

Winners of the 2015-2016 GAIA Grants

Internationalizing the Curriculum (Special Focus: Study Abroad)

- **Dr. Frances Bartkowski, Dept. of English, Newark College of Arts and Sciences and University College, Rutgers University–Newark**

Arts and Culture Program in Ghana

This is an effort to renew an MOU with the University of Ghana-Legon and to establish a study abroad program in arts and culture through lenses that are fully informed by questions of community and collaboration with an eye to the intersection of local and global perspectives. The timing is ideal and urgent for such a program since others there were suspended during the Ebola crisis and have not been resumed. This would be a program built around interdisciplinarity as it is being shaped in the 21st century. Ghana has a vibrant arts and culture community that we would work with, in particular a group of artists I met with in September 2015 on a visit there who would be in creative contact with our students. This initiative is in concert with our strategic goals for our undergraduate and graduate students in at least two doctoral program.

- **Dr. Mary D'Ambrosio, Dept. of Journalism and Media Studies, School of Communication and Information, Rutgers University–New Brunswick**

Internationalizing the Journalism and Media Studies Curriculum

The Department of Journalism and Media Studies, and its parent School of Communication and Information, have invested more than \$18,000 in internationalizing initiatives in recent years, both to develop the Journalism and Media Studies Department's faculty-led study abroad projects in Central America, Paris and London, and to expand our department's research ties to European institutions. This grant application proposes to extend and institutionalize these investments, by 1) inaugurating our first faculty-led Summer Semester in Journalism Abroad, with a six-credit taught program and an internship experience; 2) expanding and institutionalizing our roster of short-term faculty-led courses created with earlier development funds, to offer at least two per year; and 3) providing initial scholarship funding to attract enrollment for all three annual programs, by naming our first "GAIA Journalism and Media Studies Global Ambassadors," establishing a dedicated funding account and contributing an additional \$5,000 in department scholarship funding.

- **Dr. Maureen Donaghy, Urban Studies & Community Development Program, Camden College of Arts and Sciences, Rutgers University–Camden**

Global Urban Studies: Establishing Connections in Cities around the World

We propose internationalizing the curriculum of the Urban Studies and Public Administration programs at Rutgers in Camden, to strengthen the academic and research experiences for our students. To that end, we think it is important to examine the impact of globalization on cities of the developed and developing world, beyond the context of US cities. Based on our faculty

expertise and interests, we seek to offer three learning abroad courses on a regular basis: Urban Change in Germany, Urban Development and Politics in Brazil, and Urbanism and Sustainable Community Development in Cuba. Funding from this grant will pay for one-time expenses of an additional faculty member for each of the three Urban Studies trips to enable the Urban Studies Program to make these courses sustainable over time. We also plan to host campus-wide post-learning abroad trip seminars where students who attended a trip share their experiences with the Rutgers community.

- **Dr. Ana Laguna, Dept. of Foreign Languages and Literatures, Camden College of Arts and Sciences, Rutgers University–Camden**

Making an International Program Truly International: The Study Abroad Expansion of the Master in Teaching Spanish, MAT

The Spanish MAT Program (Masters of Teaching Spanish) at Rutgers Camden seeks to build a graduate extension on the existing undergraduate Spanish Study Abroad Program at the University of Salamanca. As a language program, the MAT relies heavily on the linguistic and cultural competency of its students, and maintaining such competency is often challenging. Offering a cost-effective opportunity to (re)gain such competency is thus at the heart of this program's mission. For the first time, Salamanca has agreed to offer specialized classes to Rutgers's graduate students, which will allow them to work both on their linguistic skills and pedagogical needs at the same time. The University of Salamanca is in charge of the DELE (Diplomas in Spanish as a Foreign Language), which sets international standards for expertise in Spanish as a second language.

