

# **NIAGARA UNIVERSITY**

## **UNDERGRADUATE RESEARCH CONFERENCE**



**April 17, 2015**

**St. Vincent's Hall  
&  
Castellani Art Museum**



## **AGENDA**

*Panel Presentations*

*9:00 a.m. – 2:30 p.m.*

*St. Vincent's Hall*

*Coffee and Danish*

*8:30 a.m. – 11:30 a.m.*

*St. Vincent's Hall 310*

*Poster Presentations*

*1:00 p.m. – 3:00 p.m.*

*Castellani Art Museum*

*Lunch for Participants and Faculty Sponsors*

*11:30 p.m. – 2:30 p.m.*

*Castellani Art Museum*

*I want to extend a warm welcome to the 2015 NU Undergraduate Research Conference sponsored by the University Honors Program. Niagara University's dedication to research and academic excellence will be on full display during today's conference. I encourage you to attend as many of the panel and poster presentations as you can in order to show your support for the young scholars in our midst and to learn about the exciting research taking place here at Niagara. I am confident that the presentations will be informative and educational.*

*I want to thank Ms. Kathy Sydor, administrative coordinator for the honors program, who has done most of the behind-the-scenes work necessary to make this conference a reality. Without her, there would be no conference. Finally, I want to thank all the participants and their sponsors for their hard work. The University Honors Program wishes them all the best in their future research and endeavors.*

*Dr. Michael Barnwell*

*Director, University Honors Program*

## PANEL PRESENTATIONS

**ACCOUNTING:** Dr. Jay Walker, Moderator  
8:30 a.m. – 8:50 a.m. St. Vincent's Hall 407

David Raymond: "Tennis: What Impact Wins?"

**BIOLOGY:** Dr. William Edwards, Moderator  
11:40 a.m. – 12:00 p.m. St. Vincent's Hall 309

Kimberly Alexander: "Effect of Invasive Zebra Mussels (*Dreissena spp.*) on Vertical Mixing of Nutrients and Phytoplankton in Lake Erie"

**BIOLOGY:** Dr. Mark Gallo, Moderator  
8:30 a.m. – 10:00 a.m. St. Vincent's Hall 301

Mia Byrd, Eric Ebert, Connal Kelly, Sonja Opper, Abigail Salter, Shawn Warner, Melissa Wright: Genomic Characterization of Antibiotic Resistance in *Staphylococcus spp.*

**COMMUNICATION STUDIES:** Dr. Doug Tewksbury,  
Moderator  
9:05 a.m. – 9:20 a.m. St. Vincent's Hall 305

Samantha Dreverman: "Growing Up, Staying True: A Study of Straight Edge Authenticity and Dedication in the Digital Age"

**CRIMINAL JUSTICE & CRIMINOLOGY:** Dr. Diana Falco,  
Moderator  
12:40 p.m. – 1:20 p.m. St Vincent's Hall 309

Aidan Stuart: "Assessing Student Views Towards Domestic and International Drug Policies"

Courtney Faircloth: "Overdramatization: Does Media Influence Public Opinion of Drugs?"

**ECONOMICS:** Dr. Jay Walker, Moderator  
8:10 a.m. – 9:50 a.m. St. Vincent's Hall 407

Robert Brown: "Green Energy Initiatives: A Solution or Gambit"

Alexander Carruthers: "In the Zone: Spatial Analysis of Crimes of an Economic Nature for Perpetrator Rationality"

Zachary Shoemaker: "Buffalo: Getting Away With Murder"

Allyssa Wadsworth: "Pushed Away From Religion: Religiosity and the Impact of Catholic Schooling"

**FINANCE:** Dr. Jay Walker, Moderator  
10:10 a.m. – 10:30 a.m. St. Vincent's Hall 309

Troy Dowdle: "The Key to Winning NBA Games"

**MBA PROGRAM:** Dr. Jay Walker, Moderator  
10:30 a.m. – 11:30 a.m. St. Vincent's Hall 309

Ebtihal Alosaimi: "Homosexual Marriage: Trends and Attitudes"

Henrietta Nagy: "Human Trafficking: An Important Focus of the 21<sup>st</sup> Century"

David Szewczyk: "Veterans and Unemployment"

**MATHEMATICS:** Dr. Marlo Brown, Moderator  
12:10 p.m. – 12:30 p.m. St. Vincent's Hall 309

Katelyn Danzinger: "Mathematical Paradoxes: Exploring Mathematical Phenomena and Explaining the Unexplainable"

