



URSA

Undergraduate, Research,

Scholarship and Arts.

Benedictine University

2023 Oral Presentation Schedule

April 13, 2023 ❖ 12:00-4:30 pm ❖ Goodwin Hall 317 and 321

SESSION 1: Goodwin 321 (12:00-1:30 pm)

♦ **Phanitha Meka**

"Identity in Language: The Effectiveness of Postcolonial Literature in English"

Postcolonial works often dissect ideas of otherness which are a result of colonization. Common themes are independence, identity, and childhood. Feelings of otherness lead to hybridity in blending the cultures of the colonizer and the colonized. Hybridity can also occur in the use of standard English where colonized countries will create new varieties of the language to better communicate. In this paper I explore what part language identity plays in the overall identity of a person focusing on India and the generations anteceding British colonialism who were raised with an English education. When this specific group writes in English, they draw from their cultural experiences and languages in order to bend the language in ways that fit their needs. To demonstrate identity in postcolonial literature, I analyze the poem "Freedom" by Jayanta Mahapatra.

Faculty sponsor: Sandra Gollin Kies

♦ **Saalih Abdul-Salam**

"How Religious Beliefs Affect Concern for the Environment"

Religious systems provide some of the most fundamental beliefs for a large fraction of the world's population, and they play an important role in many people's lives and worldviews across the globe. This research will attempt to examine how these belief systems impact people's perceptions of the natural environment, as well as their concern for it, on a global scale. Through a review of existing literature, this presentation will provide an overview of how the major world religions perceive ecological and environmental issues, and it will also discuss how these beliefs can be used to further cooperation among the religions. In addition, this presentation will propose some suggestions on how similarities between major world religions can be used to further interfaith cooperation, and how that cooperation in turn could be used to promote sustainability and conservation.

Faculty sponsor: Jean-Marie Kauth

♦ **Marielle Vestuto-Langford**

"Repairing Earth: A Proposal for Rescuing Our Animals, Plants, and Planet from Human-Induced Habitat Damage"

Habitat damage is a key factor in the loss of resources and natural environments and is the main threat to most endangered species. Habitat damage comes in three main forms—destruction, degradation, and fragmentation—and it affects plants, animals, and resources around the world. The proposed solution to this issue is a combination of both preservation and restoration of our natural environments. While protecting habitats that still exist,

governments must also restore what has already been damaged with a rebuilding project. This project will rehabilitate damaged habitats around the globe by using both federal and local governments to obtain the necessary workers and materials, selecting the habitats to restore, and overseeing progress until completion. Funds for this project will come from public donations; therefore, it is crucial that governments, plant and wildlife organizations, and members of the public raise awareness about this cause. The successful project will not only restore many natural habitats, but may also help save our species and our planet from further harm.

Faculty sponsor: Wendy Ward

SESSION 2: Goodwin 317 (1:30-3:00 pm)

♦ **Namrah Ahmed**

“Between Gestation and Menopause, Does Gene Expression Affect Hormones Associated with Polycystic Ovarian Syndrome”

Polycystic ovarian syndrome (PCOS) is a heterogeneous complex disease that affects 5-20% of all women across the world with a range of different symptoms and at different stages at which become they become present. In this study, I plan to research the stages between gestation and menopause in which gene expression patterns are associated with various diagnostic criteria of PCOS. My initial review was conducted by a PubMed search where I focused my attention on specific age groups, an excess versus an absence of androgen, and specific familial history. This is relevant to studying PCOS since gene expression alters during the course of life stages. In current practices, some studies have found that specific gene expression patterns which then increase the likelihood of PCOS diagnosis. In contrast, some other studies have shown that during fetal development, an excess of androgen hormones exposes the fetus to PCOS. Yet other studies have demonstrated that hirsutism, weight gain, irregular menstrual cycles, and insulin resistance are just a few symptoms that, if caught early, can be managed through lifestyle adjustments. A literature review revealed that many studies lack the correlation between genetics, hormonal imbalance, and various diagnostic criteria of PCOS. The intended impact of these findings can address the unknown underlying causes of PCOS.

Faculty sponsor: Lindsey Mao

♦ **Mohammed Bilaluddin**

“A Critical Review of Gene Therapy versus Cognitive Stimulation Therapy (CST) in Mild- to Moderate-Stage Dementia and Alzheimer’s Patients”

The increasing onset of Alzheimer’s Disease (AD) in US and global populations have produced diverse pharmacological therapies such as acetylcholinesterase inhibitors, which yield adverse effects on brain histology in AD patients. Two emerging therapeutic methods offer potential in improving AD patient quality of life: Cognitive Stimulation Therapy (CST) and gene therapy. Current meta-analyses compare the individual effects of CST and gene therapy, but do not determine which treatment is more efficacious and suitable for AD patients. This literature review synthesizes and evaluates randomized clinical trials and surgical experiments in the past five years, analyzing methods such as neurotrophic stereotactic injections, real Transcranial Magnetic Stimulation (rTMS), and S-PrediXcan imaging. Both treatment interventions are delineated, and through the use of selective criteria (safety and commercial viability of the treatment, diagnostic prevention of late-stage neurodegeneration), the review suggests that neurotrophic gene therapy is a superior intervention in neurobiological disease.

Faculty sponsor: Sandra Kies

♦ **Kierra Pendill**

“Existential Questions from a Planarian: Circadian Rhythm or Light-Driven Photo-Repair?”

