TENTH ANNUAL

CELEBRATION OF SCHOLARSHIP

THURSDAY, APRIL 21, 2022

JOURNEYS IN SCHOLARSHIP

KEYNOTE ADDRESS

A Journey of Scholarship: Advancing Research Through Knowledge and Association

delivered by

Dr. Thomas L. Lynch, IV '11

Senior Scientist, AbbVie Pharmaceutical Research & Development
### PROGRAM

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TIME</th>
<th>LOCATION</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLENARY SESSION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Plenary Session                  | 11am-12pm | Lewis Fieldhouse    | **“The Journey of Scholarship: Advancing Research Through Knowledge and Association”**  
Keynote delivered by Dr. Thomas L. Lynch IV, Senior Scientist, AbbVie Pharmaceutical Research & Development, alumnus of Lewis University (Biology, 2011). |
| **CONCURRENT SESSIONS**         |           |                     |                                                                                                                                        |
| Session I                        | 1-1:45pm  | Academic Building   | Student(s) with Faculty Mentor(s) and/or Faculty selected through review of submitted applications; invited presentations by Caterpillar Scholars and of Doherty Center and Lasallian Research grants. |
| Session II                       | 2-3pm     |                     |                                                                                                                                        |
| Session III                      | 3:15-4:15pm |                     |                                                                                                                                        |
| Session IV                       | 4:30-5:30pm |                    |                                                                                                                                        |
| **BUSINESS PLAN & PITCH COMPETITION** | 2-4:30pm | Convocation Hall (St. Charles Borromeo) | Student projects, as overseen by the Stahl Center. |
| **POSTER PRESENTATIONS**        |           |                     |                                                                                                                                        |
| Group A Presenters               | 2-3pm     | Lewis Fieldhouse    | Student(s) with Faculty Mentor(s) and/or Faculty selected through review of submitted applications.                                    |
| Group B Presenters               | 3:15-4:15pm |                   |                                                                                                                                        |
| Group C Presenters               | 4:30-5:30pm |                   |                                                                                                                                        |
| **CREATIVE WORKS**              |           |                     |                                                                                                                                        |
| President’s Art Exhibition       | 12:30-5:30pm | Art Gallery       | Student work, mentored by Faculty, selected through review of submitted applications                                                   |
| Gallery Talk                     | 2-3pm     |                     |                                                                                                                                        |
| **PRESIDENT’S RECEPTION**       | 5:30-6pm  | Lewis Fieldhouse    | By invitation: (a) all student presenters with their faculty mentors; (b) moderators, judges and other event volunteers.               |
| **AWARDS PROGRAM**              | 6-6:30pm  |                     |                                                                                                                                        |
Lewis University is proud to sponsor the Tenth Annual Celebration of Scholarship. Providing an opportunity for the University to showcase the scholarly and artistic work of its graduate students, undergraduate students, and faculty, this annual scholarly event is co-sponsored by the Culture of Inquiry Coordinating Committee; the School of Graduate, Professional, and Continuing Education; the Colonel Stephen W. and Lyla Doherty Center for Aviation and Health Research; the Lowell Stahl Center for Entrepreneurship and Real Estate Studies; the History Center: Urban, Cultural and Catholic History of the Upper Midwest; the Center for Ministry and Spirituality; the University Faculty Development Committee; and the Scholars Academy.

The theme for this year’s Celebration of Scholarship, Journeys in Scholarship, reflects an ongoing opportunity for members of the Lewis University community to search for the intersection of meaning and purpose with their academic pursuits. Through concurrent, poster, creative works and business plan and pitch presentations, students and faculty from across the University will have the opportunity to share their scholarship, celebrate a milestone in their academic experience, and consider paths that remain to be explored.

The Lewis University Celebration of Scholarship will present scholarly work in the following formats throughout the afternoon.

**CONCURRENT SESSIONS**
Students and faculty will give a 15-minute presentation on a research topic or paper they have written, unless otherwise noted as a panel discussion. Concurrent sessions will be scheduled in the Academic Building from 1-5:30 PM.

**POSTER SESSIONS**
Research posters will feature the results of research projects, internships and class presentations. Posters will be displayed in the Fieldhouse from 2-5:30 PM with the authors present at times as designated in this program.

**CREATIVE WORKS**
These include any piece that has been written, published and produced in a fine arts field, including: music, art, theatre, literary reading, poetry, etc. Art exhibits will be displayed from 12:30-5:30 PM in the Art Gallery. A Gallery Talk, representing winners from the President’s Art Exhibition, will take place from 2-3 PM.

**BR. JOEL DAMIAN, FSC, BUSINESS PLAN AND PITCH COMPETITION**
The Br. Joel Damian, FSC, Business Plan and Pitch Competition, hosted by the Lowell Stahl Center for Entrepreneurship and the College of Business, encourages entrepreneurship among students throughout the Lewis community. The College of Business recognizes that potentially successful business ideas can come from a wide range of disciplines and may originate from an individual or a group of individuals. Projects will be presented from 2-4:30 PM in St. Charles Borromeo Convocation Hall.

**2022 CELEBRATION OF SCHOLARSHIP CORPORATE AWARDS SPONSOR**

[Image of Schulze & Burch Biscuit]
Dear Colleagues,

It is my privilege to welcome everyone to the 10th Annual Celebration of Scholarship. I am pleased to be part of this important celebration that recognizes the scholarly accomplishments of the undergraduate students, graduate students, and faculty members of Lewis University. This year’s theme is *Journeys in Scholarship*.

This past year has been a very challenging journey for all of our students. It has posed some unique problems for our students involved in research as they have been working with their respective faculty mentors to investigate, create and present the new ideas and knowledge that you will experience as part of this year’s Celebration of Scholarship. This year’s Celebration will include 50 concurrent sessions, 60 poster presentations, and 8 business competitions. Additionally, artwork from the President’s 14th Annual Art Competition will be on display and the winners will participate in an afternoon gallery talk. Nearly 200 students will be participating in this year’s Celebration and all five Colleges of the University will be represented.

The Plenary Session will feature keynote speaker, Dr. Thomas L. Lynch IV, an alum of Lewis University. Dr. Lynch is a Senior Scientist I at AbbVie, a biopharmaceutical company. Dr. Lynch’s talk is entitled “A Journey of Scholarship: Advancing Research Through Knowledge and Association.” Following his remarks there will be multiple sessions, posters, displays and presentations. To conclude today’s events, there will be a reception starting at 5:30 PM followed by an Award Ceremony which will take place at 6 PM. At the awards ceremony, the winners of today’s poster and concurrent session presentations will be announced, and one student project will be recognized as the winner of the Dr. Stephany Schlachter Excellence in Undergraduate Scholarship Award, which provides a $2,000 scholarship to a student who performs and presents outstanding research.

This day is possible because of the commitment of many faculty and staff. Thank you to the Office of Graduate Studies, the coordinating committee, the subcommittees and the many volunteers who give their time to make this event a success. And special recognition and gratitude to co-chairs Dr. Marie Meyer, Assistant Professor of Mathematics, and Dr. Matthew Domico, Assistant Professor of Psychology.

Faculty and student research, scholarly pursuit and creative works are fundamental to the life of the University. It is with great pride we celebrate the work that has been done and with great hope we look to the future to see these efforts continued.

Enjoy this Celebration of Scholarship and blessings to all.

David J. Livingston, Ph.D.
President
Dear Colleagues:

I’m pleased to introduce Lewis University’s 10th Annual Celebration of Scholarship, which highlights the research, scholarship and creative accomplishments of our students and faculty.

The Celebration brings to life our Mission values of knowledge, wisdom, justice, fidelity and association. In concert with our Mission values, we highly value academic excellence grounded in research, scholarship and creative activity that responds to the needs of society, along with a transformative student experience that emphasizes impact and experiential learning. The Celebration embodies this vision in inspiring and meaningful ways.

This year’s Celebration returns to its traditional format, and looks forward in every other way, offering a new location, some new presentation formats, and of course, the innovative and original ideas of our students. Through this transition online and back over the past two years, our faculty and students have gone to incredible effort to celebrate and engage with each other in multiple ways, maintaining the health and safety of our community while also revealing the extraordinary accomplishments of our students. I’m delighted that we will continue many of the traditions, including the Dr. Stephany Schlachter Excellence in Undergraduate Scholarship Award, honoring our former provost who supported the Celebration in countless ways as it came to life during her tenure. Four finalists for the award will be named in the Celebration’s program, and one project will receive a $2,000 award.

I’m also very pleased to welcome our keynote speaker for this event, Thomas L. Lynch IV, Ph.D., Senior Scientist at AbbVie Pharmaceutical Research & Development and biology alumnus from 2011, whose talk entitled “The Journey of Scholarship: Advancing Research Through Knowledge and Association,” promises to both inspire and ground us in the values that underpin our research and scholarship.

I am grateful for all those who have worked diligently to make this Celebration a reality and a success this year. Thank you to the many faculty and staff who serve on the Celebration of Scholarship Coordinating Committee, various sub-committees, and in other volunteer capacities. A special thanks to co-chairs Dr. Matthew Domico, Assistant Professor of Psychology, and Dr. Marie Meyer, Assistant Professor of Mathematics.

The spirit of association permeates this day and speaks to our commitment to academic excellence, collaboration, and community.

