

A Celebration of Student Scholarship April 19, 2013 | 8:30 a.m. – 5:15 p.m.

James Commons and Curtin Special Events Room, Campus Center





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Our featured speaker is Justin Sullivan '12, *theatre arts*, who will discuss the research he completed during his time at Le Moyne and its connection with his current work at Syracuse University.

After the program, please join us at 6:15 p.m. for a reading by Booker Prizewinning Irish author Anne Enright in the W. Carroll Coyne Center for the Performing Arts.

A Word from the President

Welcome to Scholars Day!

Thank you for joining us at Scholars Day 2013, one of Le Moyne's most significant annual celebrations. This day represents our highest aspirations and values as an academic institution. Today we stand in awe as those values are expressed by these impressive young scholars. Each one of them has honed a unique perspective on his or her academic discipline through careful thought and hard work. The long, challenging process of research and scholarship culminates now. It translates into shining success – a success in which our entire community takes great pride.

Our faculty members have done their work; these students have learned very well. Today, others will learn from them. Our scholars have begun to understand what it means to pursue truth and to create new knowledge. We know that the curiosity, drive and persistence of these scholars will serve them well in the future. Indeed, these qualities will serve all of society well. To the students, their families, and their professors: Congratulations on your collective achievement. Thank you for inspiring us to continue striving for excellence in our own work here at Le Moyne College.

Fred P. Pestello, Ph.D. President

A Word from the Provost

The literature on undergraduate research reveals a wide variety of benefits, including greater student interest in the field, greater understanding of how problems are defined and approached (i.e., how to think like a scientist or psychologist or historian), greater student confidence in the ability to conduct research, and greater involvement in the learning process through active rather than passive learning.

Undergraduate students who engage in research report an increased awareness of how small pieces of knowledge contribute to a greater understanding of their disciplines, gains in problem-solving and critical-thinking skills, and the ability to apply theoretical knowledge to real problems.

Today's showcase of undergraduate research and scholarly work at Le Moyne College underlines the achievements of our students, the dedication of their faculty mentors, and the College's commitment to academic excellence. Thanks for joining us in this celebration of scholarship.

Linda M. LeMura, Ph.D. Provost and Vice President for Academic Affairs

A Word from the Dean of the School of Business

While the word "education" is a noun, the process of learning is more than a person, place or thing. Neither is education a commodity to be purchased or a collection of data to be downloaded. As a verb, the word "learn" implies dynamism and interactivity. Learning involves constant attention to what is known, and perhaps more importantly, inquiry into what is unknown. Literally "to question into" the word "inquire" may remind us of two related words: "quest" and "investigation." The process of inquiry begins with reflection on what we need or what to know, or better understand, and then continues with the formation of questions, the work of investigation and research, critical consideration of what we are discovering and often, a refining of our original questions. How wonderful that the word inquiry shares a root with "quest" – to go on a significant and often transformational journey with intention and purpose.

Le Moyne College Green Book
 David McCallum, S.J. '90
 Interim Dean, Madden School of Business

A Word from the Interim Dean of Arts and Sciences

The 2013 Student Scholars Day is testimony to your creativity, your talent, your perseverance, and your work ethic. Scholars Day is also a tribute to your faculty mentors and your families, all of whom are responsible for your being here today. This event marks an important milestone as you take charge of your education and move from being a student of chemistry, a student of political science, or a student of creative writing to being a chemist, a political scientist, or a writer. We at Le Moyne are blessed to be among the 1 percent of the world's population afforded the opportunity of a first-class education; your participation in this day shows that you take seriously the responsibility that comes with that blessing. Congratulations to all of you.

Michael Streissguth
Interim Dean of Arts and Sciences

ABOUT LE MOYNE SCHOLARS DAY

Welcome to the eighth annual Le Moyne College Student Scholars Day, a tradition that originated with the Undergraduate Research Symposium in 1998. Scholars Day 2013 celebrates the research, entrepreneurial, and creative accomplishments of students from a variety of academic disciplines. We are excited that you are here to share in the work of these faculty-mentored student scholars who have traveled to archives and ecological sites, presented their work at meetings of professional organizations and at the National Conference on Undergraduate Research, published in scholarly journals, created artworks and theatrical productions, and been accepted to a number of post-graduate programs of study. Following in the tradition initiated three years ago, we are happy to welcome back Justin Sullivan '12 to deliver our lunchtime Student Scholar Alumni talk.

Jennifer Gurley, Ph.D.

Associate Professor of English and Associate McDevitt Chair and Director of Undergraduate Research

SCHEDULE OF EVENTS

8:30 - 9 A.M. CONTINENTAL BREAKFAST

9 - 9:15 A.M. WELCOMING REMARKS

Jennifer Gurley, Ph.D.

