

# MEDALS CEREMONY

## **HONORS PROGRAM**





The Honors Medals Ceremony is the culmination of a student's time in the UConn Honors Program. This annual event began in 2004 as a way to celebrate those students who have completed the rigorous Honors curriculum and are graduating as Honors Scholars or University Scholars. Founded in 1964, the Honors Program offers intellectually gifted and highly motivated undergraduate students the opportunity to obtain the richest possible collegiate experience. Working with every school and college, the Honors Program promotes challenging coursework and encourages intellectual independence through research and creative activities. Students form personal relationships with faculty and staff through Honors classes, regular contact with advisors, and the close supervision that comes with conducting the Honors thesis. Students make life-long friends and enhance their talents by living in Honors residential communities, attending Honors events, and joining Honors student organizations. Honors students also contribute significantly to the greater campus culture of UConn through their academic engagement, leadership, and involvement.

This rite of passage marks the end of our students' undergraduate careers and the beginning of their next stage in life. They have spent their time in Honors knowing they were part of a community: living, learning, and building relationships they will take with them for decades to come. It is important to note that their successes were not accomplished alone. Much of their development depended upon a wider support system. Honors faculty and advisors worked closely with our students to guide their studies and broaden their minds. Parents and family have supported their scholar, offering any assistance required for them to blossom into adults. And the Honors alumni and donors extended helping hands to move our students forward, giving of their time, their wisdom, and their own success to aid our students' journeys. Although these extraordinary and challenging times have prevented us from gathering at the close of the 2019-2020 academic year; the joy, pride, and gratitude we celebrate as an Honors community remains a constant as we pay tribute to our graduating scholars.

## **Honors Scholars**

These students have completed a rigorous academic program that culminated in the production of an Honors thesis or creative project. The requirements for graduating as an Honors Scholar include a minimum of fifteen Honors credits including twelve in the major (or approved related areas) and earning a total grade point average of at least 3.4. Following is a list of graduating Honors Scholars, their majors, their thesis titles, and the faculty advisors for their theses.

### MARLENE ABOUAASSI Molecular & Cell Biology

Study of Putative Niche Adapting Operon in Microbes Inhabiting the Gut of Blood Digesting Animals

Advised by: Johann Gogarten

### **JESSICA ADAMS**

### Molecular & Cell Biology

Analyzing the Effects of Downstream Antisense RNAs (daRNAs) on the Convergent Transcription of Coding Genes

Advised by: Leighton Core

### KYLE MATTHEW ADAMS Political Science

Left Out of Congress: Examining the Struggles of Republican Women in the 2018 Congressional Elections

Advised by: Paul Herrnson

### ALYSSA M. ADDESSO Molecular & Cell Biology

The Effect of the Microbiome on the Immune Response in Zebrafish

Advised by: Sarah Knutie

### ZACHARY JOSHUA ADLER Chemical Engineering

The Effect of Low Relative Humidity on the Overpotentials of Proton-Exchange Membrane Fuel Cells

Advised by: Radenka Maric

### HANAKO OHTA AGRESTA Physiology & Neurobiology

Quality Control Pipeline for PacBio Generated 16s rRNA CCS Sequence Long Reads

Advised by: Geoffrey Tanner

### AMANDA FRANCISCA AGUI Materials Science & Engineering

Computational Design of Functional Organic Materials for Engineering Applications with Machine Learning and Data Mining Approaches

Advised by: Serge Nakhmanson

### ANNA ZARRA ALDRICH English

Iron Manicures: Sex, Power, and Sedition in Margaret Atwood's Writing

Advised by: Regina Barreca

#### ZOYA ALI

#### Economics

The Economics and Politics of Social Welfare Funding for Puerto Rico: Options and Challenges

Advised by: Richard Langlois

#### SABA ALI

### Nutritional Sciences

Tailored mHealth Messages for Obesity Prevention: Application to a Pediatric Emergency Department (PED)

Advised by: Valerie Duffy

### KEVIN MICHAEL ALWELL

Sport Management

Quantifying Competitive Balance in Professional Sport

Advised by: Laura Burton

### DAVID GEORGE AMANN Physiology & Neurobiology

Gene Expression Analysis of BRAFV600E Transfected Mouse Brain Tissue Using GSEA and IPA

Advised by: Joseph Loturco

### CAROLINA A. AMIGO

Communication

Rising

Advised by: Stephen Stifano

### **ELIZABETH JOY AMORY** English

Joy

Advised by: Thomas Dulack

### **ADITI ANAM**

### Biological Sciences

Remapping of Place Cells in the Dorsal and Ventral Hippocampus in Response to Environmental Change

Advised by: Etan Markus

### LUKE SIGURD ANDERSON Anthropology

Cultural Food Habits as a Social Factor of Health Among Immigrants in New Haven, Connecticut: A Focused Ethnographic Study

Advised by: Pamela Erickson

### **ASHLEY MARIE ANDINO**

### Political Science

Separate and Still Unequal: A Case Study of Racial Isolation and Educational Outcomes in Bridgeport, Connecticut 1960 - 2020

Advised by: Jason Irizarry

### ALYSSA LAUREN ANGELL-MACKENZIE

### Linguistics/Psychology

Theoretical Approaches to Sentence Accent Placement in English

Advised by: Hendrikus Van der hulst

### SOPHIA JOHANNA ANGELO

### Physiology & Neurobiology

Determining the Protein Composition of Perineuronal Nets in Mouse Cortical Tissue Using Antibody-Based Proximity Labeling

Advised by: Joseph Loturco

### SARAH GRACE ARNETT

### Cognitive Science

Evaluating the Verbal Language Use of People with Aphasia in Non-Clinical Settings: A Feasibility Study using LENA Technology

Advised by: Jennifer Mozeiko

### **SARAH GRACE ARNETT**

### Speech, Language & Hearing Sciences

Evaluating the Verbal Language Use of People with Aphasia in Non-Clinical Settings: A Feasibility Study using LENA Technology

Advised by: Jennifer Mozeiko

### MADELEINE F. ASELTINE

Individualized: Community Health and Wellness Improving Food Ranking Systems for Use in Food Pantries

Advised by: Michael Puglisi

### YOTAM ASHKENAZI Chemistry

A Modular Synthesis of Hernandezine via Sequential and Orthogonal Ullmann and SNA\_Reactions

Advised by: Mark Peczuh

### AMANDA NICOLE ASTROLOGO

### Biomedical Engineering

Utilizing Computational modeling to Evaluate ACL Force (Strain) During

Advised by: Kristin Morgan

### MOISHE AZOFF-SLIFSTEIN Materials Science & Engineering

Nanoscale Photovoltaic Property Mapping of Perovskite Materials

Advised by: Bryan Huey

## JIANA TIFFANY BAKER Physiology & Neurobiology

Relationships between Hippocampal Mediated Spatial Memory and Physical Activity for Men and Women

Advised by: Beth Taylor

## ASHLEY LAUREN BALDELLI Mathematics-Actuarial-Finance

Preventive Care and Healthcare Costs

Advised by: James Trimble

## DEA BALLIJ Political Science

The New Deal: Elements of Socialism in American Capitalism

Advised by: Stacy Maddern

## MITALI BANERJEE Physiology & Neurobiology

Overexpression and Rearrangements of Cyclin D1 in the Development of Parathyroid Adenomas and Hyperparathyroidism

Advised by: Patricia Rossi

### MITALI BANERJEE Molecular & Cell Biology

Overexpression and Rearrangements of Cyclin D1 in the Development of Parathyroid Adenomas and Hyperparathyroidism

Advised by: Andrew Arnold

### HALLE M. BARBER Chemistry

Development of a DNA Crosslinked Nanocapsule for Sensing Applications

Advised by: Jessica Rouge

## EMMA G. BARNES History

The Infinite, the Absolute, and the "End of Antiquity": German Idealism and the Philosophical Jesus in Schelling, Hegel, and Nietzsche, 1785-1889

Advised by: Charles Lansing

### **EMMA G. BARNES**

#### German

Deutschland und Humanismus, "wie das Gesetz es befahl": Zum Symbolismus und tragische Ironie in Heinrich Bölls Wanderer, kommst du nach Spa... (1950)

Advised by: Sebastian Wogenstein

## DANIEL CHARLES BARRY Biomedical Engineering

Degradation Mediated Release of Curcumin from Glycol Chitosan Hydrogel

Advised by: Lakshmi Nair

#### **MEHDI BEGAG**

### Environmental Engineering

Investigation of Activated Carbon and Protein Amendments in Adsorbent Capping Applications for Contaminated Sediment Remediation

Advised by: Maria Chrysochoou

### EMMA CATHERINE BELLIVEAU

### Environmental Studies

Globalization and Free-Market Capitalism; How the Peruvian Potato Market Opens up New Avenues to Address the Environmental Impact of Global Supply Chains

Advised by: Mark Boyer

## SAMANTHA MARY BENHAM Animal Science

Isolation and Identification of Culicoides Vectors Responsible for Transmission of Epizootic Hemorrhagic Disease Virus in Connecticut

Advised by: Guillermo Risatti

### JEREMY B. BENNETT

### ${\it Biomedical\ Engineering}$

EASEL: An Integrated and Accessible Framework for the Annotation of Eukaryotic Reference Genomes

Advised by: Jill Wegrzyn

### **NICHOLAS X. BENNETT**

Human Development & Family Studies

Perceived Teacher Support as a Moderator of Depression Among Transgender Youth

Advised by: Ryan Watson

### PREETAM R. BERAN

#### **Finance**

An Introduction to High Frequency Trading, Commonly Used Strategies, and Their Impact on Equity Markets

Advised by: Yaacov Kopeliovich

### REBECCA BERNARDO

### Nursing

The State of Diabetes Knowledge among Incarcerated Men: A Secondary Analysis

Advised by: Louise Reagan

### DAVID JAMES BIGOS

### Accounting

The Effect of SOX 404(b) on Large Non-Accelerated Filers' Earnings Per S hare Rounding Behavior

Advised by: Davod Weber

### ERIN CASEY BLAKE

## Individualized: Mental Health & Well Being

The Deck Stacked Against Us: A Bivariate Correlation Analysis of Childhood Toxic Stress, Adverse Childhood Experiences, and the Well-Being of College Students

Advised by: Crystal Park

#### RILEY H. BLUMENFIELD

Materials Science & Engineering

Hydrolytic Degradation Study of Polyphosphazene-PLGA Blends

Advised by: Cato Laurencin

### DANIEL BOBYLOV

Mathematics-Actuarial-Finance

Sports Analytics

Advised by: Edward Perry

#### AMELIA RAE BOWMAN

## Individualized: Young Adult Fiction: Identity and Diversity

The Creation of Spark: Crafting a Young Adult Novel

Advised by: Victoria Smith

### WALLIS WILLIAM BOYD

### Chemical Engineering

Development of Protist-Facilitated Transport for Sustainable Agriculture-Biotech

Advised by: Leslie Shor

### MAXIME A. BRAUN

### Physiology & Neurobiology

Lisdexamfetamine, Dopamine, and Binge Eating Behavior: Measuring the Effects of LDX on Extracellular Dopamine Levels in the Perifornical Hypothalamus via Microdialysis

Advised by: John Salamone

## WILLIAM FRANCISCO BRINCHEIRO Allied Health Sciences

Research Methodology of Aerobic and Resistance Training to Reduce Insulin Resistance in Obesity

Advised by: Jeanne McCaffery

### JOHN J. BRINDISI

## Management & Engineering for Manufacturing

Redefining Wearable Medical Technology for Anaphylaxis

Advised by: Jiong Tang

## PATRICK J. BRIODY Physiology & Neurobiology

Ventricular Development in Normal and Hydrocephalic Brains: Ependymal Wall Formation and Stem Cell Division

Advised by: Joanne Conover

## TARIF WILLARD BROWN History

The Socio-political Significance of Former Chinese Chairman Jiang Zimen's Three Represents Policy

Advised by: Peter Zarrow

## TARIF WILLARD BROWN Anthropology

The Socio-political Significance of Former Chinese Chairman Jiang Zimen's Three Represents Policy

