LEAF Faculty Grant Proposal Abstracts
* denotes faculty of color or underrepresented faculty

2013-14

Seed
Daria Narmoneva, Associate Professor, Biomedical, Chemical and Environmental Engineering
Cardiac Cell Interactions in Diabetes: A Pilot Study

The focus of my research is in the vascular tissue engineering and regenerative medicine area, with the special emphasis on the effects of diabetes on vascular cells during the wound healing and how these effects can be augmented via specific design of the extracellular environment. The project described in this proposal represents a new direction within the main focus of my research and continues my collaboration with Prof. Yigang Wang from the Department of Pathology, UC College of Medicine. Diabetic cardiomyopathy is a poorly understood heart condition without a cure, and we propose to test a new therapeutic strategy for this disease based on the novel nanofiber microenvironment developed in my laboratory. Initial experiments for this strategy have been performed by a former graduate student in my laboratory, Abdul Sheikh and were funded by a seed grant from the Sigma Xi society that Abdul received in 2012. A manuscript based on those results has been submitted to the American Journal of Physiology Cell Physiology) in July of 2013; the reviews are favorable and resubmission is invited. This proposal describes the next step for this project, which is to perform a set of key experiments that are necessary to publish the initial results and will be used as preliminary data for the submission of the NIH RO1 application in 2014. This activity will 1) support my research productivity and help publish a manuscript in the area of the diabetic cardiomyopathy, which is required for a successful grant application, and 2) to secure the next round of extramural funding. These activities, therefore, will help position me for promotion to the full professor in the future.

*Bridgette Peteeet, Assistant Professor, Psychology
Clinical Risk in First Generation College Students: An Assessment of Mental Health and Substance Abuse.

The National Center on Addiction and Substance Abuse 2003) reports that there are no all-inclusive studies on mental health, substance use, and student engagement especially among college students. The funds requested in this proposal would serve to support this type of investigation. Grant funds are requested to partially support the purchase of the DUSI-R Drug Use Screening Inventory-Revised), which is an electronic, self-report mental health, substance
abuse, and behavioral outcomes screening assessment. It measures the severity of problems to assist in identifying prevention and intervention modalities (Tarter, 1990). The goal of the project is to collect pilot data on the aforementioned variables in a sample of FGCS. The research team has been studying first-generation students for three years collecting demographic data, attrition rates, and information on their college experiences. Though a genome learning community and a study abroad project have resulted, demographic findings have limited grant fundability. Marrying my past training in substance abuse with the needs of FGCS, the SEED grant would aid in transitioning into a fresh research arena that is more externally fundable and sustainable for an early career researcher in the second year of a tenure-track appointment. This pilot data will create a foundation for a longitudinal study on substance use and mental health in FGCS. Early funding is crucial to increasing our competitiveness for grants such as the Small Grants for New Investigators to Promote Diversity in Health-Related Research (R03) in the spring of 2014.

Laura Sagle, Assistant Professor, Chemistry
Novel Nanoparticle Arrays for Improved Biosensing

The primary goal of this project is to test the biosensing properties of surface-bound arrays of gold and silver nanoparticles in both linear and clustered arrangements. The ability to make ordered arrays of plasmonic materials using a cheap, benchtop technique will greatly improve device capabilities and fabrication. In addition, biosensing using arrays of chainlike or clustered nanoparticles in close proximity should yield much more sensitive devices which will ultimately be capable of detecting lower concentrations of biological analytes. A central goal of the Sagle group is to make microfluidic, LSPR-based biosensing devices for disease diagnostics, drug screening and chemical and biological warfare detection. Multiplexed, portable LSPR-based devices, which can be detected through a simple visible color change, will be quite advantageous in developing countries and for soldiers in the field. The proposed research is a large step towards this goal in that it allows for complex nanostructures on the surface to be easily fabricated which should improve response times, portability, and allow for the maximum change in color for each binding event.