Associate Professor of English and Associate McDevitt Chair and

Director of Undergraduate Research

Michael Streissguth

Interim Dean of Arts and Sciences

9:15 A.M. - NOON MORNING PRESENTATION SESSIONS

Noon - 1 P.M. Lunch

12:20 - 1 P.M. GUEST SPEAKER

Justin Sullivan '12, Theatre Arts

1 – 4 P.M. AFTERNOON PRESENTATION SESSIONS

3:30 - 4:30 P.M. POSTER SESSIONS

4:30 - 5:15 P.M. CLOSING RECEPTION

6:15 P.M. READING BY BOOKER PRIZE-WINNING IRISH AUTHOR

ANNE ENRIGHT, W. CARROLL COYNE CENTER FOR THE

PERFORMING ARTS

SCHEDULE OF SESSIONS

Morning Program

9:15-9:30 a.m.

"The Phylogenetic Diversity and Classification of the Green Alga *Botryococcus*" *Dana M. Baltrusitis, Biological Sciences, Health Professions Concentration*

9:30-9:45 a.m

"Molecular and Morphological Variation in Selected *Pediastrum* Strains" *Jacqulyn Schaub and Craig Frysinger, Biological Sciences*

9:45-10 a.m.

"Remembering Trauma: Veteran Playwrights from the Civil War to Vietnam" *Tyler Sperrazza, History and Theatre Arts*

10-10:15 a.m.

"Transcendental Influence: Margaret Fuller's New Form of Romance" Samantha Krzyzanowski, English

10:15-10:30 a.m.

"The Issues in Oil Spill Response Logistics" Karissa Goessl, Finance and Business Analytics

10:30-10:45 a.m.

"Alarm Systems as a Deterrent for Property Crime" Kirsten E. Schuler, Sociology

10:45-11 a.m.

"Christian Theology and Shamanism from a Perennialist Perspective" Alexander Shepard, Philosophy and Religious Studies

11-11:15 a.m.

"Are Men from Mars and Women from Venus? Differences in Sex, Gender, and Perceptions of Academic Performance"

Brianna Vespone, Psychology

11:15-11:30 a.m.

"Straight Edge Commitment Factors and Identity Development" Mariah S. Senecal, Sociology

11:30-11:45 a.m.

"Increased Shipping and Navigation Technologies in a Melting Arctic" Katherine O'Neill, Psychology

11:45 a.m.-Noon

"Local Social Problems and the Data That Define Them" Lindsey Forcione, Sociology and Business Administration

Noon - 1 P.M. Lunch

12:20 - 1 P.M. Guest Speaker Justin M. Sullivan '12

Afternoon Program

1:15-1:30 p.m.

"Tipping the Scales: An Economic Approach to Exercise Motivation" *Peter Wagner, Economics*

1:30-1:45 p.m.

"The Genetic Structure of *Valvata Tricarinata* and *Promenetus Exacuous* Populations in New York State"

Sean Lindley, Biological Sciences and Chemistry

1:45-2 p.m.

"International Law and the U.S. Action Against Osama bin Laden and Pakistan" Sebastian Hoyos-Torres, Criminology and Political Science

2-2:15 p.m.

"Wireless Power Transmission: Examining Patent 645,576" Erin Marshall, Physics, Chemistry and Mathematics

2:15-2:30 p.m.

"An Investigation into Microsatellite Loci of Halipegus Occidualis" Nicholas Cutter, Biological Sciences

2:30-2:45 p.m.

"Measuring Twitter User Influence During Extreme Events on College and University Campuses" Nour El-Houda Sahraoui, Biological Sciences

2:45-3 p.m.

"Climate Change and its Impact on the Survival of Indigenous Peoples" Manuel Sande Nyagisere, Physics

3-3:15 p.m.

"John Muir: The Literary Figure" Brandon Sisson, English and Theatre Arts

3:15-3:30 p.m.

"The Development of Market Growth from the Integration of Autonomous Robotic Vehicles in the Arctic Region" Alexander Constantino, Finance and Information Systems

3:30-3:45 p.m.

"Arctic Oil Spill Response: Data Collection In the Arctic Specific to Arctic Bird Species (A Literature Review)"

Patrick Curtin, Biological Sciences

3:45-4 p.m.

"Orthoptera in the Ecuadorian Rainforest" Ashley Brown, Biological Sciences and Psychology Kristin Baker, Biological Sciences and Chemistry 4-4:15 p.m.

"A Command Performance" Meg Giordano, Philosophy

4:15-4:30 p.m.

"Making Wolves of Men: Thomas Jefferson, Toussaint L'Ouverture, and Slavery" Michael Clark, History

3:30 - 4:30 P.M. POSTER SESSION

"Career Trajectories of Campus Security Officers" Amanda Blake, Criminology

"The Stigma of Eating Disorders: What Roles Do our Beliefs and Attitudes Play?" Christine Hanna, Psychology

"The Effects of Soy Milk Consumption on Blood Glucose and Lipid Levels, and Morris Water Maze Performance in Young Female Rats" Cynthia Dowsland, Biological Sciences

"Are Le Moyne College Sociology Graduates a Microcosm of the Nation's Sociology Graduates?"

Korleen Brady, Hannah Miles and Gabrielle Testani, Sociology

"Do You Know How You Cope? Personality, Leisure Choices, and Coping with Stress" *Marissa Goyden, Psychology*

"Phytoestrogens in Soy Milk: Effects on the Reproductive System, Learning/Memory and Physiology in Young Male Rats"

Patrick Micaroni, Biological Sciences

"The Smell of Food Doesn't Catch the Eye" *Timothy Schreiber, Psychology*

"Studies Toward the Total Synthesis of FK-506" *Matthew Dowgiallo, Chemistry*

ABSTRACTS, FACULTY MENTORS, AND BIOGRAPHIES: STUDENT SCHOLARS RESEARCH AND POSTER PRESENTATIONS

9:15 - 9:30 a.m.