Advised by: Richard Wilson

### ELIZABETH S. BULKLEY

### Cognitive Science

Bias for Video Game Stimuli in College Students

Advised by: Robert Astur

### **NOAH HENRY BURRICK**

### Finance

Dissecting Convertible Bonds: How Debt and Equity Combine to Valuate a Company

Advised by: Yaacov Kopeliovich

## MADISON ASHLEY BUSICK Digital Media & Design

Consumer Response to Green Brands vs. Traditional Brands on Digital Platforms

Advised by: John Murphy

## TAYLOR A. CALDWELL English

Complexion for Protection: Colorism and Human Rights in Black America

Advised by: Jerry Phillips

### ALEXANDER CALVI Animal Science

Diagnosis of Mastitis in Dairy Cattle using Human and Machine Interpretation of Ultrasound Scans

Advised by: Sheila Andrew

## CAMERON JOHN CANTELMO Political Science

Collective Conciousness in Political Science Fiction and Its Implications; Conceptions of Community Across American Women Political Thinkers

Advised by: Matthew Singer

## PATRICK S. CANTWELL Molecular & Cell Biology

PAM is Selectively Packaged onto Exosomes Derived from Peptidergic Cells

Advised by: Vishwanatha Rao

### AUSTIN JAMES CARFI Digital Media & Design

AUVI

Advised by: Charles Lawry

## SEAN DALY CAVANAUGH English

Simulation and Community in the Contemporary American Novel

Advised by: Clare Eby

### **CARLI ANN CECKANOWICZ**

### Exercise Science

An Analysis of Abdominal Muscle Stability Following Hyperthermic Exercise in Euhydrated and Dehydrated Conditions

Advised by: Garielle Giersch

### ANNA R. CERULLI

### Nursing

Examining Barriers to Breastfeeding: How to Improve Outcomes for New Mothers and Infants

Advised by: Ruth Lucas

### LEELAKRISHNA CHANNA

Molecular & Cell Biology

Role of Multidrug Resistance Protein 4 in the Pathogenesis of Nonalcoholic Fatty Liver Diseases

Advised by: Charles Giardina

### **CANLING CHEN**

#### Mathematics-Actuarial-Finance

Analysis of Affordable Care Act and it's Applicability Toward Universal Healthcare

Advised by: Timothy Patria

## AMY ZIZHU CHEN Allied Health Sciences

Motion-induced blindness: testing the brain oscillator hypothesis utilizing the oscillator frequency and the background speed relationship

Advised by: Till Frank

### YUTONG CHEN

#### Statistics

Flexible Box-Cox Transformation Models for Analyzing UConn Energy Usage Data

Advised by: Ming-Hui Chen

## THOMAS GARDINER CHESSMAN Mechanical Engineering

Design of Real-Time Feedback Control System for Selective Laser Sintering

Advised by: Chih-Jen Sung

### RYAN CHESTER

### Political Science

Is China Stealing Our Tech? A Look Into The Role of Intellectual Property Rights in Us-China Trade Relations

Advised by: Meina Cai

### ELLEN M. CHIRIKOS

### Management

Being Emotionally Savvy at Work: How Stress Affects Job Satisfaction as a Function Emotional Labor

Advised by: Kyoungjo Oh

### **CHRISTOPHER CHOI**

#### Materials Science & Engineering

Investigation and Comparative Analysis of Ancient Ceramics Excavated from Nippur

Advised by: Lesley Frame

### JUNE CHU

### Physiology & Neurobiology

Exploring Attitudes Towards Diabetes in the Connecticut Hispanic/Latino Community

Advised by: Lisa Werkmeister Rozas

#### **CARMEN CIARDIELLO**

### Mechanical Engineering

Design of Planar Mixing Layer Flames

Advised by: Francesco Carbone

## LAUREN MARIE CIULLA Digital Media & Design

Like a Glove: A Progressive Web App

and Google Chrome Extension

Advised by: Joel Salisbury

### TIMOTHY D. COCOZZA

### Psychological Sciences

Barriers to Supporting the LGBTQ Community for College Students

Advised by: Diane Quinn

#### ALEXANDER COENRAADS

### Mathematics-Actuarial-Finance

Exploring and Amending Social Security

Advised by: James Trimble

## KAILEE BREANNA COLLINS Digital Media & Design

Exploring Historical Literary Themes through Modern Design Techniques

Advised by: Joel Salisbury

## JULIA I. COLLITON Biological Sciences

Evaluation of Dietary Sphingosine on Gut Barrier Markers of Caco-2 Cells

**Christopher Blesso** 

### COURNEY BROOKE COTE

### ${\it Mathematics-Actuarial-Finance}$

Keeping the National Flood Insurance Program Afloat: Limiting Extreme Losses in the Wake of Climate Change

Advised by: James Trimble

### RYAN JAMES CRISANTI Mechanical Engineering

Numerical Study of Flame Extinction in Opposed Inverse Diffusion Flames as Applied to Combustor Cooling

Advised by: Baki Cetegen

### **OLIVIA CHRISTINE CROSBY**

#### General Program in Art

Making Welcome: Space, Material, and Human Design

Advised by: Ray Dicapua

#### LIA M. CROWLEY

Psychological Sciences

### LUIS E. CRUZ

**Political Science** Hope in the Neoliberal Policy: An

Assessment of Mexico's Energy Sector

Advised by: Oksan Bayulgen

### KIRANTHEJA R. DAGGULA

### Physiology & Neurobiology

Assessment of the Superior Olive and Other Brain Structures in USH2A HT Mice

Advised by: Roslyn Fitch

### GABRIELA ALEXA DAVILA

#### Nursing

How Depression Affects a Mother's Perception of Breastfeeding Pain

Advised by: Ruth Lucas

**FAY DECKER** 

Philosophy

The Death of the Auteur

Advised by: Marcus Rossberg

NOAH DEL CORO

Electrical Engineering

High Power Electronic Speed Controller Integration for Drone Flight Control (NASA)

Advised by: Ashwin Dani

GARRET C. DENARO History

Minerva and the Capitoline Triad: A History of Cultural Exchange in Italy

Advised by: Kenneth Gouwens

ELYSSA DENAULT
Allied Health Sciences

Risk of MetS Among Psychiatric Patients With MDD Treated With Second Generation Antipsychotics: Role of Lifestyle Behaviors

Advised by: Bruce Blanchard

CHENGHONG DENG Molecular & Cell Biology

The Genes in Frog Skin and Their Role in Evolutionary Innovation

Advised by: Rachel O'Neill

PRANALLY A. DESAI
Physiology & Neurobiology

Modeling selection of voluntary physical activity in psychiatric disorders: effects of the SERT inhibitor fluoxetine in rodents

Advised by: John Salamone

JULIA S. DEVINCENZI Biological Sciences

Approach Biases in People Demonstrating Problematic Gaming Habits

Advised by: Robert Astur

TYLER J. DIBRINO

**Economics** 

Antitrust Law: An Examination of Amazon's Dominance

Advised by: Derek Johnson

MASON T. DICICCO

**Mathematics** 

Coupled Stochastic Processes

Advised by: Iddo Ben Ari

ALEXANDER PATRICK DILLON Marketing

Developing a Sustainable Marketing Approach for Connecticut Environmental Action Day

Advised by: Heidi Bailey

SAMANTHA O'BRIEN DION Physiology & Neurobiology

Changes in Hydration Indices Over the Course of Heat Acclimation

Advised by: Douglas Casa

**ALEC DJORDJEVIC** 

Chemical Engineering

Hydrodeoxygenation of Guaiacol and Anisole in the Liquid and Gas Phase

Advised by: Ioulia Valla

TAYLOR N DOOLAN
Allied Health Sciences

Psychological Stressors and Metabolic Syndrome

Advised by: Bruce Blanchard

JAMILA ROSE DOUGLAS
Psychological Sciences

The Influence of Supportive versus Restrictive Contact on Cognitive Development in the Second Year

Advised by: Adam Sheya

ANDREW E. DUBSKY Political Science

Public Matters? Comparing Decision-Making by Appointed and Elected Prosecutors in Cases of Alleged Police Misconduct in the Hartford Judicial District and Suffolk County

Advised by: Kimberly Bergendahl

AMELIA BEATRICE ELDRIDGE
Mathematics-Actuarial-Finance

The Near Certain Minimum Rate: A New Certainty Equivalence Measure

Advised by: Jeyaraj Vadiveloo

JULIANNA SYLVIA ELMASRI Health Care Management

The Impact of Obesity on the United States Economy

Advised by: William Pace

JONATHAN EMERY Statistics

Development of an Individualized Recommender System for Music Fixations Using Last.fm User Data

Advised by: Yuwen Gu

LUIS C ENCINAS
Management

Ethical Dilemas Surrounding Manufacturing Offshoring: Assessing the Morality of Offshoring Decisions Through a Utilitarian Viewpoint

Advised by: Travis Grosser

KAAVIYAN FAEZI

**Physics** 

Changes in the Scattering Phase Shifts for Partial Waves of Ultracold Particles at Different Energies

Advised by: Robin Cote

EVAN J. FAULKNER

Electrical Engineering

Uniform Linear Array Implementation Using Software Defined Radios

Advised by: A Anwar

DIANTE T. FELTON

Management

ISABELLA ELIZABETH FERRANTE History

Treating the Traumatized: An Analysis of the Reactions to Shell Shock in Britain During and After World War I

Advised by: Meredith Rusoff

ALYSSA MARIA FERREIRA Molecular & Cell Biology

Investigation of Strategies to Improve the Genome Annotation of Douglas Fir

Advised by: Jill Wegrzyn

SARAH K. FERRIGNO

Psychological Sciences

Therapist Rooms, Personalities and Approaches

Advised by: Kerry Marsh

**KELLY T. FINN** 

Finance

Financial Implications of the BRI on the Global Financial System

Advised by: Lingling Wang

LILI FISHMAN

English

Untitled: A Collection of Poems

Advised by: Sean Forbes

MARGARET M. FITZPATRICK Nursing

Uncovering the Lived Experiences of a Latina Adolescent Mother during her

Pregnancy
Advised by: Ruth Lucas

MOLLY ANN FITZPATRICK
Nursing

Vicarious Posttraumatic Growth in Neonatal Intensive Care Unit Nurses

Advised by: Cheryl Beck

KAITLYN ELIZABETH FLINT

Speech, Language & Hearing Sciences Examining the Relationship Between the Readability and Comprehensibility of Practice Test Questions and Failure Rates on Learner's Permit Knowledge Tests

Advised by: Tammie Spaulding

**GREGORY MARK FOSS** 

Computer Science & Engineering

Mobile Application Architecture, Design, and Implementation for Personal Wardrobe Management

Advised by: Joseph Johnson

**CAITLIN ELISE FOSTER** 

Biological Sciences

The Genetic Architecture of Pollinator-Associated Floral Traits in Monkey Flower

Advised by: Yaowu Yuan

### KIANA KALILA ANN FOSTER-MAURO Elementary Education

Mirrors of Our Own: Multiracial Representation in Children's Picture Books

Advised by: Grace Player

### MADELINE ELAINE FRENCH Molecular & Cell Biology

Investigation of Ethics of 23andMe®: Direct-to-consumer Genetic Testing in the Age of the Genetic Revolution

Advised by: Colleen Spurling

### THALIA M. FUENTES

#### Political Science

Analyzing Political Fiction and Human Security

Advised by: Matthew Singer

### **KAYLA PAIGE FUHST** Music Education

A Study of Teacher Questioning in an Elementary Mathematics Classroom

Advised by: Catherine Little

### NICOLE EMMA GAGNON History

All the Protection a Court can Throw: Buck v. Bell, Skinner v. Oklahoma, and the Persistent Progression of Eugenic Sterilization Laws in the 1930's

Advised by: Melanie Newport

### JESSICA GAGNON

### Human Development & Family Studies

Campus Activism: Understanding Student Experiences

Advised by: Alaina Brenick

### BRIANNA ELIZABETH GAMBACINI Mathematics

An Introduction to Cryptography and Elliptic Curves

Advised by: Myron Minn-Thu-Aye

### **DEREK GANCI**

### Mathematics-Actuarial-Finance

How Wildfires are Impacting the Property Casualty Insurance Industry

Advised by: Daniel Watt

### **NISHANTH GANESHBABU** Physiology & Neurobiology

Two-Pore-Domain Mechanically Gated Potassium Channels Potentially Responsible for Reversible Conduction Delay in Peripheral Nerve Axons Undergoing Tensile Stretch

Advised by: Bin Feng

### JONAH C. GARCIA

### General Program in Music

Teaching Practices, Institutional Culture, and Access to Music Learning

Advised by: Cara Bernard

### JONAH C. GARCIA

#### Music Education

Teaching Practices, Institutional Culture, and Access to Music Learning

Advised by: Cara Bernard

### MIRANDA ROSE GARCIA

### Political Science

Legislating the Birds and the Bees: Evaluating the Effectiveness of State Sexuality Education Mandates