Career Branch
Sian Cotton, Research Associate Professor, Family & Community Medicine and Pediatrics
Cross Institutional Research Collaborations in Integrative Medicine

Last year I was appointed Director of the COM’s newly launched Center for Integrative Health and Wellness and Director of UC Health’s new Integrative Medicine program. Last month, I became Research Director of Integrative Care for Cincinnati Children’s Hospital Medical Center. These cross-institutional programs are aimed at developing our capacity in integrative medicine, defined as combining the best of conventional medicine with evidence-based complementary medicine, across our tripartite clinical, research and educational missions. As Director of these new initiatives, I am responsible for the growth and oversight of all aspects of the Center-including building and marketing our clinical services, garnering philanthropic and community support, developing programmatic research, and weaving integrative medicine into
the COM curriculum. However, as an outcomes researcher, my career goals also include developing and sustaining my academic research career, including continued external funding for my work, and eventual tenureship at the COM. Only with continued research success, will I have the credibility and continued support to develop Integrative Medicine at UC and CCHMC. Thus, the activity I am requesting funding for is to support my research trajectory and capacity by invigorating ongoing and future research collaborations via interdisciplinary and cross-institutional collaborations in integrative medicine. Specifically, this award would help move "discussions" of cross-institutional research collaborations into action by supporting me to visit with three national leaders in the field and both increase my networking and visibility nationally, and initiate specific research projects and grant applications. All three visits would be with other medical schools that are part of the Consortium of Academic Health Centers for Integrative Medicine (www.imconsortium.org), our national organization committed to the advancement of integrative medicine principles and practices. The high quality of academic integrative medicine research that is going on at many of these institutions are the key partnerships for me to develop strategically for both my program and my career trajectory as a researcher. My first visit will be with Dr. Jeffrey Dusek, Research Director at the Penny George Institute for Health and Healing in Minnesota, to work on our RO1 submission for 2014. The second and third visits would be with Dr. Kathi Kemper at the Ohio State University and Dr. Tanya Edwards at the Cleveland Clinic—both Directors of their Integrative Medicine programs—to discuss laying the groundwork for developing a statewide practice-based research network (PBRN) for Integrative Medicine in Ohio.

Ruxandra Dima
Associate Professor, Chemistry
Establishing an International Research Collaboration in Biomimetics

I would like to establish a cross-institutional collaboration with a research group at the Technical University in Munich TUM), Germany. Namely, I would like to request funds to cover my travel lodgings) expenses to the collaborators institution. The travel will take place in the Spring Semester of the 2013-2014 academic year during my approved sabbatical leave. My group works in the area of computational biophysical chemistry. Currently, my expertise is in studies of molecular determinants of the nanomechanics of biological macromolecules ranging from small, single-domain, proteins to large bio-assemblies such as cytoskeletal filaments and viruses. Funding from the National Science Foundation Career award enabled my group to identify key aspects of the mechanical resistance in cytoskeletal filaments such as microtubules and actin filaments, to reveal the origin of the unique elasticity in fibrinogen molecules, the main components of blood clots, and to decipher structural changes that drive the mechanical collapse and recovery of viral capsids. The goals of my research career for the next 5 years are 1) to expand our methodological computational developments to enable the study of biomechanical responses of proteins near equilibrium that mimics cellular conditions and 2) to develop a new direction of research in the field of biomimetics concerning the computational study of design principles for polymeric filaments with tunable mechanical properties driven by changes in protein-protein interactions. To achieve these goals I plan an extended visit at TUM, the home institution for Prof. Matthias Rief, who is a leading experimental investigator in the
field of biomechanics of single-molecules. Establishing strong collaborations between computational and experimental groups is a strong requirement for the overwhelming majority of funding opportunities. Thus, my proposed activities are geared to enhance my ability to secure external funding to support my group’s research efforts and to allow me to develop expertise in a new area of research. The educational goals of my career are to engage middle to graduate school students from underrepresented groups in scientific research that would lead them to embrace STEM careers. During the past 6 years, I advanced these goals through active participation in outreach programs such as the “Girls in Science” program at UC, by mentoring female undergraduate students as part of the “Women in Science and Engineering” program at UC, the NSF-REU program and for Capstone research in the Department of Chemistry. I have also mentored female PhD graduate students. Thus, establishing a long-term collaboration with an international institution will also enable me to advance the educational goals of my academic career in a new direction, involving a global community, by serving as a role model for female students in STEM disciplines at both TUM and at UC.

