SPEARSFEST 2025

Program of Events

Koalas Rise:
Excellence in Action

Tuesday, April 22

COLUMBIA COLLEGE

SpearsFest

Tuesday - April 22, 2025

Koalas Rise: Excellence in Action

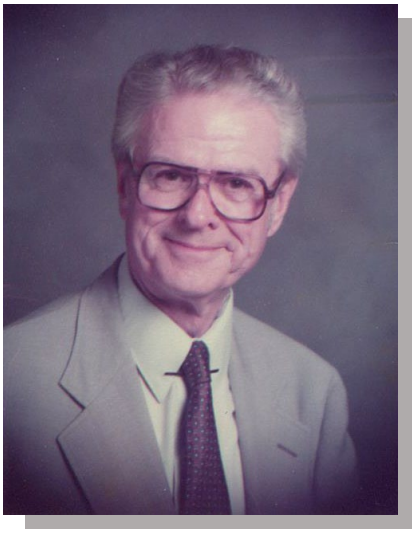
SCHEDULE OF EVENTS

9:00 a.m. – 10:25 a.m.	Opening Session: Welcome, Program Overview, Awards, Keynote Speaker Spears Concert Hall
10:30 a.m. – Noon	Morning Presentations Breed Leadership Center (BLC)
Noon – 12:55 p.m.	Lunch (on your own)
	Honors Program Senior Medallion Ceremony | Alumnae Hall
1:00 p.m. – 3:30 p.m.	Afternoon Presentations Breed Leadership Center (BLC)
3:30 p.m. – 5:00 p.m.	Poster Presentations Learning Commons (Edens | main floor)
	Partners in Peace Nobel Museum Learning Commons (Edens | top floor)
4:00 p.m. – 6:00 p.m.	Studio Art Graduating Senior Exhibition Goodall Gallery
6:00 p.m.	Senior Dance Capstone Concert Showcase Cottingham Theatre

https://www.columbiasc.edu/about/events/spearsfest-2025

SpearsFest Schedule at a Glance

Start time	101	102	103	104	105	302	305	201
9:00 AM	**Welcome, Opening Session and Whitson Award Presentations - Spears Concert Hall**							
9:30 AM	**Keynote Speaker - Spears Concert Hall**							
10:30 AM		Clams & Contaminants in the Congaree		Recycling Water: The Path from Source to Waste and Back-Darci	Physical Therapy Aide Internship	Zipf Law and how it relates to everyday life		
11:00 AM	Elgin Veterinarian Hospital Internship		The Clothesline Project				The 'Innovative' MiSTER: "A title is only important if one's character & integrity dictate its use"	Understanding the "isms" of Social Justice
11:30 AM	Social Media's Impact on Tourism	Sexual Harassment in the Hospitality Industry		Pura Vida: Our Global Education-Sneed	Choreography as a Form of Research	"The Lorax" by Dr. Seuss - a reading for Earth Day		
12:00 PM	Honors Seniors Medallion Ceremony - Alumnae Hall							
	Lunch (on your own)							
1:00 PM	Same Game, Different Rules: Examining Gender Differences in Sports		The Threat of Mass Shootings and Hate Crimes on Minorities		Raising Awareness to Issues in Dance 1- Aggie		Directed Teaching Experience	The Road to Social Work: Breaking Myths, Building Change
1:30 PM		Technology in the Classroom: Opportunity or Obstacle?		Level Up: Building Careers with Purpose		Recycling is What Makes the World Go Round		
2:00 PM	Adaptation in Film and Literature				Raising Awareness to Issues in Dance 2- Hope		Tapped In: The Science and Craft of Brewing at Peak Drift	
2:30 PM		Higher Education is in Danger: The Rising of Censorship in Curriculum	Unlocking Memories: Marijuana Treatment for Alzheimer's	Smart Money Moves				Clash of Theories: The Criminological Championship Debate
3:00 PM	Representation of Women in Criminal Justice Fields					"Paige's Path in Occupational Therapy"	STI Prevention	
3:30 PM to **5:00PM**	**Poster Presentations - Learning Commons - Main floor**							
	Partners in Peace Nobel Museum - Top floor							
4:00 PM	**Studio Art Graduating Senior Exhibition Reception - Goodall Gallery**							
6:00 PM	**Senior Dance Capstone Concert Showcase - Cottingham Theatre**							



Dr. R. Wright Spears
(1912-2015)

When Reverend Doctor R. Wright Spears was hired in 1951, the Board of Trustees said they were looking for a president with “enthusiasm, energy, vision, and commanding respect.” For over 20 years, Dr. Spears demonstrated these qualities and more, forever changing the institution and its community. SpearsFest is named in honor of Dr. Spears, who served as president of Columbia College from 1951-1977. SpearsFest is a celebration of experiential learning, and a recognition of community, leadership, and service learning. Throughout SpearsFest members of the Columbia College community are invited to share individual and/or group presentations that explore issues of diversity, gender, and social justice and showcase the wide variety of academic excellence and experiential learning occurring across campus.

SPEARSFEST KICK-OFF

9:00 a.m.

Opening Session, Welcome, Keynote Speaker and Whitson Award Presentations | Spears Concert Hall

Kickoff the morning with a welcome from Dr. Kristine Barnett, Executive Vice President of Academic Affairs and Provost. Learn about Dr. Spears and the history of SpearsFest. We will also be announcing the recipients of the Caroline Whitson ‘Leadership that Makes a Difference' Awards.

Keynote Speaker – Callie Goodwin

Callie Goodwin is a dynamic entrepreneur and social media strategist, renowned for her ability to cultivate authentic online communities. As the founder of 'Sparks of Joy Co.,' she leveraged the power of TikTok to transform heartfelt connections into a thriving business, selling over 40,000 greeting cards. Beyond her entrepreneurial success, Callie is a seasoned higher education social media expert, currently serving as a social strategist at ZeeMee. She also hosts the podcast 'Confessions of a Higher Ed Social Media Manager,' where she shares invaluable insights on digital engagement. In her keynote, Callie will reflect on how her time at Columbia College shaped her career, highlighting the pivotal moments and lessons learned that propelled her to become a leader in the digital landscape. She'll offer actionable strategies and inspiring stories, empowering audiences to harness the power of social media for meaningful connection and business growth, all while demonstrating the lasting impact of a strong educational foundation.

MORNING PRESENTATIONS

10:30 a.m.

Recycling Water: The Path from Source to Waste and Back | BLC 104 (25 minutes)

Description: The importance and complexity of water treatment in the United States will be summarized in this presentation. It will trace water's journey from natural sources like rivers and lakes through a rigorous treatment process to become safe drinking water. Including the process of waste water being treated and returned back to the source. Understanding the different regulations in place that ensure the protection of both public health and natural ecosystems.

Presenter: Darci Dawson

Associated Course/Faculty: PS 391ES: Capstone Sustainability Project / Dr. Kirt Moody

Clams & Contaminants in the Congaree | BLC 102 (25 minutes)

Description: Corbicula fluminae are an invasive species of clam that can be found across the entire United States. In South Carolina, they have invaded the Congaree River, wreaking devastation on the local ecosystem and driving out native species; they have also presented a unique opportunity for research and growth. The Congaree River was subjected to intense pollution in the past, yet these clams are strikingly resilient and have continued to flourish. With this context and the species' unique characteristics, they are a promising organism through which riverbed pollution and disruption can be studied. By using motor oil and simulating a measured, polluted environment, the relationship between the clams and contaminants could then be studied.