Advised by: Virginia Hettinger

### ARIANE BROOKE GARRETT

### Biomedical Engineering

A Novel Flow Sensor for Use in a Cerebral Spinal Fluid Shunt

Advised by: Kazunori Hoshino

### MADELEINE S. GASTONGUAY Applied Mathematical Sciences

A Quantitative Pipeline for the Identification of Combinations of Targets for Claudin-Low Triple Negative Breast Cancer Reversion

Advised by: Martha Paola, Vera-Licona

### **WANJIKU N. GATHERU**

### Environmental Studies

It's Skin Deep: Anti-Colorism as a Platform for Environmental Education

Advised by: Phoebe Godfrey

### JULIA M. GAUL

### Philosophy

Real Possibilities: Modality and Responsibility

Advised by: Keith Simmons

### ELIZABETH SARAH GEORGE Elementary Education

Theory of Action for How Teachers Manage Resource Equity in Different Contexts

Advised by: Richard Gonzales

### MATTHEW P. GERMOND Mechanical Engineering

Analysis of the Compressive Response of Aluminum Honeycomb Subjected to Varying Crush Angles

Advised by: Dianyun Zhang

### **ABOLI GHATPANDE**

### Pharmacy Studies

A Vaping Epidemic in Youth: Here Is What You Need to Know

Advised by: Fei Wamg

### ANALYSE HOPE GIORDANO Allied Health Sciences

Increasing the Longevity of Fully Implantable Continuous Glucose Monitors Using Biocompatible Ceramic Nanoparticles and Nanotexturing

Advised by: Steven Suib

### KAYLA GABRIELLA GITLIN

#### Political Science

The Violence Against Women: Policy Forulation & Implications for Indigenous Surviviors: President Trump's Ultimate Deal for Israel-Palestine

Advised by: Matthew Singer

### PHILIP ALEXANDER GITMAN

### Chemical Engineering

Multi-color Reversible Photochromic Nano-structured Materials

Advised by: Luyi Sun

### XIAOFENG GONG

#### **Economics**

New Model For Copyright Market Online with Piracy Based on Infringer's Visibility

Advised by: Thomas Miceli

### ISABELLA ANNA GORSKI

#### Nutritional Sciences

Prevalence of Food Insecurity and Correlations with Diet Quality Among Food Pantry Users in Northeastern Connecticut

Advised by: Ock K. Chun

### WILLIAM TYLER GOSS

### Molecular & Cell Biology

Examining Sex Differences of Fibrodysplasia Ossificans Progressiva

Advised by: David Goldhamer

### **ADRIAN GRABOWSKI**

### Biological Sciences

Intracranial EEG Implants to Explore Neural Mechanisms for Sound Perception and Higher Level Hearing

Advised by: Heather Read

### **ELIZABETH CAITLIN GRAVES**

#### Chemical Engineering

Regenerative Engineering 3D Models as a Tool for Breast Cancer Research

Advised by: Cato Laurencin

### ALEX ROBERT GRECO

### Finance

The Effect of Mergers & Acquisitions on the Profitability of Firms in the Banking Sector

Advised by: Paul Gilson

### MICHELLE A. GRIECO

### Economics

The Economic Factors Underlying U.S. Tort Law's Shortcoming

Advised by: Derek Johnson

### **ALEXANDRA RAE GRUNER**

### English

Beyond Twain: How Contemporary African American Authors Use Satire to Talk About Racism

Advised by: Kathy Knapp

## CHINANU GINIKA GUBOR Physiology & Neurobiology

### **ABHISHEK K. GUPTA**

**Biological Sciences** 

Understanding the Genetics of Well-being

Advised by: Theodore Rasmussen

ABHISHEK K. GUPTA

Sociology

MARIAM EZZAT HAFEZ

Biomedical Engineering

Wearable Blood Pressure Device for Detection of Orthostatic Hypotension

Advised by: In Soo Kim

**ANNA E HAKEY** 

Biological Sciences

Evaluating Alternative RNase-free DNase for RNA Extraction

Advised by: Young Tang

**CAITRIN HALL** 

Cognitive Science

Behavioral Attractors During Human-Metronome Phasing Performance

Advised by: Edward Large

DANA KAMAL HAMED

Biomedical Engineering

Mechanical Analysis of In Vitro TBI Models

Advised by: Kazunori Hoshino

VEOLETTE A. HANNA

Physiology & Neurobiology

Microglia-Neuron interactions in a mouse model of Low Grade Neuroepithelial Tumors

Advised by: Joseph Loturco

SARAH HARKINS

Nursina

The Impact of Perinatal Anxiety on Maternal Fetal Health: A Review of the Literature and Case Study

Advised by: Christine Rodriguez

BRADY HARMAN

Political Science

It's Oil Downhill From Here: How Oil-Reliant, Autocratic Regimes Transition to Renewable Energy

Advised by: Evan Perkoski

**CARSONLEE HARPER** 

English

Might: Reimagining Medieval Scandinavia Through Historical Fiction

Advised by: Ellen Litman

**CARSON LEE HARPER** 

History

Opting Out of Leviathan: The Viking Diaspora of the Ninth to Eleventh Centuries

Advised by: Sherri Olson

BENJAMIN R. HART

Electrical Engineering

Wireless Motor Sensor

Advised by: John Chandy

**NICHOLAS HARTUNIAN** 

Computer Science

Deep Learning for Fungus Detection

Advised by: Jinbo Bi

KELSEY JEAN HEBERT

Molecular & Cell Biology

Actin Assembly and Microtubule Binding By Formin-1 in Cells and In Vitro

Advised by: Kenneth Campellone

KARA HEILEMANN

Pathobiology

Site-Specific Activation of Antimicrobial Peptides by Proteolytic Cleavage

Advised by: Alfredo Angeles-Boza

ROGER THEODORE HELLARD

Mathematics-Actuarial-Finance
The Future of Long Term Care Insurance

Advised by: James Trimble

NATHALIA HERNANDEZ

Molecular & Cell Biology

Distinguishing Tetrode Placement in Dorsal and Ventral Hippocampus Using the Microorganism Bacillus Subtilis

Advised by: Etan Markus

KATIE ROSE LOPEZ HILLOWE

Real Estate & Urban Economic

 ${\it The Rise of Transit Oriented Development}$ 

Advised by: Jeffrey Cohen

ZOE ETTINGER HOCHBERG Speech, Language & Hearing

Sciences

Perceptions of Guilt of Individuals with a Visible Communication Disorder versus an Invisible Communication Disorder

Advised by: Bernard Grela

MATTHEW F. HOPKINSON

**Economics** 

Analysis of Religious Beliefs/Family Values and Food, Income, and Financial Insecurity

Advised by: Nishith Prakash

NICOLE HOREN

Digital Marketing & Analytics

Developing a Sustainable Marketing Approach for CEAD

Advised by: Heidi Bailey

JESSICA ANN HOWE

Mathematics-Actuarial-Finance

Predicting the Unexpected: Applying Advanced Underwriting to Accurately Predict Early Duration Claims in Life Insurance

Advised by: Jeyaraj Vadiveloo

**CONG HU** 

Mathematics-Physics

A Theoretical & Monte Carlo Simulation Study of Liquid Crystals

Advised by: Elena Dormindontova

SIMONE M HUOT

Athletic Training

The Relationship Between Landing and Running Mechanics

Advised by: Lindsay DiStefano

**CONNOR C HUYDIC** 

Political Science

What Does it Take? The Informal Factors that are Conducive to the Passage of a Participatory Amendment

Advised by: Jeffrey Dudas

TUDOR MATEI ILIES

Biomedical Engineering

Development of Sensors for the Analysis of Local Tissue Perfusion During Tissue Resection Procedures Utilizing Tri-Staple Technology

Advised by: Bin Feng

JUSTIN MICHAEL JAGER

Acting

The Stories I Tell

Advised by: Kristin Wold

**NICOLE JAIN** 

Psychological Sciences

How Dynamic Cues Bias Decision-Making for Categorization of Non-Speech Vocalizations

Advised by: Heather Read

**EMILY JANEIRO** 

Biological Sciences

Toxicity Analysis of 2'-Deoxyguanosine-N²-6-Aminopyrene and 2'-Deoxyguanosine-N²-8-Aminopyrene in Escherichia coli

Advised by: Ashis Basu

DARIUS JAMES JAVIDI Molecular & Cell Biology

Neonatal Scoring System to Predict Patient Health at Two-Year Checkup

Advised by: Spencer Nyholm

SAMANTHA M. JEANNOTTE

Finance

Can Affordable Housing Mitigate the Burden of Student Loan Debt?

Advised by: Alexander Amati

#### ZOE STONE JENSEN

Psychological Sciences

Environmental Factors and Gun Violence in Connecticut

Advised by: Blair Johnson

### MISHA DHIRESH JETHWA Political Science

Presidential Power Couples: Does a Strong First Lady Correlate with a Strong President?

Advised by: Jeffrey Ladewig

### KAYLA JOHNSTON

Animal Science

Inactivation of Salmonella on Chicken Eggs Using Lactic Acid Bacteria

Advised by: Mary Amalaradjou

### LAURA MADELINE JONES Individualized: Biodiversity

& Visual Media

Watching the Grass Grow: How Soil Moisture Affects Arbuscular-Vesicular Mycorrhizae and Growth in Little Bluestem

Advised by: Robert Bagchi

### **REED C. JONES** Biomedical Engineering

Employing Finite Element Analysis to Investigate Acromial Stress Fractures Following rTSA Procedure

Advised by: Krystyna Gielo-Perczak

### **INNA KAGAN**

**Dietetics** 

Low-Income Parents Identify Barriers to Responsive Feeding Recommendations and Resourcefulness in Feeding their Toddlers: Findings from a Qualitative Study

Advised by: Michael Puglisi

### AIDAN RICHARD KALISHER

Sociology

Gratitude and Spirituality

Advised by: Bradley Wright

### SYDNEY RAE KATZ

Individualized: Neuroscience

Inflammation and Motivation: Effects of the Pro-inflammatory Cytokine Interferon-a in an Animal Model of Motivated Behavior

Advised by: John Salamone

### JEREMY LAWRENCE KECKLER Marketing

Growing a Brand: Developing a Marketing Plan to Increase Student Awareness of and Engagement with UConn Extension

Advised by: Heidi Bailey

### MICHAEL G. KERR

Biological Sciences

Inhibition of Allosteric Enzymes Conferring Antibiotic Resistance

Advised by: Patricia Rossi

#### SIMRAN KHATRI

Psychological Sciences

Validation of a New Measure of Support of Group Resistance Orientation

Advised by: Felicia Pratto

#### STEVEN KIM

Molecular & Cell Biology

Review of Cellular Communication and Quorum Sensing

Advised by: Kathleen Feldman

### STEVEN KIM

Linguistics/Philosophy

On Foreign Accents

Advised by: William Snyder Linguistics

### ADDISON LOUISE KIMBER

Political Science

The Impact of Location on Healthcare Access for Individuals with Disabilities

Advised by: Laura Mauldin

### BRIANNA M. KINNIE Cognitive Science

Referential Transparency in Young Children's Picture Books: A Pilot Study

Advised by: Sumarga Suanda

### SPENCER THOMAS KINYON

Economics

Behavioral Economic Solutions to the Houston Astros Cheating Scandal

Advised by: Thomas Miceli

### KACEYLEE KLEIN

English

Narratives of Incarcerated Women: Agency and Form

Advised by: Frederick Roden

### JACQUELINE A. KLEPINGER Molecular & Cell Biology

The Anti-Proliferative Effects of Novel Anti-Folates on Acute Myeloid Leukemia Cells

Advised by: Charles Giardina

### MAGDALENA M. KLIN

Political Science

March Like a Girl: A Case Study of the Women's Movements in Spain and the United States

Advised by: Jeremy Pressman

### KATARINA KONON

Chemical Engineering

Applications of Renewable Activated Carbons

Advised by: Ioulia Valla

### JENNIFER KOO

Sociology

Investigating Sexual Assault Prevention Through a Cultural Framework: Perspectives from the University

Advised by: Kristen Cooksey

### JENNIFER KOO Allied Health Sciences

Investigating Sexual Assault Prevention Through a Cultural Framework: Perspectives from the University