*Stephanie Sadre-Orafi, Assistant Professor, Anthropology
Cultural Practices of Type Production

I am requesting funding to gain advanced training in typographic design for a comparative ethnographic project I am developing on the cultural practices of type production. The project examines expert practices of classification and type production among three distinct professional communities: casting directors, law enforcement and corrections officers, and graphic designers. In it I explore how each group creates, evaluates, and cultivates categories of difference and corresponding theories of mediation that have consequences for how the broader public sees and understands the world. I argue that this is especially urgent now given the growing sense of what I call visual anxiety, or the heightened awareness and distrust of appearances, which permeates American visual culture. Demonstrated by the paradoxical rise of racial and other types of profiling alongside the spread of scientific and political discourses that eschew the reliability of external forms for predicting or perceiving internal motives, cultural identities, or essential differences, visual anxiety plays out in the wavering tolerance for ambiguity and intensified search for new ways of seeing, locating, and talking about difference. Amidst these shifts, it is critical to theorize cultural practices and emerging forms of expertise that grapple with the aesthetic, discursive, and ultimately epistemological dimensions of social difference. Drawing together these three disparate sites offers a unique perspective on varied forms of institutional type production and an innovative approach to studying transformations in visual culture. Funding from the UC LEAF Branch Award will allow me to complete foundational training in type design and to network with the broader national community of type-oriented graphic designers. My request is two-fold. First, I seek funding to attend "Principles of Typeface Design: An Introduction," a public workshop offered at Cooper Union in New York. Cooper Union has a leading type design program. The workshop is taught by Sara Soskolne, senior designer at Hoefler & Frere-Jones, a prestigious type foundry, and founding instructor of the Type@Cooper Condensed Program—an intensive post-graduate type design certificate program. Second, I seek funding to attend TypeCon 2014, an annual conference on typography hosted by the Society for Typographic Aficionados. TypeCon is well regarded in the
graphic design community and brings together both educators and professional designers.

**Leadership**

**Margaret Kupferle**, Associate Professor, Biomedical, Chemical, and Environmental Engineering Leadership training through ELATE

LEAF supported Margaret’s attendance at Drexel University’s Executive Leadership in Academic Technology and Engineering (ELATE) program, a national leadership development program designed to advance senior women faculty in academic engineering, computer science, and related fields into effective institutional leadership roles within their schools and universities.

