



GCC's Student Research *Symposium* »

» Monday, May 12, 2025
9 a.m. to 3:30 p.m. (PST)
Student Center 212

» Symposium Committee:
Susie Chin, Samantha Garagliano,
Brittany Hampton, Stacy Jazan,
Sarah McLemore, Heather Ramos,
Reut Cohen Schorr

GCC's Student Research Symposium » –Schedule–

Time (PST)	Title	Presenters
9:00 - 9:05 am	Check-In	
9:05 - 9:15 am	Welcome	Dr. Ryan Corner & Organizing Committee
9:15 - 9:25 am	“True Biz: The Science of Hearing and Deaf Culture”	Pia Mouessati
9:25 - 9:35 am	“Poor Mental Health Days in the Past Month Reported by Women in LA County, 2023, Office of Women’s Health & Internship Experience”	Adriana Gasparyan
9:35 - 9:45am	“Role of Gut Microbiota on the Efficacy of Antidepressants”	Jahkara Smith
9:45 - 9:55 am	“Tooth Regeneration: Exploring Balance Between Innovation and Ethics in Dentistry”	Diana Avetisyan
9:55 - 10:05 am	“Characterization of Dental Pulp Stem Cells During Embryonic and Postnatal Development: Insights into Early Stem Cell Differentiation and Function”	Sona Ayyazyan, Dino Azadians, & Taleen Krikorian
10:05 - 10:20 am	Break	Dr. Michael Ritterbrown

GCC's Student Research Symposium »

–Schedule–

Time (PST)	Title	Presenters
10:20 - 10:30 am	"Unapologetically Her: Women Who Shift the Culture"	Galia Bastajian, Kathryn Bauder, Araks Grigoryan, Matilda Hakobian, Gayane Marutyan, & Diego Rodriguez
10:30 - 10:40 am	"Educational Progression vs. Evolutionary Progression & the Relationship with Disabilities"	Manuel Jimenez-Ibarra
10:40- 10:50 am	"Preserving the Integrity of Life: A Legal Framework for Regulating CRISPR-Cas9 and Genetic Enhancement"	Zamira Dobroyan
10:50 - 11:00 am	"Code and Control: The Technical Architecture of COVID-19 Surveillance Systems and Their Implications for Democratic Governance"	Sean Brar
11:00- 11:10 am	"Automotive Expertise in Criminology"	Maria Vardanyan
11:10 - 11:20 am	"Credit Unions, Banks, and the AI Race: Enhancing Service, Expanding Reach"	Alex Barfyan
11:20 - 11:30 am	"Pain Management and Human Rights"	Theo Dawson
11:30 - 11:40 am	"Extinct"	Sofia Stoddard
11:40 - 11:50 am	"The Importance of Positive Human Interaction in Early Childhood Development: A Means of Combating Widespread Prevalence of Anxiety"	Emily Markarian & Celia Tahmasian
11:50 - 12:30 pm	Lunch break	

GCC's Student Research Symposium » –Schedule–

Time (PST)	Title	Presenters
12:30 - 12:40 pm	“Non-Sexual BDSM”	Scarlet Lastrape
12:40 - 12:50 pm	“Case Study Regime Type and Redistribution”	Nelson Solano
12:50 - 1:00 pm	“Speaking Stigma: An AI-Based Approach for Detecting Conversations' Mental Illness Prejudice”	Markus Leonardo
1:00 - 1:10 pm	“Back to the Garden: Revisiting Mendel's Pea Plant Genetics”	Lidiia Bagdasarian & Jessica Hovhannisyan
1:10 - 1:20 pm	“Forgotten Foundations: How Ethnic and Racial Minorities Built America”	Nadelina Agopoglu, Eliza Pokorny, & Chloe Wong
1:20 - 1:30 pm	“Voices of the Diaspora: How Language Heals Cultural Exclusion in the Armenian Diaspora”	Nina Elmoyan & Benjamin Madoyan
1:30 - 1:40 pm	“Wings of Heritage: The Symbolic Role of Dragons in Shaping Armenian Cultural Identity”	Mary Torosyan
1:40 - 1:55 pm	Break	