"THE PHYLOGENETIC DIVERSITY AND CLASSIFICATION OF THE GREEN ALGA Botryococcus"

Dana M. Baltrusitis, biological sciences, health professions concentration

Faculty Mentor: Hilary McManus, Ph.D., Department of **Biological Sciences**

Abstract: The freshwater green algal genus botryococcus is commonly used in biofuel production. However, the classification

and diversity of the genus are poorly understood. This study focuses on analyzing genes from the nucleus and chloroplast to clarify the classification and capture the diversity of botryococcus species obtained both from culture collections and field samples.

Bio: Dana Baltrusitis will graduate from Le Moyne with a bachelor's degree in biological sciences. She will continue at St. Joseph's College of Nursing and anticipates graduating in May 2014.



"Molecular and Morphological VARIATION IN SELECTED PEDIASTRUM STRAINS"

Jacqulyn Schaub, biological sciences, and Craig Frysinger, biological sciences

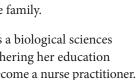
Faculty Mentor: Hilary McManus, Ph.D., Department of **Biological Sciences**

Abstract: The molecular and morphological diversity of the freshwater green algal family Hydrodictyaceae (Class Chlorophy-

ceae) is explored using DNA sequence data and scanning electron microscopy. The DNA sequence data were collected from the nucleus and chloroplast and used to construct a phylogenetic tree to illustrate the species relationships within the family.

Bio: Jacqulyn Schaub is originally from Gilbertsville, N.Y., and is a biological sciences major with a health professions concentration. She plans on furthering her education after earning her bachelor's degree at Le Moyne by training to become a nurse practitioner. Craig Frysinger is from Cicero, N.Y., and has lived in the Syracuse area for his entire life.





He is a junior at Le Moyne and is majoring in biological sciences with a health professions concentration. Craig plans to go to medical school to train to become a physician specializing in cardiology. Jacqulyn and Craig plan to attend the Northeast Algal Society's Conference in Mystic, Conn., in April to present their research.

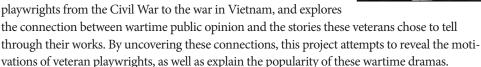
9:45 - 10 a.m..

"Remembering Trauma: Veteran Playwrights from the Civil War to Vietnam"

Tyler Sperrazza, history and theatre arts

Faculty Mentor: Douglas Egerton, Ph.D., Department of History

Abstract: This project explores the impact of plays produced by veterans of America's wars. It traces the tradition of veteran playwrights from the Civil War to the war in Vietnam, and explores



Bio: Tyler Sperrazza is a senior majoring in history and theatre arts. He is a Presidential Scholar and a member of the Integral Honors Program. Tyler plans to pursue a doctorate in American history with a concentration on 19th century American theatre.

10 - 10:15 a.m.

"Transcendental Influence: Margaret Fuller's New Form of Romance"

Samantha Krzyzanowski, English

Faculty Mentor: Jennifer Gurley, Ph.D., Department of English

Abstract: This study compares the letters of Margaret Fuller, an American Transcendentalist, writer, social activist, and woman suffragist whose contemporaries including Ralph Waldo Emerson

nical Romance of 1840, in the w form of literary romance was inspired to rewrite her

and Henry David Thoreau, with Fuller's unfinished *Autobiographical Romance* of 1840, in order to demonstrate how the *Autobiography* fictionalizes the facts that are found in the letters. In doing this, Fuller creates what I would like to call a new form of literary romance that allows her to take control of how she portrays her life. She was inspired to rewrite her past by her involvement in Transcendentalism, a movement that urged people to make sense of their experience on their own terms.

Bio: Samantha is a senior English major and is pursuing a career in high school English education. She has been accepted to the master's program at the University at Buffalo and St. Joseph's University. She has enjoyed all of the research and writing that have come along with this project.

10:15-10:30 a.m.

"THE ISSUES IN OIL SPILL RESPONSE LOGISTICS"

Karissa Goessl, finance and business analytics

Faculty mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: This research is assessing the issues with logistics and supply chains associated with oil spill response plans in the Arctic. Further it will be modeling the current logistics plans and using data to analyze the gaps created by the resources available and the needs that have to be met. The expected contribution of this work is a focused look into the logistics of an oil spill response and what possible methods could be available to close the gaps between needs and resources.

Bio: Karissa is a senior graduating in May with plans to pursue a career in finance and analytics. She would like to thank Dr. Grabowski for giving her the opportunity to participate in her research this semester.

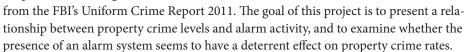
10:30-10:45 a.m.