2014-15

**Seed**

*Farrah Jacquez*, Assistant Professor, Psychology

Intervention Development with Immigrant Latinos

As a nontraditional destination city for Latino immigrants, Cincinnati has experienced dramatic growth in its Latino immigrant population in the last decade without linguistically and contextually appropriate infrastructure to address health disparities affecting Latino families. The gap between the growing Latino population and the availability of culturally relevant services is particularly concerning because Latinos experience health disparities in many areas, including childhood obesity, diabetes, mental health care utilization, health insurance coverage, and access to healthcare. Like many other nontraditional destination areas, engaging newly immigrated Latinos in health interventions in Cincinnati has been difficult because new immigrants tend to be distrustful of and not connected to the existing health system. Weak structural supports and an unwelcoming climate have further disengaged Latino immigrants in our city. Because the growth of the Latino population in Cincinnati has increased dramatically in the past decade, the healthcare system in our area does not yet have a concrete assessment of the healthcare utilization, health behaviors, or health-related needs of Latino immigrants. To begin to understand the healthcare experiences of Latino immigrants in our area, we established a CTSA CCTST community engagement) grant funded Community Research Team, Latinos Unidos por la Salud LU-Salud), a group of trained Latino immigrant researchers who equitably collaborate with academic partners on research endeavors directly benefiting the local Latino community. In the past year, LU-Salud has collected over 500 surveys from immigrant Latinos about their experience with the healthcare system in Cincinnati. LU-Salud has also conducted four focus groups with immigrant Latinos to help interpret the results of the surveys. We have presented the results of LU-Salud’s research to local stakeholders and at national conferences. Manuscripts detailing the results of this CTSA-funded project are in development. The next step in the community-partnered research process is to develop interventions to address the health concerns identified through LU-Salud’s research. We intend to seek NIH funding to conduct a community-partnered intervention addressing Latino health.
We have previously submitted 2 proposals to NIH for community-partnered intervention development projects addressing Latino health. We received relatively good scores (29 on NIH’s 10E90 scale) on each proposal, but reviewers said that we needed to develop an intervention before applying for funding. Similarly, we recently spoke with an NIH program officer administering a community-based participatory research (CBPR) grant RFP who told us that NIH is highly unlikely to fund CBPR projects that do not include a fully developed intervention plan. Therefore, to prepare us to apply for NIH funding, the critical next step is to engage LU-Salud and Latino community stakeholders in developing an intervention that addresses the health needs identified in our previous research. UC LEAF funding would allow us to take the next step in our journey toward NIH-funded intervention research by partnering with LU-Salud to develop a health intervention that is culturally and contextually appropriate for Latino families. Specifically, we will use concept mapping methodology to identify feasible strategies to address Latino health. At the end of the UC LEAF-funded project, we will have a collaboratively-designed Latino health intervention that reflects both scientific and community priorities.

Alison McLeish, Associate Professor, Psychology
Anxiety-Related Cognitive Risk Factors and Asthma

The current proposal seeks funding for a research project examining the role of anxiety related cognitive risk factors, defined as negative beliefs or ways of attending to and interpreting negative or ambiguous symptoms, in terms of asthma control (i.e., asthma symptom severity and asthma management) and reactivity to asthma-like symptoms. My overall research focus is on anxiety-related cognitive risk factors and their effects on chronic medical conditions as well as comorbid substance use and chronic medical conditions. To date, I have been primarily focused on understanding how anxiety-related cognitive risk factors impact smoking behavior and smoking cessation among smokers with asthma. That line of research has now been established, and I would like to turn my research attention to developing a line of research examining these anxiety-related risk factors among non-smokers with asthma. This research can not only inform the research I conduct on smokers with asthma, but is also important in its own right in terms of helping identify malleable risk factors that contribute to poor asthma outcomes. My ultimate goal for this line of research is to develop interventions that target these factors in order to improve asthma symptom management as well as decrease risk for anxiety psychopathology among individuals with asthma. While I have conducted some initial research in this area, this research has been limited in terms of the types of samples used (primarily undergraduate samples) as well as the methodology (primarily self-report measures). The current study seeks to address these limitations by (1) recruiting a community-based sample; (2) using more rigorous screening for the presence of asthma (i.e., beyond self-reported asthma diagnosis); (3) using multi-method assessment procedures to better capture reactivity to emotional distress and asthma symptoms; and (4) obtaining objective measures of lung function. The data obtained from this project will be critical in advancing my program of research and providing pilot data for future grant submissions. Receiving these UC LEAF funds would also be critical in helping me keep my program of research going. I do not currently have any funding and recently found out that a grant that I submitted that received a score in the fundable range would not be funded. Without the UC LEAF funds, I would have to rely solely on
the undergraduate research subject pool for my research participants, which limits the
generalizability of my findings and requires substantially longer to complete studies due to
lower prevalence rates of asthma in this population. Thus, this seed money would provide
much needed funding that would allow me to not only collect good pilot data for future grant
submissions, but would also allow me to continue building my publication record in this area of
research as well as help my students meet their program milestones. Beyond the primary aims
of this project, secondary analyses of data from this project could be used for manuscripts,
conference submissions, and dissertation and thesis projects.

