Cytotoxicity of Graviola Leaf Extracts in a Model of Head and Neck Cancer

Head and neck cancer (HNC) is actually a group of cancers that starts in the mouth, nose, throat, larynx, sinuses, or salivary glands. HNC accounts for approximately 5% of all cancers in the United States. Heavy tobacco users have a 5-to 25-fold higher risk of developing this type of cancer than nonsmokers, and alcohol can further increase this risk. About 90% of HNC start in Squamous Cell Carcinoma cells (SCC). Natural anticancer compounds however, are excellent candidates for cancer prevention strategies in HNC, as they tend to affect several cancer-specific cellular pathways at a time. Annona muricata, commonly known as Graviola, soursop or guanabana, is an evergreen tree native to the tropics. While many studies have shown that extracts from Graviola leaves (GLE) have been shown to exert a dose-dependent toxicity to a large variety of cancer cell types, few of them have compared the toxicity of GLE to cancer vs. non-transformed cells. In order to fill this gap in knowledge I, a Molecular Biologist have teamed up with analytical environmental chemist Martha-Laura López Moreno. We are currently preparing GLEs to be able to assess their cytotoxicity in four lines of SCC vs. non-transformed Human Gingival Fibroblasts (HGF-1). We hope to identify a GLE that will show specific toxicity to SCCs which phytocompounds we plan to isolate.

Finishinig My West Virginia University Press Book, Abigail Field Mott's 1829 Life and Adventures of Olaudah Equiano: A Scholarly Edition

African Free School. I have designed this book for undergraduate and graduate students enrolled in early black Atlantic, African American, and United States literature courses. I have signed a contract for this forthcoming book, and I will submit the manuscript before September 30, 2020. With a three-credit descarga for the Spring 2020 semester, I will write an introduction; finish my analytical essay that will appear in the book; annotate *Life and Adventures* (via footnotes) by situating the reader in relevant historical, religious, literary, and political contexts; annotate the documents in the appendix; proofread the documents in the appendix; and, write and submit application materials for relevant fellowships and awards to continue my scholarly work on the early black Atlantic. This descarga builds upon a Visiting Scholar position at the University of Chicago, Summer Scholar-in-Residence appointment at New York University, and Visiting Fellow position at the Eccles Centre for American Studies at the British Library. For my work on Mott’s 1829 book, I have been awarded four short-term fellowships at repositories in the United States.

**Dra. Ricia Anne Chansky**
Departamento de Inglés

**Stage Four: Narratives of Hurricane María and its Aftermaths in Puerto Rico**

I respectfully request release time for the spring 2020 semester to continue directing a large-scale research project that utilizes oral history as a methodology to study the impacts of Hurricane Maria and its aftermaths on the people of Puerto Rico. The work is being completed in collaboration with the Voice of Witness program and the Humanities Action Lab (HAL). Selected narratives will be published by Haymarket Books, the leading social justice press in the US, while others will be included in the international, traveling exhibition curated by HAL and a breakout exhibition focused solely on Puerto Rico. Objectives of this project include facilitating a rehabilitation of agency in students disempowered by a natural disaster and the ongoing fiscal crisis; promoting the voices of Puerto Ricans in order to encourage listening and witnessing; recording history, traditions, and cultures of Puerto Rico; teaching internal and external readers about Puerto Rico; creating a ground-up, people’s history of Hurricane Maria in Puerto Rico; collecting data that interrogates the relationship between Puerto Rico and the US, as exemplified by the federal government’s response to the hurricane and its aftermath; and, articulating questions of national identity in the contemporary US. In this interdisciplinary project, the research product-auto/biographical narratives- fulfills multiple functions: literary narrative, historical record, sociological data, pedagogical tool, etc. In this semester, I will be working directly on the book-both editing narratives and drafting the introduction- and curating the bilingual, multimodal breakout exhibition that will travel throughout the archipelago before being shown globally.
Las crónicas urbanas de Sofía Irene Cardona: poesía, resistencia y ciudadanía