"ALARM SYSTEMS AS A DETERRENT FOR PROPERTY CRIME"

Kirsten E. Schuler, sociology

Faculty Mentor: Frank Ridzi, Ph.D., Department of Anthropology, Criminology and Sociology

Abstract: This project uses alarm activity data supplied by Rapid Response Monitoring Services and crime level data obtained



Bio: Kirsten is graduating this May with a bachelor's degree in sociology with a concentration in criminal justice. She would like to thank Dr. Ridzi for his time and guidance with completing this project. She would also like to thank Mr. Morgan Hertel, the vice president of operations at Rapid Response Monitoring Services, for providing the alarm data that made this project possible.



10:45-11 a.m.

"Christian Theology and Shamanism from a Perennialist Perspective"

Alexander Shepard, philosophy and religious studies

Faculty Mentor: Mary MacDonald, Ph.D., Department of Religious Studies

Abstract: Using the classification of "The Shaman" provided by Mircea Eliade, Meister Eckhart qualifies as a Shaman. Eckhart



experiences the essential classifications for a Shaman. Eckhart's definition of the "Son of the God" as a station that can be achieved through obliteration of the created nature is parallel to the Shaman's final state of annihilation by the highest power in their pantheon. This paper is a summary of my project presented at the "Psychedemia" conference at the University of Pennsylvania. "Psychedemia" explored the integration of altered states of consciousness into academia and medicine. My research for the conference was conducted over the course of three semesters of independent studies concerning comparative mysticism.

Bio: Alexander is a senior double majoring in religious studies and philosophy. His research was made possible through three independent studies conducted with Dr. MacDonald and the support of the Student Research Committee. After graduation, he plans to pursue a graduate degree in religious studies.

11-11:15 a.m.

"ARE MEN FROM MARS AND WOMEN FROM VENUS? DIFFERENCES IN SEX, GENDER, AND PERCEPTIONS OF ACADEMIC PERFORMANCE" Brianna Vespone, psychology

Faculty Mentor: Monica Sylvia, Ph.D., Department of Psychology

Abstract: We examined the relationship between sex, gender, and academic performance by having participants complete two



BEM sex role inventories: one for themselves and one for a high or low achieving fictional college applicant. More female (sex) and feminine (gender) participants reported GPAs above 3.0. The high-achieving applicant was more likely to be perceived as female. However, participants characterized both applicants as masculine according to the BEM.

Bio: Brianna is a senior psychology major with minors in art and gender and women's studies. She intends to pursue graduate work in counseling psychology. It was her interest in gender studies that inspired this project. She would like to thank the members of her Departmental Honors Committee as well as the Student Research Committee for their support of this project.

11:15-11:30 a.m.

"Straight Edge Commitment Factors and Identity Development"

Mariah S. Senecal, sociology

Faculty Mentor: Frank Ridzi, Ph.D., Department of Sociology

Abstract: "Straight Edge" is a social movement that began in the United States in the 1980s. This paper will identify the aspects of the "Straight Edge" culture that contribute to both commit-



ment to the movement and the aspects that members deem important to their identity as participants in the "Straight Edge" movement. The values are based around the idea of committing to the principles of three "Xs." The first "X" involves abstaining from alcohol, the second abstaining from drugs or any illicit substance (including tobacco), and the third "X" was abstaining from promiscuous sex or sex outside of a committed relationship. This will include identifying the causes and motivations that encourage people to commit to the "Straight Edge" movement and what aspects of the movement are important in relation to a participant's identity formation.

Bio: Mariah will be graduating in May. In June she will be getting married and is very excited. After graduation she plans on attending graduate school for public administration. Eventually she hopes to work on welfare reform and food access inequality issues.

11:30-11:45 a.m.

"Increased Shipping and Navigation Technologies in a Melting Arctic" Katherine O'Neill, psychology

Faculty Mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: When I chose a research topic the first thing that came to mind was shipping and navigation and what was incredibly



interesting was how all this ice melting was affecting the shipping industry and that is increasing the number of ships passing through the Arctic. With the increase in ships passing through this led to a breakthrough in new technologies and new designs for icebreakers, and also shipping competition between countries along the arctic passageways. While looking at all that has been happening we can see that with an increase in shipping there is an increase in industry and shipping technology, and also easier access to the Arctic is opening up, but there is also a complication between decreasing ice sheets (as shown with satellite imaging techniques), and foreign affairs among those trying to get to the Arctic.

Bio: Katherine is a junior at Le Moyne and is studying psychology. After graduation she hopes to go to graduate school to become a guidance counselor.

11:45 a.m.-Noon

"Local Social Problems and the Data That Define Them"

Lindsey Forcione, Sociology

Faculty Mentor: Frank Ridzi, Ph.D., Department of Sociology

Abstract: For this project I attended meetings with community leaders where I recorded what they identify as problems. I also searched to see if data existed to support these claims. For this

anity also this

project I focused on three areas – human services and health, education and the environment; transportation; and planning.

Bio: Lindsey, a senior at Le Moyne, is set to graduate in May of 2013 with a bachelor's degree in sociology with a concentration in human services and a minor in business administration. Lindsey was involved in applied research with both the Imagination Library and Central New York Vitals, and served as a CNY Vitals scholar. During her time as a CNY Vitals scholar, she helped in making data about Onondaga County and surrounding areas widely accessible to the public.

12:30-1:15 p.m.