*Pearl Tsang, Associate Professor, Chemistry
Investigation of hLysRS interactions and binding to HIV-1 TLe RNA

My research expertise is in the area of NMR (Nuclear Magnetic Resonance) structural studies of
protein and protein complexes. More recently, the direction of our research has shifted
towards in vitro study of HIV-1 primer uptake involving the human enzyme, lysyl aminoacyl
tRNA synthetase (hLysRS). This shift has been possible due to our recent collaboration with The
Ohio State University Professor Karin Musier-Forsyth, an Ohio Eminent Scholar, as well as an
expert in the field of in vitro and in vivo investigations of HIV-1 nucleic acid-protein interactions.
In this collaboration, our NMR expertise complements that of Professor Musier-Forsyth and we
provide structural tools that are needed to understand the physical basis of RNA binding and
recognition by human host cell proteins involved in the HIV-1 life cycle. hLysRS has been
proposed to bind to a portion of the HIV-1 genome referred to as the tRNAlike element (‘TLE’,
Jones, et al., 2013) Sheng Liu, a recently graduated Ph.D. student from my laboratory,
successfully demonstrated by NMR that the hLysRS binds and interacts with the TLE and
tRNALys3 in a similar fashion. This supports the potential role of the TLE thus facilitating
potential release of the RNA primer for HIV-1 reverse transcriptase as proposed by the Musier-
Forsyth group (Sheng Liu, 2012). Based upon the studies previously carried out by Sheng Liu,
further NMR and biophysical experiments are required in order to better characterize the
structural basis of the mechanism proposed for HIV-1 primer release. These data are in turn
required to complete and submit two manuscripts that are already in preparation on this topic.
Publication of these manuscripts is important because it will a) demonstrate the feasibility of
this research, b) improve my research productivity and c) improve my funding competitiveness
as a result of b). The results of these studies are also crucial since they will be used as
preliminary data in a future NIH R21 (NIAID or GM) proposal to be submitted in 2015 that will
be focused upon detailed characterization of the structure and interactions of the TLE-hKRS
complex. In this proposal, seed funding is sought to carry out specific experiments required for
the completion of two manuscripts about this project that are already in progress. Funding is
specifically requested to support the salary of a part-time student as well as some of the
consumables required for the experiments. Successful funding of this UC LEAF proposal will also
provide me some leverage in terms of fees associated with use of departmental equipment
required for this research such as NMR equipment within this department. The results of these
proposed studies will be crucial to completion of these upcoming manuscripts as well as
preparation and submission of a future NIH proposal. The proposal itself will be a collaborative
one with Professor Musier-Forsyth and it will involve extensive use of techniques such as NMR,
CD and other biophysical techniques that our group has the expertise to contribute towards study of this important research. From a career perspective, successful extramural funding by an agency such as the NIH is absolutely essential to my potential promotion from Associate to Full professor in the future. UC LEAF seed funding will allow for a very critical and essential transition from our recent research efforts to a more stable and sustainable research program in the future.

*Yurena Yanes*, Assistant Professor, Geology

Relationships between Climate Change and Agriculture Development In NW Africa: Insights from Mollusk Shells

I hypothesize that agricultural development in NW Africa responded to climate change. To test this hypothesis, I will study, for the first time, the oxygen stable isotope composition of Epipaleolithic and Neolithic marine mollusks collected by both hunter-collector and food-producer human groups. The study will focus on the marine gastropod Phorocus (Osilinus) turbinatus (Born, 1780) since it is the dominant species throughout the record. Data generated in this proposal will allow me to (1) reconstruct the paleotemperature in northeastern Morocco throughout the Holocene, the cultural period in which the agriculture was first developed in the region, and (2) elucidate seasonal shellfish foraging strategies by prehistoric humans over the course of the Holocene in NW Africa. With the execution of this proposal, the PI will significantly benefit her Academic career at UC in various aspects. The analysis of samples from this proposal will allow her to generate sufficient pilot data to apply for a more ambitious (NSF type) grant in the near future. This proposal will allow the PI to start a new research line, so far not established in any UC Department. The PI will enhance her student mentoring abilities since she plans to involve and train a UC undergraduate student on mollusks, geochemistry and paleoclimatology. Because this research is highly multidisciplinary, relevant to biologists, paleontologists, geochemists and archaeologists, this research line will potentially allow the PI to establish future inter-Departmental collaborations at UC. All these facets will help the PI to reach professional maturity and overall succeed in Academia and advance her career.