Advised by: Kristen Cooksey

### **VALERIE N KRESS**

Cognitive Science

Assessing the Morphology of Vesicles in Inhibitory Symmetric Synapses in Safety and Fear Conditions in the Rat Lateral Amygdala

Advised by: Linnaea Ostroff

### EMMA ELIZABETH KRYZANSKI

Physiology & Neurobiology

Exertional Heat Illness' Policies and Procedures: A Pilot Profile of Secondary Schools in the United States

Advised by: Douglas Casa

### **ALEXA KUGLER**

Pathobiology

Thermostability of Prevnar-13 Pneumococcal Conjugate Vaccine

Advised by: Steven Szczepanek

### SUMANYA KUMAR

Molecular & Cell Biology

The Current Standing of Cholangiocarcinoma: A Literature Review

Advised by: Juliet Lee

### SAURABH KUMAR

Molecular & Cell Biology

Reorganization of the Human Ventricular-Subventricular Zone Neural Stem Cell Niche in Fetal-Onset Hydrocephalus

Advised by: Joanne Conover

### FELICITA BUSTOS KUPERWASSER Physiology & Neurobiology

Sex Differences in Haloperidol-treated and Untreated Rats in Performance on a Novel T-maze Task

Advised by: John Salamone

### **GEORGIOS P. KUTRUBIS** Biological Sciences

Comparison of the Effectiveness of Different Math Literacy Intervention Programs for Deaf and Hard of Hearing Children

Advised by: Marie Coppola

#### NICOLE LAC

### Political Science

An Examination of the Drivers of Sex Trafficking: Sociocultural and Economic Factors

Advised by: David Richards

## ABIGAIL S. LAFONTAN Political Science

Language in District School Wellness Policies: How Variability Effects the Implementation of District Regulated Nutrition Practices in Public Schools

Advised by: Marlene Schwartz

### **ASHLEY I. LALIBERTE**

### Biological Sciences

An Analysis of CRISPR-Cas9 Gene Editing in Agriculture

Advised by: Ping Zhang

#### **CHARLOTTE LAO**

### Biomedical Engineering

Employing Novel Techniques to Capture the Changes in Dynamic Variance Associated with the Adaptation of Healthy Motor Control Strategies

Advised by: Kristin Morgan

## ANNELIESE LORETTA LAPIDES Biological Sciences

Relationships Between Auditory Brainstem Response and Timed-Sentence Comprehension

Advised by: Letitia Naigles

### YVONNE E. LAPORTE

### Psychological Sciences

Attention Bias Variability: Its Stability and Prediction of GAD in a Short-Term Longitudinal Design

Advised by: Kimberli Treadwell

### EMMALYN GRACE LECKY

Biological Sciences

Developing and Optimizing a Novel Model of Blast-Induced Traumatic Brain Injury for Testing Neuroprotective and Neuroregenerative Treatments

Advised by: Feliks Trakhtenberg

## ANDREW JOSEPH LEVIN Materials Science & Engineering

Literature Review, Tomographic Mapping, and Dopant Effect Investigation of Perovskite Materials in Optoelectronic Applications

Advised by: Bryan Huey

### **NICOLE LEVINE**

### Mathematics-Actuarial-Finance

Insurance for Fertility Treatments

Advised by: Vadiveloo Jeyaraj

#### **RISA ANNE LEWIS**

### Applied & Resource Economics

Farmer Investment Behavior and the State of On-Farm Anaerobic Digestion in the Northeastern U.S.

Advised by: Charles Towe

### KAROLINA S. LEWKO

### **Biological Sciences**

A Comparison of Agricultural Developments in Surezha and Tell Leilan

Advised by: Alexia Smith

### VICTORIA LI

### Biological Sciences

Gamma Delta T Cell Activation Using Novel Compounds and Natural Product Extracts

Advised by: Lawrence Silbart

### **WEIHAN LI**

#### Accounting

The Effect of New Tax Law to Federal Government

Advised by: Steven Utke

### KIMBERLY LIANG

### Mechanical Engineering

Predicting the Performance of Very High Pressure Fuel Cells

Advised by: Ugur Pasaogullari

### XINYU LIN

### Civil Engineering

Promoting Sustainable Utilization of Groundwater Resources in Ethiopia using the Integrated Groundwater Footprint Index

Advised by: Emmanouil Anagnostou

### **ROSE MARIE LISI**

### Nursing

Evaluation of a Text Messaging Intervention for Breastfeeding Women Experiencing Breast and Nipple Symptoms

Advised by: Ruth Lucas

#### **EMILY LONG**

### Allied Health Sciences

Gender Differences in Correctional Supervisor Work, Home Demands, and Wellbeing

Advised by: Jennifer Cavallari

### **ANNE CATHRINE LONGO**

### Political Science

Governing a Continent of Trash: The Global Politics of Oceanic Pollution

Advised by: Mark Boyer

### CALLISTA A. LOVE

### Physiology & Neurobiology

Examining Effects of Childhood Maltreatment on Positive Reinforcement Learning and Risk-Taking Behaviors

Advised by: Robert Astur

#### JOHN KENNETH LOVERIN

### Ecology & Evolutionary Biology

Parental Behavior of Black-Backed Woodpeckers in a Post-Fire Forest

Advised by: Robert Bagchi

#### SPENCER P. LOW

### Individualized: Computational

### Neuroscience

Applying Machine Learning to Neuroimaging Data to Identify Predictive Models of Reading Disorder (RD)

Advised by: Fumiko Hoeft

### ABIGAIL HERNAEZ MACABINGKIL

### Doctor of Pharmacy

Exploring the Feasibility of a Virtual Agent in Community Pharmacy

Advised by: Nathaniel Rickles

### SOPHIE S. MACDONALD

### Mechanical Engineering

An Assessment of Renewable Energy Technology Implementation in Storrs, Connecticut; Comparisons and Recommendations for a Microgrid System at UConn

Advised by: Ugur Pasaogullari

### IAN CLARK MACDONALD

#### Finance

Does FinTech Make the Gambling Industry More Competitive?

Advised by: Alexander Amati

### KASEY ANN MACEDO

### Human Development & Family Studies

Promoting Resilience in Self-Management (PRISM): Adverse Childhood Experiences and Impacts on Emotion Regulation

Advised by: Beth Russell

### **EMILY A. MACIEJEWSKI**

### Computer Science & Engineering

On the Use of Horizontal Gene Transfers to Date the Microbial Tree of Life

Advised by: Mukul Bansal

### ANAKA MAHER

### Civil Engineering

Are Ridesourcing Companies Filling Transportation Gaps in Low Income Communities?

Advised by: Norman Garrick

### **BRIAN T. MAHER**

### Finance

A Study of the Green Bond Market and the Potential for U.S. Corporates to Enter as Issuers

Advised by: Michel Rakotomavo

### **FARIA MAHJABIN Biological Sciences**

Dietary Supplementation with the Ketogenic Diet Metabolite Beta-Hydroxybutyrate (and) Post-TBI Aggression in Young-Adult Male Drosophila (bang-sensitive mutant strains)

Advised by: Geoffrey Tanner

### JULIA ROSE MAINELLI Psychological Sciences

Theory Based and Tailored Dental Messages for Children and Parents: Developing a Framework for a Brief Behavioral Intervention in Clinical and Non-Clinical Settinas

Advised by: Valerie Duffy

### MAURICE MAITLAND History

Family, Race, and Migration: the Legacy of Eugenic Immigration Policies

Advised by: Jason Change

### **ROHIT A. MAKOL**

Biomedical Engineering

Novel Shunt Sensor for Hydrocephalus

Advised by: Kazunori Hoshino

### **EFROSINI MAKRIS**

Nursina

Maternal Perception of Care in the NICU for Infants diagnosed with Neonatal Abstinence Syndrome

Advised by: Xiaomei Cong

### SEEMA MALANI

Molecular & Cell Biology

The Impact of Climate Change on the Survival of Food and Water Borne Pathogens

Advised by: Patricia Rossi

### JOANNA L. MALLARY Psychological Sciences

Locus of Control, Trauma History, and Death Anxiety in Cancer Patients

Advised by: Crystal Park

### **BRIANNA L. MANCUSO** Chemical Engineering

Quantifying Atmospheric Air Pollution at the Stamford Transportation Center

Advised by: Kristina Wagstrom

### PRABHATH MANNAM

Molecular & Cell Biology

Novel Immunotherapy Ligands through Directional Cloning and a Cyclic Phage Display Model and

Advised by: Andrew Wiemer

### KATHRYN L. MARBLE Allied Health Sciences

The Association Between Sweet Liking Preference and Little Cigar and Cigarillo Smoking Behaviors and Cigarette Substitutability in Young Adult Dual Users: Differences by Sex

Advised by: Erin Mead

### SAM ANDREW MARKELON

Computer Science

Statistical Randomness Generation Using Cellular Automaton

Advised by: Walter Krawec

### DALIA NASER MARMASH

Nutritional Sciences

Diet Quality, Nutritional Adequacy, and Sociodemographic Characteristics among Food Pantry Clients in Northeastern Connecticut

Advised by: Ock K. Chun

### JULISE LAVERN MARSH

Doctor of Pharmacy

Community Pharmacists' Knowledge and Perceptions of Prescription Discount-Cards

Advised by: Stephanie Gernant

### DANIELLE MARZITELLI

Civil Engineering

Bridge Strengthening: An Insight into the History, Techniques, and Future Improvements Regarding one of the United States' Most Essential Infrastructure Systems

Advised by: Shinae Jang

### SARAH R MASCOLO Biomedical Engineering

Preclinical Animal Models for Bone Tissue Engineering: Defect Fixation Device For Rodents

Advised by: Sangamesh Kumbar

### MITKO MATEEV

Computer Science

Implementing a Neural Network to Generate Music

Advised by: Joseph Johnson

### **DARIN MATHEW**

Economics

An Interdisciplinary Approach behind the Pre and Post Effects of the Individual Mandate in the United States HealthCare System

Advised by: David Simon

### DANIEL MCCLOSKEY

Anthropology

Brothers as Men: Masculinity, Homosociality, and Men's Violence among Fraternity Men

Advised by: Francoise Dussart

### JOSIE C MCCORMICK Allied Health Sciences

Determining Young Children's Accuracy of Using a Motorized Device to Navigate through the Environment

Advised by: Deborah Bubela

### **EMILY MARIE MARGARET MCKENNA** Accounting

An Industry on the Rise: Accounting and Auditing of Cannabis

Advised by: Arthur Schmeiser

### **EDWARD FOX MCMANUS** Physics

Generation of Non-Interfering Bessel-Like Beams for Attosecond Transient Absorptive Spectroscopy

Advised by: Carlos Trallero

### **ANNALEE G. MEARS**

Marine Sciences

Stoichiometry of Fear: Do Predators Affect the Balance of Carbon and Nitrogen in their Prey?