GCC's Student Research Symposium »
–Schedule–

Time (PST)	Title	Presenters
1:55 - 2:05 pm	"The White Mask of America: American State Repression Through the Lens of Fanon"	Angel Ortiz
2:05 - 2:15 pm	"LGBTQ+ Representation in Animation: Occurrences and Significance"	Sosie Berg
2:15 - 2:25 pm	"Eve's Curiosity in John Milton's <i>Paradise Lost</i> "	Maggie Hopkins
2:25 - 2:35 pm	"The Trek from War to Civilian Life"	Sakura Leongson
2:35 - 2:45 pm	"The Biology of Beats: The Impact of Music on the Autonomic Nervous System"	Julia Terzian
2:45 - 2:55 pm	"Motivational Wealth: Analyzing the Relationship Between Children's Perceived Financial Standing and their Career Aspirations"	Nathan Andriassian & Natalie Hairapatian
2:55 - 3:05 pm	"Pointing Wildly at the Sky (and Mars in Particular)"	Kevin Looper
3:05 - 3:15 pm	"'Success' in the Medical Field"	Sophia Babakhani
3:15 - 3:30 pm	Closing Remarks	Organizing Committee

Presentation Descriptions

The program includes descriptions of the presentations. To access the speaker bios for presenters, use the link bit.ly/GCCSymposiumProgram or the QR code.



9:05 - 9:15 am

Welcome

9:15 - 9:25 am

Pia Mouessati (she/her/hers)

“True Biz: The Science of Hearing and Deaf Culture”

Presentation Description: In this interdisciplinary presentation combining English and Physiological Psychology, Pia Mouessati explores the novel *True Biz* alongside the anatomy and physiology of hearing. By examining how hearing works, she provides deeper insight into the characters’ experiences as members of the Deaf community.

9:25 - 9:35 am

Adriana Gasparyan (she/her/hers)

“Poor Mental Health Days in the Past Month Reported by Women in LA County, 2023, Office of Women’s Health & Internship Experience”

Presentation Description: Using data from the 2023 Los Angeles County Health Survey (LACHS), this analysis explores demographic and regional disparities in women’s mental health. It focuses on responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The data are disaggregated by age, income, education, race/ethnicity, nativity, disability status, and region within Los Angeles County. Key findings highlight that younger women and those with lower incomes report a higher number of poor mental health days compared to older and higher-income women.

9:35 - 9:45am

Jahkara Smith (she/her/hers)

“Role of Gut Microbiota on the Efficacy of Antidepressants”

Presentation Description: This is a presentation on the role our gut bacteria plays in mental health and the amount of time required for antidepressants to start alleviating symptoms.

9:45 - 9:55 am

Diana Avetisyan (she/her/hers)

“Tooth Regeneration: Exploring Balance Between Innovation and Ethics in Dentistry”

Presentation Description: Promises of breakthrough advancements in dental medicine have been promised for decades. Now, they are closer to reality than ever. With discoveries in tooth regeneration, such as stem cell therapy or the recent development of a tooth-regenerating drug by Japanese scientists, the research reshapes dental care, impacting many lives. However, it also gives rise to many ethical and scientific questions such as accessibility and safety. This project explores the balance between moral responsibility and scientific advancements, hopefully inspiring conversations regarding the fair and responsible implementation of dental innovations.

9:55 - 10:05 am

Sona Ayvazyan (she/her/hers), Dino Azadians (he/him/his), & Taleen Krikorian (she/her/hers)

“Characterization of Dental Pulp Stem Cells During Embryonic and Postnatal Development: Insights into Early Stem Cell Differentiation and Function”

Presentation Description: This study characterizes dental pulp stem cells (DPSCs) in mice (*Mus musculus*) at embryonic stages E13, E16, and E18, as well as postnatal stage P7. We use advanced techniques such as single-cell data analysis (via R Studio), RT-qPCR, RNA sequencing (RNA-seq), and immunohistofluorescence (IHF) to examine transcriptional and molecular profiles during key developmental stages. Three mesenchymal stem cell (MSC) markers—Nt5e, Thy1, and Eng, which encode the proteins CD73, CD90, and CD105, respectively—were analyzed to assess their expression patterns. Findings reveal distinct expression trends that illuminate the functional roles and differentiation trajectories of these cells during tooth development.

10:05 - 10:20 am

Break

10:20 - 10:30 am

Galia Bastajian (she/her/hers), Kathryn Bauder (she/her/hers), Araks Grigoryan (she/her/hers), Matilda Hakobian (she/her/hers), Gayane Marutyan (she/her/hers), & Diego Rodriguez (he/him/his)

“Unapologetically Her: Women Who Shift the Culture”

Presentation Description: The presentation highlights the powerful stories of contemporary ethnic women who are redefining leadership, creativity, activism, and influence. It explores how these women unapologetically embrace their identities while challenging societal norms, driving cultural change, and inspiring future generations. Through dynamic examples across various fields, the presentation celebrates their resilience, impact, and transformative contributions to today’s world.