Presenter: Arwen Wedgeworth

Associated Course/Faculty: HON 498 IS: Influence of Corbicula and Oil / Dr. Kirt Moody

Physical Therapy Aide Internship | BLC 105 (25 minutes)

Description: I will be sharing my experience as a Physical Therapy Aide at the South Carolina Vocational Rehabilitation Department. This presentation will provide an overview of the organization and its mission, as well as the role that this organization plays in serving clients with rehabilitation needs. I will discuss typical challenges, the day-to-day operations of the facility, and how my role contributed to these efforts. I will also discuss the skills required, reflect on how the experience aligned with my expectations, and its impact on my career goals.

Presenter: Nathan Rodaway

Associated Course/Faculty: EXSC 470 Exercise Science Internship / Dr. Alexandra Szarabajko

Zipf Law and How it Relates To Everyday Life | BLC 302 (25 minutes)

Description: Zipf's Law is a principle that suggests in many natural datasets, like city populations or word frequencies, the frequency of an item is inversely proportional to its rank. For example, in a list of cities, the largest city will have roughly twice the population of the second-largest city, and so on. This law also applies to language, where a small number of words are used most frequently, and a few notes dominate in music. Zipf's Law highlights the unequal distribution of resources, people, and cultural elements, reflecting a pattern that can be found in various aspects of everyday life, from urban development to communication and music composition.

Presenter: Mikayla Stout

Associated Course/Faculty: MATH 498LS-91 / Dr. Alexandru Atim

11:00 a.m.

Elgin Veterinarian Hospital Internship: A Pathway To Sonography | BLC 101 (25 minutes)

Description: This presentation is an overview of my experiential learning experience working as an intern at Elgin Veterinary Hospital. Through the internship, I had hands-on training in drug administration, animal restraint procedures, and diagnostic ultrasound imaging. This presentation provides background on why veterinary imaging is so vital in modern medicine and specifically what I did working as an intern.

Presenter: Reaiah Carter

Associated Course/Faculty: BIO 370 / Dr. Marlee Marsh

The Clothesline Project | BLC 103 (50 minutes)

Description: A group of students will share personal experiences and bring awareness to domestic violence for campus via The Clothesline Project. Students will share and give an overview of what is involved and then invite audience members to create a shirt in the dining hall following the presentation.

Presenters: Taylor Hopkins, April Pendergrass, Quo'vaiya Chapman

Associated Faculty: Liz Henrie

The 'Innovative' MiSTER: "A Title Is Only Important If One's Character And Integrity Dictate Its Use | BLC 305 (50 minutes)

Description: The Innovative MiSTER is a presentation dedicated to explaining the basis/history of the Call Me MiSTER program, highlighting the Columbia College Cohort's jounrney, and detailing the importance of mentorship and innovative educators/professionals.

Presenters: Columbia College Call Me MiSTER Cohort

Associated Course/Faculty: Craig King

Understanding the "isms" of Social Justice | BLC 201 (50 minutes)

Description: Understanding the "isms" of Social Justice explores various forms of unfair treatment prevalent in society, including racism, sexism, classism, ableism, and ageism. Each "ism" will be thoroughly explained and accompanied by real-life examples illustrating how these biases manifest in everyday experiences. By sharing personal encounters with discriminatory practices, participants will gain insight as to how students are influenced to pursue careers as social workers. These stories will highlight marginalized communities' harsh realities, showcasing the direct impact of systemic injustice. These experiences of discrimination will open participants eyes to social inequalities and understand fueled commitment to effect positive change. Social workers are passionate about advocating for those whose voices go unheard. By raising awareness of these "isms," participants will be inspired to join social justice efforts in creating a more equitable and just society for everyone.

Presenters: Shannon Adams, Shontae Hook & Adrian Leeming

Associated Course/Faculty: SOWK 478-Field Instruction Seminar / Alexis Scurry

11:30 a.m.

Pura Vida: Our Global Education | BLC 104 (25 minutes)

Description: Pura Vida: Our Global Education highlights our track and field team's spring break journey to Costa Rica, where we combined athletic training with meaningful community service. Through hands-on learning, cultural immersion, and teamwork, our senior class and coaches broadened our perspectives, strengthened our bonds, and embraced the spirit of "Pura Vida." This transformative experience deepened our commitment to service and global citizenship.

Presenters: Dr. C.A. Sneed, Anaya Canty, Darci Dawson, Xavier Linen, Daylon McDonald and Gavin Rice

Associated Faculty: Dr. C.A. Sneed

Sexual Harassment in the Hospitality Industry | BLC 102 (25 minutes)

Description: This presentation explores the topic of sexual harassment from a social justice perspective, focusing on what it is, how to recognize it, and its harmful impact on the hospitality industry. It highlights real-world examples, including inappropriate remarks, sexual jokes, and unwanted advances while emphasizing the importance of promoting a respectful work environment for all. The presentation also covers legal protections, reporting options, and broader social justice implications. To wrap up, the audience participates in a group activity that encourages discussion for addressing and handling these real-life situations.

Presenter: Dominick Young

Associated Course/Faculty: BUS 348: Special Topics in Service Mgmt / Dr. Carole Sox

Choreography as a Form of Research | BLC 105 (25 minutes)

Description: Senior BA Dance Studies Majors, Aggie Bofilios and Victorious Bright, host a panel discussion and presentation on their choreographic process as a part of their Capstone Leadership semester. Their research investigates dance and identity from both philosophical and healing spaces.

Presenter: Aggie Bofilios and Victorious Bright

Associated Course/Faculty: DAN 481 LS: BA Senior Project / Erin Bailey

"The Lorax" by Dr. Seuss - a Reading for Earth Day | BLC 302 (25 minutes)

Description: A special reading/performance with visualizations in celebration of Earth Day.

Presenter: Dr. Kirt Moody

Social Media's Impact on Tourism | BLC 101 (25 minutes)

Description: Social media has developed gradually over the years. Now more than ever, more touristic places can be found through social media for example, Tik Tok, Instagram, Facebook, twitter, etc. Editing videos to be more capturing for audiences have evolved. You can edit them in creative styles or just put the on social media now that more and more people spend there time on it. I want to inform my audience of the importance and opportunities that social media has for tourism.

Presenter: Brayden Garcia

Associated Course/Faculty: BUS 348: Special Topics in Service Mgmt / Dr. Carole Sox

MID-DAY BREAK

12:00 p.m.

Honors Senior Medallion Ceremony | Alumnae Hall (60 minutes)
Presenter: Dr. Marlee Marsh
Associated Course/Faculty: Dr. John Zubizarreta Honors Program

Lunch | Student Union Dining Hall *(on your own)*

AFTERNOON PRESENTATIONS

1:00 p.m.