- **Dr. Harsh Sule, Dept. of Emergency Medicine, New Jersey Medical School, Rutgers Biomedical and Health Sciences**

Global Health Concentration in Emergency Medicine Residency Training

This program is designed to address a demand for global health education among resident physicians, as well as recognizing the positive impact that global health electives have on medical training, progress towards ACGME milestones, professional development and service in diverse and underserved communities such as Newark. Specifically, it adds an optional Global Health concentration/scholarly track to the existing Emergency Medicine residency curriculum at Rutgers NJMS. Completion requires participation in a year-long, longitudinal curriculum that includes:

- Didactic sessions to build a foundation and enhance the resident's understanding of global health
- Development of a project in conjunction with host community personnel and EM faculty, as a component of the department's existing work in Jamaica
- Participation in didactic and clinical learning at the field site
- Delivery of educational modules to improve healthcare delivery at the field site
- Delivery of supervised patient care at the field site

International Collaborative Research Grants for Tenure-Track Faculty

- **Dr. Shishir Chundawat, Dept. of Chemical and Biochemical Engineering, School of Engineering, Rutgers University–New Brunswick**

Enabling the Creation of a Sustainable and Economically Viable Cellulosic Biofuels Industry in Brazil

Biological conversion of non-edible cellulosic biomass (e.g., sugarcane bagasse) to fermentable sugars that can be upgraded into biofuels and biochemicals has the potential to address some of the major challenges facing our society such as climate change, energy security, and rural economic development. Brazil processes 40% of the world's total sugarcane crop in sugar mills generating large quantities of waste bagasse. Bagasse is highly recalcitrant to enzyme-catalyzed bioprocessing. This project will enable the creation of an international team between participants from Rutgers University (RU), University of São Paulo (USP), and Centro De Tecnologia Canavieira (CTC) with the goal to create sustainable and economical processes for conversion of bagasse-to-biofuels. The PI is developing novel chemical pretreatments and engineered enzymes for enabling low-cost cellulosic biofuel production. This project will kick start collaborations with USP and CTC to attract additional funding for research and construction of a pilot-scale biofuel facility in Piracicaba (São Paulo).

- **Dr. Angelica Gonzalez, Dept. of Biology, Camden College of Arts and Sciences, Rutgers University–Camden**

Caught in the Web: Spiders and Their Webs as Natural Indicators of Atmospheric Pollution along Urbanization Gradient

Urbanization is a worldwide phenomenon that results in increased air pollution in urban centers. Air quality monitoring is required to estimate population exposure to air pollution and air quality management. Recently, it has been suggested that spiders and their webs could be used as biological indicators of a variety of air pollutants. Spiders are abundant in cities and they differ greatly in their weaving behavior; some spiders, for example, build their webs on a daily basis, while other webs function for months. In addition, some spiders eat their webs on a daily basis, suggesting potential metal pollution along urban-rural gradients. We propose to study the potential role of spiders and their webs as bioindicators of short- and long-term atmospheric pollution across an urban-rural gradient in metro Philadelphia and Camden, NJ, USA and across Poland.

- **Dr. Aaron Mazzeo, Dept. of Mechanical and Aerospace Engineering, School of Engineering, Rutgers University–New Brunswick**

Paper-based Composites for Tunable Electromechanical Properties

The objective of this project is to strengthen a collaboration between Rutgers University and the University of Manchester, which focuses on tuning the material properties of paper-based composites for future electrical, mechanical, and biomedical applications. This investment will prepare the team for upcoming solicitations, such as the NSF Partnerships for International Research and Education.

- **Dr. Lindsey McDougle, School of Public Affairs and Administration, Rutgers University–Newark**

Evaluating Youth Development Programs in Sub-Saharan Africa

This proposal requests support for a project aimed at developing a model for evaluating youth development programs in sub-Saharan Africa. In this project, an international and multidisciplinary team of researchers and graduate students will build upon several emerging partnerships Rutgers- Newark is developing with agencies on the African continent, with a particular emphasis on a partnership evolving with the Namibian-based PAY Namibia. It is expected that this project will allow us to develop strategies for responding to the rising youth population in sub-Saharan Africa.

- **Dr. Rita Musanti, Dept. of Nursing Science, Rutgers School of Nursing, Rutgers Biomedical and Health Sciences**

The Effect of Enacted Support on Physical Activity, Quality of Life and Coping in Adult Cancer Patients and Their Caregivers

Worldwide more people are surviving cancer. At diagnosis and thereafter the survivor and their caregiver (S-C) experience stress. To help both the survivor and caregiver, and their coping as a dyad. Supportive interventions aimed at improving coping are being directed at the S-C dyad. Physical activity (PA) is a health inducing intervention recommended for adults; Latinos are among the populations that have low levels of PA and thus do not realize the health benefits of PA. We will investigate the feasibility of a 16-week PA Intervention to explore the relationship between stress, coping and PA n 12 dyads/site, one site each in Panama, Colombia and the USA. Dyads are a breast, colon or prostate cancer survivor and their non-cancer survivor caregiver. The physical fitness and psychological response data that we obtain will generate hypotheses to be tested in a future larger scale study in all three countries.