GUEST SPEAKER

Justin M. Sullivan '12 (theatre arts)

Justin Sullivan is originally from Rochester, N.Y., and graduated from McQuaid Jesuit High School in 2008. Continuing in the Jesuit tradition, Justin became an alumnus of Le Moyne College's Department of Visual and Performing Arts and Integral Honors Program when he graduated in 2012. While at Le Moyne, Justin served the College as a resident advisor, senior intern to the Office of Campus Ministry, and production manager for the W. Carroll Coyne Center for the Performing Arts, among other roles. In his senior year, Justin received funding from the Student Research Committee, enabling him to travel to Los Angeles to conduct vital research on his dramatic and critical work, *The Other Creation*, which he directed and produced in March 2012. Justin currently serves as an assistant residence director at Syracuse University and was recently accepted into the Janklow Arts Leadership master's degree program at S.U. Justin also serves as the founding co-executive producer of the Syracuse Fringe Festival, the first arts festival of its kind in Syracuse.

1:15-1:30 p.m.

"Tipping the Scales: an Economic Approach to Exercise Motivation"

Peter Wagner, economics

Faculty Mentor: Wayne Grove, Ph.D., Department of Economics



Abstract: When it comes to exercise, people exhibit time-inconsistent preferences. In the present period, individuals fail to exercise because the immediate benefits of exercise are small relative to the costs. In a future time period, these same individuals wish they had exercised in the previous period for the overwhelming number of health and aesthetic benefits forgone. Can immediate monetary incentives be used to tip the scales in favor of exercise?

Bio: Peter will be graduating in May and plans to pursue a doctorate in economics. He would like to thank Dr. Grove for all his guidance over the past four years and for the crucial role he played in shaping this project.

1:30-1:45 p.m.

"The Genetic Structure of Valvata Tricarinata and Promenetus exacuous Populations in New York State"

Sean Lindley, biological sciences

Faculty Mentor: Devon Keeney, Ph.D., Department of Biological Sciences

Abstract: The genetic structures of two freshwater snail species found throughout New York state, *valvata tricarinata* and *promenetus exacuous*, were investigated. To do this, particular



nuclear genes were tested for variation and then sequenced so that the DNA could be compared among individuals of the same species belonging to different populations in New York. The resulting comparisons can help visualize the genetic relatedness of different populations to one another, shedding light on how the natural landscape, humans, and other animals have shaped these two species' evolution.

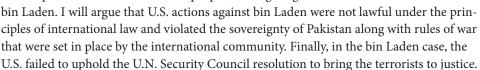
Bio: Sean is a senior who will be receiving a bachelor's degree in biological sciences with a minor in chemistry. In the fall, he will be continuing his studies in a doctoral program in biology. He would like to thank Dr. Keeney and the faculty members of the Department of Biological Sciences at Le Moyne for their tremendous support and guidance.

1:45-2 p.m.

"International Law and the U.S. Action Against Osama bin Laden and Pakistan" Sebastian Hoyos-Torres, criminology

Faculty Mentor: Delia Popescu, Ph.D., Department of Political Science

Abstract: This project explores the legality of the U.S. special forces operation in Pakistan for the purpose of targeting Osama



Bio: Sebastian Hoyos-Torres is a criminology major with a concentration in research. He is interested in examining how legal structures interact with society. He is also interested in researching whether or not anything can be done to improve these structures in order to benefit society.

2-2:15 p.m.

"Wireless Power Transmission: Examining Patent 645,576"

Erin Marshall, physics

Faculty mentor: David Craig, Ph.D., Department of Chemistry and Physics

Abstract: Nikola Tesla, the developer of alternating current, filed a patent in 1897 for a system of transmission of wireless

energy between two devices similar to Tesla coils. A contemporary adaptation of the apparatus was replicated for experimentation. Qualitative and quantitative measurements were taken on the system in order to determine how well and under what conditions it operated. Slightly different configurations of the device were tested. Claims that had been made about the device were evaluated as well. Finally, a few theoretical models for the mechanism by which the apparatus functions were examined.

Bio: Erin is graduating with a bachelor's degree in physics this May. Next year, she plans to attend graduate school to obtain her doctorate in physics. Erin would like to thank Dr. Craig, Dr. Kyrkos and Dr. Minor for the support and education they have given her during her time at Le Moyne.



2:15-2:30 p.m.

"An Investigation into Microsatellite Loci of Halipegus Occidualis"

Nicholas Cutter, biological sciences

Faculty Mentor: Devon Keeney, Ph.D., Department of Biological Sciences

Abstract: This research attempts to develop and optimize microsatellite genetic markers for the parasite *halipegus occidualis*,



a species of trematode, which infects frogs in North America. The project's main goal is to test the feasibility of a cost effective, single fluorescent primer technique for microsatellite loci examination. The microsatellites will be useful for investigating the genetic structure of *halipegus occidualis*.

Bio: Nicholas is in the class of 2013 and is pursuing a bachelor's degree in biological sciences. His goal is to eventually pursue a doctorate in the field.

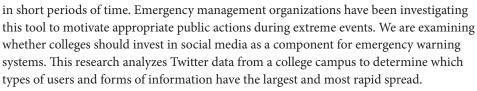
2:30-2:45 p.m.