The Road to Social Work: Breaking Myths, Building Change | BLC 201 (50 minutes)
Description: This presentation aims to move beyond simplistic narratives and embrace the rich tapestry of human experience that defines the profession of social work. The power of story telling within social work will allow us to shatter myths, inspire understanding, and illuminate the importance of human connection. Through personal stories, participants will understand the heart of social work and its enduring commitment to building a more just and equitable world. Social work is often misunderstood due to myths and misconceptions shaped by public perception. To combat this narrative, this presentation will challenge those stereotypes and highlight the true impacts of the profession.
Presenters: Amanda Creathorn, Elaysha Kilpatrick, Karla Mendez and Tylia Wilson
Associated Course/Faculty: SOWK 478-Field Instruction Seminar / Alexis Scurry

Same Game, Different Rules: Examining Gender Differences in Sports | BLC 101 (25 minutes)
Description: This presentation will examine gender bias in women's sports: challenges, progress, and the ongoing fight for equality.
Presenter: Aniya Sims
Associated Course/Faculty: ENG 361 / Claire Lenviel

Directed Teaching Experience | BLC 305 (25 minutes)
Description: Directed Teachers will guide you through their student teaching experiences using engaging videos. You'll witness the challenges and triumphs they face in the classroom. From lesson planning and classroom management to inspiring student interactions and innovative teaching methods, these videos will provide a comprehensive look into the world of student teaching.
Presenter: Ebbie Hickman
Associated Faculty: Ebbie Hickman

The Threat of Mass Shootings and Hate Crimes on Minorities | BLC 103 (50 minutes)

Description: Criminal Justice students discuss the intersection between mass shootings and hate crimes on minorities. By examining case studies and applying criminological theories, we can explore the motivations and implications of these violent acts. Join us for an insightful discussion that explores the complexities of hate-motivated violence and its impact on society.

Presenters: Jewell Parnell, Jana Merkel, Stefan Merkel, April Pendergrass, Fantaysia Coleman, Rachel Marquez

Associated Course/Faculty: CJ 390 Mass Shootings and Hate Crimes / Dr. Traci Dingle

Raising Awareness to Issues in Dance-1 | BLC 105 (50 minutes)

Description: The Sociopolitical Dance Class will lead Prezi presentations raising awareness about various aspects of the dance field. Charged with the mission to make a positive impact within the dance community, each student will present findings on a topic of their choice to incite change by building awareness amongst the local and campus community. Topics ranging from mental health connections, social dance's role in racial tension & resistance, and elevating cultural forms, specifically the importance of Latin dance and characteristics of Caribbean dance, will be explored.

Presenters: Aggie Bofilios, BreShawn McCloud-Feaster, Diamond Mendez, Chelsi Quashie

Associated Course/Faculty: DAN 320 - Dance in Sociopolitical Contexts / Jessica Moore

1:30 p.m.

Technology in the Classroom: Opportunity or Obstacle? | BLC 102 (25 minutes)

Description: This presentation examines the impact of technology in the classroom, including its benefits, challenges, and role in modern education. While technology improves student engagement, accessibility, and personalized learning, it also has drawbacks such as decreased social skills, negative health consequences, and an overreliance on digital tools.

Presenters: Amariya Benson, Kinzly Cohen

Associated Course/Faculty: EDU 218: Moral & Political Foundations of Education / Dr. Gretchen Whitman

Level Up: Building Careers with Purpose | BLC 104 (50 minutes)

Description: Get inspired by the Honors students of BUS 499: Career Development as they share key strategies for turning passion into purpose. This dynamic presentation explores resume tips, personal branding, networking, interview confidence, and the power of a growth mindset. Whether you're just starting out or rethinking your future, discover how to take the next step with intention and impact.

Presenters: Dr. C.A. Sneed, Yazmin Hardy, Xavier Linen, Mackenzie Pringle, and Gavin Rice

Associated Course/Faculty: BUS 499: Business Portfolio Development / Dr. C.A. Sneed

Recycling is What Makes the World Go Round | BLC 302 (50 minutes)

Description: For this presentation, I will be explaining how there is more to recycling than just tossing bottles, cans and paper in bins and how recycling doesn't just clean up our environment but provides people with jobs and new products.

Presenter: Matthew Wooten

2:00 p.m.

Adaptation in Film and Literature | BLC 101 (25 minutes)

Description: This presentation dives into Akira Kurosawa's "Throne of Blood" as an adaptation of Shakespeare's "Macbeth" and looks into how adaptation from literature to film causes a competing relationship between the themes of the original source material and the aesthetics of the adaptation, and what this means for adaptation as a whole.

Presenter: Amanda Lohrey

Associated Course/Faculty: ENG 381 / Professor Trey Lawson

Raising Awareness of Issues in Dance-2 | BLC 105 (50 minutes)

Description: The Sociopolitical Dance Class will lead Prezi presentations raising awareness about various aspects of the dance field. Charged with the mission to make a positive impact within the dance community, each student will present findings on a topic of their choice to incite change by building awareness amongst the local and campus community. Topics ranging from why people quit dancing, dance criticism, funding & resource inequality, and the relationship between dance & science will be explored.

Presenters: Hope Anglemyer, Jay Ayeni, Kelsey Edwards, Abigayle Johnson

Associated Course/Faculty: DAN 320 - Dance in Sociopolitical Contexts / Professor Jessica Moore

Tapped In: The Science and Craft of Brewing at Peak Drift | BLC 305 (25 minutes)

Description: Join me for an inside look at my microbiology internship experience at a local brewery just minutes from Columbia College. This presentation will explore the workings of science and brewing, from the daily routines and responsibilities in the lab to the microbiological processes that drive beer production. Discover the behind-the-scenes work that keeps a brewery running smoothly and how hands-on microbiology plays a role in ensuring quality and consistency in every batch.

Presenter: Cruz Mata

Associated Faculty: Dr. Kirt Moody

2:30 p.m.

Higher Education is in Danger:The Rising of Censorship in Curriculum | BLC 102 (25 minutes)

Description: In this presentation, the rising threat of censorship is explored in relation to how it endangers higher education and its curriculum, especially literary theory and models. These threats are analyzed in this presentation through the novel Brave New World by Aldous Huxley.

Presenter: Alivia Cunningham

Associated Course/Faculty: ENG 361: Literature and Social Justice / Dr. Claire Lenviel

Smart Money Moves | BLC 104 (50 minutes)

Description: Join the Honors students of BUS 171: Personal Financial Management as they break down the real-world money moves every student should know. From budgeting hacks and credit card traps to saving for college and investing early, this interactive presentation empowers students

to take control of their financial futures. Learn how to make your money work for you—now and beyond graduation.

Presenters: Dr. C.A. Sneed, Jada Robinson, Jonathan Rodriguez, and Sanai Rose

Associated Course/Faculty: BUS 171: Personal Financial Management / Dr. C.A. Sneed

Unlocking Memories: Marijuana Treatment for Alzheimer's | BLC 103 (50 minutes)

Description: Cannabinoids are a class of chemical compounds found naturally in the cannabis plant, also known as hemp or marijuana. There are over 100 different cannabinoids that have been identified, but the two most well-known are THC and CBD. Research on the potential health benefits of cannabinoids is ongoing. However, some studies suggest that they may help treat a variety of conditions, including Alzheimer's. This study aims to better understand the mechanism of action, at the atomic level, of the less explored cannabinoids in treating and preventing Alzheimer's.

Presenters: Madison Rabon, Breanna Harris

Associated Course/Faculty: CHEM 356-01: Physical Chemistry II / Dr. Vinayak Bhat

Clash of Theories: The Criminological Championship Debate | BLC 201 (50 minutes)

Description: The final round of our Criminological Theories Debate brings together the top two teams who have demonstrated exceptional analytical thinking, application of criminological frameworks, and persuasive communication throughout the preliminary rounds.