**MODERN AND CLASSICAL LANGUAGES:**  
Dr. James McCutcheon, Moderator  
9:00 a.m. – 9:20 a.m. St. Vincent's Hall 206

Emily Bork: "The Subversive Voice of Female Literature in Post-Civil War Spain"

**MODERN AND CLASSICAL LANGUAGES:**  
Dr. Esteban Mayorga, Moderator  
9:20 a.m. – 9:40 a.m. St. Vincent's Hall 206

Kimberly Nedza: "Cien Años de Soledad and the Quest for Latin American Modernity"

**PSYCHOLOGY:** Dr. Timothy Osberg, Moderator  
9:30 a.m. – 9:50 a.m. St. Vincent's Hall 306

Haley Keeley: "Irrational Food Beliefs Mediate the Connection between Relationship Insecurity and Bulimic Symptoms"

**PSYCHOLOGY/GERONTOLOGY:** Dr. Susan Mason, Moderator  
12:15 p.m. – 2:30 p.m. St. Vincent's Hall 311

Tamara Vyazovaya: "Away From Her: A Critical Analysis"

Lauren Interlichia: "Everybody's Fine: A Critical Analysis"

MacKenzie Kutzuba: "Elsa and Fred: A Critical Analysis"

Margot Hickey: "Age Differences in Participation Rates, Motivators for, and Barriers to Physical Exercise"

Amanda Smith: "Is Racial Profiling in the Context of Terrorism Justified?"

Amber Markham: "The Effects of Gender, Age and Rumination on Post-Traumatic Stress Disorder"

Abbey Smolinski: "The Bucket List: A Critical Analysis"

Allison Steger: "Still Mine: A Critical Analysis"

Morgan Penepent: "Trouble with the Curve: A Critical Analysis"

**THEATRE:** Professor Ralph Andropolis, Moderator  
9:00 a.m. – 9:20 a.m. St. Vincent's Hall 306

Kaylee LeRoy: "Manipulation of Behavior Through the Use of Different Frequencies in Sound and Music"

## **POSTER PRESENTATIONS**

### ***BIOCHEMISTRY, CHEMISTRY, PHYSICS:***

Dr. Robyn Goacher

Mohit Gogna, Erick Braham: "Infrared Analysis Method Development for Lignocellulose Degradation"

Samantha Livingston: "Determining Order of Black Ballpoint Pen Ink Deposition on Paper to Identify Forgeries in Questioned Documents Using Time-of-Flight Secondary Ion Mass Spectrometry"

Carrie-Jo Farrugia, Sam Galster: "An LC-ESI-MS Approach to Detect the Sugars Released During the Enzymatic Breakdown of Lignocellulose"

Jesse Stroka: "Capabilities of Time-of-Flight Secondary Ion Mass Spectrometry to Image Artificially Weathered Wood-Polymer Composites"

Nicholas Zerby, Courtney Whitney: "Systematic Comparison of Solid-Sampling Instrumental Methods to Detect the Enzymatic Degradation of Wood"

### ***BIOCHEMISTRY, CHEMISTRY, PHYSICS:***

Dr. John Hutchinson

Erick Braham: "Superfluidity"

Akshil Patel: "Schrödinger's Cat: The Paradox Behind Copenhagen Interpretation"

Jesse Stroka: "Nebulae"

Nicholas Zerby: "Black Holes"

**BIOCHEMISTRY, CHEMISTRY, PHYSICS:**

Dr. Mary McCourt

Molly Hill: "Cholestosome-Mediated Delivery of Insulin"

Aquila Lesko: "Metabolomic Analysis of Breast Cancer Line Aqueous Material Using NMR Spectroscopy"

**BIOCHEMISTRY, CHEMISTRY, PHYSICS:**

Dr. Luis Sanchez

Janine Cubello, Stephanie Scharmach: "Cyclic L-Tryptophan-Based Building Blocks for the Synthesis of Medically Relevant Complex Molecules"

Zachary Mariani, Stephanie Scharmach: "Tuning Chemoselectivity Toward an Affordable Synthetic Approach to Aurantioclavine"

Andrea Pascucci, Christopher Fritschi: "Developing a Synthetic Route to Caramboxin, a Bioactive Non-Peptidic Amino Acid"

Emily York, Samer Isa: "Reaction Optimization for the Synthesis of Novel Vinylglycine Derivatives"

**BIOLOGY:** Dr. William Edwards

Madeline Hare: "Plastic Microdebris in the Lower Great Lakes"