Sincerely,

Dr. Christopher Sindt
Provost
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Title/Role</th>
</tr>
</thead>
</table>
| 11 AM – NOON | WELCOME                        | Dr. William Chura  
Associate Provost for Research and Faculty Development                           |
|              | OPENING PRAYER                 | Brother Tom DuPré, FSC  
Associate Professor, Mathematics                                                    |
|              | OPENING REMARKS                | Dr. David Livingston  
President, Lewis University                                                          |
|              | KEYNOTE ADDRESS                | Thomas L. Lynch IV, Ph.D.  
Senior Scientist I, Drug Metabolism and Disposition,  
Drug Metabolism and Pharmacokinetics – Bioanalysis, AbbVie |
|              | AUDIENCE QUESTIONS             | Facilitated by  
Dr. Matthew Domico  
Assistant Professor, Psychology;  
Co-Chair, 2022 Celebration of Scholarship                          |
|              |                                | Dr. Marie Meyer  
Assistant Professor, Mathematics;  
Co-Chair, 2022 Celebration of Scholarship                                         |
|              | CLOSING REMARKS                | Dr. Chris Sindt  
Provost, Lewis University                                                           |
THOMAS L. LYNCH IV, Ph.D.

Senior Scientist I, Drug Metabolism and Disposition, Drug Metabolism and Pharmacokinetics – Bioanalysis, AbbVie

Dr. Thomas Lynch is a Senior Scientist I at the biopharmaceutical company, AbbVie, in North Chicago, Illinois. Dr. Lynch earned his Ph.D. in Molecular Pharmacology and Therapeutics from Loyola University Chicago in 2016. His graduate research focused on cardiovascular physiology, in vivo genetic models of hypertrophic and dilated cardiomyopathy, and cardiac muscle mechanics experimentation. Dr. Lynch then conducted a one-year specialized postdoctoral fellowship at the University of Wisconsin-Madison to further develop his knowledge and skills in muscle mechanics experimentation as it related to heart disease. Afterwards, he took a role as a Research Fellow at Loyola University Chicago investigating mesenchymal stem cell-derived exosomal miRNA as a therapy for the treatment of heart attack. In January 2019, Dr. Lynch joined as a Postdoctoral Fellow at AbbVie in the Drug Metabolism and Pharmacokinetics – Bioanalysis department performing studies to support the development of antibody drug conjugate, PROTAC and small molecule therapies for cancer. In January 2020, he transitioned into his present role as a Senior Scientist I in the Drug Metabolism and Disposition group at AbbVie in which he performs metabolite identification studies using mass spectrometry to support the preclinical and clinical development of AbbVie’s small molecule therapies. Currently, Dr. Lynch attends the University of Illinois Urbana-Champaign online where he is slated to complete his MBA in May 2023 with concentrations in Global Challenges in Business and Entrepreneurship and Strategic Innovation.

Dr. Lynch has published several lead author primary research articles in various scientific journals including JMCC, AJP Heart, Cardiovascular Research, Science Translational Medicine, JACC, JAHA, among others. Scientific research and discovery remain one of his life passions as well as assisting undergraduate and graduate students and postdocs with their transition into the next stage of their careers having served as an industry career panelist at Loyola University Chicago, UIC, Northwestern University, and at the hardtech and manufacturing innovation center, mHub, in Chicago.

Dr. Lynch is native to the Chicagoland suburbs and received his Bachelor of Science in Biology in 2011 from Lewis University, where he performed undergraduate research under the mentorship of Dr. Jerry Kavouras studying coliform bacteria at local recreational sites. During his time at Lewis, Dr. Lynch was an active member of the community serving as an Orientation Group Leader for Lewis’ Student Orientation Advising and Registration (SOAR) program for two summers and attended Koinonia. He was also a student worker in the Office of the Provost for all four years that he attended Lewis and participated in the Beta Beta Beta Biology Honor Society. Dr. Lynch received several honors at Lewis, including selection onto the Dean’s List for 8 semesters, a Senior Award in the College of Arts & Sciences, and the invitation to give the Student Lasallian Speaker address at Lewis’ Spring 2011 Commencement.
Undergraduate Student Project in Humanities

AS-106-A
Moderator: Mardy Philippian

1646 Shakespeare Studies: Early Modern Self in Shakespeare’s Hamlet & Twelfth Night

In Shakespeare's Hamlet and Twelfth Night, the use of a character’s internal and external self exemplifies the ways in which society influences identity. As early modern subjectivity combined with these ideals, it manifests itself in both of Shakespeare’s plays as a way to critique identity and gender.

Cassidy Fontaine-Warunek
Mentor: Dr. Mardy Philippian

1675 Shakespeare Studies: [Shakespeare and the Self: How Early Modern Context Shapes Henry IV Part I]

Using early modern subjective theory, my essay explores the battle between the inward and outward selves of the character of Hal from William Shakespeare’s Henry IV Part I.

Amy Lilek
Mentor: Dr. Mardy Philippian

1703 The Question of Self and Shakespeare's Answer

This piece will be exploring the question of self, it’s definition, and how Shakespeare tackles this question through his plays. In each of the 5 plays I analyze how he interprets the question, the inner vs outer self, and if such a thing exists at all.

Brandon Peck
Mentor: Dr. Mardy Philippian

1707 Shakespeare Studies: Can You See The Real Me Now?: A Study of Identity in A Midsummer Night’s Dream

Undergraduate Student Project in Humanities

This project aims to investigate questions regarding identity and the true self when looking at William Shakespeare’s A Midsummer Night’s Dream. Expectations of the 17th century placed limitations on freedom of expression; however, Shakespeare’s clever usage of the woods for the scenic background of the majority of the play allows the characters to release the pressures of society and express their truest desires.

Julia Egizio
Mentor: Dr. Mardy Philippian

1580 Rotator Cuff Disease: The Most Effective Road to Recovery

Undergraduate Student Project in Math & Science

In my project I am observing the different types of rotator cuff tears based on thickness. Taking that into consideration I am researching all of the possible treatment options, whether they are surgically invasive or not, and comparing them to determine which is more beneficial.

Madeline Scherf
Mentor: Dr. Jennifer Roberts

1593 Dietary Supplementation Can Reduce Cognitive Impairment in Alzheimer Patients

Undergraduate Student Project in Math & Science

Alzheimer’s disease is a neurodegenerative disorder that results in cognitive decline. Brain atrophy or the loss of neurons is associated with cognitive decline in Alzheimer’s patients. Research shows high levels of plasma homocysteine may cause brain atrophy. When taken together, omega 3 fatty acids and B vitamin supplementation can reduce elevated homocysteine levels and reduce potential brain atrophy in Alzheimer’s patients.

Lilia Vargeese
Mentor: Dr. Jennifer Roberts

1674 Heterogeneous Catalysis using MOF-Enzyme Biocatalysts

Graduate Student Project in Math & Science

This talk will focus on developing Bio-Catalysts that utilize Metal Organic Frameworks.

Mahnaz Gohari
Mentor: Dr. Daniel Kissel
Autumn Crisafulli  
Mentor: Dr. Joseph Kozminski  

AS-157-A  
Moderator: Therese Jones  

1546 Southwest Suburban Immigrant Project  
Undergraduate Student Project in Humanities  
Professional Writing students engaged with their community by partnering with a local organization, Southwest Suburban Immigrant Project, an immigrant rights nonprofit, and offered recommendations on how to improve their volunteer and donation outreach, and social media presence. The group gave recommendations and created documents for SSIP including promotional materials and social media content. The students were taught the importance of writing, collaboration, and how professional writing can be a great tool for community empowerment.  
Melissa Vicente, Christian Mietus, Jennings Morgan  
Mentor: Dr. Jennifer Consilio

AS-158-A  
Moderator: Dr. Jordan Canzonetta  

1626 Further Inclusion of LGBT History in Schools Effects on Students Emotionally and Socially  
Undergraduate Student Project in Humanities  
Utilizing knowledge gained from other minority groups, the research study investigated the current status of LGBT History in education and its effects on students’ feelings and the scholarly environment. The online survey questioned 53 participants about their level of exposure to LGBT History in a school environment beforehand, their knowledge of important LGBT historical events, and the overall social climate of their school regarding the queer community. The researcher concluded that more LGBT historical education needed to be taught in schools, and that more research needed to be conducted on the subject.  
Sage Hills  
Mentor: Dr. Jordan Canzonetta

SESSION II  
2–3PM  

AS-106-A  
Moderator: Michele Ryan  

1572 Analyzing the Impact of the Metaverse, Cryptocurrency, NFTs, and Blockchain Technology  
Graduate Student Project in Math & Science  
As developing technologies, the Metaverse, NFTs, cryptocurrency, and blockchains are already having a noticeable impact on the world, this paper aims to explore the scope of their current and future impact as well as a few of the governance and standardization issues they present.  
Richard Goluszka  
Mentor: Dr. Rami Khasawneh

AS-150-A  
Moderator: Jennifer Roberts  

1594 The Microbiome in Relation to Autism and Possible Treatments  
Undergraduate Student Project in Math & Science  
Autism Spectrum Disorder (ASD) is a developmental disability that affects the brain and can cause disruption in emotional communication, social interaction, and learning abilities. While there are interventions that can assist patient functionality, there is no cure for autism. According to the Center for Disease Control by 2021 the incidence of autism had risen
to a rate of 1 in every 44 children. Research has been conducted on methods to treat patients who have this disease. Diet can play a role in a person’s microbiome diversity, which in return affects overall well-being. Research supports evidence of nutritional and small intestine microbial abnormalities like increased gut permeability in patients affected with autism. The gut-brain axis theory states that the brain and gut communicate and influence each other. Autistic patients have been shown to have an unbalanced microbiome that could play a role with known psychological symptoms (Hsiao, 2013). Recent research showed that balancing the microbiome could help alleviate GI and behavioral symptoms. The microbiome can be influenced through diet and microbial transfer therapy that in return diversifies the microbiome (Kang, 2019). Due to increased research, the microbiome might be a viable, important avenue for, long term treatment of patients with autism.