In this championship round, teams will be presented with a new, complex fact pattern involving a high-profile criminal event that challenges conventional understandings of crime, motive, and justice. Each team will identify and defend the most justifiable criminological theory or combination of theories to explain the behaviors, decisions, and systemic responses involved.

The winning team will not only earn the title of Criminological Debate Champions but also represent Columbia College as the gold standard of critical thinking and applied criminal justice theory.

May the best theory—and team—win!

Presenters: Team 1: Noah Jackson & Quovaiya Chapman
Team 2: Kaylee Barnes & Teagan Eisenring

Associated Course/Faculty: Criminal Justice 315: Criminological Theory / Dr. Traci Dingle

3:00 p.m.

The Representation of Women in Criminal Justice Fields | BLC 101 (25 minutes)

Description: An overview of under-represented women as a whole in the Criminal Justice field. Using a literary work by the author Patricia Cornwell to help show the struggle and trauma this has caused for women everywhere who want to pursue this career.

Presenter: Lilli Groves

Associated Course/Faculty: ENG 361: Literature and Social Justice / Dr. Claire Lenviel

Paige's Path in Occupational Therapy | BLC 302 (20-25 minutes)

Description: In this presentation, I will share my journey as an Occupational Therapy intern, highlighting the skills I developed, the patients I worked with, and the impact of OT on individuals' daily lives. I will discuss my responsibilities, key takeaways, and how this experience has shaped my understanding of the field. Through real-world examples, I will showcase the importance of occupational therapy in promoting independence and improving quality of life. Join me as I reflect on the lessons learned and the valuable insights gained from my internship.

Presenter: Paige Branham

Associated Course/Faculty: EXSC 470: Internship In EXSC / Dr. Alexandra Szarabajko

STI Prevention | BLC 305 (25 minutes)

Description: I will give a presentation on how young women of the ages 14-28 in a specific geographic group are having multiple STI's. It's a research topic associated with Big data analytics program with USC.

Presenter: Honesty Harris

Associated Faculty: Dr. Chakia McClendon

RECEPTION & POSTER PRESENTATIONS | Learning Commons

3:30 – 5:00 pm

Reception | Learning Commons (main floor)

Light refreshments will be provided for presenters and attendees to enjoy as they walk around the tabling/poster presentation room, share with one another about experiential learning, and celebrate service, leadership, social justice, and community involvement.

Partners in Peace Nobel Museum | Learning Commons (top floor)

Description: The Partners in Peace initiative is a partnership between the Honors program and the Nobel Peace Center, the Wellness in Action 5K is also a part of this initiative. This will be a continuation of the Partners in Peace Initiative where the presenters will be hosting a "mock" Nobel Peace center museum and showcasing the history of the Nobel Peace Center and the prize itself. This will be an interactive showcase where students and members of the audience will participate in learning about the Nobel Peace prize.

Presenters: Samantha McDaniel and Gavin Rice

Associated Course/Faculty: HON 490 / Dr. Marlee Marsh

POSTER PRESENTATIONS | Learning Commons (main floor)

Mapping Health Inequities: Investigating Health Outcomes in the Columbia College Neighborhood

Description: This study examines disparities in physical activity and health outcomes between the primarily African American neighborhood surrounding Columbia College with a primarily white neighboring area of Forest Acres. Findings highlight significant disparities, including higher rates of physical inactivity and chronic conditions that align with previous research demonstrating African Americans in the South have a higher risk for chronic disease and under-assessment of health concerns. The study emphasizes the need for targeted public health interventions to improve health literacy, healthcare access, and physical activity opportunities in the 29303 area.

Presenter: Mina Shull

Associated Faculty: Dr. Alexandra Szarabajko

How Purity Culture Affects More Than We Think

Description: Looking at how Purity Culture Affects comprehensive sex knowledge within South Carolinian adults. I interviewed people around the ages of 18-35 and asked them questions to assess their comprehensive sex knowledge.

Presenter: Sarah Rice

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

Comparing Physical Therapist's Experience with Exercise Treatments for Sciatica in the Physically Active vs Sedentary Patients

Description: This qualitative study explores the perspectives and preferences of physical therapists (DPTs) and physical therapy assistants (PTAs) regarding the implementation of various therapy methods for sciatica patients. Specifically, it examines their views on incorporating increased physical activity, the McKenzie Method, and the Williams Flexion Method as treatment approaches for physically active versus sedentary individuals with sciatica.

Presenter: Mina Shull

Associated Course/Faculty: Honors 490 / Dr. Alexandra Szarabajko

The Effects of Marijuana vs. Alcohol on Cognitive Function

Description: Does Marijuana or Alcohol have a greater effect on cognitive function/ lifestyle choices for college age students? This presentation will investigate this question.

Presenter: Nebuchadnezzar Young

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

The Impact of Social Media Apps on Anxiety & Sleep Habits: Exploring Potential Correlations

Description: This research explores the relationship between social media usage, anxiety levels, and sleep habits among college students. By analyzing social media engagement patterns, we aim to identify potential correlations between excessive usage and its effects on anxiety and sleep habits.

Through this, the research seeks to provide insight into how digital habits influence college students' overall health and well-being.

Presenters: Erica Hernandez, Laney Cate Glover, Princess Davenport

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

New Field, New Rules: Thriving in College Athletics

Description: My research explores how athletes can successfully transition the skills and success they experienced in high school sports to their college careers. To better understand this process, I created a survey that gathered responses from college athletes. The survey asked about the sports they played in high school, whether they continued playing those sports in college, and which environment—high school or college—provided a more enjoyable experience. It also examins how their feelings toward their sport have changed since transitioning to college, whether they feel more or less passionate about it. By analyzing these insights, I aim to uncover key factors that influence athletic success and overall satisfaction as athletes move from H.S. to college. The goal is to provide valuable recommendations for improving the athletic transition process for future student-athletes.

Presenters: Jeremiah Hollins and Taitiyana Fenderson

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

Tuning In: The Emotional Influence of Music Genres on College Students

Description: Music has long been recognized as a powerful force that influences emotions, behaviors, and even cognitive functioning. For college students, music is not only an important part of daily life, but it also serves as a tool for coping with stress, enhancing mood, and fostering connection. In this study, I explored how different music genres affect college students' emotions and which genres they turn to when feeling stressed. Through a survey of 20 college students, I sought to understand the emotional responses they experience to various music genres and their preferred genre when facing stress.

Presenters: Morgan Carpenter and Divine Eugene

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

Hitting New Peaks in Mental Health: A Study on Mental Wellness in the Bouldering Community

Description: Bouldering as a sport is becoming more popular, and as such there is growing research on its implications for mental health. A new kind of therapy has been developed called Bouldering Psychotherapy which combines sport with mental health. We surveyed climbers about their mental health through sport and asked if they had heard of this therapy.

Presenters: Cecilia Gardner and Rachel Holden

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

The Reality of Interpersonal Violence

Description: Interpersonal Violence occurs when a someone uses their control and power over another individual by the means of various types of abuse, resulting in psychological and/or physical trauma of the victim. Interpersonal Violence is not only a crime between two individuals and there is no plain and simple explanation of these crimes, nor a solid solution, however there is more that can be done in terms of the victims and what they will go through as a result.