10:30 - 10:40 am

Manuel Jimenez-Ibarra (he/him/his)

“Educational Progression vs. Evolutionary Progression & the Relationship with Disabilities”

Presentation Description: The presentation discusses the differences between educational progression which can be described as the development of skills and knowledge in a specific subject or area overtime, from basic concepts to more complex understandings and application. Along with evolutionary development which examines both genetic and environmental factors that form our physical, social, and cognitive abilities in an adaptive manner. The presentation examines how disabilities may affect one or both of these fields of individual development, what it means, and how to overcome them.

10:40- 10:50 am

Zamira Dobroyan (she/her/hers)

“Preserving the Integrity of Life: A Legal Framework for Regulating CRISPR-Cas9 and Genetic Enhancement”

Presentation Description: This presentation argues that genetic enhancement using CRISPR-Cas9 should be more strictly regulated to protect the integrity of human life. Drawing on Kantian ethics, a legal framework will be proposed that clearly separates therapeutic gene editing (such as curing diseases) from non-essential genetic enhancements (like modifying traits for intelligence or appearance). The primary focus is ensuring that genetic modifications do not compromise human dignity or lead to unethical practices. The goal is to advocate for updated FDA regulations that define the ethical limits of gene editing and protect the core values of human life.

10:50 - 11:00 am

Sean Brar (he/him/his)

“Code and Control: The Technical Architecture of COVID-19 Surveillance Systems and Their Implications for Democratic Governance”

Presentation Description: This presentation examines the technical architecture of digital surveillance technologies deployed during COVID-19, focusing on China's Health Code app. It analyzes how these systems combine machine learning algorithms with political authority to create new governance mechanisms that operate at unprecedented scale and speed. By dissecting the technical implementation across different political systems, the presentation reveals how system design choices reflect underlying political values. The presentation concludes with technical recommendations for preserving democratic accountability in emergency response technology, drawing on principles from both political science and computer system design.

11:00- 11:10 am

Maria Vardanyan (she/her/hers)

“Automotive Expertise in Criminology”

Presentation Description: This project demonstrates the application of digital components (Excel) in automotive expertise. The geometrical model is explored first, followed by the use of Excel. Together, these elements optimize automotive expertise.

11:10 - 11:20 am

Alex Barfyan (he/him/his)

“Credit Unions, Banks, and the AI Race: Enhancing Service, Expanding Reach”

Presentation Description: This presentation’s goal is to examine how credit unions can use artificial intelligence to improve the customer experience and their own internal work to better compete with major banks. Through interviews with local credit union leaders and an analysis of current AI trends in banking, the project will discuss practical ways AI can help streamline operations, personalize the customer experience, and help with outreach while maintaining the human touch credit unions are known for.

11:20 - 11:30 am

Theo Dawson (they/them/theirs)

“Pain Management and Human Rights”

Presentation Description: As the American medical system grapples with the aftermath of the opioid epidemic, questions linger; have we swung too far the other way? Are patients suffering more than they have to? Is physical suffering a necessary part of life, or should patients have a right to pain relief? Perhaps there's a better way altogether. Join Theo Dawson for an exploration of the battle for pain relief in a nation scarred by its own mistakes.

11:30 - 11:40 am

Sofia Stoddard (she/her/hers)

"Extinct"

Presentation Description: This presentation focuses on the Taíno peoples of the Caribbean, highlighting who they are and how their culture and language continue to influence daily life. The Taíno tribes, Indigenous to the Caribbean islands, were largely erased from history by both Spanish colonizers and the United States. Following the arrival of conquistadors, the Taíno were declared “extinct” due to dramatic population declines caused by genocide and disease. In recent years, Taíno descendants have gained recognition, with many tribal communities working to revive their culture and language. The presentation emphasizes the importance of remembering and honoring the Taíno, who continue to exist and thrive today.

11:40 - 11:50 am

Emily Markarian (she/her/hers) & Celia Tahmasian (she/her/hers)
“The Importance of Positive Human Interaction in Early Childhood Development: A Means of Combating Widespread Prevalence of Anxiety”

Presentation Description: This study investigates how positive human interaction in early childhood contributes to the prevention of anxiety disorders in adolescents and young adults. Emphasizing emotional intelligence and self-regulation, the research explores how supportive caregiving, and early positive experiences build resilience to stress. Drawing on self-regulation theory and Stoic philosophy, the project connects emotional development with the capacity to withstand societal pressures. Using surveys of college students, the study examines links between childhood experiences, emotional regulation, and anxiety. Findings highlight the importance of early interventions in fostering mental strength and offer strategies for parents and educators to support emotional growth and reduce long-term anxiety risks.