Maya Samardzija
Mentor: Dr. Jennifer Roberts

1608 Inhibition of Apoptotic Activity through the P53 Pathway with Hepatocellular Carcinoma Due to High Mobility Group A1 (HMGA1) Protein Expression

Undergraduate Student Project in Math & Science

Hepatocellular carcinoma (HCC) is the most common type of primary liver cancer, yet it is difficult to diagnose early stages of liver cancer based upon the symptoms. It has been shown that the p53 pathway can be targeted to induce apoptosis in HCC cells and the expression of HMGA1 protein in adults can be used to diagnose early stages of liver cancer to start treatment early and reduce the death rate of liver cancer.

Sabrina Kurian
Mentor: Dr. Jennifer Roberts

1679 The Therapeutic Effects of Antioxidant Thymoquinone Naturally Occurring in Nigella sativa Seeds on Patients with Type-2 Diabetes Mellitus

Undergraduate Student Project in Math & Science

A look into the bioactive compound thymoquinone derived from Nigella sativa seeds for medicinal application in type-2 diabetes.

Humnah Rehman
Mentor: Dr. Jennifer Roberts

AS-156-A
Moderator: James Oakley

1697 Synthesis and Analysis of Titanium Based Metal Organic Frameworks for Photocatalysis

Undergraduate Student Project in Math & Science

Research was done in order to find if titanium based metal organic frameworks will function as photocatalysts for application in photocells and water-splitting reactions.

John Kurowski
Mentor: Dr. Daniel Kissel

1625 Vitamin C: The Dark Horse of Potential Alzheimer's Disease Therapeutics

Undergraduate Student Project in Math & Science

Doherty Center for Aviation and Health Research

Vitamin C may have a synergistic effect when combined with future Alzheimer's Disease copper chelation treatments.

Emma Crnich
Mentor: Dr. Mallory Havens

1710 Using Chelating Compounds as Potential Therapeutics for Alzheimer's Disease in C. Elegans

Undergraduate Student Project in Math & Science

Doherty Center for Aviation and Health Research

AD is a neurodegenerative disease that destroys the brains neurons and mental functions. According to the CDC in 2014 about 5 million Americans were living with Alzheimer’s disease. This number is projected to almost triple to 15 million by 2060. Unfortunately, it is currently the 6th leading cause of death in the US and at present day today there is no cure for this disease therefore it is very important to try and dedicate research to discovering a breakthrough to find a potential therapeutic agent.

Michael Zambrano
Mentor: Dr. Mallory Havens

AS-157-A
Moderator: Deborah Augsberger

1548 Creating Documents for Heart Haven Outreach

Undergraduate Student Project in Humanities

Professional Writing students partnered with the non-profit organization Heart Haven Outreach in efforts to support their mission in uplifting and supporting at-risk struggling teens. The students dissected the organization as a whole and created a white paper document that highlights the different attributes of H2O in addition to offering ideas for a better online engagement and presence. The students then followed through with their recommendations by creating a series of flyers, support cards, refining a brochure in English and Spanish in addition to a manual on hashtags and how to create TikToks. This project allowed the students to refine their professional writing, designing, and communication skills.

Haley Leon, Morgan Giuffre, Alexandra Martinez
Mentor: Dr. Jennifer Consilio

1648 Keeping the Faith with Hagar

Undergraduate Student Project in Humanities

A lot of the hardships women face on a daily basis can be shown in Hagar’s story. In her article “Hagar in African American Biblical Appropriation”, Delores S. Williams analyzes how African American Christians have used biblical people and events to model faith, courage and hope. I retell the story of Hagar from a first-person point of view, making sure to emphasize the lessons of ways we can keep our faith despite problems.

Jazmyn Stewart
Mentor: Dr. Karen Trimble

AS-158-A
Moderator: Chris Wielgos

1711 Not Just Another Brick in the Wall: Promoting Critical Thinking Skills through Student-centered Learning

Undergraduate Student Project in Humanities

In this paper, I develop a curriculum that responds to current issues in secondary educational pedagogy. I highlight John Taylor Gatto’s address of the modern
problems in public education in his book, *Dumbing Us Down*. Gatto details seven detrimental lessons all teachers teach which result in educational failure. These lessons juxtapose the principles that Thomas Mann had strived for nearly 150 years before. Gatto’s lessons focus on how students are trained in public schools to be emotionally and intellectually dependent on teachers, they are taught irrelevant material, and they have no time for self-development, as they are forced to commit themselves to schoolwork both in and outside of the classroom. My work proposes a solution to these issues through a pedagogy that emphasizes and encourages student-centered learning and exploration. As a teacher, I know that I cannot single-handedly revise the entire school system. However, I can create a curriculum which overcomes Gatto’s seven lessons. This curriculum is also meant to inspire other fellow educators to counter the rigidity of modern schooling. I plan to encourage independent thinking in my classroom through student-centered activities which promote inquisitiveness and student autonomy.

**Lilly Carcione**  
**Mentor:** Dr. Chris Wielgos

### 1712 Truth is an Act of Revolution: Censorship and Loss of Individuality from Milton to Dystopian Fiction

#### Undergraduate Student Project in Humanities

In this paper, I examine the two pillars of dystopian fiction, George Orwell’s 1984 and Aldous Huxley’s *Brave New World* and their ponderance of an imminent future where totalitarian regimes submerge its individuals through the art and science of manipulation. I compare them to John Milton’s own warranting the human rights law of freedom of speech in his work of prose *Areopagitica*. In doing so, I demonstrate that Orwell feared a societal shift into an age of totalitarian dictatorships, while Huxley imagines a scientifically advanced future where the population is environmentally engineered into an intelligence based hierarchy, where individuals are lost in a sea of homogeneity with the use of classical conditioning and pleasure. Both Orwell and Huxley fear the loss of individuality to a love of servitude; a method of control to enjoy a state of affairs to an oligarchy. The two giants of dystopian fiction display a quelling of history, facts, and thought. These two great thinkers demonstrate how censorship, absolute obedience, and totalitarianism emerge when freedom of speech becomes a triviality subdued through conditioning and more overtly, mass surveillance to find evidence of erroneous thought.

**Tyler Czajowsk**  
**Mentor:** Dr. Chris Wielgos

### 1713 The Role of Women in Latin American and Hispanic Literature

#### Undergraduate Student Project in Humanities

In this paper, I analyze the novels of Gabriel García Márquez’s *One Hundred Years of Solitude* and Ana Castillo’s *So Far from God* and their presentations of powerful women who may or may not possess spiritual connections that affect the relationship of the men around them. I demonstrate that characters such as Remedios the Beauty and La Loca are examples of women in the novels that hold the strong spiritual ties to the world around them. I analyze the mother figures, Ursula and Sofi struggle to maintain the unity of their family due to the outside world’s effects of either harming their family or society’s views of what women and men need to be and act. Other characters who include Rebecca, Fernanda, Remedios the Beauty, La Loca, Fe, Caridad and Esperanza, I argue, also fight against the standard of what is expected of a woman and either survive the hardships or succumb to them. In the Latin American and Hispanic cultures, the role of a woman is to take care of the family as a submission to the machismo society view. I argue that through Latin American literature, Castillo and Márquez challenge the cultural responsibilities of Hispanic and Latinx women by showcasing independent women and some of their magical realism abilities.

**Estefania Flores**  
**Mentor:** Dr. Chris Wielgos

### 1714 The Divine Feminine

#### Undergraduate Student Project in Humanities

“I am no bird; and no net ensnares me; I am a free human being with an independent will, which I now exert to leave you.” —Charlotte Bronte, *Jane Eyre*

In this paper, I review the three waves of feminism, black feminism, and feminist pioneers like Simone De Beauvoir and Judith Butler and analyze the portrayals of the unconventional women in Louisa May Alcott’s *Little Women*, Kate Chopin’s “The Story of an Hour,” Sylvia Plath’s “Morning Song” and Lucille Clifton’s “Homage to my Hips.” I argue that each of these works shed preconceived notions of what it means to be a woman for a truly independent, truly feminine definition of womanhood. In these works, definitions of the traditional housewife and mother are merely projections placed by the patriarchal society in order to keep women from blossoming into roles of leadership, authenticity, and authority. In addition, Lucile Clifton’s work highlights a very important voice in feminism—the black woman—as she details the struggles of black women to navigate feminist ideals within a scope of racism and prejudice. I argue that through their works, these women writers make new discoveries of want, need, desire, and identity. Through these feminist stories we discover a symbolic code that feminists use to work towards equality and shape themselves unapologetically; writing their own narrative. I argue that a domineering colonial approach over women left them in a web of submission, despair, and hardship with only a pen and paper being the way out; and that is exactly what they did... thus the Divine Feminine was born.