- **Pamela Rothpletz-Puglia, Dept. of Nutritional Science, School of Health Related Professions, Rutgers Biomedical and Health Sciences**

Developing Nutritional Research Capacity in Tanzania through Teaching, Mentorship and Technical Assistance

The goal of the proposed project is to build the nutrition research capacity of the staff at the Tanzania Food and Nutrition Centre (TFNC). The proposed project activities will include Rutgers faculty conducting a needs assessment, providing nutrition research methodology education to TFNC staff, providing research mentoring and technical assistance to TFNC staff, and evaluation of the project.

International Collaborative Research Grants for Tenured Faculty

- **Donna Fennell, Dept. of Environmental Science, School of Environmental and Biological Sciences, Rutgers University–New Brunswick**

Microbial Influences in the Atmosphere

This proposal will establish a research and intellectual exchange between Rutgers University and the Institut de Chimie de Clermont--Ferrand (ICCF) (an institute established between the Centre National de la Recherche Scientifique (CNRS) and the Université Blaise Pascal). The collaborators at RU and ICCF represent two of only a few groups in the world with active research programs in atmospheric microbiology. The proposed activities will enable development of a joint research effort to expand the global investigation of atmospheric microbiology. This effort leverages on-- going research investigating microbial ecology/environmental chemistry of clouds (ICCF) and characterization of active microbes in the atmosphere (RU). The proposed activities include a travel exchange between RU and ICCF; initiation of a research collaboration; sharing experimental techniques; publication of a joint scientific research article; and preparation of a National Science Foundation grant for an international workshop to be held at Rutgers University to establish research needs and a research field investigation plan centered on atmospheric microbiology.

- **Dr. Jennifer Gibbs, Dept. of Communication, School of Communication and Information, Rutgers University–New Brunswick**

Fostering Collaborative Communication Practices in Global Teams

The proposed research aims to advance knowledge of communication processes in global teams such as knowledge sharing, identification, and collaboration, and the ways in which such processes are shaped by contextual features such as team task, technology use, team tenure, and student versus organizational team sample in order to reconcile inconsistent research findings. Our international, interdisciplinary research collaboration brings together prominent global teams scholars from Finland and the U.S. and allows us to draw on a larger pool of data through mixed-methods analysis of interview and communication data for in-depth, comparative analysis of boundary characteristics of global team communication. We hope to strengthen the collaboration between our institutions through research publications, teaching and research opportunities, pursuit of external grant funding, visits by faculty and graduate students, and other international exchange opportunities. These activities will help to enhance the global reputation of both Rutgers and Aalto University.

- **Dr. Radha Jagannathan, Edward J. Bloustein School of Planning and Public Policy, Rutgers University–New Brunswick**

Jersey Roots, Global Reach: Implementation of a Rutgers STEM Education Program in Granada, Spain

This project will implement one of Rutgers University mottos – Jersey Roots, Global Reach – by transferring a Rutgers University STEM (Science, Technology, Engineering and Mathematics) oriented program called Nurture thru Nature (NtN) to elementary school students in Granada,

Spain. The project will lay the foundation for addressing a critical need in the Spanish labor market of producing students trained in the STEM areas. The NtN program in New Brunswick was designed in 2010 to stimulate student interest in STEM careers through exposure to the scientific method in various grade-specific scientific disciplines with hands-on instruction occurring in classrooms and outdoors, enhanced by a garden and nature-scape-based curriculum. Designed as a classical experiment with students randomly assigned to the NtN and control groups, the program is currently delivered to 105 New Brunswick students in 5th through 9th grades and has shown consistent, positive impact on students' grades in science, mathematics, and Language Arts.

- **Dr. Carrie Lobman, Dept. of Learning and Teaching, Graduate School of Education, Rutgers University–New Brunswick**

Brazil Performing English

The intention of this collaborative research study is to create an intervention study to 1) examine the effectiveness of an improvisational approach to teaching English as a foreign language for Brazilian teachers and students, 2) provide pedagogic and research support to the professionals who are bringing this approach to Brazil, 3) promote social inclusion, and 4) expand the graduate school of education and Rutgers outreach in Latin America.

