevention Lifeline. Additionally, she has worked with the University of Michigan researching the origins of mindfulness and its use as a treatment for mental illness. At Villanova, Julianna has been part of Dr. Kurtz' Psychological Assessment research lab for a year and a half. For her thesis, Julianna investigates the claim that college students are more psychologically distressed today than they were 30 years ago. To do so, she compares students' scores on the Personality Assessment Inventory, which is a psychological assessment of personality and psychopathology, from the 1990s to scores from the 2010s. By painting an accurate picture of the mental health condition of college students today, she hopes her thesis will highlight the importance for college campuses to implement ample mental health resources for their students.

Gender in the Garden: Reading Motherhood and Maternal Loss through the Genesis Story



Jourdyn Nicholson

Major: English & Philosophy

Tutor: Dr. James Wetzel

Reader: Dr. Lauren Shohet

Alumni Mentor: Gerald Marzorati, '75

Jourdyn is an English and Philosophy double-major with a minor in Mathematics from Rotterdam, New York. On campus, Jourdyn is involved in the Ruibal and Service and Justice Experience programs through Campus Ministry, Liturgical Council, and adores her work as a barista in CEER Holy Grounds. As a vegetarian (self-proclaimed) chef, her passion for creating good food for herself and others is not limited to the coffee she serves at work. When home, Jourdyn can often be found hiking in the Adirondacks or enjoying some Stewart's brand ice cream (a gas station chain solely found in upstate New York). As someone very interested in gender and literature, Jourdyn is excited to share her research on gender within the Book of Genesis, with others. Concerned by the implications of a patriarchal reading of this origin story, she hopes to counter this reading with an emphasis on maternalism within the story. Jourdyn will draw upon other literature regarding creation. motherhood, monstrosity and maternal loss in the process of her research, including some of her favorite works by Mary Shelley and Toni Morrison.

Examining how the COG complex and the Golgi apparatus influence aging in C. elegans



Morgan Palumbo

Major: Biology

Tutor: Dr. Matthew Youngman

Morgan is a senior Biology major with a minor in Spanish from Roseland, NJ. Her interest in cell aging influenced her to join Dr. Matthew Youngman's lab during her junior year. The goal of the lab is to identify specific genes that hold a significant role throughout the aging process and those that help organisms combat stress as they age. Her project for her Senior Thesis will particularly investigate the role of the COG complex in the Golgi apparatus, which is responsible for retrograde transport, and how its genes impact survival in C. elegans. Outside of the classroom or lab, Morgan enjoys traveling, cooking and spending time with family and friends. Ultimately, she plans on attending medical school as well as exploring areas of public and global health.

Love's Labour's Lost? The Shifting Relationship Between Economic and Domestic Work



Olivia Pfeiffer

Major: Economics & Humanities
Tutor: Dr. Mary Hirschfeld
Reader: Dr. Anna Moreland

Olivia is an economics and humanities double major and sustainability minor from Boulder, Colorado. She has a deep love for the Honors Program, co-leading the Peer Mentor program for her last two years and teaching as a student facilitator for Shaping A College Life. Her previous economic research experience, an econometric analysis of the glass cliff and bias in female leadership with Dr. Xiaoxiao Li, served as inspiration for her honors thesis. Unlike her quantitative research, her honors thesis is a humanities-based exploration of the relationship between women and work. In her thesis, Olivia is exploring the shifting relationship between economic and domestic work in the wake of the COVID-19 pandemic, especially as women have left the workforce in higher rates than men and faced higher burdens of invisible labor. She seeks to explore how cultural identity impacts these burdens, and whether the importance of work and family time has shifted as a result.

The Struggle of In-Between: Exploring Filipino Racial Identity and its Implications for Filipino Mental Health



Kaitlyn Quijano

Major: Cognitive & Behavioral Neuroscience Tutor: Dr. Rory Kramer

Reader: Dr. Carol Anthony

Kaitlyn Quijano is a Senior Presidential Scholar from Westbury, New York majoring in Cognitive & Behavioral Neuroscience with minors in Peace and Justice Studies and Psychology and a concentration in Medical Humanities. Her identity and experiences as a Filipina woman inspired her to delve deeper into the long history and struggle of what it means to be a Filipino. Additionally, she wanted to discover the lasting effects of colonialism. intergenerational trauma, acculturation, and a feeling of "in-betweenness" on the understanding of Filipino racial identity as well as the psychological experiences of Filipinos with regards to mental health. She hopes that her thesis sheds light on the complex racial identity and history of Filipinos as well as highlight the importance of conversations about mental health in communities of color. On campus, Kaitlyn is involved in various diversity & inclusion efforts, serving as the Diversity, Equity, and Inclusion Coordinator of Blue Key and as one of the first students to take the pilot of the University Race and Justice Course. Outside of the classroom, Kaitlyn enjoys writing poetry and creating art and loves to visit art museums. She plans to apply to medical school and work in pediatric cardiology in the future.