Presenter: Hadiyah Dulaney

Associated Course/Faculty: ENG 361: Literature and Social Justice / Dr. Claire Lenviel

Raising Scholars: The Impact of Parenting on College Academic Success

Description: For my research project on how parenting style impacts academic success in college students, I collected 29 survey responses. Participants were asked to report their GPA and identify the parenting style of their primary and secondary parents using multiple-choice options: authoritarian, authoritative, indulgent, or neglectful. This allowed me to examine the relationship between parenting styles and academic performance. Additionally, participants were asked how close they felt to their parents, using a Likert scale ranging from "not close at all" to "very close." This measure of emotional closeness aimed to assess whether a stronger bond with parents might influence academic success, regardless of parenting style. By analyzing these factors, I sought to understand how different parenting approaches and parental relationships may affect GPA and overall academic outcomes in college students.

Presenter: Makayla Pearson

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

The Future of Medical Marijuana

Description: This presentation explores the unforeseeable future of medical marijuana in the United States. Although legalized in some countries, marijuana is often criminalized among American culture, preventing those in the healthcare field from realizing the healing potential of the plant itself.

Presenter: Madison Stowers

Associated Course/Faculty: LA 110-04 / Dr. Kaitlyn Evans

More than Maintenance: Leadership, Collaboration, and Communication in Facility Management

Description: Through my internship as a Facility manager I wish to show how Facilities Maintenance isn't just fixing things but how it requires a high level of communication for the company/organization as a whole to run at an optimal level.

Presenter: Patrick Timmerman

Associated Course/Faculty: COMM 470 / Dr. Tamara L. Burk

The Code To Be

Description: The presentation is about the argument of how the adaptation film “The Green Knight” enhances its focus on the more human aspects of the character Sir Gawain in the poem “Sir Gawain and The Green Knight”. The essay focuses on how film Gawain tries to be a knight, instead of trying to live up to the perfect idea of a knight like poem Gawain.

Presenter: Jada Bates

Associated Course/Faculty: ENG 381: Film and Literature / Professor Trey Lawson

Dracula: An Exploration and Analysis of Sexuality, Gender, and Eroticism

Description: This presentation explores the themes of sexuality, gender, and eroticism in Bram Stoker's 1897 novel, "Dracula" and the 1992 film "Bram Stoker's Dracula," directed by Francis Ford Coppola. Utilizing textual material and evidence from the film, this presentation will analyze sexuality and explore how it is weaponized by characters in both works, gender and the ways in which it's

binaries are broken, and eroticism as an ever present subtextual driving force behind characters actions and interactions.

Presenter: Ava "Ellis" Mulcahey

Associated Course/Faculty: ENG 381: Film and Literature / Professor Trey Lawson

SCHSL Internship

Description: My internship presentation will include clear engaging overview of my experience, highlighting key take aways and contributions. Concluding with key lessons learned, how the experience aligns with my career goals, and how it has prepared you for future opportunities in the sports media industry.

Presenter: Justice Wilson

Associated Course/Faculty: COMM 470 Internship / Dr. Tamara L. Burk

Campus Enviromental Projects

Description: This poster will review CC campus environmental projects that our student organization has undertaken this year.

Presenters: CC Environmental Studies Club

Associated Faculty: Dr. Kirt Moody

Sleep Health During Pregnancy

Description: The scientific topic of the paper is a sleep study that was conducted of women during pregnancy and its association with sleep issues. It is relevant because it is associated with women's overall health and neonatal outcomes. It influences mental health problems such as postpartum depression and lead to risks during delivery. The PSQI was a self administered questionnaire that was designed to assess with sleep quality. Sleep problems should be addressed throughout pregnancy especially during the third trimester. Women experience changes such as hormonal fluctuations during the third trimester, therefore, sleep issues are more likely to be greater during pregnancy. Sleep intervention and/or solutions should be considered to alíviate any sleep disruptions. My poster will highlight the importance of sleep quality during pregnancy and the effects that it causes due to the lack of sleep or sleep difficulties. This issue should be given more attention and considered.

Presenters: Jasmira Tejada

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Identifying Mutations that Lead to Antimicrobial Resistance and The Formation of "Super Bugs"

Description: Antimicrobial resistance is when pathogens such as bacteria and viruses develop changes that allow them to survive our current medications and treatments. A large contributing factor is the overuse and misuse of antibiotics that causes these infective agents to develop resistance. This is a global crisis that leads to 5 million deaths a year since we do not yet have the capabilities to treat these infections. Scientists have developed a new method called Quantitative Mutational Scan sequencing that allows for mutations to be quickly identified. Once mutations hotspots are determined it helps give researchers a better idea of how to combat these resistant infections. Using this technology scientists used four strains of E. coli bacteria and were able to identify 812 resistance mutations. This research is crucial because antimicrobial resistance is a critical threat that is on the rise. It will continue to result in even more deaths and potentially lead to

disease outbreaks that we cannot control. Along with this groundbreaking research, it is imperative that people know how to utilize antibiotics properly and are aware that preventing infection through vaccination and good hygiene is crucial. Lastly, new solutions and more research is still needed to fight this global health crisis.

Presenters: Haley Trapp

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Through the Screen: Communication in Marketing

Description: I am creating a poster board presentation highlighting key aspects of communication in digital marketing. I am going to be presenting my findings on what effective communication and marketing techniques I learned throughout my internship, and how my degree prepared me for this real world marketing experience.

Presenter: Rhyan Reinsel

Associated Course/Faculty: COMM 470 Internship / Dr. Tamara L. Burk

Chronic Sports

Description: Sports-related injuries occur at high rates in any level of play. Some of those injuries are small and have no effect whatsoever. Others have chronic, life-long effects that are damaging physically and mentally. The purpose of this study was to study these injuries on a longer-term scale, study the time lost because of that injury, and find out which injuries are most common among four different sports. American Football, Basketball, Baseball, and Hockey. The data used in this study was gathered by public injury data from the National Football League, National Basketball Association, Major League Baseball, and National Hockey League. An average of 62.49 injuries were found in every 100 players across all of these sports leagues with the most abundant injuries occurring in the hip, groin, and thigh regions. More specifically the knee brought out the most injuries from American Football, Basketball, and Ice Hockey. For Baseball, the knee was ranked third for most common injuries suffered. Concussions were also found in high numbers in American Football and Ice Hockey. This public data could be very beneficial to not just athletes looking to go into their respective sports, but also for athletic trainers or other medical staff who are preparing for future seasons. My goal by the end of this presentation is to inform young athletes who are looking to pursue a future in athletics about the dangers and proportions of temporary or chronic injuries suffered in sports.

Presenters: Abner Madrid

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Mapping Vegetation for a Campus Carbon Budget

Description: Our poster will demonstrate how we used Google Earth aerial images for quantifying primary production and carbon sequestration on campus with the goal of clarifying the Columbia College carbon footprint.

Presenters: Environmental Science Class

Associated Course/Faculty: PS 148 / Dr. Kirt Moody

How the Assistance of AI affects the Performance of Ultrasound-Guided Anesthesia.