11:50 am - 12:30 pm

Lunch break

12:30 - 12:40 pm

Scarlet Lastrapes (she/her/hers)
“Non-Sexual BDSM”

*CONTENT WARNING: This presentation contains discussion of BDSM and sexuality.

Presentation Description: This presentation explores how BDSM can be re-conceptualized as a distinct set of intimacy practices, rather than simply an add-on to sex. The discussion will address reasons individuals engage in BDSM that are unrelated to sexual activity, including how sex itself can be framed as a non-sexual act within BDSM contexts. The presentation will also include perspectives from asexual individuals who participate in BDSM.

12:40 - 12:50 pm

Nelson Solano (he/him/his)
“Case Study Regime Type and Redistribution”

Presentation Description: This political science case study examines one regime type across five different countries to analyze how redistribution is implemented. The study also explores the factors that influence each country’s approach to redistribution.

12:50 - 1:00 pm

Markus Leonardo (he/him/his)

“Speaking Stigma: An AI-Based Approach for Detecting Conversations’ Mental Illness Prejudice”

Presentation Description: Stigmatization of people with mental illness (PMI) hinders America’s mental health, presenting the need for interventions identifying and combating stigmas. Stigma identification can be facilitated by searching for its components, like prejudice—negative attitudes towards PMI, and expressions of them. In this study, a natural language processing AI was programmed to detect written prejudice towards PMI. To test the AI’s performance, participants were recruited to provide responses expressing their attitudes towards PMI.

Promisingly, the AI identified prejudice with approximately 60% accuracy. The AI’s applications in childhood educational technologies are proposed, and this approach’s potential benefits are considered.

1:00 - 1:10 pm

Lidiia Bagdasarian (she/her/hers) & Jessica Hovhannisyan (she/her/hers)

“Back to the Garden: Revisiting Mendel’s Pea Plant Genetics”

Presentation Description: Genetic inheritance explains how traits are passed down through generations. In this study, true-breeding variants of pea plants (*Pisum sativum*)—Green Arrow, Yellow Pea Soup, Golden Sweet, and Blue Pod Shelling—were planted to recreate Mendel’s hybridization experiments. Growing these plants enables controlled cross-pollination. While F1 seeds have not yet been collected, our work establishes the foundation for future analysis. The ultimate goal is to explore inheritance principles and enable molecular-level investigation. This project emphasizes the importance of hands-on experimentation in understanding classical genetics and bridges historical discoveries with modern scientific inquiry.

1:10 - 1:20 pm

Nadelina Agopoglu (she/her/hers), Eliza Pokorny (she/her/hers), & Chloe Wong (she/her/hers)

“Forgotten Foundations: How Ethnic and Racial Minorities Built America”

Presentation Description: The group presentation explores the often-overlooked contributions of ethnic and racial minorities in shaping the United States. Each segment highlights a different group, examining key triumphs, challenges, and lasting impacts on America’s economic, social, and cultural development. The presentation sheds light on the resilience, innovation, and strength of these communities, emphasizing their essential role in understanding the true foundation of the nation.

1:20 - 1:30 pm

Nina Elmoyan (she/her/hers) & Benjamin Madoyan (he/him/his)

“Voices of the Diaspora: How Language Heals Cultural Exclusion in the Armenian Diaspora”

Presentation Description: The usage of heritage language facilitates the transmission of intergenerational information, preserving customs within a culture through language (Alshihry). Within the Armenian diaspora, communities emphasize teaching the Armenian language to strengthen cultural connection among youth (Bolsajian). Motivated by this phenomenon, the project explores the relationship between language and culture within the diaspora. The research addresses the key issue of cultural exclusion experienced by Armenians living outside their homeland. By surveying Armenians aged 18–35 in Los Angeles, the study examines the relationship between the Armenian language and cultural identity, highlighting how language may be utilized to strengthen cultural identification within diaspora communities.

1:30 - 1:40 pm

Mary Torosyan (she/her/hers)

“Wings of Heritage: The Symbolic Role of Dragons in Shaping Armenian Cultural Identity”

Presentation Description: The research presentation focuses on the principles of Armenian Christianity as a translation of early Paganism, exploring the cultural impacts on the ethnic identity of modern-day Armenians. The research examines a specific facet of Armenian Pagan ideals—dragons—and investigates the transformation of dragons as a symbol of the balance of the four elements of the universe. This transformation is traced from depictions in early petroglyphs, dragon stones, and early solar system models in a nature-worshipping culture, to their role as Christian symbols in cross-stones and ornamental Armenian carpet-weaving.