El siguiente proyecto consiste en la redacción de uno de tres capítulos que conforman un libro sobre las escritoras puertorriqueñas Sofía Irene Cardona, Vanessa Vilches y Rosa Vanessa Otero. El capítulo incluye un panorama del género de la crónica periodística en Puerto Rico, desde principios del siglo XX hasta el presente. Se insertan los trabajos de Cardona dentro de la oleada de escritores actuales que reflexionan sobre las principales crisis sociales de nuestro país. Se destaca, como parte de la tesis de trabajo, el manejo poético para la representación de asuntos críticos que incluyen un registro temático variado: desde las narrativas del narcotráfico, pasando por la importancia de la Universidad de Puerto Rico, hasta la contaminación ambiental y sus riesgos entre la ciudadanía. Todos estos temas se presentan desde una postura que propone la comunicación, y la escritura en particular, como instrumentos para educar en dos vertientes: la responsabilidad social dentro del lugar inmediato al que pertenecemos (Puerto Rico) y, como proponía el dramaturgo Alejandro Tapia y Rivera en el siglo XIX, dentro del más amplio al que pertenecemos (el mundo).

Caribbean Climate Variability

This project is focused on Caribbean climate variability using high-resolution datasets to understand meteorological processes and improve forecasts. Specific themes include:

a) hydrology, vegetation and surface fluxes  
b) air chemistry and climate change  
c) coastal and upper ocean variability  
d) processes of Caribbean floods and drought  
e) hurricane frequency, intensity and track forecasts

Fluctuations of climate in the Caribbean have far-reaching impacts. Using high-resolution satellite and model datasets, a better understanding of the underlying processes will be gained, contributing to the sustainable management of climate sensitive resources in Puerto Rico. The research efforts continue the on-going work by Prof. Jury and meteorology students at UPRM.
Dr. Jeffrey Herlihy  
Departamento de Humanidades

Reinterpreting Hemingway in Cuba

This project offers a comprehensive analysis of how Cuban culture and language influenced Ernest Hemingway's literature, biography, and aesthetic sensibility. “Aquí en la casa,” he wrote in 1950 from his home outside Havana, “hablamos español siempre.” The project aims to nuance the English-centric perspectives on Hemingway, using the letters he wrote in Spanish and reports from Spanish-language literary criticism bases of analysis. The correspondence (over 80 letters) has not been published or translated, and is—like much of the Spanish-language criticism of Hemingway's work—virtually unknown to literary scholars based in the US. Upon discussing the project with Suzanne del Gizzo, editor of The Hemingway Review, I was invited to expand the idea into a guest-edited instalment of The Hemingway Review and encourage to develop the plan into a monograph. During a course release this spring, I will continue work on a guest-edited instalment of the same journal (including two articles: the introduction to the instalment and a theoretical essay on intercultural literary citizenship) and develop the material into a proposal to submit to presses. The project will disseminate new material about Hemingway in Cuba and the role of the Spanish language in his literature; “Reinterpreting Hemingway in Cuba” will also document the mutually influential and complementary cultural ties between the US and Cuba, examining Hemingway’s experience as a precursor to multicultural notions of citizenship.

Dr. Carlos Hernández  
Departamento de Ciencias Sociales

Rescate de las Historias de vidas de los Veteranos/as enterrados en el Cementerio Atlantic Gardens Veterans Cemetery de Aguadilla Puerto Rico


Esto sin lugar a duda, rescataará del anonimato a los/as veteranos/as y sus esposas/os civiles allí enterradas y permitirá perpetuar la memoria de estos/as y su contribución a la historia del país y además apoyará la participación de estudiantes de la Universidad de Puerto Rico en Mayagüez, que se matriculen en el curso, HIST- 4075, Temas Especiales: Historia oral e historias de vidas. A través de ese curso adquirirán las destrezas académicas
necesarias en torno a lo siguiente: Terna de estudio, Justificación, Marco Teórico en torno a las historias de vida de los/as veteranos puertorriquenos y la búsqueda en archivos de estas fuentes humanas.