**BIOLOGY:** Dr. Mark Gallo

James Lioi, Christopher Campomizzi: "Genomic Analysis of Staphylococcus Bacteriophage"

James Lioi, Megan Helf, Matthew Rice: "Isolation of Staphylococcus Bacteriophage"

Jawdat Mustafa: "Analysis of Normal and Small Colony Variations of Staphylococcus"



**BIOLOGY:** Dr. Robert Greene

Jenna McCune: "The Determination of Mitochondrial Permeability in HeLa Cells Treated with Curcumin"

Alyxis Mitrowski: "Effects of Vitamin D3 on Photodynamic Therapy of HeLa Cells in Culture"

**BIOLOGY:** Dr. Michael Kotarski

Andrea Blake, Phillip Galbo: "Microsatellite Analysis of Genetic Variation in Lodgepole Pines"

**BIOLOGY:** Dr. Deborah Leonard

Kelly Butterfield, Kristen Kurek, Kristin King: "Does Education Make or Break a lifetime of Poverty?"

Joseph Diminuco, Samantha Kupco, Madeline Marotta, Seena Salleh: "Raising Physical Activity Levels in Niagara Falls"

**COMMUNICATION STUDIES:** Dr. Doug Tewksbury

Samantha Dreverman: "Growing Up, Staying True: A Study of Straight Edge Authenticity and Dedication in the Digital Age"

Allina LaMorticella "A Study of the Impact Social Media has on Heterosexual College Student Romantic Relationships"

**COMPUTER AND INFORMATION SCIENCES:**

Dr. Yonghong Tong

Muhammet Bakan: "Park Car"

Muhammet Bakan: "Drivers Test Trivia"

Muhammet Bakan: "Mobile Visualization"

Michael Crockett: "Niagara Falls Tour"

**COMPUTER AND INFORMATION SCIENCES – Continued**

Chelsea Goldyn: “WNIA Niagara’s Mix n More Radio”

Colin Monroe: “Math Builder”

Jacob Ohlin: “Niagara University Quiz”

Laura Ortiz: “FutFem”

Laura Ortiz: “Kid Quiz”

Cal Walters: “Push Box”

John Lenkiewicz, Nicole Merritt, Andrew Schneggenburger:  
“First Responders”

Freddie Liederbach, John Lenkiewicz: “Western New York  
State Parks App”

Colin Monroe, Nicole Merritt, Andrew Schneggenburger:  
“Mobile Campaign”

Jonathan Sandonato, Muhammet Bakan: “The Safe Answer”

Michael Crockett, Muhammet Bakan: “Distraction-Free  
Driving”

**CRIMINAL JUSTICE:** Dr. Talia Harmon

Nicole Pehrson: “Emerging Picture of Juvenile Hate Crime in  
New York and California”

McKenzie Williams: “Preliminary Study: Efficacy of Mental  
Illness as a Mitigating Factor in Capital Punishment Sentencing”

**CRIMINAL JUSTICE:** Dr. Paul Schupp

Tyler Rose Levengood: “Correctional Officer Perceptions of  
Mentally Ill Offenders”

**ECONOMICS:** Dr. Jay Walker

Alexander Carruthers: "In the Zone: Spatial Analysis of Crimes of an Economic Nature for Perpetrator Rationality"

**ENGLISH:** Dr. Paula Kot

Seena Salleh, Luz Paulino, Amber Breyer, Angela DiGregorio: "The Relationship between Mental Illness and Being a Woman in Elizabeth Stoddard's 'The Prescription'"

Danielle Crowley, Jessica Tobin, Lauren Parrow: "Uncovering Louisa May Alcott's 'Scarlett Stockings'"

Hailey Glover, Alexa Richardson, Michaela George, Florencia Yuvero: "Constance Fenimore Woolson's 'Wilhelmina': Desperate Times Call for Desperate Measures"

**GERONTOLOGY:** Dr. Susan Mason

Alexa Pietrantonio, Vasiliki Sardellitti: "Age Differences in the Acceptance of Generic Drugs"

Kimberly Kennedy: "Gender Differences in Online Dating in Later Years"

Vasiliki Sardellitti, Alexa Pietrantonio: "Alzheimer's Dementia"

**HISTORY:** Dr. Michael Durfee

Marco Notaro: "The Origins of American Marijuana Prohibition"

**HOTEL PLANNING, DEVELOPMENT, AND OPERATIONS:**  
Dr. Youngsoo Choi

Adam Zarczynski: "How Property Responses on Word of Mouth Sites Affect the Hotel Guest Decision Process"