**Morgan Flufffre**  
**Mentor:** Dr. Chris Wielgos

### 1715 Non-linear Narratives and Narratology

#### Undergraduate Student Project in Humanities

Narratology is the study of narratives and their structure. Most films fall under a similar umbrella of linear plots. Information is presented in a linear order and events have consequences toward future events. However non-traditional narratives throw this on its head as the information presented can be manipulated. Instead, information can be withheld, misinformed, or rearranged in a manner that better services the story or themes of the film. In this paper, I analyze three films: *Citizen Kane* (1941, dir. Orson Welles), *Run Lola Run* (1999, dir. Tom Twyker), and *Memento* (2000, dir. Christopher Nolan), all of which use non-traditional narratives effectively in order to tell their stories. *Citizen Kane* uses extensive use of flashbacks in order to relay its story, *Run Lola Run* has three separate timelines within a single film, and *Memento* uses two converging timelines that function opposite of each other chronologically. Through the analysis of these films, I discover that the use of non-traditional narratives was not simply to stand out from the crowd, but each one served a deeper thematic purpose as well. In addition, through these methods the audience is able to learn more about characters than they normally would have under any other scenario. Using non-linear narratology these films prove that non-traditional narratives can be further explored giving deeper meanings to film productions.

**Brandon Peck**  
**Mentor:** Dr. Chris Wielgos
**1716 Teaching Ana Castillo’s So Far from God using Cooperative Learning and Technology-Enhanced Learning to Enhance Critical Thinking**

*Undergraduate Student Project in Humanities*

Within this essay, I address educators in relation to teaching Ana Castillo’s novel, *So Far from God*, and argue for a methodology that incorporates Cooperation Learning and Technology-Enhanced Learning to foster critical thinking skills. I consider and counter the arguments of Kim Sosin and William Goffe, who have questioned student learning and specifically the use of technology with teaching. I make the case that student interaction through technology provides an essential learning tool embedded within the Cooperative and Technology-Enhanced Learning approach. These approaches intersect and help teach this novel more efficiently, enabling students to share and comment on each other’s thoughts, thereby enhancing critical thinking skills as they engage with their peers. I demonstrate this methodology as I present a plan to teach and approach Castillo’s novel that incorporates Cooperative Learning and Technology-Enhanced Learning to enhance critical thinking. In spite of the many different teaching approaches there are for teaching novels, I assert that Cooperative Learning and Technology-Enhanced Learning most effectively foster critical thinking skills and direct students to best understand the mysterious events and characters from the novel. While some may believe that other approaches are more effective, the numerous skills students will gain from Cooperative Learning and Technology-Enhanced Learning are greater. These other approaches, such as Student-Centered and Teacher-Centered Learning, do not address important changes in student learning currently experienced through recovery from the pandemic. Cooperative Learning and Technology-Enhanced Learning allow the instructor to develop meaningful activities that offer students greater opportunities for the development of skills. As educators, we must acknowledge these recent changes in the world and rethink our ways of teaching, making sure it leads to the most successful way of fostering critical thinking, social skills, and continuing the use of technology.

*Julia Todd*

Mentor: *Dr. Chris Wielgos*

---

**1717 Teaching Multicultural Literature to Bring Awareness and Encourage the Search for Identity with Different Cultural Backgrounds**

*Undergraduate Student Project in Humanities*

In this paper, I argue for the incorporation of multicultural literature in the secondary classroom. Students who read a variety of works from a diverse set of writers from multiple cultural backgrounds become more culturally aware, are taught to empathize with others, and learn to respect other cultures that they are introduced to as adults. Teaching this type of literature benefits both the teacher and the student, as they witness the reactions of students to the literature and connect with the characters in the texts. Students come to identify themselves in the stories and establish their identity as adults in the real world as the instructor creates a community in the classroom. Furthermore, integrating multicultural literature into the classroom is more than just adding these types of books onto a reading list for the students. The necessary involvement and commitment of the teacher will often determine success in the classroom. I argue that teachers must be willing to transform their way of teaching and thinking, as well as their attitudes towards different methods of exploring literature. In many cases, curricula too will have to be changed in order to successfully incorporate literatures of multiple American sub-cultures, while issues of race and cultural diversity will have to be confronted in both the English faculty departments as well as in the classroom.

*Melissa Vicente*

Mentor: *Dr. Chris Wielgos*

---

**SESSION III**

**3:15–4:15PM**

**AS-106-A**

**1584 The Future of Education on the Metaverse**

*Graduate Student Project in Math & Science*

This research will study the implementation of Metaverse in education and the cyber security risks and effects of the metaverse on the students and kids who will eventually be using this technology. These risks include account privacy, security, and safeguarding and who is the gatekeeper of the legal and security implications that will come with it.

*Ahmed Teleba*

Mentor: *Dr. Rami Khasaweneh*

---

**1603 Experiencing the Retail Industry in the Metaverse**

*Graduate Student Project in Math & Science*

For this project, I have worked on Oculus Quest 2. The Metaverse is a digital universe. In this presentation, I have built the retail store with Horizon World, where the user will get to walk into the store, see different clothing items, get a 360-degree view of the object, and much more. I have done my research on the advantages and disadvantages of Metaverse retail store on the real world.

*Hardi Patel*

Mentor: *Dr. Rami Khasaweneh*
**AS-150-A**

**Moderator:** Sam Abuomar

**1554 Critically Appraised Topic: Can Cognitive-Behavioral Based Physical Therapy Help Athletes Return to Their Pre-Injury Level of Sport?**

**Undergraduate Student Project in Nursing**

This was a critically appraised topic article on cognitive-behavioral based physical therapy as a method of enhancing recovery from anterior cruciate ligament injuries and reconstruction surgery (ACLR). ACLR is one of the most common athletic surgeries. However, too many athletes who undergo ACLR do not return to sport. This CAT explores a method of physical therapy that has the potential to increase return to sport from ACLR and more sports injuries.

**Rachel Marsh**  
**Mentor:** Dr. Cathy Bohlin

---

**AS-156-A**

**Moderator:** Sarah Powers

**1651 What Do Graphics Interchange Format (GIFs) Add to the Picture? The Effectiveness of Response Elaboration Training for Nonfluent Aphasia**

**Graduate Student Project in Nursing**

Response Elaboration Training (RET) is a treatment for improving oral expression in individuals with aphasia. RET traditionally incorporates picture stimuli for sentence production. However, there is emerging evidence using other forms of stimuli such as video. The purpose of this study was to compare the effectiveness of picture stimuli versus GIF stimuli in eliciting complete sentence production in an individual with aphasia. Results indicated picture stimuli elicited more accurate sentence production when compared to GIF.

**Danielle Haehn, Renae Heinze, Sarah Henry**  
**Mentor:** Dr. Ann Guernon

---

**AS-158-A**

**Moderator:** Chris Wielgos

**1718 “Hard of Hearing” and “The Series Finale”**

**Undergraduate Student Project in Humanities**

I present two short stories:
- “Hard of Hearing”. Description: Hoping to find her missing friend, a young asexual woman named Mel reluctantly enters a relationship with her friend Rae’s former boyfriend. Mel eventually finds Rae, though her friend isn’t quite the same.
- “The Series Finale”. RETURN-MENTOR: Description: A high-school student named Mariel becomes the new manager of a mysterious video store when it appears in her town one day, and quickly learns that there’s more to it than meets the eye.

**Brittany Crosse**  
**Mentor:** Dr. Chris Wielgos

---

**1719 With Smog and Shovel**

**Undergraduate Student Project in Humanities**

For my Senior Seminar project as an English Major, I was able to create the beginning of a novel about a Polish immigrant with Bipolar Disorder. Based on my own life experiences and the lives of my parents, I wanted this novel to express the difficulties associated with mental illness in my immigrant main character, Kapek Miloś. I hope to continue this as my passion project for the years to come.

**Christian Mietus**  
**Mentor:** Dr. Chris Wielgos

---

**1720 A Dress of Cypress**

**Undergraduate Student Project in Humanities**

Harper Alcott lives in a town that is highly superstitious and believes strange deaths happen because of one family. The story focuses on the last few days of a high school girl’s life, her experiences leading up to and after her death, and how the people around her respond to it. The main character experiences depression, anxiety, and contemplates suicide; supernatural themes abound as the story incorporates magical realism to examine how reality can be subject.

**Jordyn Spangler**  
**Mentor:** Dr. Chris Wielgos
The first is a publication for traditional students, and the second is a guide for international students.

In my paper, I argue that the way that plagiarism is currently defined, taught, and punished in U.S. colleges and universities must be changed. From two different points of view, a traditional college student and an international student, arguments can be made for how a student from any background can be better assisted in understanding the importance of plagiarism in the writing process. At the university level, policies must be changed to reflect the miseducation of students across the board. Policies need to reflect that using others’ ideas is often a part of the writing process, but if standards are in place they must be followed. Universities and their faculty must assist students in a successful understanding of what plagiarism is, how to avoid it, and how to correctly use secondary sources for an academic paper. At the level of a writing center tutor, often this is a student’s only outlet for understanding and assistance in combating plagiarism. U.S. universities also need to develop an awareness and understanding of students from international backgrounds, their cultural writing process, and how to set these students up for success in writing classrooms. I will present both the findings of my research and the resulting guides published for student use.

Cassidy Fontaine-Warunek
Mentor: Dr. Chris Wielgos

This project includes both original research and the creation of a manual that aims to demonstrate the dos and don’ts of technical writing, based on research done by experts in the field. This manual can serve as a guide for those looking to get into technical writing, especially when paired with the research paper the manual accompanies. Arguments have arisen regarding whether technical writing has value in regards to the humanities. However, there is much that separates technical writing from science, but the correlation between the two is having a negative impact in the field of technical writing. In this paper, I argue that technical writing has value within the humanities, and that one must first overcome “a tradition of thought in both the sciences and humanities” if one is to understand the value of technical writing in the humanities curriculum. I assert that confusion in regards to technical writing’s position as a benefit to the humanities may stem from the confusion of the field. Without a clear definition of technical writing, technical writing’s position as a benefit to the humanities may lay in doubt; however, technical writing can be a humanistic study, under the activity and consciousness, which Walter Ong calls “the central impulse of the humanities.”