Description: This article is about the aid of artificial intelligence (AI) in ultrasound-guided regional anesthesia. Ultrasound-guided anesthesia is where a physician uses the imaging of an ultrasound to direct the needle used for the anesthesia to the exact location of the nerve of interest. AI has been used for aiding in interpretation of images, which can be helpful for more inexperienced practitioners. The study evaluated scanning performance done with and without the assistance of AI for twenty-one anesthetists (non-experts) in ultrasound-guided regional anesthesia. Experts assessed 126 scans, results showed that with the AI assistance, 90.3% of the scans were correctly done, compared to the 75.1% done correctly without AI assistance. However, there was no significant difference in the confidence of the participants with or without AI assistance. The results showed potential in significantly expanding the accuracy of ultrasound guided anesthesia. This can improve the experience for both patients and the anesthetists. Potentially changing the future of medicine using this technique of assistive AI, this study showed that AI could be very useful for not just implementing anesthesia, but for other aspects of medicine.

Presenters: Laylah Belcher

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Understanding the Bidirectional Relationship Between Memory Development and Hippocampal Connectivity

Description: Memory development, especially the ability to recall contextual details (source memory), improves significantly during childhood and is often linked to hippocampal maturation. However, previous studies primarily used cross-sectional designs, limiting our understanding of whether brain changes or behavioral improvements occur first. This study employed an accelerated longitudinal design to follow 4- and 6-year-old children over three years, assessing the relationship between source memory and hippocampal functional connectivity. The results showed that early improvements in memory predicted future hippocampal connectivity and vice versa. Age and specific brain regions played a role in these developmental interactions, suggesting a bidirectional relationship between behavior and brain development. These findings underscore the dynamic interaction between brain development and cognitive processes, influencing the other. This has important implications for understanding how early memory development shapes the brain and vice versa, particularly in educational or therapeutic strategies to optimize cognitive growth in childhood. This poster will highlight how early behavioral changes can influence brain maturation and how this process varies with age and brain regions, providing insight into the interactive, developmental relationship between memory and brain function.

Presenters: Deborah Adams

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Developmental Biogeography of Hawksbills in the North Pacific

Description: Hawksbills in the Pacific ocean have not been well studied, which can lead to knowledge gaps and have detrimental effects on the sea turtle conservation attempts. Filling in this gap is important since it allows researchers to have full access globally of the effects of fishing on hawksbills. Main findings involve no direct evidence of a prolonged presence in oceanic habitats, however satellites have shown evidence of drifters through the area. This research matters since the hawksbill sea turtle is crucial for understanding the ocean's health in general, so tracking action in every habitat helps to eliminate gaps in knowledge. In conclusion the hawksbill sea turtle is highly

endangered and needs to be better taken care of. Although the hawksbills that they studied mainly avoided fishing, it could be due to external factors, like the water not being warm enough to naturally sustain their life styles.

Presenters: Katie Smith

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Evolutionary Adaptations of Drosophila busckii: Tolerance to Toxic Dimethyldisulfide

Description: This study investigates the unique ecological niche occupied by Drosophila busckii, a cosmopolitan species that thrives on substrates emitting dimethyldisulfide (DMDS), a compound known for its neurotoxic properties. Understanding how this species adapts to toxic environments is crucial for insights into evolutionary biology and ecological interactions. Drosophila busckii has developed a remarkable tolerance to high concentrations of DMDS, which is toxic to many other Drosophila species. This tolerance is linked to an insensitivity of the mitochondrial cytochrome c oxidase (COX), a target for DMDS toxicity. Additionally, the species exhibits a specific preference for oviposition on DMDS-emitting substrates, indicating a specialized olfactory adaptation. The study reveals that D. busckii can successfully complete its life cycle on these substrates, highlighting its unique ecological adaptations. This research contributes to our understanding of how certain species can exploit toxic environments, potentially informing pest management strategies and ecological conservation efforts. The findings suggest that D. busckii's adaptations may serve as a model for studying resistance mechanisms in other organisms. The main takeaways for the audience include the significance of olfactory adaptations in host selection and the evolutionary implications of tolerance to toxic compounds. The poster will highlight the mechanisms underlying D. busckii's unique adaptations and their ecological relevance.

Presenters: Emily Surprenant

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Using Crop Rotation to Reduce Bt-Resistant Corn Rootworm Damage

Description: This poster presents research on the effectiveness of crop rotation in mitigating the impact of Bt-resistant western corn rootworm (Diabrotica virgifera virgifera). The study examines how continuous corn planting contributes to resistance development and evaluates the benefits of crop rotation in reducing rootworm densities, minimizing root damage, and sustaining crop yields. Through field data analysis, the findings suggest that incorporating crop rotation with Bt corn can enhance long-term pest management strategies. This poster will highlight key methods, results, and implications for sustainable agriculture and integrated pest management.

Presenters: Carson Price

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

The Effect of Food Insecurity on the Health of College Students

Description: My poster presents an article that attempts to determine a connection between food insecurity and its effect on the gut microbiome (the collection of microorganisms in your gut that play an important role in overall health and protection). The study specifically examines how involuntary lack of access to food affects the gut and can in turn affect general health as well as mental health. Food insecurity is a serious public health problem that is becoming a greater risk to college students, and recent research is already showing how this can affect students academically and personally both short and long term. The differences between the gut microbiome in food secure and insecure students were subtle, but its findings support the theory of gut microbiome resiliency during periods of

limited access to food. This article is one of the first to ask this specific question and contributes to the field by beginning this discussion, as well as suggesting links between these variables that should be explored in future research. This article focuses on a specific question about food insecurity and the gut microbiome, but it brings up a question with much bigger implications concerning the general health and well being of those who suffer from food insecurity. My poster will cover the methods and results of this study, as well as discuss what the findings of this study could mean on a larger scale, both on our campus and college campuses everywhere.

Presenters: Vienne Geren

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Torn Asunder Down Under: The Damage of Invasive Species in Australia

Description: The scientific topic of the paper is the overall economic costs to Australia caused by invasive species. It is important because it explains the large financial burden to the country. Various sectors such as agriculture and land management, for example, are impacted that result in large losses due to damaged crops, livestock, and natural ecosystems which affects the overall economy of Australia. Australia has a long history of invasive species being introduced into the country, some deliberately and some accidentally. Australia is dealing with large and increasing costs due to invasive species that result in a substantial cost to the country's economy. The costliest species are animals like types of cats, rabbits, and red imported fire ants. Rising numbers of all invasive species will continue to affect the economy adversely, but better reporting and interventions should result in less economic costs. This research matters because it shows the economic problems caused by these species and the dangers they can cause. The research discloses which species result in the more expensive damages and the costs to the country's overall economy. The study contributes new data to the field and produces data that can be used in real-world applications. The main takeaways for my audience should be the damage and economic costs that invasive species of all types are capable of producing. I want my poster to highlight how invasive species can be detrimental to a country's overall economic prosperity.

Presenters: Daniel Tumbleston

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Safety of Long Term CBD Treatment in Cats

Description: The paper "Healthy cats tolerate long-term daily feeding of Cannabidiol" focuses on the effects of long term CBD treatment in cats. This is an important subject to study for finding long term treatments for cats with chronic pain or anxiety. The study found that long term CBD administration was safe in cats as long as they had no history of liver issues. The study recommends that cats on long term CBD should receive veterinary exams in the event of any side effects. This research is important to determining the safety of long term CBD for cats who would benefit from its use. CBD could be used in cats similarly to how it is in dogs and people to control anxiety and pain. The poster will highlight how this research can be applied to treat cats with different issues.