**INTERNATIONAL STUDIES:** Dr. David Reilly

Neveen Ammar: "Building Barriers: The Political and Social Ramifications of the Israeli Blockade on the Gaza Strip"

Dylan Jareo: "Overcriminalization in the Free World"

Rebecca VanBuren: "Religion and the Emerging State"

**LIFE SCIENCES:** Dr. Deborah Leonard

Thomas Raleigh, JaRon Williams, John Diedrich:  
"Observations of Food Consumption and Origin in Heart,  
Love, and Soul Kitchen"

**MARKETING:** Dr. Peggy Choong

Allison Jensen: "Optimal Ways to Use Instagram for Business"

**MATHEMATICS:** Dr. Michael Barg

Lauren DiFonzo, Dakota Morano: "Phase Separation Problems on Vesicles"

Phillip Galbo: "Approximate Formulae for Willmore Surfaces via Support Functions and Matlab"

**POLITICAL SCIENCE:** Dr. Peter Baxter

Alexander Blood: "Words on Guantanamo"

Krista Dean: "NFL Concussion Settlement and Case Law Surrounding Traumatic Brain Injury"

**POLITICAL SCIENCE:** Dr. David Reilly

Zachary Angarano: "Regimes, Wars and Your Vote"

Michael Elortegui: "Does Democracy Promotion Work?"

*POLITICAL SCIENCE - Continued*

Franco Galbo: "Evaluating the Democratic Peace Theory"

Cheyenne Hovey: "Effects of Residency and Political Identification on Guns and Gun Policies"

Nataisia Johnson: "The Niagara University Black Student Union: Then and Now"

Cassandra Kent: "Social Disconnectedness and Voting"

Samantha LaMantia: "Socioeconomic Status and Effect on Voter Turnout"

Deanna Lodadio: "The Media, Hillary Clinton and the Great American Tradition of Sexism"

Steven Marra: "Government Approval During Revolution"

Simon Southwick: "Drone Strikes in Pakistan and their Effects on Terrorist Attacks in Afghanistan"

Kelsey Ward: "Media Bias in Presidential Elections"

Andre Ware: "Benefits of United States Foreign Aid"

**PSYCHOLOGY:** Dr. Timothy Osberg

Amber Boyer: "Irrational Food Beliefs Mediate the Relationship between Childhood Sexual Abuse History and Bulimic Symptoms in Men"

Heather Joya, Nicholas Albano: "The Role of Secure Parental Attachment and Personality in College Self-Efficacy"

Haley Keeley: "Irrational Food Beliefs Mediate the Connection between Relationship Insecurity and Bulimic Symptoms"

*PSYCHOLOGY - Continued*

Melissa Leone, Taylor Edmonds: "The Relative Contributions of Personality and Adverse Childhood Experiences in Accounting for Variations in College Student Stress"

**SOCIAL WORK:** Dr. Clementine Laverman

Rosmery Cooper, Patricia Robles: "Social Isolation among Migrant Workers in Niagara-On-The-Lake, Ontario, Canada"

Kellie Friga: "School Socialization Survey"

Julia Greevic, Jennifer Eracles, Rachel Ackert, Tammy Wehrmeyer: "Does Procrastination have a Negative Effect on a Student's GPS?"

Hailey Griffith: "Social Support for Incarcerated Women"

Brittany Hoover: "Student Social Workers' Knowledge about Domestic Violence and Implications for Social Work Practice"

Mary Frances Kosinski: "Assessment of Undergraduate Attitudes toward Those Living in Poverty"

Alexander Kril, Christina Gugliuzza: "Perceived Social Support"

Monique Martin: "Need Assessment for Program and Information Distribution for the Homeless in Buffalo, NY"

Ian McKinnon, Paul Martino, Joseph Diminuco: "Selfism among Niagara University Students"

Danielle Pelletier: "Parenting Authority: Who has the Dominant Influence in College Choices?"

Adriana Ragland: "The Effectiveness of After-School Programs in Relationship to High School Graduation Rates"

***SOCIAL WORK - Continued***

Ashley Schiavi, Molly Weber: "Comparing the Level of Social Emotional Intelligence between Social Work Students and Social Work Practitioners"

Samantha Seyler, Sarah Stewart: "Niagara Falls Resources for Young Parents"

Lorelei Spillman, Allison Taylor: "Stress and Anxiety in Social Work Students"

Blake Turner, Melanie Koop: "Help Seeking Attitudes"