Mateusz Czubinski
Mentor: Dr. Chris Wielgos

AS-150-A
Moderator: Cara Sulyok

The Order of Operations: Examining the Influence of Psychological Birth Order and Actual Birth Order on Levels of Anxiety

Research has shown that there can be significant differences between an individual’s actual birth order (ABO) and their psychological (or perceived) birth order (PBO), which may contribute to a variety of factors, such as identity formation, self-imposed pressures, and overall psychological well-being, such as levels of anxiety. Due to the novelty of this construct, little work has examined the influences of PBO on measures of psychological well-being, which is the primary goal of the current study.

Alexzandria Coleman
Mentor: Dr. Philip Blankenship

The Influence of Premature Birth on Laryngeal Development for Phonation

The effects of premature birth on laryngeal development have not been fully discovered as it pertains to dysphonia. While prematurity is closely associated with dysphonia, it is usually attributed to endotracheal intubation in the neonatal period or surgical ligation of persistent patent ductus arteriosus. Recently, cases of dysphonia have been reported without the presence of surgical intervention. This study seeks to discover aspects of laryngeal development that may be disrupted solely by premature birth.

Anthony Moreno
Mentor: Dr. Victoria Reynolds
The Effectiveness of Discrete Trial Training in Improving Safety Precautions for Young Adults with Autism Spectrum Disorder

Graduate Student Project in Nursing

The purpose of our study was to use Discrete Trial Training (DTT) when teaching identifying information to young adults with Autism Spectrum Disorder (ASD) in order to improve safety precautions and self-advocacy. Typical manifestations of ASD, such as impulsive behavior or failure to respond, may be misunderstood by law enforcement professionals, with serious consequences (Debbaut, 2002). Three behaviors were assessed; two reached 100% accuracy and one reached 66%. DTT proved to be effective and would significantly reduce risk of harm.

Stephanie Ochoa, Laura Tibble, Emily Reyes
Mentor: Dr. Victoria Reynolds

AS-156-A
Moderator: James Oakley

Black Children and Families Who Homeschool: A Beginning and Foundational Inquiry

Graduate Student Project in Education

Black Children and Families Who Homeschool: A Beginning and Foundational Inquiry provides an overview and literature review crafted for her dissertation in progress; one that takes current, formal, and seminal research on the Black homeschooling movement to the next level; ethnographies of African-American children ages 5 to 24 who have or are homeschooling. The presenter ties in scholarly interests in historiography surrounding African-Americans’ unrelenting quests for a worthy education and lauds tropes of self-reliance therein.

Cheryl Boyle
Mentor: Dr. Erica Dávila

AS-157-A

Magdalene

Undergraduate Student Project in Humanities

In my annotated midrash, my goal was to explore the relationship between Mary Magdalene and Jesus in an artistic way, more specifically Mary Magdalene’s turbulent emotions of heartache and relief in a situation with such tragedy. I wanted to focus on Mary Magdalene when I realized what she had gone through, and I wanted to explore the breaking point and how she was able to build back up from that.

Alyssa Khuffash
Mentor: Dr. Karen Trimble Alliaume

A Holistic Approach to Harm Reduction: The Move Towards Syringe Service Programs in South Carolina

Undergraduate Student Project in Social Sciences

Since 2010, the United States has been in the midst of an opioid crisis which has resulted in an increase in HIV and Hepatitis C rates. One evidence-based and holistic solution to this is the implementation of syringe service programs. This presentation will use South Carolina as a case study to examine the ways in which these social programs have been sites of political controversy despite their health and safety benefits for communities.

Alexciana Castaneda
Mentor: Dr. Steven Nawara

The Effects Maltreatment Has on Women

Undergraduate Student Project in Humanities

The aim of this midrash, a “textual interpretation” which has a goal of finding values in texts, words, and letters as potential revelatory spaces, is to highlight the effects of mistreatment towards women when they are seen as objects for others to use for personal gain and safety. The midrash is told through the point of view of Sarah in her story from Genesis, and how she lost who she was while saving others.

Jamie Rajca
Mentor: Dr. Karen Trimble Alliaume
**BUSINESS PLAN COMPETITION**

**Primepulse, LLC**
*Undergraduate Student*
**Kenneth Burton**
Dr. Jason Keleher
Prime Pulse, LLC involves an improved way of combining and integrating solar energy with mobile devices and, eventually, technology in general. In a world where technology is advancing at an exponential rate, more efficient and optimal alternative energy sources for power are imperative for the future.

**Automated Greenhouse**
*Undergraduate Student*
**Kevin Swarts**
James Hofmann
My product and services are creating an automated greenhouse with Wi-Fi integration. The customer's need for it is to simplify and make the plant growing process easier. The uniqueness of my product is allowing for complete integration of automation technology and simplification of growing plants by having an available catalog of needed conditions for specific plants.

**BUSINESS PITCH COMPETITION**

**Medical Smart Toilets**
*Graduate Student Project*
**Nzar Sharif**
Dr. Raymond Klump / Dr. Elizabeth Kozak
The product is a small AI-Enabled device that turns any toilet into a smart toilet by providing real time urinalysis to predict various diseases such as some types of cancer or diabetes.

Millions of Americans have no idea they have a health condition until they suddenly feel pain or abnormality that might have accumulated for years. This device provides early detection for diseases that can take years for the symptoms to be noticed. As a result, the cure of any disease will be easier and much more affordable. The unique advantage of this business is that there are no commercial businesses like this in the market and the market need for it is huge.

**Webhotel**
*Graduate Student Project*
**Majeed Khan**
Webhotel will create, maintain and update hotel websites for those standalone hotels who do not possess an online presence and do not engage in existing online travel sites. We will take care of the website, the booking engine, and the payment gateways. All this for a fixed annual price. This is the bait, entry point of a hotel in our sales funnel. The funnel will consist of marketing activities like Google ads, email marketing, social media marketing, etc. We will cater to hotels and vacation homes, providing them with a dynamic, responsive, website and then upsell our marketing services to drive traffic and attain more direct bookings on the hotel's website.
Hospital Booth System
Undergraduate Student
Duyen Hai Doan
Dr. Elizabeth Belgio

The Hospital Booth System is developed as a solution to help businesses improve the healthcare benefit for their employees. This system is inspired by the telephone booth; with our new healthcare system, businesses will now be able to offer their employees an express health check right at the workplace. Business owners can purchase some hospital booths and place them at the main lobby of their company for their employees to use. A hospital booth will be as big as four telephone booths and can be placed anywhere, with no complicated set-up because it’s an all-in-one system.

Eco-Friendly Grocery Stores
Undergraduate Student
Alexis Perryman

My proposed business idea is a grocery store designed for environmentally conscious individuals filled with products that are either zero-waste or completely recyclable. Not only are current consumers demanding environmentally friendly products from existing companies, but they also want an easier way to obtain the products that are eco-friendly. In addition to the grocery store, there will also be a cafe featuring environmentally, ethically-sourced coffees and teas, with to-go sandwiches and snacks in eco-friendly packaging. A major focus of this store will also be to employ individuals with special needs – specifically, learning disabilities to provide job opportunities while welcoming a learning environment that can cater to their needs.

Social Fitness App – “Level Up”
Lucas Mourao (Graduate)
Jabari Ramsey (Undergraduate)
Josh Moellenhoff (Undergraduate)
Miguel Turcios (Undergraduate)
Maria Rodriguez (Graduate)
Meghan Bandy (Undergraduate)

Our idea arose in the midst of the pandemic, when all gyms were closed, and we couldn’t workout anymore. In the very beginning, it was extremely difficult to find motivation to stay fit and healthy without other people. As a result, the only option left would be to download a fitness app. However, these apps were very limited, forcing users to download multiple apps when they should have all been combined into a single app.

Our plan is to develop a social fitness app, called “Level Up”, with all-in-one fitness features (workout, nutrition and mindfulness). This app will replace all other fitness apps by allowing users to keep everything in one place, loaded with a variety of content. The social functionality will provide users with a sense of accountability and genuine motivation, making fitness fun. In addition to that, users will be able to connect to professional assistance through the platform, allowing them to receive tailored guidance to achieve their personal goals.

We are looking to foster the bond between commitment, development, and success of the individual as well as the community at large. Our passion is to positively impact the complete wellbeing of members who are looking to become the best version of themselves possible and achieve their goals in the process.