Advised by: Catherine Matassa

### **ALEXIS F. MEEHAN**

Environmental Studies

### SAMUEL THOMAS MENDOLA Molecular & Cell Biology

History of Metabolic Pathways in Bacteria and Analysis of Amino Acid Biosynthesis Pathways in Escherichia coli and Haloferax Volcanii

Advised by: Robertson Papke

### CHRISTINA ROBIN MIDDENDORF Animal Science

Evaluating Factors Affecting Bovine Mastitis in Robotic Milking Herds

Advised by: Sheila Andrew

### LEAH MILLER

Electrical Engineering

Portable, Lightweight Fiber Optic Illuminator

Advised by: Necmi Biyikli

### TANYA MILLER

Physiology & Neurobiology

Assessing a Mouse Model of Post I nfectious Hydrocephalus

Advised by: Joanne Conover

### FARAZ A. MIRZA

Physiology & Neurobiology

Resolving the Mechanism of Specificity in Neurodevelopmental Disorders using Proximity Labeling

Advised by: Geoffrey Tanner

#### AKRITI MISHRA

### Psychological Sciences

How Parental Attitudes and Behaviors Toward Math Influence Math Performance and Math Anxiety Levels in Hearina. Hard of Hearing, and Deaf Students

Advised by: Marie Coppola

### MICHAELA ROSE MITCHELL Animal Science

Effects of Restricted Maternal Nutrition and Realimentation During Gestation on the Fetal Progenitor Cell Population in Semitendinosus Muscle of Sheep

Advised by: Sarah Reed

### MAGDALENE EVA MLYNEK Statistics

Robust Variance Estimation to Model Complex Meta-Analytic Structures in Post-Exercise Hypotension

Advised by: Elizabeth Schifano

### MAGDA MOCARSKA

### Molecular & Cell Biology

Characterization of the Muscle Injury Environment in WT and FOP-The Role of the Immune System

Advised by: David Goldhamer

### ABEER MOHAMED

Psychological Sciences

How Parental Attitudes and Behaviors toward Math Influence Math Performance and Math Anxiety Levels in Hearing, Hard of Hearing, and Deaf Students

Advised by: Marie Coppola

#### ALANA B. MOORE

### Physiology & Neurobiology

The Effect of Chronic Dopamine Receptor 2 Blockade as a Possible Model of Secondary Negative Symptoms

Advised by: John Salamone

### KATHARINE MORRIS Anthropology

Cross Cultural Engagement and Intersectional Activism Among University of Connecticut Affiliates

Advised by: Dimitrios Xygalatas

### **ANDREW S. MORRISON** English

Incentivized Learning and Libraries: A Comparative Study of Summer Reading Programs in Connecticut

Advised by: Cathy Schlund-Vials

### ANDREW S. MORRISON

#### **Economics**

Incentivized Learning and Libraries: A Comparative Study of Summer Reading Programs in Connecticut

Advised by: Talia Bar

### MARIA CRISTINA MURLJACIC

### Speech, Language & Hearing Sciences

Intersection of Musical Ability and Accent Imitation

Advised by: Emily Myers

### MARIA CRISTINA MURLJACIC General Program in Music

Intersection of Musical Ability and Accent Imitation

Advised by: Eric Rice

### HIMAJA NAGIREDDY

### Sociology

Assessment of Household Electricity Load in Rural Ethiopian Communities to Design a Social SCADA Approach for Building a Renewable Energy-based Microgrid Model

Advised by: Elizabeth Holzer

### HIMAJA NAGIREDDY

### Molecular & Cell Biology

Optimization of CRISPR/Cas12a Editing and Homology Directed Repair in Human iPSCs

Advised by: Gang Ning

### **NATALIE NANEZ**

### Physiology & Neurobiology

Role of Glial Lactate Dehydrogenase in Ketone Body Effects Function on Induced Seizures in a Drosophila Model

Advised by: Geoffrey Tanner

### MICHAEL VINCENT NANFITO Accounting

Stock Buybacks and the Intentions of Executives

Advised by: Todd Kravet

### SUSAN NASERI Political Science

From War to Civilian Life: Evaluation of Integration Policies for Urban Refugees in Amman, Jordan

Advised by: Jennifer Sterling-Folker

### SUSAN NASERI Human Rights

From War to Civilian Life: Evaluation of Integration Policies for Urban Refugees in Amman, Jordan

Advised by: Kathryn Libal

### **NEHAL NAVALI**

### Molecular & Cell Biology

Assembly and Identification of Feather Degrading Bacteria and the Detection of Keratinase Genes

Advised by: Sarah Hird

### AMY N. NELSON

### Molecular & Cell Biology

The Enterobacter Hormaechei 3,4-dihydroxyphenylacetate 2,3-dioxygenase and Inner Membrane Protein YjcH Modulate the Induction of Cryptococcus Neoformans Melanization

Advised by: Joerg Graf

### JULIA D. NERI

### Biological Sciences

The Effects of the Atypical Dopamine Uptake Inhibitor CE-158 on Extracellular Dopamine Levels in the Nucleus Accumbens

Advised by: John Salamone

### **HELENA NEWANDEE**

### Biomedical Engineering

Identifying Gait Biomarkers to Detect Neurodegenerative Disorders

Advised by: Kristin Morgan

### ADRIENNE Q. NGUYEN

### Molecular & Cell Biology

Relationship between Internalizing Problems and Internet Gaming Disorder Symptoms Among Treatment-Seeking Youth

Advised by: Kristyn Zajac

### **CYRENE NICHOLAS** Physiology & Neurobiology

Assessing the Effect of Chronic Dopamine Receptor 2 Blockade as a Potential Model of Secondary Negative Symptoms in Rats Using the FR5/chow Feeding Choice Task

Advised by: John Salamone

### **GRACE C. NICHOLS** Molecular & Cell Biology

Behavioral and Electrophysiological Detection of Tinnitus in CBA/CaJ Mice

Advised by: Douglas Oliver

### MICHAEL GEORGE NICOLSON Biomedical Engineering

Comparison of Deltoid Muscle Activity During Forward and Lateral Adduction Using AnyBody and EMG Analysis

Advised by: Krystyna Gielo-Perczak

### SOFIA BERNICE NIETO Chemistry

Intellectual Property in STEM: it's Trajectory and Importance

Advised by: Gregory Sotzing

## SOFIA BERNICE NIETO

Allied Health Sciences

Assessing Student Knowledge of Vaping

Advised by: Jessica Beaudet

## CHRISTINA M. OCONNOR Nursing

Understanding the Experience of Parents Utilizing Car Bed Travel

Advised by: Jacqueline McGrath

## ALEXANDER MICHAEL ODDO Chemistry

Intersections between Solar Energy Conversion and Biomedicine: the Photophysics of Upconversion and Intersystem Crossing in Protein Biomaterials

Advised by: Challa Kumar

### MAURA C. OEI

### Mathematics-Actuarial-Finance

Development of Investment Strategies for New College Graduates

Advised by: Edward Perry

## KENDRA R. OGBARMEY-TETTEH Allied Health Sciences

The Effect of Small or Large Changes in Diet and Physical Activity on Cardiometabolic Risk Factors and C-Reactive Protein Levels

Advised by: Jeanne McCafferty

### **SEAN OH**

### **Physics**

Quantification of Tidal Compression of Gas Clouds Located in the Center of the MilkyWay

Advised by: Cara Battersby

### NICHOLAS OLSON

### Biomedical Engineering

An Analysis of the Mechanical Properties of Surgical Sutures in Static and Cyclic Loading Conditions for the Application of a Novel Treatment of High Ankle Sprains

Advised by: Krystyna Gielo-Perczak

## IREOLUWATOMIWA AYOMIDE OPAYEMI

### Molecular & Cell Biology

Horizontal Gene Transfer and SNARE-like Proteins in Haloferax Volcanii

Advised by: Colleen Spurling

### **JAIRO OREA**

### Physiology & Neurobiology

Analyzing Converging Auditory Projections to the Lateral Amygdala Using Electron Microscopy: An Anterograde Double-Labeling Study

Advised by: Linnaea Ostroff

### RYAN TIMOTHY PADDEN

### Biomedical Engineering

Machine Learning-Based Classification of Antisense Efficacy

Advised by: Ranjan Srivastava

### **CHRISTINE PAN**

### Pharmacy Studies

The Benefit of Interprofessional Education Between Pharmacy and Medical Students in Migrant Farm Workers Clinics

Advised by: Khanh Dang

#### **DEREK PAN**

### Molecular & Cell Biology

Designing a Research Model for Congenital Post Infectious Hydrocephalus

Advised by: Juliet Lee

### LILY PASHAPOUR

### Digital Media & Design

Letitia Elizabeth Landon's "Lines of Life:" An Interactive Web Experience

Advised by: Joseph Scheinfeldt

### NIKAASH REDDY PASNOORI

### **Pathobiology**

Investigating In Vivo and In Vitro Virulence of a Mycoplasma Pneumoniae Mutant

Advised by: Steven Szczepanek

### MONITHA M. PATEL

### Molecular & Cell Biology

How Well Do Adolescents Understand the Nutrition Facts Label and the Association to Body Mass Index and Household Income

Advised by: Barbara Mellone

### **RADHA PATEL**

### Molecular & Cell Biology

The Impact of Hydration on the Relationship between Estrogen and Copeptin in the Follicular Phase

Advised by: Douglas Casa

#### SHIVAM PATEL

### Physiology & Neurobiology

Quantification of VGLUT2-positive Nerve Endings in the Colorectum by Optical Tissue Clearing Following Intracolonic TNBS Treatment

Advised by: Bin Feng

### HIMA VIJAY PATEL

### Mechanical Engineering

Microneedle Fabrication Using Tilted and Rotational UV Lithography

Advised by: Thanh Nguyen

## SAYEDA NAJAMUSSAHAR PEERZADE

Biomedical Engineering

Analyzing Forces and Moments at the Ankle Joint Using a Force Platform and EMG Sensors to Determine Load Bearing on Ligaments in the Ankle.

Advised by: Krystyna Gielo-Perczak

## SOPHIA HANNAH PELEHACH Animal Science

Supplements That Affect Cortisol Concentrations During High Intensity Exercise

Advised by: Steven Zinn

### **CAITLYN L. PESAVENTO**

#### Finance

Stock Price Responses to SEC Insider Trading Charges by Industry

Advised by: Paul Gilson

#### CAITLYN L. PESAVENTO

### Individualized: Crime, Law & Gender

The Relationship between Gender and Implicit Bias in Dual Arrest Laws

Advised by: Mary Bernstein

### **NIELS J. PESCHEL**

### Computer Science & Engineering

Data Modeling Gene Expressions

Advised by: Dong Shin

### PAULA N. PLAZA

### Digital Media & Design

Evaluating the Creative Process and Identifying Best Practices of External Project-based Learning on Undergraduate Design Students

Advised by: Philip Dwire

### PAULA N. PLAZA

### Allied Health Sciences

Quality of Conversations Related to Aphasia Rehabilitation

Advised by: Jennifer Mozeiko

### ANN M. POSTOLOWSKI

### Mathematics-Actuarial-Finance

Inflated Bond Ratings Persist - An Analysis of Current Bond Ratings Practices and A Regulation Reform Solution

Advised by: Edward Perry

### **EVAN POWELL**

### Mathematics-Actuarial-Finance

Retirement Readiness

Advised by: James Trimble

### **EVAN POWELL**

### Individualized:

Mass Shootings in the U.S.: Qualitative Analysis of Cases Brought Versus Not Brought to Court

Advised by: Blair Johnson

### TAINA L. QUILES

### Biological Sciences

Examining the Effect of Dopamine Transport Inhibitor Lisdexamfetamine on Effort-Related Choice Behavior Using Mouse Touchscreen Procedures

Advised by: John Salamone

### EMILY NICOLE RAKERS

### Special Education

Examination of Online Accommodation Information for College Students with Disabilities in New England

Advised by: Joseph Madaus

### CLARA A. RAMIREZ CAHUANA Mechanical Engineering

Data Analytics for Computational Manufacturing Design

Advised by: Hongyi Xu

### KAVITA RANA

### Molecular & Cell Biology

Relation Between Aged Bone Marrow Neutrophils Present in Sickle Cell Diseased Mice and Osteoblast Function

Advised by: Colleen Spurling

### KIMBERLY NICOLE RANKIN

### Animal Science

Microbes and Their Role in Sustainable Agriculture

Advised by: Amy Safran

### JEFFREY S. RASMUSSEN

### Physiology & Neurobiology

Understanding the Role of Minor Spliceosome in Amyotrophic Lateral Sclerosis

Advised by: Rahul Kanadia

### ISABELLA C. RENDON

#### Nursing

Beliefs and Experiences of Patient-Centered Pain Management among Individuals with Chronic Pain and Health Care Providers

Advised by: Angela Starkweather

### KATHLEEN E. RENNA

### Diagnostic Genetic Sciences

Understanding Baseline Genomic Instability in Leiomyosarcoma to Improve Chemotherapeutic Strategies

Advised by: Judith Brown

## RYAN JAMES RESCSANSKI History

40 Acres and a Mule: Homesteads, Confiscation, and Federal Failure

Advised by: Peter Baldwin

## KATHERINE ANNE RIEDLING Computer Science & Engineering

Temporal Localization of Video Topics Using the YT8M Dataset

Advised by: Joseph Johnson

## JASON AARON RUBINTON Sport Management

The NCAA and Amateurism: A Sociological, Financial, and Legal Overview

Advised by: Laura Burton

### BRAZIL S. RULE

### **Nutritional Sciences**

The Relationship between Food Insecurity and Health Status in Food Pantry Visitors

Advised by: Michael Puglisi

#### DANIEL RUSKIN

### Computer Science

Treatment Effects of Modafinil for Cocaine Use Disorders: A Retrospective Analysis of Aggregated Clinical Trial Data From Three Cocaine Treatment Studies