Dr. Christopher Powers
Departamento de Humanidades

4645: Crónica of the Puerto Rican Summer, 2019

In the month of July, 2019 a mass movement emerged in Puerto Rico unlike any other in the history of the country. The Puerto Rican Summer, as it has been called, was focused on demanding the resignation of the Governor Ricardo Rosselló. But within the two weeks of protest that culminated in the governor’s resignation, basic tensions and contradictions of Puerto Rico were revealed. It was an upheaval that exposed the cultural, political and generational fault lines of a society in crisis. The most dramatic of these was the issue of “Los muertos de María,” the thousands who died during the months of darkness after the twentieth of September 2017. In the jornada de lucha or days of protest in July, the number “4,645”—which one Harvard study identified as the number of the deceased—became a revolutionary symbol, a mark of resistance and a call to action. I was a direct participant in the political protests in July in its epicenter in San Juan and have copious notes and drafts from journals and diaries of what I observed. This writing is the primary material that I intend to transform into a crónica of the events of summer, 2019 in Puerto Rico. The release time I am requesting will be used to convert these first drafts into a finalized text that combines precise, realistic observation with theoretical and speculative interpretation as well as self-referential, personal auto-reflection. I have already begun drafting parts of the manuscript. The release time will allow me to complete, submit and eventually promote the book, which is for submission to the Editorial Educación Emergente for inclusion in a series on the events of summer 2019.

Dr. Melvin González
Departamento de Estudios Hispánicos

American Spanish Dialects: Antillean Area

El trabajo consiste en la redacción (corrección y edición) de un artículo que será publicado en el volumen: A Guide to Spanish Dialects: Descriptive and Theoretical Aspect of Linguistic Variation in the Hispanic World, coeditado por Cristina Sánchez Lópe (Universidad Complutense de Madrid) y Angel Gallego (Universidad Autónoma de Barcelona), y que será publicado por Oxford University Press.
Dr. Alejandro Vélez
Departamento de Ciencias Matemáticas

Fine Regularity for Boundary Value Problems Over Irregular Domains

The main goal of this research proposal is to investigate deeper the global regularity theory for multiple classes of elliptic and parabolic partial differential equations over wide classes of irregular domains, which include fractal-like domains. This area is a recent new line in which only few results have been established, and there are many open problems regarding regularity results over irregular domains.

Dra. Sara Gavrell
Departamento de Humanidades

Birthing Freedom: Towards a Philosophy of Birth

I am working on the first scholarly monograph dedicated entirely to a philosophical examination of childbirth. In the third chapter "Birthing Freedom: The Obstetrical Worldview, The Risk-Management Framework, and Oppressive Institutions", I reject what I call "The Obstetrical Worldview" (TOW): the widespread belief that obstetrics as a profession is risk-averse, promotes the health of the particular birthing woman and the particular being-born baby, and respects patient autonomy. I argue that the case of the electronic fetal monitor as the current standard of care (SOC) for birthing women categorized as low risk is enough to show that, even within the risk-management framework, TOW is false. However, I argue that all of what I call "what if" SOC interventions in obstetrics increase the risks of harm to a particular woman and a particular baby by imposing an actual risk to prevent a potential future risk. I contend that the main feature of TOW is that obstetricians currently have the epistemic authority to decide what counts as a risk during pregnancy and childbirth, and the moral authority to assign responsibility and /blame. TOW puts women in double-binds: obstetrical SOC practices increase risks to women and babies while many obstetricians continue to judge women as irresponsible mothers if they refuse obstetrical interventions or chose different birthing companions. So understood, obstetrical practices are oppressive to women and do not achieve the goal of protecting women and babies’ health. Then, I develop an original account of birthing freedom using Mill’s "experiments in living" understood as "experiments in birthing".