Smart NFT Deed Contracts
Graduate Student
Avinash Badaramoni
Dr. Safwan Omari

The tokenization (non-fungible token or NFT) of our physical world assets is still in its infancy. Currently, there’s not a single dedicated platform for buying and selling NFTs, with even the most generic marketplaces lacking an online section for them. Tokenization of the physical world in simple terms is to attach an NFT certificate to an object of value, which then becomes sellable as a unique and singular item in the crypto space. Similar to transactions in real estate, where a deed passes at closing, because NFTs are still in their infancy, a digital or tech-oriented proof of ownership serves as the “deed.” Real property transactions using NFT’s could speed up the real estate transitions, removing red tape and other obstacles and lead to completely changing the real estate market. Through NFT transactions, serving as the deed for real property, you can split transactions into fractional shares, similar to securities on the stock exchange, thus opening up opportunities for people to buy into commercial or residential real estate.
GROUP A
2-3 PM

01 Statistical Analysis of NHL Hockey
Undergraduate Student Project in Math & Science
In this research, we present our results of determining whether variables within a hockey game can help predict the outcome. Specifically, we use hypothesis testing to determine whether variables (or combinations of these variables) like shot differential, manpower differential, face-off win percentages, the amount of time in powerplays, and the number of low, medium, or high-danger shots are predictive in determining the outcome of NHL hockey games.
Harvey Campos-Chavez, Will DeBolt, Soren Thrawl
Mentor: Dr. Amanda Harsy

04 Effects of Optimally Performed Healthcare Measures On C. Difficile Infection Rate
Undergraduate Student Project in Math & Science
Which precautionary measures, prescribed by the CDC, for reducing the spread of C. difficile are most effective?
David Kovalev
Mentor: Dr. Cara Sulyok

07 Using Gold Nanoparticles to Analyze Antibiotics in Various Types of Milk
Undergraduate Student Project in Math & Science
Using gold nanoparticles to detect the presence of antibodies in milk.
Emily Pearce, Tanny Do, Cielo Aguirre
Mentor: Dr. Kari Stone

10 Antibiotic Properties of Gold Nanoparticles
Undergraduate Student Project in Math & Science
This is a research project on the use of gold nanoparticles in medicine.
Edward Savant Justyce Watson
Mentor: Dr. Kari Stone

13 Biochemical Applications of Gold Nanoparticles
Undergraduate Student Project in Math & Science
Gold Nanoparticles are a incredibly useful scientific advancement in solving a wide variety of problems in several different areas. This research done in order to discover applications of these gold nanoparticles in other areas as well as expanding on areas that have already been touched on.
Steven Roberts, Christian Borges, Nathan Hajek
Mentor: Dr. Kari Stone

16 Determining Indices of Refraction and Dispersion Curves For Various Liquids Using a Michelson Interferometer with Multiple Wavelengths
Undergraduate Student Project in Math & Science
Research is being conducted to determine the indices of refraction and dispersion curves for various liquids using a Michelson Interferometer with multiple wavelengths.
Marissa Strelczyk
Mentor: Dr. Chuck Crowder

19 Synthesizing Gold Nanoparticles to Detect Antibiotics in Milk
Undergraduate Student Project in Math & Science
Our group will be utilizing the synthesis of gold nanoparticles to detect antibiotics being used in dairy products, specifically milk.
Kristen Ess, Catherine Roney, Johan Gonzalez
Mentor: Dr. Kari Stone

22 Trimethylamine N-Oxide Toxic for Human Body
Undergraduate Student Project in Math & Science
Trimethylamine N-Oxide level lead to inflammatory when consuming too much choline such as red meat, eggs and dairy products. TMAO is toxic to the body and causes variety of serious health conditions and diseases.
Rokiya Ahmin
Mentor: Dr. Mallory Havens

25 Cyclin D3 and Conserved DNA Sequences in Transcriptionally Modified Genes
Undergraduate Student Project in Math & Science
Cyclin D3 is known for its role within cell cycle; however, past research suggests a putative role in regulating transcription. This research aimed to identify a mechanism by which cyclin D3 indirectly modifies gene expression. Genes of interest were grouped by level of transcriptional change, regulatory regions identified using GeneHancer (UCSC Genome Browser), and ENCODE marked binding transcription factors. Identified transcription factors were then computationally assessed for potential protein-protein interactions with cyclin D3 using PyMOL.
Krystian Brzek
Mentor: Dr. Sarah Powers
28 The Role of HDAC Enzyme Inhibitors for Anti-Cancer Drug Purposes
Undergraduate Student Project in Math & Science
My research project focuses on finding plausible small molecule inhibitors of the enzyme histone deacetylase for the purpose of preventing DNA condensing around histone groups that can lead to transcription errors, that could subsequently lead to cancerous mutations.
Nicole Staszak
Mentor: Dr. Kari Stone

31 Observing Changes in the Great Lakes Water Level Variability
Undergraduate Student Project in Math & Science
In this study, we investigate the hydrology of the Laurentian Great Lakes system over the past century-plus (1900-2020) for a historical comparison against predicted regional changes in the hydrologic cycle caused by anthropogenic climate change. Our results help to increase understanding of Laurentian Great Lake level variability and will prove important in efforts to mitigate increased risk for coastline flooding, shoreline erosion, and transportation and trade impacts.
Daniel Blanco
Mentor: Dr. Joseph Kozminski

34 An Analysis of Lewis University Physics Labs on the Basis of Three Dimensional Learning Standards in Science
Undergraduate Student Project in Math & Science
Three Dimensional Learning Standards are a framework of how to teach students to be proficient in science. This study will analyze how well Lewis University physics labs follow these standards.
Brenden Kelley
Mentor: Dr. Joseph Kozminski

40 Covid-19 Severity: Physiological Changes Affecting the Elderly Populations
Undergraduate Student Project in Math & Science
The following abstract explains the physiological changes that the elderly populations face which can increase their risk of a severe prognosis. Telomeric lengths, which affect ACE2 receptors, are investigated to explain high mortality rates affecting older patients.
Merelin Jaramillo
Mentor: Dr. Mallory Havens

43 Gold Nanoparticles Affect on Alzheimer’s Disease
Undergraduate Student Project in Math & Science
Gold nanoparticles and the affect it has on Alzheimer’s disease.
Austin Rockaitis, Leonardo Ramos, Kathy Vicuna
Mentor: Dr. Kari Stone

46 Gold Nanoparticles Within Antibiotics Makes Residue in Milk Products
Undergraduate Student Project in Math & Science
The idea for this project was the idea of antibiotics in milk products and how it creates a residue, but would it change while adding gold nanoparticles.
Matthew Czaja, Arielle Deshazer
Mentor: Dr. Kari Stone

49 Gold Nanoparticles as Drug Carriers to Fight Diseases
Undergraduate Student Project in Math & Science
Gold nanoparticles can be synthesized to stabilize cell growth in a human body.
Adrian Guzman, Justyna Silwinska, Marissa Weisenbach
Mentor: Dr. Kari Stone

52 The Effects of Ozone Exposure on Honeybees and Bumblebees and Their Plant-Pollinator Interactions
Undergraduate Student Project in Math & Science
Ozone emissions significantly altered communication and signaling pathways between bees, honeybees and bumblebees, and flowering plants significantly stressing pollination.
Simon Northrip
Mentor: Dr. Mallory Havens

55 Air Quality Monitoring in Will County
Undergraduate Student Project in Math & Science
Air quality plays a role in exacerbating various health conditions. The current air quality data available in Will County does not represent the county as a whole. Data was collected using air quality monitors at various locations in Joliet as well as at Lewis University. We are exploring the correlation between trucks and air quality levels and plan on expanding our research across Will County.
Casey Smith, Derek Czaja
Mentor: Dr. Joseph Kozminski

58 Developing a Metal Organic Framework and Phthalocyanine Delivery System for Use in Photodynamic Therapy
Undergraduate Student Project in Math & Science
This talk will focus on developing a delivery system for use in photodynamic therapy.
Anthony Baudino
Mentor: Dr. Kari Stone

61 The Most Effective Treatments for Insomnia
Undergraduate Student Project in Math & Science
Through analysis of existing literature, cognitive therapies were found to be the most effective course of treatment for insomnia.
Caitlyn Scott
Mentor: Dr. Mallory Havens
11. The Effectiveness of Spaced Retrieval Therapy on an Individual with Mild Cognitive Impairment: A Single-Subject Design

Graduate Student Project in Math & Science

Many individuals experience various degrees of Mild Cognitive Impairment (MCI) as they age. Speech-Language Pathologists utilize the treatment of Spaced Retrieval Training (SRT) as a therapy strategy for dementia, though it is not an established treatment for those with MCI. This study investigates the implementation and effects of SRT with an individual experiencing MCI.

Chantelle Allen, Molly Binder, Daniya Ali, Adriana Berardi
Mentor: Dr. Ann Guernon

14. Schuell's Stimulation Approach and Aphasia: A Single-Subject Study of an Individual with Chronic Auditory Comprehension Difficulties

Graduate Student Project in Math & Science

Individuals with chronic aphasia frequently experience deficits in auditory comprehension which impact communication. This work aims to describe the effectiveness of Schuell’s Stimulation Approach for an individual with chronic aphasia. More specifically, the effects of sensory stimulation on auditory comprehension were measured through the administration of yes/no questions across baseline and treatment phases.

Kathryn Clark, Nicole Dunning
Mentor: Dr. Ann Guernon

17. Client Perceptions and Objective Measures: The Effects of Attention Processing Training Following an Acquired Brain Injury

Graduate Student Project in Math & Science

Subsequent to a stroke, individuals may experience significant attention deficits. This study investigated if Attention Process Training (APT; a computerized, evidence-based computer program) would positively affect selective and sustained attention following an Acquired Brain Injury and discovered how patient-reported measures changed following the treatment. The results of this study supported the use of the APT as a therapeutic tool to remediate attention deficits, as well as improved client-reported measures following the implementation of the program.

Julia Melone, Idulvina Moreno, Eileen Sheridan
Mentor: Dr. Ann Guernon

22. Trauma Sensitive (After) Schools: An Analysis of Trauma-Sensitive Frameworks Within 21st Century After-School Settings

Undergraduate Student Project in Social Sciences

Two [unrelated] content areas are at the forefront of social science research related to education and mental health: (1) the use of a trauma-sensitive school framework(s); and (2) the implementation of out-of-school time programs. The primary objective of each differs, yet both call attention to heightened social-emotional needs among K-12 students. This research applies the tenets of trauma-sensitive pedagogy to an existing after-school program as means of identifying opportunity wherein the aforementioned content areas converge and provide more intentional support to students targeted to participate in the program.