1:40 - 1:55 pm

Break

1:55 - 2:05 pm

Angel Ortiz (he/him/his)

“The White Mask of America: American State Repression Through the Lens of Fanon”

*CONTENT WARNING: This presentation contains discussions of Violence, Substance Abuse, and Genocide.

Presentation Description: This presentation will analyze American political culture by dissecting Academia, foreign policy and the Tech industry through the lens of Frantz Fanon's theories of Post-colonial State repression. Using Fanon's theories of the psychological effects of and methodology employed by post-colonial power to show that the state has moved away from relying on control of its population by physical violence in favor of a self-policing exploited class, cultural dominance, and economic coercion.

2:05 - 2:15 pm

Sosie Berg (she/her/hers)

“LGBTQ+ Representation in Animation: Occurrences and Significance”

Presentation Description: Proper LGBTQ+ representation in the media is incredibly important. Animation has become an incredible source of that representation, but there are still many people who are unaware, or unsupportive, of it. As such, this presentation will address the history, modern examples, social/emotional effects, and ongoing struggles of representation in animation.

2:15 - 2:25 pm

Maggie Hopkins (she/her/hers)

“Eve's Curiosity in John Milton's *Paradise Lost*”

Presentation Description: The presentation will focus on an essay concerning John Milton's depiction of Eve in *Paradise Lost*. The essay explores Eve's complex role in this biblical story: though she is deleterious in her transgression, Milton appears to admire her, perhaps in spite of himself, for her insatiable curiosity and undeniable ambition.

2:25 - 2:35 pm

Sakura Leongson (she/her/hers)

“The Trek from War to Civilian Life”

Presentation Description: This presentation analyzes Toni Morrison's novel *Home*, specifically the protagonist Frank Money, a black Korean War veteran. Simultaneously, the analysis will tie to the universal and invisible barriers many veterans face when reintegrating back into society. Given the growing disconnect and isolationism of this modern world, Morrison's emphasis on the struggles of postwar life shines a light on the forgotten wars and its soldiers.

2:35 - 2:45 pm

Julia Terzian (she/her/hers)

“The Biology of Beats: The Impact of Music on the Autonomic Nervous System”

Presentation Description: This presentation is based on a research project studying the impact of music on the human body, specifically the autonomic nervous system. For data, Julia measured vital signs of participants before and after listening to two different types of music: calm and upbeat. This project aims to combine the topics of biology, psychology, physiology, stress management, and music medicine, in order to create connections among the fields that extensively contribute to daily life routines. With applications to health fields, this project can open doors to new discoveries about human body response systems.

2:45 - 2:55 pm

Nathan Andriassian (he/his/him) & Natalie Hairapatian (she/her/hers)

“Motivational Wealth: Analyzing the Relationship Between Children’s Perceived Financial Standing and their Career Aspirations”

Presentation Description: This presentation will use a survey as a means of collecting information about what adults over thirty perceived their financial standing to be during childhood. Statistical conclusions will be drawn regarding how motivated they will be towards achieving their career goals and the relationship between the two variables.

2:55 - 3:05 pm

Kevin Looper (he/him/his)

“Pointing Wildly at the Sky (and Mars in Particular)”

Presentation Description: This presentation will take a brief look at the challenges and design process of building a robotic platform to track Mars across its journey through the sky. This talk explores sidereal time, celestial coordinate systems, and a working prototype that hopes to bring our orbital neighbors a little closer.

3:05 - 3:15 pm

Sophia Babakhani (she/her/hers)

“‘Success’ in the Medical Field”

Presentation Description: Ask yourself to what extent does “success” embody its true meaning in the medical field and how do these factors impact the patient’s overall wellbeing? Knowing what “success” means in a medical setting is vital to the overall health of the patient. It’s safe to say that a surgery is titled “successful” when the patient makes it through alive, but the question here is also how alive? There is a common misunderstanding that medical treatment cures all. Research shows “success” holds multiple facets, and depending on how “successful” a treatment is shapes how it impacts the patient’s overall wellbeing.

3:15 - 3:30 pm

Closing Remarks

LEARNING

RESEARCH



**STUDENT
RESEARCH
SYMPOSIUM**

PROFESSIONAL

PATHWAYS