*Sarah Mayorga-Gallo*, Assistant Professor, Sociology

Impacts of Housing Tenure and Race on Social Inequality

Recent research has emphasized the benefits of relationships across class and race for disadvantaged groups, as well as their positive impact on employment and health outcomes for racial minorities and the poor. Federal housing programs, such as HOPE VI, also stress the importance of homeownership and mixed-tenure housing developments for eradicating economic inequality. Many of the studies on mixed-tenure neighborhoods, however, focus on homeowners and do not fully investigate renters’ experiences. The proposed study will provide new evidence on these issues by identifying the social processes of inclusion and exclusion enacted by homeowners and renters from three distinct racial-ethnic groups (i.e., white, black, and Latino/a) across two urban neighborhoods in Cincinnati, Ohio—one that is multiethnic and one that is predominantly white. This study will also highlight and address the experience of
renters, a group that is both underexplored in the literature and disenfranchised in mixed-tenure communities.

**Career Branch**

**Heather Norton**, Assistant Professor, Anthropology  
Whole Genome Data Analysis Training and Grant Preparation

The purpose of this proposal is to request funding to travel to meet with a collaborator, Dr. Laura Scheinfeldt (Coriell Institute of Medical Research) to prepare a research proposal to be submitted to the NSF in summer 2015. This proposal will involve the collection and analysis of whole genome sequences from multiple Island Melanesian populations to better characterize the evolutionary history of populations in this complex part of the world and to investigate the role of natural selection in shaping Melanesian genetic and phenotypic diversity. This visit will serve three primary purposes: 1. To receive training from Dr. Scheinfeldt in the analysis of whole-genome datasets, and in particular to become proficient in various methods that focus on identifying the footprint of natural selection in whole genome data. 2. To develop these skills by working with a small whole genome dataset. The results of these analyses will contribute to preliminary data for the NSF research proposal. 3. To develop and strengthen the intended NSF research proposal, specifically focusing on questions relating to choice of study population, power analyses to determine appropriate sample size, the choice of relevant summary statistics to infer selection, and phenotypes to target as strong selection candidates (e.g. skin pigmentation, pathogen resistance). The advent of next-generation sequencing (NGS) technologies makes it increasingly easy for biologists, anthropologists, and medical personnel to rapidly generate DNA sequence data from multiple human genomes and then examine variation in those genomes to gain insights into questions regarding evolutionary history, disease risk, or even genotype-phenotype associations. However, while technological advances have made the generation of whole-genome sequences progressively faster and more cost-effective, a new challenge faced by investigators is the manipulation and analysis of these large and complex datasets. Such efforts often require the use of specialized software packages or the development of a bioinformatics pipeline to handle issues relating to quality control, data filtering, and the merging of datasets sequenced using different technological platforms. Depending on the specific scientific question being asked (e.g. demographic reconstruction, the identification of loci targeted by selection, genotype-phenotype association testing), custom scripts written in perl or R may be required to calculate relevant summary statistics of the data. None of these are trivial tasks for the novice. While I already have some skills in bioinformatics (specifically in the perl and R programming environments), my research has largely focused on analyzing datasets at the level of the individual gene, rather than on a genomic scale. In contrast, Dr. Scheinfeldt has worked extensively with wholegenome datasets, and has specifically focused on investigating such datasets for signals of natural selection. Her skills in this arena complement my own background in Melanesian population history, and in particular in the potential role of selection in shaping a specific phenotype—skin pigmentation.
Laura Jenkins, Associate Professor, Political Science
*Rina Williams, Assistant Professor, Political Science
Methods of Interpretation in the Social Sciences

We request UC LEAF funding to undertake advanced training in interpretive methods at the Methods School of the International Political Science Association-National University of Singapore (IPSA-NUS) in the summer of 2015. This training will advance our careers by enabling us to spearhead a new interdisciplinary initiative to create a more diverse and inclusive methods curriculum for current and future social scientists at UC. This training will support a year-long series of activities culminating in an interdisciplinary research workshop and a new seminar: Methods of Interpretation in Social Science (MISS), cross-listed by political science and Women’s, Gender and Sexuality Studies (WGSS). We anticipate that these collaborations will lay the foundation for a longer-term project on the relationship between methodological diversity and cultural and gender diversity in the social sciences.