Hannah Michalczak
Mentor: Dr. Emily Shayman
29 If You Can Be Anything, Be Kind: Investigating the Effects of Kindness on One's Wellbeing
Undergraduate Student
Project in Social Sciences
The transition to university life affords many positive opportunities but stressors and pressures can also increase vulnerability toward psychological distress. High levels of mental wellbeing seem to buffer against this vulnerability and prosocial behaviors, like performing deliberate acts of kindness, have been shown to be a significant intervention for increasing wellbeing. Little work has attempted to examine the immediate influences to wellbeing from performing these acts, which is the goal of the current study.

Chelsea Reidies
Mentor: Dr. Philip Blankenship

35 Delivery Drone System
Undergraduate Student
Project in Math & Science
This project aims to design, develop and build a delivery drone that uses off-the-shelf components, resulting in a much cheaper design than commercially available delivery drones.

Jonathan Rayo, Fidel Herrera
Peter Surlina
Mentor: Dr. Gina Martinez

38 Laplacian Simplices Associated to Graphs
Undergraduate Student
Project in Math & Science
Introducing the relationship between finite graphs and their related Laplacian simplicies in order to describe a bijection between its lattice points and the labeled rooted spanning trees of the underlying graph.

Paige Allen
Mentor: Dr. Marie Meyer

43 A Simulation of the Direct Fusion Drive Rocket Engine
Undergraduate Student
Project in Math & Science
This is a research project dedicated to the simulation of a Direct Fusion Drive rocket engine. The simulation is performed using Geant4 by CERN, which is an open source coding environment designed by physicists based on C++. Specifically, the engine design parameters of the fusion event source in relation to the Direct Fusion Drive’s thrust generation and space-faring capabilities are of primary concern.

Marek Spader
Mentor: Dr. Ryan Hooper

44 Low Cost Air Quality Sensors
Undergraduate Student
Project in Math & Science
This research involves designing and testing low cost air sensors to monitor air quality.

Andres Alvarez
Mentor: Dr. Joseph Kozminski

47 Quality of Laser Beams Across Price Ranges
Undergraduate Student
Project in Math & Science
In general physics labs using lasers is an important task that students must do. When doing these labs, the beams do not need to be of the highest quality, but they still need to work well. The price of lasers vary greatly as does the quality; higher-priced lasers are usually of higher quality. This study will determine if the price versus quality justifies spending more on lasers for general physic labs

Wyatt Wolfersberger
Mentor: James Hofmann

50 Thermal and Kinetic study of E208K mutation on the enzyme ß-glucosidase B of Escherichia coli
Undergraduate Student
Project in Math & Science
An analysis of the protein BglB is performed after it has been mutated. This mutation was designed through the protein modeling software Foldit and created using the Design2Data workbook.

Piper Smith
Mentor: Dr. Kari Stone

53 Analyzing and Comparing Tommy John Surgery Versus Natural Healing in Major League Baseball Pitchers That Suffer a Ulnar Collateral Ligament Tear
Undergraduate Student
Project in Math & Science
This project takes data from Major League Baseball pitchers that injure the Ulnar Collateral Ligament in their shoulder and compares the statistical data of those who used Tommy John surgery as a method of recovery versus those who used natural healing. Traditional on-field statistics, as well as sabermetric statistics and career longevity at the professional level will be used to determine which method in recent history has provided more success for pitcher upon return from the injury.

Casey Vileta
Mentor: Dr. Ryan Hooper

56 Low-Cost 3D-Model of a Static Light Scattering System Design with an Arduino Based Sensor
Undergraduate Student
Project in Math & Science
This project will feature a low-cost apparatus that can reproduce light scattering experiments that otherwise would be expensive, using 3D printing methods.

Alexis Bibian
Mentor: Dr. Joseph Kozminski

59 Utilizing Aminocaylase As a Model Enzyme to Explore Hydroxyquinol Inhibitors of Histone Deacetylase
Undergraduate Student
Project in Math & Science
Using Acylase as a model enzyme to explore hydroxyquinol inhibitors for histone deacetylase, through the use of a colorimetric analysis

Nicholas Tovar
Mentor: Dr. Kari Stone

62 Pumice’s Potential in Improving Adobe Properties
Undergraduate Student
Project in Math & Science
This presentation will report on the results of including pumice into a mudbrick mixture. The compressive strength of the mudbricks containing pumice will be compared to ones without it after both groups are subjugated to either moist or thawing environments.

Samuel Boateng
Mentor: James Hofmann
64 Measuring Odonate Biodiversity: A Comparative Study Between Larval and Adult Life Stages
Undergraduate Student Project in Math & Science
Measuring populations of dragonflies and damselflies are integral for determining health of ecosystems since populations are affected by changes such as in habitat, pollution, and land development. Adult populations are monitored through surveying programs to provide these insights. However, to capture a better picture of impacts on abundances, comparison between abundances at the larval stage and adult stage can work together to enhance biodiversity studies since abundances in both groups can vary.
Joshua Segura
Mentor: Dr. Christopher Anderson

66 Characterizing the Efficacy of Antimicrobials from Soil Microorganisms on Inhibiting the Growth of Antibiotic Resistant Strains
Undergraduate Student Project in Math & Science
Despite advances in antibiotic development, the increase in antibiotic resistance in bacteria continues to exacerbate the need to discover novel treatments. The aim of this work is to identify and characterize soil microbes that exhibit inhibition of antibiotic resistant strains of S. aureus. Findings indicate that MRSA inhibitors included organisms in the Bacillus, Pseudomonas, and Streptomyces genera.
Loralei Summers, Brendan Roark, Sophia Wilks, Anthony Quinn
Mentor: Jeannette Pifer

GROUP C
4:30-5:30PM

03 Just Go To Sleep: The Possible Dream
Graduate Student Project in Social Sciences
This presentation will provide information on common sleeping problems and issues and what an individual can do to complete a healthy sleep routine.
Geovani Cajero
Mentor: Sandra Bednarz Petersen

06 Assessment of Effective Treatment for Individuals with Obsessive Compulsive Disorder
Graduate Student Project in Social Sciences
This research is being done to examine various treatment methods for individuals with obsessive compulsive disorder in order to get a sense for what is currently “best practice” and what has potential for successful treatment in the future.
Christian Baginski
Mentor: Sandra Bednarz Petersen

09 The Differing Aspects of Individuals with Autism
Graduate Student Project in Social Sciences
The differing aspects of individuals with autism spectrum disorder and treatment modalities are discussed in this poster presentation.
Natalie De Leon
Mentor: Sandra Bednarz Petersen

12 Taking Responsibility for Unethical Policies at the U.S. Border
Graduate Student Project in Social Sciences
As of today, the U.S. government is still reuniting children from 2018, when nearly 2,000 children were separated from their families because of a policy under the Trump Administration. These families have undergone psychological trauma with long term effects, all of which the U.S. has not acknowledged or provided resources for. This literature review highlights current/past unethical politics, its long-term effects and provides potential interventions for those affected.
Clarissa Dominguez
Mentor: Sandra Bednarz Petersen

15 Self-Care and Master’s Level Counseling Students
Graduate Student Project in Social Sciences
The purpose of this research is to explore the importance of integrating self-care into one’s daily living routine as master’s level counseling students and examine the effects of practicing self-care or not practicing self-care has on an individual student.
Jamie Kmieciak
Mentor: Sandra Bednarz Petersen

18 Covid-19: The Impact on Children’s Social Development
Graduate Student Project in Social Sciences
The mitigation strategies of Covid-19 have changed social norms for nearly everyone. As children during this time grow through the prime developmental stages of their lives the pandemic has put them at risk of missing milestones that are typical for social development. The changes in social settings and norms have led to an increase in children’s social anxieties as they are introduced to typical social settings.
Amanda DeAngelo,
Gabrielle Cullen
Mentor: Sandra Bednarz Petersen
**21 Drug Abuse Factors and the Future of Overdose**
*Graduate Student Project in Social Sciences*
The study aims to build upon our understanding of factors that lead to overdose, and how it will impact those at risk during the pandemic.

**Mentor:** Sandra Bednarz Petersen

---

**24 Mental Health Resources in the Department of Corrections**
*Alumnus Project in Social Sciences*
There are many different therapies and programs, represented across the state and country, to treat mental illnesses in corrections. Cognitive behavioral therapy, re-entry programs, and art therapy are just a few that have had positive effects on decreasing the symptoms of those with depression and other illnesses.

**Mentor:** Dr. Allison Richardson

---

**27 Effective Community Integration Interventions for Promoting Social Participation Among Young Adults with Autism who Have Comorbid Mental Illness**
*Graduate Student Project in Social Sciences*
There is limited research on occupational therapy (OT) interventions that target both developmental and psychological diagnoses in the young adult population. This research provides OTs with information and evidence on effectiveness of role playing interventions in a group setting with peers compared to Cognitive Behavioral Therapy (CBT) as an individual treatment for improving social participation skills needed for community integration in young adults with Autism and comorbid mental illness such as depression and anxiety.

**Mentor:** Dr. Morris Jenkins

---

**30 Coping Mechanisms in Infants, Comparing Pacifier Use and Thumb Sucking**
*Graduate Student Project in Social Sciences*
This research investigates common methods of self-soothing for infants, comparing the effectiveness of pacifier use and thumb sucking. Occupational Therapy practitioners can use this information to assist children and families in teaching ways to help their children cope with their emotions in a healthy way, assimilating into a social environment, gaining independence in self-soothing, and developing healthy sleep habits.