Advised by: Jinbo Bi

## JILLIAN RACHEL RUTSTEIN Elementary Education

Beginning Teachers' Ability to Practice Ambitious Instruction in Elementary Mathematics: Resources that Enable and Prevent Ambitious Teaching

Advised by: Dorothea Anagnostopoulos

### **SRISHTI SADHIR**

#### Anthropology

An Archaeological Study of Human Hunting Adaptations to Climate Change at Wadi Madamagh, Jordan

Advised by: Natalie Munro

### SEDA G. SAHIN

### Molecular & Cell Biology

Comparative Skeletal Muscle Transcriptome Responses to 3 Hours of Exercise in Elite Ultraendurance Athletes on Lowand High-Carbohydrate Diets

Advised by: Elaine Lee

## BENJAMIN ASHER SALTZMAN Individualized: Health Policy in Sport

The Influence of Environmental Monitoring Policies at the State Level on Local High School Adoption

Advised by: Douglas Casa

### ROBERT WILLIAM SARACO

### Accounting

Market Reaction to the Level of Detail in Initial Earnings Calls

Advised by: Alina Lerman

### **ZOHA SARWAT**

### Physiology & Neurobiology

Methylphenidate, Dopamine, and Interferon-alpha: Examining the Ability of a Dopamine Transport Blocker to Reverse the Amotivational Effects of Systemic Inflammation

Advised by: John Salamone

### PREET SAWHNEY

### Biological Sciences

The Correlation Between Physiological Brain Volume and Behavioral Phenotype in the Shank3B Mutant Mouse Model of Autism

Advised by: Roslyn Fitch

### SARAH KATHERINE SCHATZ

#### Accounting

Auditing in the Automation Revolution: A Changing Profession

Advised by: Arthur Schmeiser

#### JACK H. SCHOOLEY

### Individualized: Data Science

Predicting the Outcomes of Soccer

Advised by: Jun Yan

### CHARLES F. SCHWOERER

### Physiology & Neurobiology

Minor Intron Identification in Eukaryotic Genomes

Advised by: Rahul Kanadia

### MEGAN MARIE SEFERIAN

### Pathobiology

Immunophenotyping of the Tumor Microenvironment: An Immunohistochemical and Flow Cytometric Analysis of Canine Mast Cell Tumors as a Model for Human Cancer

Advised by: Lawrence Silbart

### SAMANTHA L. SEIBEL

### Molecular & Cell Biology

Examining Menstruating Female Adolescents' Exposure to Sexual and Reproductive Health Education in Connecticut

Advised by: Sharon Smith

### JESSICA MARIE SERRAO Allied Health Sciences

Using the ADAPT-ITT Model to Implement a Low Impact Health Behavior Intervention for Adolescents in Two School Based Settings

Advised by: Valerie Duffy

## MADELYN M. SEVERSON Biological Sciences

Using Genetically Modified Cell Lines to Study CENP-A Activity

Advised by: Rachel O'Neill

### TWISHA ANKUR SHAH Molecular & Cell Biology

Senescence: A Complex and Mysterious Pathway

Advised by: Mary Bruno

### **MARIA SHAH**

### Political Science

Just Another Pipe Dream: Water Privatization in Pakistan

Advised by: Elizabeth Hanson

### **KEYUR SHAH**

### Computer Science & Engineering

Multi-Agent Reinforcement Learning for Autonomous Vehicle Coordination

Advised by: Fei Miao

## MIA K .SHALLCROSS English

The Daring Damsel and the Domestic: An Analysis of the Fall of Traditional Domesticity through the Lens of Suzanne Collins's The Hunger Games Trilogy

Advised by: Victoria Smith

## MIA K. SHALLCROSS Political Science

An Analysis of the Correlation between Young Adult Voting and the Popularity of Dystopian Fiction in the United States/ A Comparative Analysis of Multinational Human Security for Women

Advised by: Matthew Singer

### THOMAS SHAO

### Physiology & Neurobiology

Using Machine Learning to Conduct a Detailed Behavioral Analysis in an Appetitive Social Learning Task

Advised by: Etan Markus

## UTSAV RUPALKUMAR SHETH Chemistry

Introducing alterations to the controlled radical polymerization of vinylidene fluoride and the synthesis of PVDF block copolymers. (Subject to change)

Advised by: Alexandru Asandei

### **BENJAMIN SHMASE**

Mathematics-Actuarial-Finance

Analytics in Baseball

Advised by: James Trimble

## YASMINE M. SHWAYHAT Management

The Recovery Files: An Original Text-Based Game

Advised by: Kevin Thompson

## ELIZABETH SILVER Molecular & Cell Biology

Effect of MELK Inhibitor OTS167 in Combination with Chemo and Targeted Therapies in Triple-negative Breast Cancer

Advised by: Spencer Nyholm

## DANIEL J. SILVERSTEIN Molecular & Cell Biology

Contributions of gyrA and parC Mutations and qnrS2 Acquisition to Ciprofloxacin Resistance in Aeromonas veronii Hm21

Advised by: Joerg Graf

### RAHUL SINDVANI

### Physiology & Neurobiology

Mesoscale Calcium Reveals Role of KCNQ2 Pathogenic Mutations in Subcortical Areas

Advised by: Anastsious Tzingounis

### SAUMYA A. SINGH

### Chemical Engineering

Numerical Analysis on the Black Scholes PDE

Advised by: Matthew Stuber

## EKATERINA SKARITANOV Physiology & Neurobiology

ETS-Domain Transcriptional Activator Pnt and its Endogenous Inhibitor Yan Control Spatiotemporal Expression of Mmp2 for Follicle Rupture in Late Oogenesis

Advised by: Jianjun Sun

## JUSTIN MATTHEW SLIFER Mathematics/Statistics

Reconciling Discrepancies in the Relationship between Children's Understanding of Number Words and their Receptive Vocabulary

Advised by: Marie Coppola

### HANNAH SMITH

#### History

Women, Gender and the Bracero Program, 1942-1964

Advised by: Michele Mcelya

### MAIFRAK JAILANE SOBRINO

Comparison of Attitudes, Knowledge and Beliefs on Marijuana in Undergraduate Nursing Students Compared to Non-Nursing Students

Advised by: Ruth Lucas

### ELIZABETH ANNE SOHA

### Mechanical Engineering

Automation and Parameterization of Electromagnetic Inductive Coil Computational Model

Advised by: Julian Norato Escobar

### LAUREN SORANNO

### ${\it Animal Science}$

The Effects of Poor Maternal Nutrition During Gestation on Ewe and Offspring Plasma Concentrations of Leptin and Ghrelin

Advised by: Sarah Reed

### KRISTEN AMELIA SPLAINE Allied Health Sciences

Pre-Exercise Hydration Status of Females Throughout the Menstrual Cycle

Advised by: Douglas Casa

### CAITLYN ANNE SPLAINE

### Animal Science

Poor Maternal Nutrition during Gestation Alters Placental IGF-I, IGF-II, and IGFBP-3 mRNA Expression in Sheep

Advised by: Sarah Reed

### KATHLEEN R. STANGO

Political Science

Examining Feminist Analyses of the Domestic Sphere of Armed Conflict

Advised by: Matthew Singer

## ERIC JAMES STASSEN Mathematics

Fourier Analysis Applications to the Black-Scholes Equation

Advised by: Vasileios Chousionis

### MEGAN E. STEVENS Biomedical Engineering

Finite Element Analysis for Mammogram Compression Using Various Paddle Designs and Breast Densities

Advised by: Krystyna Gielo-Perczak

### HUNTER ANDREW STUART

### Biomedical Engineering

Exploring Clinical and Research Oriented Uses for 3D Printed Products

Advised by: Yupeng Chen

### RACHEL SULLIVAN

### Political Science

Is Villainy Written in the Star (Wars)? How Father Figures Led Characters to and from the Dark Side

Advised by: Stephen Dyson

### OLIVIA MAGDALENA SYKES

Urban & Community Studies

Do Teens Want to be Cops? Assessing Teenagers' Perspectives on the Police

Advised by: Edith Barrett

### **SERAPHIN TALA**

#### Political Science

Analysis of Black Feminist Theory Texts and Applied Analysis of Democratic Institution Theory

Advised by: Matthew Singer

### SHIRA ESTHER TALL

### Human Rights

Holocaust Education in Connecticut: The Passing and Implementation of Senate Bill No. 452

Advised by: Alan Marcus

### BENTON MITCHELL TARALA

### Human Development & Family Studies

Exploring the Relationship between Identity and Clinically Diagnosed Anxiety and Depression in College Students: A Descriptive Quantitative Approach

Advised by: Kari Adamsons

### SARA TAVAKOLI

### Molecular & Cell Biology

Investigation of Bone Loss in Sickle Cell Disease Male Mice

Advised by: Liping Xiao

### JAMES HARRISON TERRAY

 ${\it Biological Sciences}$ 

Youths' Perceptions and Use of Electronic Nicotine Delivery Systems

Advised by: Juliet Lee

## LAURYN ELIZABETH TETREAULT Allied Health Sciences

Association between Socioeconomic Status, Health Literacy, and Mothers' Perceived Credibility of Sources of Information about Childhood Nutrition

Advised by: Molly Waring

#### PRIYANKA THAKKAR

### Management Information Systems

Application of Technical Solutions for the Betterment of Student and Campus Life

Advised by: Craig Calvert

## RACHEL ELIZABETH THATCHER Chemical Engineering

### MARISSA J. THILL Management & Engineering for

Manufacturing

Trailer Yard Management in the FMCG Industry Case Study: Hostler Efficiency Enhancement at Frito Lay Inc.

Advised by: Jiong Tang

## SEAN-HECTOR TOLAND MATOS Economics

On Money and Health: Impact of Government Programs on Senior Citizens

Advised by: Kenneth Couch

## MATTHEW CESARE TOMEI Biomedical Engineering

Degradation of HPP-modified Glycol Chitosan Hydrogel by Lysozyme

Advised by: Lakshmi Nair

### ARIANNA M. TSIKITAS History

A Flexible Social Construct: American Whiteness, the Radical Right, and the 1968 Presidential Election

Advised by: Mark Healey

### RENUKANANDAN TUMU

Computer Science

Conductor: An Orchestration Platform for Multi-Vehicle Autonomous Car Experiments

Advised by: Fei Miao

### JONATHAN URSILLO Environmental Sciences

Water Quality Elicitation and Valuation

Advised by: Charles Towe

### JOSEPH R. VALENTI Allied Health Sciences

Biodegradable Amino Acid Polymers for Controlled Drug Delivery

Advised by: Gregory Sotzing

#### **CHRISTINA VALERA**

Physiology & Neurobiology

KCNQ2 Localization in the Brainstem

Advised by: Anastasios Tzingounis

### HANNAH J. VAN BERGEN

Animal Science

The Effects of Poor Maternal Nutrition on Lipid Accumulation in Offspring Muscle Tissue

Advised by: Kristen Govoni

### **MORGAN VAN LIEW**

Finance

Does Changing Investor Sentiment Drive ESG Performance?