*Xia Wang, Assistant Professor, Mathematical Sciences
Assessing Big Data Quality in Clinical Proteomics: Bayesian Perspectives

I started working in the area of quality control for clinical proteomics experiment with Dr. David Tabb from the Vanderbilt University Medical Center in 2013. We published our work in Analytical Chemistry in 2014. As a next step in our collaboration, my objective is to develop innovative statistical models to cope with several unique challenges for massive proteomics data. Specifically, I am working on quality evaluation and monitoring based on longitudinal data. These two events offer advanced trainings in the field, unique platforms to present my research on statistical modeling related to modern proteomics technologies, and opportunities to timely exchange ideas and network with researchers in this field.

I will be a first-time attendee in the Quality and Productivity Research Conference. I plan to attend it because its mission matches my current research project perfectly. It aims at offering trainings and stimulations for research of better statistical methods for quality and productivity improvement. It offers one-day short course on a carefully selected frontier topic and two-day research presentations in the field. As a small-scale conference, it attracts a focused group of statisticians, engineers, and scientists in the areas of product and process design, manufacturing, and other business processes. Quality monitoring in proteomics is an important application area and is full of opportunities for more advanced statistical models. This specialized meeting helps me to quickly connect with researchers and to advertise my research outcomes in this new application area.

The Joint Statistical Meetings (JSM), in contrast, is the largest annual gathering of statisticians held in North America with more than 6,000 attendees. During its one-week program, it offers short courses on most recent advances in statistical modeling, especially in big data analysis. Besides, it provides incomparable opportunities to catch up with the latest development in statistics research, teaching and funding opportunities. Since my first JSM in 2009, it has been valuable resources for my research and teaching activities. Presenting project outcomes at this
event helps increase the project impact and my visibility.

**Leadership**

**Amanda Albrecht**  
Assistant Educator Professor, Civil and Architectural Engineering and Construction Management  
Participate in Cincinnati in C-Change Class of 2015

I am requesting funding to participate in the 2015 Cincinnati C-Change Class, a year-long leadership program for young professionals (under 40) which is run by the Cincinnati Chamber of Commerce. Participating in the program will provide professional development tools and opportunities to enhance my current leadership roles and prepare me for future ones.

*Chai-Chi Ho*, Professor, Biomedical, Chemical, and Environmental Engineering  
Leadership training through ELATE program

LEAF supported Chai-Chi’s attendance at Drexel University’s Executive Leadership in Academic Technology and Engineering (ELATE) program, a national leadership development program designed to advance senior women faculty in academic engineering, computer science, and related fields into effective institutional leadership roles within their schools and universities.

2015-16 (Early Award)

**Career Branch**

*Farrah Jacquez*, Assistant Professor, Psychology  
YMCA Rising Stars Leadership Program

In Fall 2014, I was honored to be nominated by Monica Mitchell and UC LEAF as a YWCA Rising Star Woman of Achievement. I was chosen for the Rising Stars program and in October 2014, I attended roundtable discussions and a dinner hosted by the YWCA to honor Rising Stars and Women of Achievement. During this program, I learned about the YWCA Rising Stars Leadership Program, a series of five monthly workshops to be held January-May 2015. The purpose of the Leadership Program is to increase community engagement and to prepare women to serve on nonprofit boards in the Greater Cincinnati area. As my research focuses on community-engaged approaches to health disparities and I work extensively with nonprofit agencies in my work, I believe the Rising Stars Leadership program would have a beneficial impact on my research output.