**Mentor:** Dr. Allison Richardson

---

**33 Using Vestibular Input to Reduce Problematic Behaviors in School-Aged Children with Autism**
*Graduate Student Project in Social Sciences*
School-aged children with autism may present with problematic behaviors in the classroom due to being over-stimulated or under-stimulated in their environment. This presentation will report on research regarding the use of vestibular input interventions for children with autism in order to reduce problematic behaviors in the classroom.

**Mentor:** Dr. Allison Richardson

---

**36 Transition Programs for Inmates that Support Community Reintegration**
*Graduate Student Project in Social Sciences*
Individuals released from incarceration often return to the correctional system within one year due to a lack of the necessary community living skills that are required for successful reintegration (Eggers et al., 2006). The purpose of this presentation is to discuss current research on transition programs for inmates returning to the community and the components that are most effective for community reintegration.

**Mentor:** Dr. Allison Richardson

---

**39 Impact of Weighted Modalities in the Classroom for Children with ASD**
*Graduate Student Project in Social Sciences*
Autism Spectrum Disorder (ASD) is a common diagnosis which can impact a child’s behavior and learning within the classroom. This presentation will discuss the effectiveness of weighted modalities in decreasing behavioral issues in the classroom to increase children’s learning. Recommendations for how occupational therapists can incorporate the use of weighted modalities into their practice in combination with other evidence-based interventions are suggested.

**Mentor:** Dr. Allison Richardson

---

**42 The Effectiveness of PECS vs iPads in Relation to Communication in Social Participation for Elementary-Aged Students with ASD**
*Graduate Student Project in Social Sciences*
Autism Spectrum Disorder (ASD) has posed a challenge for elementary students to participate in social activities due to communication challenges. This presentation aims to investigate which communication method is more effective, the picture exchange communication system (PECS) or communication with iPads, to increase social communication and participation in elementary aged students with ASD.

**Mentor:** Dr. Allison Richardson

---

**45 The Effectiveness of Electrical Stimulation for Post-Stroke Individuals**
*Graduate Student Project in Social Sciences*
This study aimed to investigate the effectiveness of electrical stimulation (ES) in improving upper extremity motor function for post-CVA individuals compared to those who did not receive ES. This presentation will discuss the efficacy of ES as a preparatory method utilized by occupational therapists with post-CVA individuals. Additionally, researchers will discuss the use of ES in conjunction with other functional activities and rehabilitation techniques in improving functional use of the hemiplegic upper extremity.

**Mentor:** Dr. Allison Richardson
48 Sensory Integration Therapy vs Cognitive Behavioral Therapy for Individuals With ADHD in School

Graduate Student Project in Social Sciences

Attention-Deficit Hyperactivity Disorder (ADHD) can have a severe impact on a child’s ability to learn and engage within the classroom. The purpose of this presentation is to discuss evidence regarding the effectiveness of cognitive behavioral therapy versus sensory integration therapy for children with ADHD within the classroom to improve their school performance.

Steven Banas, James Lucia, Catherine Giuffre
Mentor: Dr. Allison Richardson

51 My Friend Millie: Using Narrative Analysis to Understand Ableism

Graduate Student Project in Social Sciences

The goal of this study was to gain perspective of lived-experience and increase awareness of oppression and ableism through interviewing an African-American woman living with traumatic brain injury (TBI) and chronic pain resulting from a serious car accident. A literature review using Pharr’s Common Elements of Oppression was completed. Findings using narrative analysis and thematic coding produced practical implications for social work practice and education.

Melissa Gaston
Mentor: Dr. Ellen Thursby

54 Core Word Vocabulary Approach as an Intervention in Severe Speech Sound Disorders

Graduate Student Project in Nursing

This study involves a kindergarten male who exhibits inconsistent speech sound errors and the effectiveness of the Core Word Vocabulary approach on treating inconsistent speech sound disorder. Its main objective is for the client to produce target words consistently over multiple trials, with or without misarticulations present. Most literature and research regarding this approach is dated and this study updates the procedures and results that were obtained during the implementation of this treatment approach.

Brittney Bocian, Adrianna Adamczyk
Madeline Berg
Mentor: Dr. Victoria Reynolds

57 Effectiveness of the Cycles Approach and Minimal Pairs Approach on a School-Aged Child with a Phonological Processing Disorder

Graduate Student Project in Nursing

This study investigated how the cycles approach and minimal pairs approach can be used in therapy to decrease phonological processes present and increase speech intelligibility in those who present with a phonological processing disorder. A single-subject alternating treatment study was conducted on a participant who presented with the phonological processes of weak syllable deletion, gliding of the /ɹ/ phoneme, and gliding of the /ɛ/ phoneme. Results concluded that, when paired together, the cycles approach and the minimal pairs approach were beneficial in decreasing the phonological process of gliding of the phonemes /ɹ/ and /ɛ/ and increased overall speech intelligibility.

Areeg Khraiwish, Angelika Gniady, Karolina Okreglak, Vanessa Ortiz
Mentor: Dr. Victoria Reynolds

60 The Cumulative Effect of Linguistic Interventions on a School-Age Child with Literacy Deficits

Graduate Student Project in Nursing

The research focused on answering if a combined approach of phonological, syntactic, and semantic skills results in improved outcomes rather than any of these skills independently to better support a second-grade child with DLD and underlying literacy deficits. A single-subject alternating treatment design of the linguistic elements previously mentioned was conducted over a 16-week period. Results concluded that cumulative administration of phonological, semantic, and syntactic treatment helped to improve literacy skills among all areas targeted.

Alexis Moore, Hannah Bulthuis, Sakina Fatima
Mentor: Dr. Victoria Reynolds

63 Effects of Resistance Training on Stroke Patients Recovery Outcomes

Undergraduate Student Project in Nursing

Strokes are neurological events that can affect and impede neurological functions. Common physical disabilities after a stroke include hemiplegia and hemiparesis which can result in unilateral paralysis and muscle weakness. Muscle weakness and patient frailty as is determined by unintentional weight loss, exhaustion, low physical activity, slow walking speed, and low grip strength appear to be consistently associated with shorter survival rates, cognitive decline, and increased limitations on activities of daily living (ADLs). Through a dedicated strength and conditioning program, physical function can be improved, even in patients suffering from hemiparesis/hemiplegia, which can have a positive effect on the patient’s neurological function as well.

Gerardo Garcia
Mentor: Dr. Cathy Bohlin

65 Home Modifications for Preschool and Early Elementary Aged Children with Sensory Integration Difficulties

Graduate Student Project in Nursing

Sensory integration difficulties (SID) impact a majority of the pediatric population, leading to sensory-related restrictions in preferred and necessary occupations. This research aims to address gaps in the literature, identify the most beneficial home modifications to promote independence for children with SID, and determine which sensory systems are regulated with each modification. Information gathered will be used to advance the base of knowledge for OT practitioners and enhance the quality of interventions utilized.

Rachel Bernicky, Nicole Santillo, Rachel Zitergruen
Mentor: Dr. Allison Richardson
PRESIDENT’S 14TH ANNUAL ART EXHIBITION

Art exhibits will be displayed from 12:30-5:30 PM in the Art Gallery.
A Gallery Talk, representing winners from the President’s Art Exhibition, will take place from 2-3 PM.

First Place
Brigid Fornek – “Leap of Faith” - ink on paper installation

Second Place
Rachel Fosler – “A Dog Who Is Alive and Well” - plaster, skull, felt

Third Place
Jasmine Pryor – “The Creator” - acrylic and marker on canvas board

Honorable Mention
Julia Ardis – “Woolen Hat” - oil on canvas
Helen Arencibia – “I Know, That I Do Not Know.” - watercolor, ink and charcoal
Kyla Chalmers – “The Conversation” - colored pencil and soft pastels
Bowie Dauner – “Staircase” - graphite on paper
Alexa Kemp – “Tulips” - pencil on paper
Jen Purdy – “October Rust” - charcoal on paper
Miranda Scifers – “The Industrial Collector - A Self-Portrait” - oil painting
Tahj Yearby – “Control Your Balance” - charcoal still life on Rives BFK
CO-CHAIRS
Dr. Matthew Domico
Dr. Marie Meyer

COORDINATING COMMITTEE

Dr. Kari Stone, Chair, Abstracts
Syl Goyette, Member, Database Developer Coordinator, Judging/Awards
Dr. Jason Perry, Co-Chair, Concurrent Sessions
Dr. Ana Roncero-Bellido, Co-Chair Concurrent Sessions
Dr. Brittany Stephenson, Chair, Poster Sessions
Dr. Ellen Thursby, Member, Awards/Poster Judging
Kristin Callahan, Chair, Creative Works
Natalie Swain, Member, Creative Works
Dr. Adrianne Honnold, Creative Works

Dr. Mona LaMontagne, Chair, Marketing and Communications
Mike Progress, Business Plan and Pitch
Dr. Nanci Reiland, Chair, Schlachter Award
Dr. Shan Lin, Schlachter Award
Dr. Mahmood Al-Khassaweneh, Schlachter Award
Leslie Colonna, Schlachter Award
Dr. Erik Baker, Schlachter Award
Dr. Philip Blankenship, Schlachter Award
Kelley Plass, Library Services
Lisa Heizer, Member, Meetings, Events and Conferences
Deborah Vincent, Executive Assistant
TENTH ANNUAL

LEWIS UNIVERSITY

CELEBRATION OF SCHOLARSHIP