Presenters: Victoria Leslie

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

A Healthy Dog Is A Happy Dog

Description: This presentation is about how the nutrients in the dog's food can help with the digestive tract of the animal. We all care about animals, and we all see the commercials on TV showing the sad and unhealthy dogs in the pound. We can work together to spread knowledge about the things that

are put in dog food to make the animals healthier and have a happier life. The conclusion of the article is a showing that food with polyphenol rich fiber bundle can help add more nutrients and help with the flow of food through the intestines. The food can help with multiple gut microbes' diversity. The food can cause good for the gut of the animal as well as just making the dog healthier. This research is important because the animals would be healthier and can keep dogs from suffering and making animals have a better life. This research matter to the field that I want to be involved with due to the veterinarian being able to spread the information of a food with a polyphenol rich fiber bundle food and have evidence to back it up from other scientists and vets researching this topic. The Main takeaways will be how they can help dogs of their own be healthy and have a better life. People can learn about their dogs and might be able to figure out that some of the symptoms dogs have with low polyphenol fibers are the same ones their dogs have. The poster will highlight what it can do for the dog and how this will make your dog happier and healthier.

Presenters: Thomas Remely

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Bridges Between Soil Restoration, Land Management and Community Involvement in the Great Green Wall of Mauritania: A Preliminary Study

Description: This article addresses the environmental challenges of Mauritania, which is located in the Sahel region of Northwest Africa. There is an ongoing and critically important project named the Big Green Wall, which aims to reverse desertification in the region. The restoration of this area is crucial for the ecological and socio-economic stability of the region. This study highlights that land restoration efforts have successfully improved soil quality and vegetation cover. Through the installation of fencing for livestock and sand dune stabilization, organic carbon content and soil texture have rapidly improved. This research demonstrates that both ecological restoration and community involvement are fundamental to large-scale environmental projects. Through this research, the framework can be built for future land restoration initiatives that include local communities. The poster will show how ecological restoration techniques are implemented using the surrounding community to improve soil health and therefore improves socio-economic stability.

Presenters: Hannah Byers

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

How We Remember

Description: The brain is an organ in constant use, and yet little is known about it. Specifically the function of memory is highly important for both the enjoyment of life and for completing daily tasks. But how does the brain remember? It turns out that on an anatomic level it is in part from continuous conversation between the hippocampus and neocortex. However the amount of information must be stored in shortcuts to be able to be recalled. This is done mainly by summarizing it and remembering the main point and by cutting events into sections. This research affirms and dismisses certain habits of optimizing memory for study. For example, if it is known that the brain divides information into sections and summarizes it then it is best to work with rather than against the mechanisms of the brain by studying to understand the "gist" of a specific topic rather than memorizing certain aspects of it. Furthermore it is best to divide a topic into areas and understand them individually and how they relate. This supports making a mental scaffolding of information rather than the memorization of snippets of unrelated information for optimal learning and memory.

Presenters: Bradley Tilby

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

The Mind's Archive: Analyzing Fallibility in Highly Superior Autobiographical Memory

Description: Our minds house a vast network of electrical-chemical connections—otherwise known as memories. But even the most vivid and detailed memories are not immune to distortion. Research shows that individuals with Highly Superior Autobiographical Memory (HSAM), also know as hyperthymesia, can still form false memories despite their exceptional recall. Hyperthymesia is rare and characterized by people who can recollect their entire life in detail. As someone with an unusually strong memory, I often reflect on how memory feels so absolute, yet remains vulnerable to change. In a 2013 study, researchers tested HSAM individuals using memory challenges designed to create false recollections. In one task, they heard lists of related words and were later asked to recall them. Many mistakenly remembered a word that was never there, just like people with average memory. In another experiment, they watched videos and were later given misleading details about what they saw. Even with their exceptional memory, they often believed these incorrect details. These results challenge the idea that having a great memory means remembering everything perfectly. It may also raise questions about the reliability of eyewitness testimony, due to everyone being susceptible to altered memory. My poster will explore this data and how they connect to my personal experience and highlight why it's important to question even the clearest memories.

Presenters: Tiembra Dantzler

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Analyzing the Chemical and Biological Efficacy of Cresomycin

Description: The paper "An antibiotic preorganized for ribosomal binding overcomes antimicrobial resistance" abstract discusses a promising anti bacteria drug such as Cresomycin. The value of anti bacterial research is due to the rise of bacteria becoming resistant to many drugs, so finding or discovering such drugs is important. From the abstract the scientist discuss how Cresomycin overcomes the evolutionary resistance of many bacteria. Cresomycin achieves its resistance by having a structure that's suitable to bonding, the scientist reported this by analyzing and calculating different properties of Cresomycin's structure. The paper's research is important because of the surge of new drug-resistant bacteria, the paper itself gives statistics on the rise of bacteria. The contribution of this research is that Cresomycin will give another option to treat fatal bacterial infections, that are drug resistant. Cresomycin also gives researchers insight as to how to continue to discover or make new drugs that targets bacteria similarly or by different methods. The main takeaways the audience should find is the exciting idea of Cresomycin helping to save people, whether it is through the explanation of the science or that humanity will overcome antibiotic resistant bacteria. The poster will highlight the relevant science of the acrticle, as well as explanations of the key points of that science through simple explanations, that at times will be aided by pictures.

Presenters: Adhm Ismail

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Mycophenolate Mofetil for First-Line Treatment of Immune Thrombocytopenia

Description: Immune Thrombocytopenia Purpura is an autoimmune disorder that affects the excretion of platelets within the body, a blood component whose main job is blood clotting. There are several ways to treat this condition, however many of which include potential adverse side effects or pose no real treatment for the condition. This is because each case is complex in its origin, severity, and how it affects the afflicted individual. Given this, the journey of using an immunosuppressant medication named Mycophenolate Mofetil and how it affects treatment associated with a glucocorticoid. It is important to discover new breakthrough drugs for this condition because, so little is still known about

it to this day. The overall conclusion from this observation was that this combination treatment resulted in greater response with a lower risk or refractory or relapse, however, there was an apparent decreased quality of life due to fatigue and physical function decline. Overall, however, the mycophenolate mofetil group had fewer treatment failures compared to the glucocorticoid-only group amongst 120 patients. As far as bleeding, side effects, and infection go, there were no apparent differences between the two groups. As far as importance goes, as someone who has a sister who has Chronic Immune thrombocytopenia Purpura (ITP), keeping up with the latest research breakthroughs it very pertinent to me. ITP continues to be a immune disorder that has no true effective treatment and still stuns medical professionals on its origin and effects. This research will allow me to have a better understanding of the condition and become more familiar with treatment options. For my audience, I want to establish the idea that better treatment options are just past the horizon for those with ITP. By sharing the results of this experiment, we can already see new breakthrough medications and predict how modern medicine will emerge with new treatments to try. My poster will provide insight, understanding, and hope for those whom seek a more clear answer for ITP.

Presenters: Amber Motley

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

How Polymer Plate Materials Outperform in Oral Care

Description: The paper that I have received has a topic of trying to find cancer within someone's jawbone (mandible). With doing so the goal is to evaluate certain artifacts and images with polymer plate materials to determine whether or not there is Oral Cancer. The study found that using the plastic implants instead of using titanium helped show clearer CT scans to determine oral cancer. It basically said how the plastic implants ,that were stated above, kept showing way clearer scans than the actual titanium scan that showed distortion. This played a major part because it helped with recognizing and monitoring tumors before and after surgery, as well as radiation treatment. I believe that this research is important because it shows how doctors can help improve patients' well being and care. With clearer images it will also make the patients follow ups more accurate and reliable. This article plays a part in the oral field because oral surgeons are often implants to reconstruct your jawline after surgery just in case for a condition like oral cancer. I think one major key takeaway is that using a plastic based implant is way better than using a titanium implant. I'll try to make sure that my poster highlights a comparison of the CT images with the different implants, the benefits of the polymer implant in oral surgery and the impact it will have.