"Measuring Twitter User Influence during Extreme Events on College and University Campuses"

Nour El-Houda Sahraoui, biological sciences

Faculty Mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: Social media has the ability to access large populations



Bio: Nour is a senior biological sciences major in the Integral Honors Program. After graduation, she will attend the College of Medicine at SUNY Upstate Medical University. Nour would like to thank Dr. Grabowski for the opportunity to serve as a McDevitt Scholar in Information Systems.



2:45-3 p.m.

"Climate Change and its Impact on the Survival of Indigenous Peoples"

Manuel Sande Nyagisere, physics

Faculty Mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: Evidence shows that the Arctic region is undergoing heavy changes in climate. For the indigenous people living in this territory, adapting to these changes and to the evolving Arctic landscape has required the facilities of a traditional knowledge of the Arctic region, strong social networks, flexibilities in resource use, and an institutional support. Upon these conveniences, aboriginal communities have long shown good adaptive capacities. A changing livelihood of the arctic native people has nonetheless come to constrain their total adaptive capacity while introducing them to new vulnerabilities. This paper will use a vulnerability framework to review the factors constraining the aboriginal peoples' adaptive capacity, and work at increasing sensitivity to climate change. A case study of two Inuit communities in Northern Canada shall be considered, and vulnerability distinguished by resource harvesting. Trends and census data will be used to show how changing lifestyles has impacted the size of indigenous populations.

Bio: Manuel is from Nairobi, Kenya, and is now a sophomore at Le Moyne. He first learned about Le Moyne from family friends, and he has found the College to be an exciting place to make friends and to hear views that are different from his own. In the end, he hopes that his Le Moyne experience will help him decide between a career in academic research or professional engineering.

3-3:15 p.m.

"JOHN MUIR: THE LITERARY FIGURE" Brandon Sisson, English and theatre arts

Faculty Mentor: Jennifer Gurley, Ph.D., Department of English

Abstract: John Muir is often considered the most important botanist and environmentalist in recent history. However, his contributions to literature should also be seen as vitally important. Though Muir is not often known for his literature, it was



this genre in his writing that paved the way for the National Parks Movement and the conservation of many of America's greatest landmarks.

Bio: Brandon has been studying John Muir for this independent research project for just over a year now, but he has always had a love for Muir's work. He wants to especially thank Dr. Jennifer Gurley for her endless support, direction and encouragement throughout this process. He also would like to thank the Le Moyne Student Research Committee for its support, Trish Richards at the University of the Pacific for her dedicated help, and McKenzie Aviza for always being his sounding board for ideas.

3:15-3:30 p.m.

"The Development of Market Growth FROM THE INTEGRATION OF AUTONOMOUS ROBOTIC VEHICLES IN THE ARCTIC REGION"

Alexander Constantino, finance and information systems

Faculty Mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: With the evolution of technology mixed with increased

interest in remote settings such as the Arctic, a demand for continued innovation, increased funding, and room for market growth has created demands for constant improvement and efficiency. Autonomous Underwater Vehicles (A.U.V.s) and remotely operated vehicles (R.O.V.s) are now used at an incredible growing rate for data collection, surveying and monitoring. This project looked into what sectors are using these tools as well as the costs, the technology trends, and the future growth of the ROV and AUV market.

Bio: Alex is a junior at Le Moyne from Boston. He will start school at Syracuse University's iSchool in the fall while completing his work at Le Moyne. He would like to thank Dr. Grabowski for everything she has taught him.

3:30-3:45 p.m.

"ARCTIC OIL SPILL RESPONSE: DATA COLLECTION IN THE ARCTIC SPECIFIC TO ARCTIC BIRD SPECIES (A LITERATURE Review)"

Patrick Curtin, biological sciences

Faculty Mentor: Martha Grabowski, Ph.D., Department of Information Systems

Abstract: For my Independent Study research this semester I will be completing a literature review, data collection, methodology, and data analysis on the topic of Natural Resource Damage Assessment on Arctic bird populations. My paper will explore current data collection methods, population trends, and ways to improve the minimal baseline data previously collected.

Bio: Patrick is a sophomore at Le Moyne studying biological sciences. Upon graduation in the spring of 2015, he hopes to attend SUNY Upstate Medical University. He would like to thank Dr. Grabowski and the faculty of the Madden School of Business for this great opportunity as well as the National Academies of Science for funding the project.



3:45-4 p.m.

"Orthoptera in the Ecuadorian Rainforest"

Ashley Brown and Kristin Baker, biological sciences

Faculty Mentor: Sherilyn Smith, Ph.D., Department of Biological Sciences

Abstract: Orthopteran specimens collected from the rainforest canopy near Tiputini, Ecuador, have been analyzed. Ashley Brown and Kristin Baker have identified the specimens into six



families: Gryllidae, Tettigoniidae, Acrididae, Gryllacrididae, Eumastacidae, and Tetrigidae. Of the 2,992 specimens identified, 42 percent are Gryllids, 25 percent are Tettigoniids, 17 percent are Acridids, 6 percent are Gryllacridids, 8 percent are Eumastacids, 1 percent are Tetrigids and 1 percent are unknown. Results will provide insight about the diversity of the Ecuadorian rainforest insect community.