- **Dr. Kusum Mundra, Dept. of Economics, Newark College of Arts and Sciences and University College, Rutgers University–Newark**

Immigrant Homeownership in the UK around the Great Recession: Role of Birthplace Networks

Immigrant homeownership is an important factor for immigrant integration and assimilation for any country. My earlier study for the U.S. showed that immigrants were not as adversely affected in their homeownership outcomes as natives possibly due to leveraging their social networks during and post Great Recession. In this collaborative research project I am planning to conduct a similar study for the UK. Using national data at the micro level, this project identifies important homeownership determinants for immigrants in the UK and specifically whether birthplace networks had any role in immigrant homeownership and how this role varied across major immigrant groups during and posts Great Recession. Immigrant assimilation and absorption issues are crucial for Europe making this research very timely. This project will lead to refereed publications and a joint external grant between Rutgers Newark and University of Oxford for detail data collection on immigrant social networks over the US and UK.

Interdisciplinary Working Groups (Special Focus: Rethinking Regional and Area Studies)

- **Dr. Jason Cortes, Dept. of American Studies, Newark College of Arts and Sciences and University College, Rutgers University–Newark**

Developing an African Centre for the Study of the United States

This proposal requests support from GAIA for a feasibility analysis for developing a collaboration between the Rutgers Newark program in American Studies and the emerging African Centre for the Study of the United States. The proposed center will serve as a conduit for a much deeper and more grounded South African, and Continental, understanding of American business, culture, foreign policy, history and politics. It will contribute, through original research, opinion articles, reports, the arts, and through major public lectures and their multimedia diffusion, to the public understanding of the United States in Africa, and to informing American intellectual, professional and scholarly communities of African perspectives and scholarship on all aspects of the United States and the American experience. Finally, it will contribute to community outreach and public education, especially with students, including in secondary schools, on the United States and on the US/South Africa/Africa relationship.

- **Dr. Chie Ikeya, Dept. of History, School of Arts and Sciences, Rutgers University–New Brunswick**

Global Asia Studies

The growing emphasis on the global and the transnational across the disciplines today has, apparently, undermined the validity of area studies. Yet, area studies continues to serve as a key site for understanding the fragility of globalist narratives and challenging normative paradigms and categories of analysis. The “crisis” in area studies has also led scholars of Asia to critically rethink the field of Asian studies, prompting a rapprochement between Asian and Asian American Studies. The proposed working group, Global Asia Studies, contributes to this vital scholarly project of re-envisioning Asian/area studies. It explores the shifting meanings, purposes, and methods of the academic study of Asia. It engages scholars of Asia and Asian diasporas from a variety of geographical locations, theoretical perspectives, and disciplinary approaches in a comparative, cross-border, and interdisciplinary dialogue that pushes the boundaries of Asia as both a space and concept.

- **Dr. Stéphane Robolin, Dept. of English, School of Arts and Sciences, Rutgers University–New Brunswick**

Rethinking the Shape of African Studies

This working group will assess the state of African Studies and consider its future prospects under current institutional pressures and intellectual trends across the U.S. academy. The aims of this group are to convene one conference, several meetings at national conventions, and a series of reading discussions that help us study the condition of African Studies and to consider the possibilities for our research and teaching in the coming years. This will culminate in a set

of strategic planning meetings to set an agenda for how to best (re)shape African Studies at Rutgers University and beyond. Our efforts, then, will involve instigating discussions amongst Rutgers affiliates as well as leading Africanist scholars from the local area and around the world.

- **Dr. Paul Weber, Dept. of Medicine, Robert Wood Johnson Medical School, Rutgers Biomedical and Health Sciences**

Rutgers University Health Extension Action in Local Communities (RU HEAL)

Rutgers University Health Extension Action in Local Communities is a student run interdisciplinary initiative with a twofold purpose. RU HEAL seeks to establish community relationships with underserved neighborhoods across New Jersey to improve the health of these communities along with creating hands on learning experiences for Rutgers Biomedical and Health Sciences health professions through an interdisciplinary, innovative practice model. The formation of Rutgers Biomedical and Health Sciences provides an opportune time for the coordination of faculty and students from across disciplines to engage in an interdisciplinary initiative. The RU HEAL initiative incorporates a model of care akin to global health delivery; we plan to deliver health screenings in order to characterize the healthcare needs of the population and conduct community health needs assessments to identify possible health interventions, with the goal of establishing a student run clinic site to provide sustainable services to the population.