Planaria (*Schmidtea mediterranea*) are freshwater flatworms with a remarkable capacity for regeneration, making them popular model organisms in stem cell biology and regeneration. Planaria are photophobic and are found hiding away from light. The planarian gene associated with controlling its circadian rhythm has not been characterized. The protein produced from the gene associated with circadian rhythm is called cryptochrome (Cry). It is well known

based on studies on other organisms that enzyme DNA photolyase (PL), which does blue light driven DNA repair has high sequence similarity to cryptochromes and are both flavoproteins that share a common origin and similarities in amino acid sequence. The goal of this work is to determine whether this planarian protein has a cryptochrome or photolyase function by subcloning it into a pET19B expression plasmid. The protein also has a Histidine-tag which has a high affinity to a Nickel-NTA column. This is very useful for purifying the protein with a minimal number of steps. Results from the subcloning, protein expression , purification and characterization are presented in this work.
Faculty sponsor: Madhavan Narayanan

SESSION 3: Goodwin 321 (1:30-3:00 pm)

- ◆ **Nicole Brace**

*"The Perception of the Intellectual in Walt Whitman's *Song of Myself* and Ralph Waldo Emerson's 'Self-Reliance'"*

Ralph Waldo Emerson's essay "Self-Reliance" examines the idea of genius, which he defines as being able to resist conformity and consistency and share thoughts and ideas openly with others. Emerson's ideas in turn influence Walt Whitman's poem *Song of Myself*. Though both authors focus on the individual and being self-reliant, Emerson focuses on the individual mind and how the individual needs to consciously practice the way they think. By contrast, Whitman examines how the outside world influence's an individual's thoughts.

Faculty sponsor: Zubair S. Amir

- ◆ **Jesus Cortez**

*"The Complexities of Moral Conflict: Moral Philosophy in the Graphic Novel *Watchmen*"*

In this paper, I analyze how Alan Moore and Dave Gibbons explore and apply moral philosophy in their graphic novel *Watchmen*, which takes place in an alternate timeline where masked heroes have influenced history from the end of World War II through the high tensions of the Cold War. The two main philosophical positions in the text emerge from the heroes' efforts to prevent World War III. Rorschach adopts a deontological/absolutist outlook, while Ozymandias's actions are guided by a consequentialist/utilitarian perspective. Exploring these characters' philosophies and their consistency reveals what Moore and Gibbons have to say about moral philosophy.

Faculty sponsor: Zubair S. Amir

- ◆ **Raneen Alabadi, Nusaiba Hashmi, Zain Haq, Malaak Khalaf**

"An Analysis of Malcolm X's 'The Ballot or The Bullet' and Hillary Clinton's 'Women's Rights Are Human Rights'"

This presentation offers a merged analysis of two famous speeches: "The Ballot or the Bullet," by Malcolm X (1964), and Hillary Clinton's "Women's Rights Are Human Rights" speech (UN Fourth World Conference on Women). Although both speakers focused on different issues, they had a common underlying theme: equal rights and the need for marginalized groups to have a voice in shaping their futures. Malcolm X's speech was a call to action for Black Americans to use their voting power to demand change or use force if necessary. The civil rights movement was gaining momentum at the time, but Malcolm X felt it needed to move faster toward achieving true equality. This presentation also offers insight into the purpose of Clinton's speech and examines principles of rhetoric—ethos, logos, and pathos—used by Clinton to advocate for equality for women worldwide. Clinton's address shed light on how women were undervalued and subjected to inequality and called for immediate action.

Faculty sponsor: Luigi Manca

SESSION 4: Goodwin 321 (3:00-4:30 pm)

- ◆ **Martyn Welenc**

"The Historical Depiction of Transgender People in Media"

My research focuses on identifying the patterns and changes in how transgender individuals have been portrayed in the media, specifically emphasizing early images and stories of trans people as far back as the 1930s, and how these

attitudes have transitioned in modern media forms today. I followed the paper trail of news reports, tracing the changes in word usage, and paying attention to shifts in representation both positive and negative, taking into account that inaccurate, or misinformed news sources may still be positive so long as their intents are not in malice. The results had mixed messages but the strife many trans people were facing were not from the media outlets telling their stories. Ultimately, my presentation is meant to educate the audience on the history of trans peoples journey into mainstream representation.

Faculty sponsor: Steven Burgess

♦ **Rasheeduddin Farooqui, Amaan Faruqi, Kaif Khan, Adeen Rajput**

“Uncovering the Truth: The Dangerous Combination of Media Bias and White Supremacy”

Reverend William Barber is a prominent civil rights leader and political activist who has been a vocal critic of media biases. Barber states, “we are in the midst of a third reconstruction.” But why is that, one may ask? Why is it that, after all the hardships and all the suffering our nation has endured throughout its history, we have yet to find peace and tranquility? Only after uncovering the past and understanding the power of white supremacy can we begin to comprehend the answer to this question. According to Barber, media bias is a threat to democracy and it is essential for journalists to provide accurate, unbiased information to the public.

Faculty sponsor: Luigi Manca

♦ **Samiha Syed**

“Higher Ed Best Practices: Student-Centeredness, Empowerment, Representation, and Leadership”

This project focuses on the concept of student-centeredness in higher education. Through a literature review of scholarly research on access to education and student wellness as a social justice issue through a discussion of issues tied to equity gaps, retention rates, campus climate, and unmet basic needs as barriers to education and intersectionality-based topics. The work of higher education agencies, organizations, civic bodies and scholar research elucidates the importance of student centeredness and support of the student voice. Research in Illinois and the nation as a whole points to the importance of student engagement and Student Senate at Benedictine University, the voice of the students as the “eyes and ears” on campus, will present on this topic and engage attendees in the philosophy of what it means to be “student-centered,” part of which is the relationship of the campus community with student governments on campus. In addition to discussing research-based best practices in higher education, the presentation itself, incorporates narratives from a year-long research-based project on students’ basic needs, wellness and diversity, equity and inclusion, serves as an example of a best practice in application.

Sponsor: Marco Masini