Advised by: Alexander Amati

## MOLLY A. VANLULING Molecular & Cell Biology

Sex Differences in Mouse NAD+ Metabolism

Advised by: Ji-Young Lee

## TYRA TUJARRA PATRINA VANRIEL Nutritional Sciences

Jamaican Food Beliefs and Practices: Exploring Health Interventions & Implications

Advised by: Pamela Erickson

### FERNANDA SULANTAY VARGAS

 ${\it Chemical \, Engineering}$ 

Theoretical Foundation of Solute Evaporation in Porous Media: Effect of Microstructure and Solute Interactions

Advised by: Leslie Shor

### **MIRA VARMA**

**Physics** 

A Consistent Classical Relativistic Model of a Finite Size Particle

Advised by: Peter Schweitzer

### JASMINE VAZQUEZ

Molecular & Cell Biology

Physiological Characteristics of UC1MT, An Anti-Metallothionein Monoclonal Antibody

Advised by: Michael Lynes

#### **RAVEN VELLA**

Structural Biology/Biophysics

Categorization of Esophageal and Gastric Cancers

Advised by: Charles Giardina

### JOHN VELLEK

Chemistry

Organic Synthesis of Polymers for Use in High-Temperature Electronics

Advised by: Gregory Sotzing

### **CAITLIN R. VELLIOS**

Nursing

Investigating the Benefits and Perceptions of Reminiscence in a Residential Home Sample: A Feasibility Study

Advised by: Juliette Shellman

### MAI VESTERGAARD

General Program in Music

Bach-to Ysaÿe: Performance and History of Sonata No. 2

Advised by: Jesus Ramos-Kittrell

## ANDREW MICHAEL VILCINSKAS Doctor of Pharmacy

Assessment of Insulin-Blood Glucose Management in College Students with Type 1 Diabetes Mellitus

Advised by: Marissa Salvo

#### MADELINE ANNE VITALE

Nursing

Evaluation of Cognitive Interventions for CNS-related Cancers in the Pediatric Population

Advised by: Angela Starkweather

#### MARY F. VLAMIS

#### **Economics**

"Bad Hombres" and the Bully Pulpit: A Study of Presidential Rhetoric and Reactionary Behaviors of the Immigrant Population

Advised by: Jorge Aguero

### **ZACHARY WAHRMAN**

Computer Science

Intelligent System for Suggesting Sample Comparisons

Advised by: Dong Shin

### MATTHEW DANIEL WAN

Molecular & Cell Biology

PI3K and Myeloid Derived Suppressor Cells

Advised by: Archana Sanjay

### SHERYL WANG

Digital Media & Design

A Little Too Real

Advised by: Anna Lindemann

### JUDIE ZHEN WANG

**Biological Sciences** 

The Effect of the Ketogenic Diet Metabolite Beta-Hydroxybutyrate on Brain Neurochemistry following Traumatic Brain Injury in Drosophila

Advised by: Geoffrey Tanner

### JOSEPH WARMUS

Computer Science & Engineering

Reaction Time-Limited Reinforcement Learning for 2D Fighting Games

Advised by: Yufeng Wu

### **ALLY WATSON**

Molecular & Cell Biology

Enterobacter Hormaechei Transcription Factors TyrR and DksA Affect its Ability to Induce Melanin Production in Cryptococcus Neoformans

Advised by: Joerg Graf

### SAMUEL LOUIS WEINBERG

Chemical Engineering

Solving Partial Differential Equations with Parallel Algorithms and Graphics Processing Units

Advised by: Matthew Stuber

### **BRENDAN MICHAEL WELLER**

Finance

CLOs: A Nightmarish Scenario Ahead?

Advised by: Alexander Amati

## TARA R. WHITE Marketing

Developing a Sustainable Marketing Approach for CEAD

Advised by: Heidi Bailey

## ALYSSA M. WILLIAMS Allied Health Sciences

Adherence to Papanicolaou Test Guidelines and Knowledge of HPV and Cervical Cancer in UConn Students

Advised by: Denis Coble

## DAMIAN K. WILLIAMSON Individualized: Family Health

Nutrition Initiative in University Dining Halls and its Association with Dietary Intake among Adolescents in a Large University

Advised by: Alison Kohan

## SYDNEY C. WIMBERLEY Chemical Engineering

Engineering 3D Liquid Crystalline Biomaterial Scaffolds, and Investigating Cellular Behavior

Advised by: Kelly Burke

### TETIANA MARIE WINIARSKYJ English

Wild English: Multilingualism and Untranslatability in Nabokov's Pnin

Advised by: Yohei Igarashi

## JORDYN ANNE WITKINS Nursing

Comparison of Attitudes, Knowledge and Beliefs on Marijuana in Undergraduate Nursing Students Compared to Non-Nursing Students

Advised by: Ruth Lucas

#### WUN J. WONG

### Linguistics/Psychology

Phonological Development in Children with Cochlear Implants

Advised by: Diane Lillo-Martin

### **TRAVIS WONG**

### Computer Science & Engineering

Defining a Protocol that Prevents Collaboration Between Devices in an IoT Network

Advised by: Amir Herzberg

### VARUN YETUKURI

### Mechanical Engineering

Computational Fluid Dynamics Analysis of a Simple Impeller in ANSYS

Advised by: Tianfeng Lu

### SARA J. ZAMBELLI Political Science

Latin American Immigration: Through the Eyes of Women

Advised by: Christine Sylvester

#### **PEIYI ZHANG**

### Mathematics-Actuarial-Finance

Evaluating the Cost of a Lapse in Life Insurance and its Implications on Developing a Policyholder Retention Strategy for a Company

Advised by: Jeyaraj Vadiveloo

### **TERRANCE ZHANG**

### Molecular & Cell Biology

Rapid Antibiotic Susceptibility Testing Platform for Direct Clinical Samples

Advised by: Joerg Graf

### KARINA S. ZHAO

#### Accounting

The Implications of Corporate Social Responsibility Reporting: How its Integration into the Fashion Industry is Driving Ethical and Sustainable Progress

Advised by: Ying Zhou

### IZABELA ZUBRZYCKA

### **Biological Sciences**

Anxiety Contagion: Short-Term Physiological Impact of Interpersonal Stressor between Best Friends

Advised by: Kimberli Treadwell

### VICTORIA ANNA ZYSK Speech, Language & Hearing

#### Sciences

The Effect of Sleep-based Memory Consolidation on Adaptation to Noise Vocoded Speech

Advised by: Rachel Theodor

## **University Scholars**

This prestigious and highly competitive program enables talented, motivated, and innovative students to design plans of study geared toward their special interests. Working closely with a committee of three faculty advisors, University Scholars undertake learning opportunities far beyond the typical plan of study, and produce significant scholarly and creative projects such as works of art and research theses. Graduating as a University Scholar is the highest academic honor the University bestows upon undergraduate students. Following is an alphabetical listing of graduating University Scholars, their majors, their project titles, their faculty advisors, and their project descriptions. The principal advisor for each student's University Scholar project is the first advisor listed. Students with the asterisk after their name are also Honors Scholars\*.

### CAITLIN ELISE FOSTER\*

## **Biological Sciences**The Genetic Architecture of Pol.

The Genetic Architecture of Pollinator-Associated Floral Traits in Monkey Flowers

### Advised by: Yaowu Yuan, Pamela Diggle, Bernard Goffinet

The goal of this project is to investigate the underlying genetic architecture controlling the characteristic floral trait differences between two species of closely related monkeyflowers, Mimulus parishii and Mimulus cardinalis. This project focuses on differences in flower color and size of different floral structures, such as pistil length and stamen length. Understanding the genetic causes of these differences can help develop the understanding of speciation and diversification of the more than 300,000 flowering plant species.

## ANALYSE HOPE GIORDANO\* Allied Health

Increasing the Longevity of Fully Implantable Continuous Glucose Monitors Using Biocompatible Ceramic Nanoparticles and Nanotexturing

### Advised by: Steven Suib, Valerie Duffy, Jessica Rouge

Diabetes Mellitus is one of the top ten deadliest diseases in the nation, affecting the body's ability to release insulin and regulate blood glucose (BG) levels. BG levels can become difficult to manually monitor and regulate without continuous data. While continuous glucose monitors (CGMS) are a widely available solution to this issue, these monitors are only FDA approved in the body for one year due to biofouling. This project will explore the effects of nanotexturing on bioceramics in order to increase the longevity of these devices in the body. Through nanotexturing techniques, CGM casings will mimic the texture of human bone and will be less susceptible to biofouling caused by macrophage fibrous encapsulation.

### CARSONLEE HARPER\* English and History

Reimagining Medieval Scandinavia Through Historical Fiction

## Advised by: Ellen Litman, Sherri Olson, Frederick Biggs

Vikings have been a fascinating subject for both fictional works and historical research for many years, their raiding escapades and rich mythology find its way into our books, movies, and TV shows time and time again. This project aims to write a historical fiction novel that not only captures what we have found so captivating about these Medieval Scandinavian inhabitants in the past but also explores the world of women and children that is underrepresented much of

the time. CarsonLee hopes to combine immersive story-telling with factual historical evidence in my book as she explore themes of gender, sacrifice, justice, and religion as they relate to both average and extraordinary examples of the Scandinavian people.

### **DANIEL YU**

### Exercise Science

Mechanisms of Statin Effects on Muscle and Neuronal Proteostasis

### Advised by: Eliane Lee, Theodore Rasmussen, Beth Taylor

Cardiovascular diseases are among the leading cause of death in the United States. Statins, a cholesterol lowering drug, are used by over 43 million Americans to treat cardiovascular diseases. Statins target the mevalonate pathway to regulate cholesterol, but indirectly also regulate lipoprotein signaling. The indirect effects on lipoproteins may increase susceptibility to protein tissue and muscle damage. This project will use Caenorhabditis elegans to test whether statin treatment will cause muscle and neuronal damage during aging and stress, and discover statin molecular mechanisms by using RNAi to knockdown components of the mevalonate signaling pathway.

### MARLENE ABOUAASSI\*

### Molecular & Cell Biology and Sociology

Study of Putative Niche Adapting Operon in Microbes Inhabiting the Gut of Blood Digesting Animals

### Advised by: J. Peter Gogarten, Joerg Graf, Simon Cheng

Marlene's work focuses on examining the sialic acid utilization gene operon, which facilitates survival and propagation of bacteria in the presence of erythrocytes. She aims to examine how gene acquisition allows specific bacterial lineages to utilize sialic acid as an alternate source of carbon and nitrogen.

## LUKE SIGURD ANDERSON\* Anthropology and Nutritional Sciences

Cultural Food Habits as a Social Factor of Health Among Immigrants in New Haven, Connecticut: A Focused Ethnographic Study

### Advised by: Pamela Erickson, Michael Puglisi, Kathryn Libal

Diet-related health disparities are well documented in immigrant populations. This study aims to help better inform nutrition interventions. It did so by working with members of the community to explore their perceptions of the nutrition of the food they eat and relate it to how this food is grounded in their cultural identity and social belonging.

## SARAH GRACE ARNETT\* Cognitive Science and Speech.

#### Cognitive Science and Speech, Language, & Hearing Sciences

Evaluating the Verbal Language Use of People with Aphasia in Non-Clinical Settings: A Feasibility Study using LENA Technology

### Advised by: Jennifer Mozeiko, Carl Coelho, Nairan Ramirez-Esparza

Sarah's project investigates the reliability of the self-perception of language use in people with aphasia (PWA), who have language deficits following a stroke. By comparing conversational data collected from participants' home environments to rating scale responses, the project investigates the accuracy of PWA's estimates of their language use.

## THOMAS GARDINER CHESSMAN\* Mechanical Engineering

Feedback Control in Selective Laser Sintering through use of Thermal Imaging

### Advised by: Chih-Jen Sung, Tai-Hsi Fan, Song Han

Selective laser sintering (SLS) is a pioneering additive manufacturing technique that involves using a laser to melt powdered material together, layer by layer, in order to create a 3-D product. This project investigates improving final product quality through use of feedback control based on thermal image analysis of the manufacturing process.

### KLARITA DOCI

### Physiology & Neurobiology

Temperature Regulates the Properties of KCNQ2/KCNQ3 Channels

### Advised by: Anastasios Tzingounis, Daniel Mulkey, Randall Walikonis

KCNQ potassium channels, expressed in the brain, play an important role in controlling neuronal hyper excitability. Mutations in these channels have shown to cause epilepsy as well as some symptoms of autism. We found that biophysical properties of KCNQ2/3 channels depend on temperature.

## CHELSEA MARIE GARCIA Nutritional Sciences

The Effect of Bacterial Lipid 654 on Regulation of Pathways Related to Neuroinflammation and Energy Balance

### Advised by: Christopher Blesso, Ji-Young Lee, Michael Puglisi

Chelsea's project tested the effects of Lipid 654, a fat product of gut bacteria, on neuroinflammation in mice. Chronic injection of Lipid 654 has lowered inflammation in the liver and the development of heart disease in mice. However, the same injections did not have protective effects in the brain, and the differences should be explored further.

## ARIANE BROOKE GARRETT\* Biomedical Engineering

Development of A Novel Flow Sensor for Use in a Cerebral Spinal Fluid Shunt

### Advised by: Kazunori Hoshino, Sabato Santaniello, Gustavo Nanclares

In this project, a novel flow sensor for use in a cerebral spinal fluid shunt was developed. The device has the capacity to provide patients and doctors with a greater understanding of shunt function after implantation. The device was tested and was able to measure the desired flow rates between 20ml/hr and 120ml/hr.

### KARA HEILEMANN\*

### Pathobiology and Nutritional Sciences

Proteolytic Activation of Antimicrobial Peptides

### Advised by: Alfredo Angeles-Boza, Paulo Verardi, Yangchao Luo

Antimicrobial resistance is a global concern, and antimicrobial peptides (AMPs) are a potential solution due to their ability to kill a wide range of bacteria. In this project, a novel pro-drug AMP was engineered to overcome toxicity to human cells through site-specific activation by an enzyme secreted from the pathogen Staphylococcus aureus.