Environmental Justice and Pesticide Exposure within Latino Farmworker Communities



Erin Rodriguez

Major: Political Science and History

<u>Tutor:</u> Prof. Marsha Tonkovich

Reader: Prof. John Armstead

Erin Rodriguez's research investigates the environmental working conditions of migrant farmworkers in the United States, the majority of which identify as Latino or Hispanic American. As a double major in political science and history, most of her historical research has focused on the activism surrounding the United

Farm Workers' Association and how it contributed to the political empowerment of Latin Americans. This thesis seeks to build off that history and evaluate the contemporary dynamics between policy and the needs of farmworkers. More specifically, she seeks to understand how policy shapes the environmental conditions of agricultural labor and the impacts of pesticide exposure. Building off the scholarship of environmental justice, she will be applying the research surrounding environmental inequality to the context of Latino populations.

The role of Rme-8 in the innate immunity of c.elegans during aging



Christopher Saladino

Major: Biology

Tutor: Dr. Matthew Youngman

Christopher Saladino is pursuing a bachelors of science in honors. He is a double major in Biology and Humanities, has minors in spanish and medical humanities, and a concentration in ethics and healthcare. He grew up in Tenafly. NJ. He has been a member of Dr. Matthew Youngman's lab since junior year. The objectives of this lab are to discover pathways to healthier aging using the model organism c.elegans. Aging is characterized by a progressive dysfunction and decline brought about by a collapse of proteostasis and a decline in proteome integrity. Rme-8 is a gene involved in regulating life span and Chris' thesis will focus on understanding the role of this particular gene in the innate immunity of c. elegans during the aging process. In addition to research, Chris volunteers as an EMT and with community outreach of Villanova. After graduation, he plans on pursuing medical school in order to become a physician.

Therapy Beyond the Session:
Using Research in Multicultural
Competency and Advocacy to
Better Serve Marginalized Clients



Dylan Sawyer

Major: Psychology
Tutor: Dr. Terence Yee
Reader: Dr. Krista Malott

Dylan Sawyer is a Senior Psychology major with minors in Counseling and Communication from Schenectady, NY. During his time at Villanova, he has served as a Peer Minister, Social Justice Experience Leader, and member of Blue Key and Relay for Life. By reviewing and synthesizing current research, his thesis focuses on how an emphasis on multicultural counseling competency and social justice advocacy can help counselors serve clients from marginalized communities. After graduation, Dylan hopes to participate in a year of volunteer work, and then go on to graduate school in a mental health counseling program.

"Not for the world would I advise you":

Examining confidante relationships and power dynamics in Jane Austen's novels using the lens of Carl Rogers' person-centered approach



Hannah Simon

Major: Psychology

<u>Tutor:</u> Dr. Elizabeth Pantesco <u>Reader:</u> Kimberly Hidore, MS

Hannah Simon is a senior Psychology major and Counseling and Italian double minor from Downers Grove, Illinois. Hannah spends much of her free time reading, and especially loves classic literature. She decided to use the thesis as an opportunity to explore both her passion for literature and her academic interest in clinical mental health counseling. Her thesis is an interdisciplinary project discussing the connections between the "confidante" relationships that appear in Jane Austen's novels and the therapeutic relationship between counselor and client. Hannah will use the lens of Carl Rogers' person-centered approach to psychotherapy to examine various examples of confidente relationships in Austen's works, and investigate how a comparison between these two historical entities can give us insights into modern mental health disciplines.

Disappearing Borders: Defending Climate Refugees on a Global Scale



Sydney Stewart

Major: Political Science; Spanish Tutor: Dr. Ryan Weldzius Reader: Prof. Shigehiro Suzuki

Sydney is a Senior Political Science and Spanish double major from Evergreen, Colorado. Sydney is so grateful for her incredible time in the Honors Program and for the positive impact it has made on her Villanova experience. This thesis has given her the chance to combine two of her passions-migration and environmental politics--into a unique exploration, a project she never would have considered if it hadn't been for Honors. Her research has explored the lack of international protections for those displaced by climate-change related events and the reasons efforts in creating these have so far failed. Outside of classes. Sydney can be found giving tours on campus, singing at mass on Sundays, or cheering at every Villanova Athletics event. Her favorite Honors memory is the Phillies game with her Theology class! After graduating, she hopes to pursue a career in foreign service by entering into a fellowship or graduate school. Sydney would like to thank everyone who has helped her throughout the thesis process!

Is the Artist Tortured? The Torment and Deliverance of Artistic Vision



Bridget Sullivan

Major: Humanities & Psychology Tutor: Dr. Helena Tomko

Bridget Sullivan, class of 2022, is studying Humanities and Psychology. As a young aspiring artist and lover of Villanova's Humanities department, she knew she wanted to mesh the wisdom she gained over the years from her Humanities classes and her own experiences and questions she had about what it means to be an artist. Growing up, she was surrounded by creatives. She inherited their passions and started to nurture them at an early age. One of the greatest questions that arose from her own experiences, as well as her artistic family and friends, was whether the artist must be tortured? In her thesis she will dissect this question by searching within the burdens and gifts of the artist that both imprison and set them free.

Impact of Terrorism on Presidential War Powers



Julia Sullivan

Major: Political Science

Tutor: Dr. Michael Moreland

Julia Sullivan is a senior Political
Science major with minors in Business
and Accounting from Syracuse, New
York. In her thesis, she will be
researching the ways in which modern
terrorism has impacted how US
Presidents use their war powers and
consequentially, how that has impacted
the rights of accused terrorists. She
chose this topic from her interest in 9/11
and the United States' War on Terror.
On campus, she is involved in Villanova
Mock Trial and Villanova EMS. Next
year, she will be attending law school
before pursuing a career in government.