Bio: Ashley is a junior biological sciences major. Ashley plans to continue research up until graduation. Kristin Baker is a senior biological sciences major. Kristin will continue her education after graduation at St. George's Medical school in Grenada. Both Ashley and Kristin would like to thank Dr. Sherilyn Smith and the faculty of the Department of Biological Sciences for allowing them to conduct their research.

4-4:15 p.m.

"A COMMAND PERFORMANCE"

Meg Giordano, philosophy

Faculty Mentor: Mario Sáenz, Ph.D., Department of Philosophy

Abstract: "A Command Performance" is a paper that was accepted for presentation at a philosophy conference held at William Paterson University, in Wayne, N.J., in November 2012. It concerns the logical strength of ethical systems and the role that assumptions play in ethics.

Bio: Meg is a senior at Le Moyne. She is looking to continue her studies in graduate school, either in philosophy or a blend of philosophy and theology, with the goal of teaching at the college level.

4:15-4:30 p.m.

"Making Wolves of Men: Thomas Jefferson, Toussaint L'Ouverture, and Slavery"

Michael Clark, history

Faculty Mentors: Douglas Egerton, Ph.D. and Leigh Fought, Ph.D., Department of History



Abstract: Toussaint L'Ouverture scared Thomas Jefferson to no end. The fact that a black former slave could not only lead a successful revolution against his white former owners, but also then lead the newly-sovereign nation as a political leader, directly challenged everything Jefferson had stood for and believed when it came to "The Peculiar Institution." The way in which Jefferson chose to deal with Haiti and L'Ouverture is one of the most telling pieces in finding the true man Jefferson was when it came to slavery.

Bio: Michael is a senior history major at Le Moyne from Herkimer, N.Y. His future research will be largely focused on slavery and race in early America. He will be going on to graduate school for education next year.

3:30-4:30 p.m.

POSTER SESSION

"Career Trajectories of Campus Security Officers"

Amanda Blake, criminology

Faculty Mentor: Frank Ridzi, Ph.D., Department of Anthropology, Criminology and Sociology

Abstract: This project involves finding common themes among the campus security officers at Le Moyne College that would



lead them to choose such a career. Security officers from the Le Moyne College Security Office participated in open-ended interviews, answering questions while the researcher took notes. These notes were then analyzed for common themes found among the officers' responses. The research concluded that a variety of factors are important in the decision to become and remain a Le Moyne security officer, but that no single factor appears to be the sole reason. Instead, it is a combination of the factors that lead the participants to their career in campus security

Bio: Amanda is a senior majoring in criminology with a minor in psychology. She intends to pursue a master's degree in forensic psychology beginning in the coming fall. Amanda would like to thank Dr. Ridzi for supporting her and guiding her through the project, and also the Le Moyne Campus Security officers for their cooperation.

"THE STIGMA OF EATING DISORDERS: WHAT ROLES DO OUR BELIEFS AND ATTITUDES PLAY?"

Christine Hanna, psychology

Faculty Mentors: Brenda Kirby, Ph.D., Department of Psychology, Christina Michaelson, Ph.D., Department of Psychology, and Anne Kearney, Wellness Center for Health and Counseling

Abstract: The study examines how causal beliefs and level of personal contact affect attitudes toward individuals with the eating disorder (E.D.) subtypes of anorexia nervosa (A.N.) and binge-eating disorder (B.E.D.). These subtypes were specifically chosen in order to further explore the differences in attitudes between a weight-loss E.D. (A.N.) and a weight-gain E.D. (B.E.D.).

Bio: Christine is a psychology major graduating in the fall of 2013. After graduation, she plans to go on to graduate school for clinical psychology.

"THE EFFECTS OF SOY MILK CONSUMPTION ON BLOOD GLUCOSE AND LIPID LEVELS, AND MORRIS WATER MAZE PERFORMANCE IN YOUNG FEMALE RATS"

Cynthia Dowsland, biological sciences

Faculty Mentor: Beth Pritts, D.P.M., Ph.D., Department of Biological Sciences

Abstract: Many claim soy products reduce the risk of osteoporosis and cancer, and improve memory. Soy contains phytoestrogens that mimic estrogen; thus soy may have a range of mammalian physiological effects. To investigate the validity of these claims, Morris water maze trials and serum glucose and lipid levels will be determined in young female rats following a three-week consumption of soy milk. Male rats may respond differently, so these findings will be compared to Patrick Micaroni's ('12) results using male rats.

Bio: Cynthia is a senior biological sciences major with a minor in anthropology. She will be attending the University at Buffalo School of Dental Medicine beginning in fall 2013.



"Are Le Moyne College Sociology Graduates a Microcosm of the Nation's Sociology Graduates?"