### SAURABH KUMAR\*

### Molecular & Cell Biology and Statistics

Reorganization of the Human Ventricular-Subventricular Zone Neural Stem Cell Niche in Fetal-Onset Hydrocephalus

### Advised by: Joanne Conover, David Goldhamer, Thomas Peters, and Elizabeth Schifano

This project investigated how developmental patterns in the Ventricular-Subventricular Zone (V-SVZ) stem cell niche within the brain are affected during fetal-onset hydrocephalus. By analyzing archival human brain tissue and MRI scans, this project aimed to provide enhanced tools for neurosurgeons diagnosing and treating hydrocephalus.

# EMMALYN GRACE LECKY\* Biological Sciences and Psychological Sciences

Developing a Novel Model of Blast-Induced Traumatic Brain Injury

### Advised by: Ephraim Trakhtenberg, Joanne Conover, Ian Stevenson

Blast-induced traumatic brain injury (bTBI) is a leading cause of military head injuries and can have devastating, life-long consequences. bTBI involves a disruption and disconnection of axons, which are projections of neurons. This project developed a novel model of bTBI for use in investigating new treatments to regenerate or protect axons.

### DANIEL MCCLOSKEY\*

## Anthropology and Women's, Gender, and Sexuality Studies

Brothers as Men: Masculinity, Homosociality, and Violence Among Fraternity Men

### Advised by: François Dussart, Pamela Erickson, Daisy Reyes

This project was a study of fraternity men that included 55 interviews and was concerned primarily with how participants understood gender, masculinity and femininity, homosociality (the phenomenon of single-gendered social groupings), and sexual violence.

#### SUSAN NASERI\*

### Political Science and Human Rights

From War to Civilian Life: Evaluation of Integration Policies for Urban Refugees in Amman, Jordan

### Advised by: Kathryn Libal, Jennifer Sterling-Folker, Cathy Schlund-Vials

In the context of the Syrian refugee crisis, this project addresses how countries without encampment are integrating refugees into their society. This project asks how the policies in Jordan are contributing to the integration of its urban refugees, and what the particular challenges and limits to freedom are, as well as which rights are realized.

## GRACE NICHOLS\* Molecular & Cell Biology

Detection of Tinnitus in CBA/CaJ Mice Using the Active Avoidance Shuttle Box Test

### Advised by: Douglas Oliver, Charles Giardina, Monty Escabi

Tinnitus is a neurological condition that involves the perception of a ringing or buzzing sound in the ears that is not physically present. Tinnitus can negatively impact quality of life, and unfortunately, there is no cure for the condition. This project evaluates the effectivity of tinnitus induction and the presence of tinnitus in mice.

## ALEXANDER MICHAEL ODDO\* Chemistry

The Design of Bio-derived Solar Technology: Coupling Protein Hydrogels to Light Harvesting Upconversion Systems

### Advised by: Challa Kumar, Tomoyasu Mani, Gael Ung

Since solar cells cannot harvest red sunlight efficiently, a phenomenon, called "upconversion," may increase solar cell efficiency by converting the wasted red light into more readily-harvestable blue light. This project was a success and resulted in the invention of a protein solar film capable of sustaining efficient upconversion.

#### KATHLEEN E RENNA\*

### Diagnostic Genetic Sciences

Evaluation of Integrin Gene Expression Profiles Toward Understanding Retinal Ganglion Cell Subtype Biology

### Advised by: Ephraim Trakhtenberg, Judy Brown, Kenneth Campellone

Retinal ganglion cells (RGCs) in the human eye are thought to have differences in gene expression that relate to their unique functions, an area of study termed subtype biology. The goal of this project was to determine if the gene expression of integrins, molecules that guide axon extension from the cell body, was also RGC subtype specific.

# SRISHTI SADHIR\* Ecology & Evolutionary Biology and Anthropology

An Archaeological Study of Human Hunting Adaptations at Wadi Madamagh, Jordan during the Last Glacial Maximum

## Advised by: Natalie Munro, Richard Sosis, Susan Herrick

This project examined human hunting strategies at the archaeological site of Wadi Madamagh (Last Glacial Maximum; 26,500-19,000 years ago) using zooarchaeological methods and a human behavioral ecology framework. Overall, the faunal remains (animal bones and teeth) suggest repeated, light occupations of the site over the course of millennia.

## EKATERINA SKARITANOV\* Physiology & Neurobiology

ETS-domain transcriptional activator Pnt and its endogenous inhibitor Yan control spatiotemporal expression of Mmp2 for follicle rupture in late oogenesis

### Advised by: Jianjun Sun, Barbara Mellone, Akiko Nishiyama

Mmp2 is an enzyme required for ovulation in Drosophila and mammals. Ekaterina thus proposes a mechanism for the roles of the transcriptional regulators Pnt and Yan in determining the timing and localization of Mmp2 in the Drosophila egg chambers. She concludes that proper expression of both factors in late oogenesis is required for ovulation.

## Honors Faculty Member of the Year Award Recipient



Judy Brown, Ph.D.

Associate Professor, Director, M.S. Degree in Health Care Genetics, School of Nursing

Dr. Brown has a PhD in Genetics and Genomics from the University of Connecticut. She has certifications in Cytogenetics and Molecular Biology from the American Society for Clinical Pathology, retaining her credentials with continuing education and training. She prepares Honors students for careers in genetic testing and genomic medicine within the rapidly changing health care environment. Judy provides both academic and career advising while also participate in scholarly and outreach activities.

### Honors Distinguished Alumni Award Recipient



Sarah Wojiski, Ph.D.

Dr. Wojiski is a 1997 graduate of the the UConn Honors Program earning her Bachelor of Science in Diagonostic Genetic Sciences. Sarah is the Director of Education at the Jackson Laboratory for Genomic Medicine in Farmington, CT. Following a Ph.D. in genetics from Harvard University, she completed a teaching and curriculum fellowship at Harvard Medical School, working on graduate and medical genetics curriculum reform. Sarah was a biology faculty member at Massachusetts College of Pharmacy and Health Sciences and Southern Connecticut State University, where she taught introductory biology, molecular and cellular biology and genetics. Her scholarship interests lie in curriculum development and innovative teaching and learning practices. She has taught at the undergraduate, graduate, medical, and high school level, and believes in providing engaging and enriching learning opportunities for all. In her current role at The Jackson Laboratory, Sarah oversees education programs that span multiple learner groups, from high school teachers to postdoctoral scientists.

### Past Faculty Member of the Year Award Recipients

	3		-		
2018-19	<b>Jennifer Sterling-Folker,</b> Political Science, College of Liberal Arts and Sciences	2010-11	William F. Bailey, Chemistry, College of Liberal Arts and Sciences		
2017-18	Brian Aneskievich, School of Pharmacy	2009-10	Lawrence Gramling, Accounting, School of Business		
2016-17	<b>Blair T. Johnson,</b> Psychology, College of Liberal Arts and Sciences	2009-10	<b>Robert Thorson,</b> Ecology & Evolutionary Biology, College of Liberal Arts and Sciences		
2015-16	Alaina Brenick, Human Development and Family	2008-09	Robert Gross, History, College of Liberal Arts and Sciences		
	Studies, Collage of Liberal Arts and Sciences 2007		Steven Wisensale, Human Development & Family		
2014-15	Mark Boyer, Political Science, College of Liberal		Studies, College of Liberal Arts and Sciences		
	Arts and Sciences	2006-07	Louis Lombardi, Mathematics, College of Liberal Arts		
2013-14	Patrick Dragon, Mathematics, Collage of Liberal		and Sciences		
	Arts and Sciences	2005-06	Lawrence Hightower, Molecular & Cell Biology,		
	<b>Annamaria Csizmadia,</b> Human Development and Family Studies, College of Liberal Arts and Sciences		College of Liberal Arts and Sciences		
			Robin Chazdon, Ecology & Evolutionary Biology,		
2012-13	Patricia J. Neafsey, Nursing, School of Nursing		College of Liberal Arts and Sciences		

### Past Honors Distinguished Alumni Award Recipients

2019	Alan Bennett '69 College of Liberal Arts and Sciences	2012	Bill DeWalt '69 College of Liberal Arts and Sciences
2018	The Honors Inaugural Class of 1968	2012	Marian Kennedy '70 College of Liberal Arts and Sciences
2017	Sarah D. Kambou '80 College of Liberal Arts and Sciences	2011	Robert M. Holster '68 College of Liberal Arts and Sciences
2017	Kate Farrar '01 College of Liberal Arts and Sciences	2011	Nicole McKinney Lindsay '96 School of Business
2016	David Fetterman '76 College of Liberal Arts and Sciences	2010	Roger Ballentine '85 College of Liberal Arts and Sciences
2016	Mark Romanoff '79 College of Liberal Arts and Sciences	2010	Virginia DeJohn Anderson '76 College of Liberal Arts
2015	Robert LaBarre '76 College of Liberal Arts and Sciences		and Sciences
2015	Patricia Friar '80 School of Business	2009	Mark Weidenbaum '77 College of Liberal Arts and Sciences
2014	Howard M. Sandler '78 College of Liberal Arts and Sciences	2009	Daniel Levine '78 College of Liberal Arts and Sciences
2014	Brian Preleski '87 College of Liberal Arts and Sciences	2008	Bonnie Sarno Vontell '81 College of Liberal Arts and Sciences
2013	Anthony E. Chiodo '80 College of Liberal Arts and Sciences	2007	Carolyn Runowicz '73 College of Liberal Arts and Sciences
2013	Chad A. Landmon '96 College of Liberal Arts and Sciences		

### The Honors Board of Associate Directors

The Honors Board of Associate Directors includes faculty members, Honors Progam staff, and students from the Honors Council. The Board advises and assists with the work of the Honors Program.

Brian Aneskievich, School of Pharmacy
Maureen Armstrong, Committee Rep/Scholastic Standards
Dylan Audette, Molecular and Cell Biology (Hartford)
Pamela Bedore, Committee Rep/Senate C&C)
Emily Blackburn, Class of 2021
Judy Brown, College of Agriculture, Health, & Natural Resources
Kelly Burke, Chemical and Biomolecular Engineering
Mary Burke, College of Liberal Arts and Sciences
Jamie Caruso, Bachelor of General Studies Program (Waterbury)
Jaclyn Chancey, Honors Program
James Chrobak, College of Liberal Arts and Sciences
Kirantheja Daggula, Class of 2020
Laura Donorfio, College of Liberal Arts and Sciences (Waterbury)
Leigh Fine, Honors Program
Reinier Gonzalez, Class of 2022

2012-13 Rebecca Flanagan, Pre-Law, Enrichment Program

Arts and Sciences

2011-12 Virginia Hettinger, Political Science, College of Liberal

**Travis Grosser,** School of Business

Kaitlin Heenehan, Honors Program (Stamford)
Claudia Koerting, Marine Sciences (Avery Point)

2003-04 Harry A. Frank, Chemistry, College of Liberal Arts

and Sciences

Jennifer Lease Butts, Honors Program

Catherine Little, Neag School of Education

Richard Luddy, Physics (Hartford)

Tara Malone, Assistant Director of Career Development (Hartford)

Deborah McDonald, School of Nursing

Rachel O'Neill, College of Liberal Arts and Sciences

Shreya Sreenivas, Class of 2022 Patricia Szarek, Honors Program

Connor Treadwell, Class of 2022

Rebecca Troeger, Academic Center Coordinator (Avery Point)
Richard Watnick, College of Liberal Arts and Sciences (Stamford)

### The Honors Program Staff

Gregory Champion, Program Assistant, Honors Residential Communities and Programming | Jaclyn Chancey, Associate Assistant Director for Curriculum, Assessment, and Planning | Leigh Fine, Assistant Director, Honors Residential Communities and Programming | Kristen Dostaler, Coordinator of Peer Leadership Programs, Program Coordinator, Honors Residential Communities and Programming | Brittany Engert, Program Assistant, Honors Residential Communities and Programming Jason Gordon, STEM Scholar Advisor | Kaitlin Heenehan, Stamford Honors Program Assistant Director Anne Kim, Assistant Director for Honors Advising | Jennifer Lease Butts, Associate Assistant Vice Provost, Honors and Enrichment Programs & Director, Honors Program | Ellen Mayo, Executive Assistant

Patricia Szarek, Associate Director for Enrollment Management