Presenters: Ka'Mariah Campbell

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

The Science of Birth: A New Window into Uterine Function

Description: Labor monitoring is crucial for ensuring safe childbirth, yet current clinical tools, such as tocodynamometry (TOCO) and intrauterine pressure catheters (IUPC), have limitations in accurately assessing uterine contractions. This study presents electro myometrial imaging (EMMI) as a novel, noninvasive method to map three-dimensional (3D) uterine electrical activity during labor. Using up to 192 electrodes placed on the abdomen, EMMI provides high-resolution insights into contraction patterns, revealing that uterine contractions do not originate from a fixed "pacemaker" site and that synchronization increases as labor progresses. The findings indicate that multiparous women experience stronger and more efficient contractions than first-time mothers, supporting the concept of "myometrial memory." By offering a clearer understanding of labor progression, EMMI has the potential to improve clinical decision-making, reduce unnecessary C-sections, and enhance maternal

and infant health outcomes. This poster will highlight the key findings and implications of EMMI, demonstrating its clinical relevance in modern obstetrics.

Presenters: Kwamecia Marks

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

330 Million Years of Horseshoe Crab Evolution

Description: The article contains information regarding the evolution of horseshoe crabs over the last 330 million years. Scientists have researched to understand why the horseshoe crab species hasn't changed drastically over 330 million years like most other species. To summarize the conclusion of this article, researchers collected data from images of xiphosurid specimens aged 331 million years ago to the present. By collecting this data, they discovered that horseshoe crabs' body shape has been the same since the Jurassic period. This is because this species underwent strong natural selection. However, they found that although their body shape remained the same, their body size steadily grew. This was due to a portion of the species growing spines; however, that portion of the species went extinct.

Presenters: Heather Moore

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

The Synthetic Artificial Stem Cell: Revolutionizing Cell Therapy in Regenerative Medicine

Description: The article describes the development of a new method for tissue regeneration called the Synthetic Artificial Stem Cell (SASC). SASC aims to mimic the healing effects of stem cells without using actual stem cells. This is important because current stem cell therapies have risks, such as immune rejection and complications, and can be difficult to control. Not to mention regular stem cells come with major ethical concerns. SASC offers a more controlled option for tissue repair, particularly for conditions like osteoarthritis (OA). The method delivers customizable treatment factors to help repair and regenerate tissue, reduce inflammation, protect cartilage, and strengthen damaged tissue. By targeting specific areas and providing long-lasting benefits, SASC could improve treatments for joint damage and advance the field of regenerative medicine, offering a promising alternative to traditional stem cell therapies. The study tested a new treatment called the Synthetic Artificial Stem Cell (SASC) system for osteoarthritis (OA) using lab-grown cartilage models and rodent test-subjects. The SASC, which releases specific growth factors in order to repair damaged ones, helped reduce inflammation, protect cartilage, and improve cartilage stiffness compared to untreated joints. Overall, the findings suggest that SASC could be an effective alternative for treating cartilage damage in OA. The results of this study show that the Synthetic Artificial Stem Cell (SASC) could be a promising new treatment for osteoarthritis (OA). By mimicking the healing effects of stem cells, the SASC provides a revolutionary option to repair cartilage without the risks and ethical concerns of using actual stem cells. It was shown to reduce inflammation, protect cartilage, and improve the stiffness of the tissue, suggesting that SASC could be an effective and safer alternative for treating OA. These findings open the door for further development of the SASC as a treatment option in the future. In conclusion, the Synthetic Artificial Stem Cell (SASC) demonstrates significant potential as a safe and effective treatment for osteoarthritis, offering improvements in cartilage repair and inflammation reduction. My poster will focus on the effects of the SASC and communicate how revolutionary of a study this was, including facts about the repair time, how it is done, and what we currently know.

Presenters: Faith Hill

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

Transcriptomic Analysis Of Intestine Following Administration Of A Transglutaminase 2 Inhibitor To Prevent Gluten-Induced Intestinal Damage In Celiac Disease

Description: Celiac disease (CeD) is an autoimmune disorder triggered by the ingestion of gluten, leading to intestinal damage. Transglutaminase 2 (TG2) plays a pivotal role in CeD pathogenesis by modifying gluten peptides, enhancing their immunogenicity. Understanding the molecular effects of TG2 inhibition could offer new therapeutic avenues. The study investigated the intestinal transcriptomic changes following administration of a TG2 inhibitor in a CeD model. Results demonstrated that TG2 inhibition effectively prevented gluten-induced intestinal damage. Transcriptomic analysis revealed normalization of gene expression profiles associated with immune responses and intestinal integrity. Notably, pathways related to inflammation and tissue remodeling were modulated, indicating a protective effect of TG2 inhibition. The research highlights TG2 as a viable therapeutic target in CeD, offering potential for treatments that mitigate gluten-induced intestinal damage. By clarifying the molecular impact of TG2 inhibition, the study contributes to a deeper understanding of CeD pathology and treatment strategies. The findings underscore the therapeutic potential of TG2 inhibitors in managing CeD. My poster will focus on the transcriptomic alterations observed with TG2 inhibition and their implications for future CeD therapies.

Presenters: Genevieve Prescott

Associated Course/Faculty: BIO-101-LE Science Seminar / Dr. Vinayak Bhat

EVENING EVENTS

4:00 p.m. – 6:00 p.m.

Studio Art Graduating Senior Exhibition Reception | Goodall Gallery

Photo by Dallas Peay

April 16 - April 30, 2025
4:00-6:00pm

The opening reception of the Studio Art Program's Senior Exhibition celebrates the creative exploration, dedicated studio practice, and artistic vision of our graduating seniors. This culminating exhibition includes a diverse range of works reflecting exploration and growth across various media. This opening reception is an opportunity to meet the artists, view their work, and celebrate their accomplishments.

This Exhibition Reception coincides with Columbia College's campus-wide, annual celebration of SpearsFest! We encourage community members, alumni, and all to stop by Spears Center for the Arts to engage with local art before attending the Dance Program's year-end performance at 6:30 PM (located across the parking lot in Cottingham Theater).

6:00 p.m.

Senior Dance Capstone Concert Showcase | Cottingham Theatre

Senior BA Dance Studies Majors, Aggie Bofilios and Victorious Bright, present their choreographic research as a part of their Capstone Leadership semester. Their research investigates dance and identity from both philosophical and healing spaces. These choreographers will share their research on Tuesday April 22nd at 6:00 pm in Cottingham Theatre. This performance will be followed by a Q&A and is free to the community.

Presenters: Victorious Bright, Aggie Bofilios
Associated Course/Faculty:
DAN 481 LS: BA Senior Project / Professor Erin Bailey

Thank you for attending! Please take a moment to give us feedback on today's program.

Evaluation Link: https://columbiacollegesc.wufoo.com/forms/spearsfest-2024-survey/