Korleen Brady, Hannah Miles, and Gabrielle Testani, sociology

Faculty Mentor: Frank Ridzi, Ph.D., Department of Anthropology, Criminology and Sociology

Abstract: We will report on a survey conducted by the Sociology Club at Le Moyne College that explored the career experiences of sociology graduates. The survey will be sent to approximately 600 alumni from the years 1998 to 2012 with bachelor's degrees in sociology from Le Moyne. Degrees in sociology include various concentrations such as childhood education, human services, criminology, anthropology, and research and theory. We will be comparing Le Moyne College graduates to the national population of Sociology graduates, as represented in the American Sociological Association's review of those with bachelor's degrees in sociology. In particular, we will be exploring the types of jobs they receive, the salary range of alumni in comparison to years since graduation, and the type of work they do in a typical day. We will especially focus on whether or not they feel they are making a difference in the world.

Bios: Korleen is a sociology major with a concentration in childhood and special education. She is the secretary of the Sociology Club, vice president of the Le Moyne chapter of Amnesty International, and a resident advisor on campus. After graduation, Korleen plans to teach elementary school.

Hannah is a junior majoring in sociology with a concentration in human services and a minor in Spanish. Hannah is currently the president of the Sociology Club, junior class representative of the Le Moyne Student Programming Board, student affairs chair for the Student Government Association, and an active member of the Big Brothers Big Sisters Program at Le Moyne Elementary School. Upon graduating from Le Moyne in May 2014, Hannah would like to pursue a career in social work.

Gabrielle is a junior sociology major with a concentration in criminology. Gabrielle is currently the vice president of the Sociology Club and an active member of the Big Brother Big Sister program on Le Moyne's campus. Upon graduating from Le Moyne in May 2014, Gabrielle would like to pursue a career in social work.





"Do You Know How You Cope? Personality, Leisure Choices, and Coping with Stress"

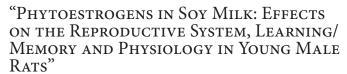
Marissa Goyden, psychology

Faculty Mentors: Brenda J. Kirby, Ph.D., Monica Sylvia, Ph.D. and Shawn Ward, Ph.D., Department of Psychology

Abstract: We examined how personality affects coping and leisure choices, beliefs about those choices, and actual strate-

gies used with a focus on developing personality-targeted interventions for stress coping. Situational context is important and claims of coping choices do not match actual coping strategies. Greater awareness may lead to better situation-specific choices.

Bio: Marissa is a senior psychology major. She plans to pursue a graduate degree in psychology after graduating from Le Moyne in May.



Patrick Micaroni, biological sciences

Faculty Mentor: Beth Pritts, D.P.M., Ph.D., Department of Biological Sciences



Abstract: This research studied effects of soy phytoestrogens, reportedly responsible for a range of health benefits, in young male rats via soy milk administration for a three week period. Soymilk's effects in young male rats are being examined using the Morris water maze, laboratory assays of blood samples, and determination of protein content in organs. As genders may respond differently to soy exposure, these findings will be compared with Cynthia Dowsland's ('12) results using young female rats.

Bio: Patrick is a senior biological sciences major with minors in chemistry and psychology who will be attending dental school next fall at the University at Buffalo School of Dental Medicine. He would like to thank his research mentor, Dr. Pritts, for her support, knowledge, expertise and enthusiasm for this research. He would also like to thank the Student Research Committee, Institutional Animal Care and Use Committee, and the faculty members of the Department of Biological Sciences for their support.

"THE SMELL OF FOOD DOESN'T CATCH THE EYE"

Timothy Schreiber, psychology

Faculty Mentor: Theresa White, Ph.D., Department of Psychology

Abstract: Visual task performance is affected differentially based on exogenous attentional demands from trigeminal odorants. To test other exogenous effects of odorants, hungry undergraduates



completed a visual search task in the presence of an odor (popcorn, jasmine, or unscented). Reaction times did not differ between odor groups, but perception of intensity of the food odor was enhanced. This suggests that although the food odor's reward value was altered, it still did not affect visual attention.

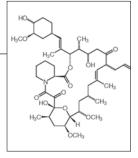
Bio: Timothy graduated with a bachelor's degree in psychology in December. He thanks his faculty mentor, Dr. White, the Le Moyne Institutional Research Board, the Student Research Committee, and all of his volunteers.

"Studies Toward the Total Synthesis of FK-506"

Matthew Dowgiallo, chemistry

Faculty Mentor: Michael Masingale, Ph.D., Department of Chemistry

Abstract: FK-506 is a macrocyclic lactone that exhibits immunosuppressive activity and typically is utilized as an immunosuppressant following an organ transplant in order to lower the



risk of organ rejection. While FK-506 has been synthesized by multiple organic groups, the Boeckman group is working toward a novel synthesis. The proposed synthesis opens the door to functional variation at the allylic position that can be screened for decreased toxicity of the pharamceutical.

Bio: Matthew plans to work as an intern at Vertex Pharmaceuticals upon graduation in May of 2013. He would like to thank the chemistry faculty at Le Moyne and the University of Rochester in contributing to his continued interest in chemistry research.

MISSION STATEMENT

Le Moyne College is a diverse learning community that strives for academic excellence in the Catholic and Jesuit tradition through its comprehensive programs rooted in the liberal arts and sciences. Its emphasis is on education of the whole person and on the search for meaning and value as integral parts of the intellectual life. Le Moyne College seeks to prepare its members for leadership and service in their personal and professional lives to promote a more just society.



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