Letter from the Provost:

Thank you for exploring the latest issue of Sponsored Programs Activity, 2019-2020. Each year, Towson University faculty pursue and are granted highly competitive federal, state, and private funding as part of their commitment to exceptional scholarship, research, service, and teaching. Despite a global pandemic that caused an abrupt transition to virtual learning and working, this year was no different. Our faculty continued to push the boundaries in all areas of study, expanding their individual scholarship and enhancing their ability to provide TU students with a first-class education.

Applying for and securing external funding represents excellence and dedication. I commend each and every one who has submitted a proposal or received external funds this past year and sincerely hope we continue to grow the university’s portfolio in the coming year. Our Office of Sponsored Programs & Research provides support to assist with finding funding sources, developing proposals and budgets, submitting proposals, and managing awards.

As always, congratulations to all who engaged in applying for and securing external funding. I would like to recognize in particular those whose work on existing projects has continued and those who pursued new funding in the midst of the COVID-19 pandemic. Indeed, the entire TU community was met with unprecedented challenges in the last four months covered by this publication, but we have risen to meet them, and Towson University continues to be one of the nation’s top public universities. Our commitment to improving the lives of thousands of students through teaching and research is strong. I invite you to explore the inspiring work occurring on (and off) our campus.

Best wishes,

Dr. Melanie Perreault
Provost & Executive Vice President for Academic and Student Affairs
CREATING INNOVATIVE HEALTH INFORMATION TECHNOLOGY FOR A SAFER MARYLAND

Two members of the Department of Computer & Information Sciences faculty are at the forefront of the Maryland Institute for Emergency Medical Services’ (MIEMSS) response to COVID-19. Professor Yeong-Tae Song and Clinical Assistant Professor Jinie Pak were perfectly positioned to begin collaborating with MIEMSS in 2019 when the current Director of Data Management and Towson University (TU) alumnus, William Thompson, D. Sc. ’16, approached Song to work with the institute to develop an app for the management of infectious diseases in the State of Maryland. While the inception of this project occurred long before COVID-19 was a threat, the pandemic expedited the process and Song, Pak, and their exceptional team members, TU alumnus Majed Almotairi, D.Sc. ’19, and current TU computer science master’s student Analilia Fierro, delivered a final product designed to handle the communication and training of paramedics and first responders earlier this year.

Beginning with background research in 2019, the team created an app that will push important notifications to emergency medical services (EMS) clinicians and allow them to access real time information about infectious diseases, emergency treatment protocols, clinical information, and other resources for the management of patients with infectious diseases in emergency situations. According to Pak, first responders will now have all the information they need to care for a patient at their fingertips. MIEMSS stressed that a key element of the
project would be a cloud-based notification system capable of sending targeted notices with or without internet access. The system is therefore based on a regional approach, notifying areas of information that is directly relevant to them. The intent is to ensure that each of Maryland’s five EMS regions view the information as critical and take action quickly.

Song described the project as “an orchestration of the latest technology in computer science” and saw it as a great opportunity to explore and implement such new technology. Not only does it feature a cloud-based notification system, it is also a cross-platform application, so it can support any operating system (OS). Pak explained that the cross-platform element was one of the biggest obstacles they faced, and that they conducted extensive research in order to identify a suitable tool that would allow all the features MIEMSS wanted to work together.

Once MIEMSS staff complete pilot testing of the app, it will be in use by EMS and eventually will be available for the public to download in the Apple and Google Play Stores. Song and Pak hope the project will raise awareness and increase interest in health information technology and the topic of electronic health records. The product of their hard work and dedication will help MIEMSS uphold its mission to maintain a statewide EMS system that functions optimally and to provide effective care to patients, thereby making Maryland a more secure place to live.
SELF-EMPOWERMENT THROUGH DANCE: CELEBRATING 15 YEARS OF AILEY AT TU

Professor of Dance Linda-Denise Fisher-Harrell is the driving force behind TU’s longstanding partnership with the world-renowned Alvin Ailey American Dance Theatre (AAADT). A former dancer with the company, she was inspired by its vision of community outreach. She has marshalled that passion into her vision, which sees dance as a vehicle for change, for individuals and for communities.

Enthusiasm, creativity, and energy built the university’s 15-year partnership with AAADT. Beginning with a 2006 grant that supported TU students to perform excerpts of Alvin Ailey’s work, the relationship has become embedded into the fabric of TU’s dance program, through Ailey II, a weeklong residency program. Since 2011, AAADT’s junior company has visited TU and hosted master classes, workshops, and mini-performances that are open to the public. Comprised of college students and recent college graduates, Ailey II offers TU students an opportunity to see their peers, some of whom are TU alumni, flourish as part of a professional dance company.

However, it is through AileyCamp wherein Fisher-Harrell’s vision of dance as a change-agent becomes most apparent. Founded by AAADT to use the power of dance to enrich and positively impact the lives of children through programs offered in cities across the United States, AileyCamp Baltimore first came to TU in 2014 and it has been an annual offering ever since. The program has flourished, and in 2019, a partnership with Baltimore City Public Schools (BCPSS) solidified AileyCamp Baltimore’s commitment to bringing dance to young people who otherwise might not have access to such an experience.

According to Fisher-Harrell, the six-week program is, at its core, a personal development camp. She describes it as “a vehicle for kids, ages 11-14, to find self-empowerment and self-expression through the discipline of dance.” AileyCamp seeks to provide them with an opportunity to find their voices and imbue them with the knowledge that they are important.

The program is rigorous and requires commitment and courage to participate. Kids with varying levels of skill and dance experience learn different types of dance technique including, ballet, modern, jazz, and West African as they prepare a final performance for community leaders, partners, and parents. Campers also participate in art classes, develop their writing skills through regular journaling, and are encouraged to engage in guided discussion of topics geared toward fostering personal development such as, nutrition, social media use, drug and alcohol abuse, peer pressure, bullying, and positive communication. Hosting camp in the TU Center for the Arts also exposes participants, especially those from Baltimore City, to a campus potentially viewed as distant and inaccessible. Tours of the university and the opportunity to engage with the TU students working with the camp transforms college from an abstract concept to a realistic option for the future.
While Fisher-Harrell's passion centers on artistic expression as a vehicle for transformation, she has had to master the ability to procure the resources necessary to implement that vision. Ailey programs require external support, and she has worked tirelessly to secure grants and donations that make these programs possible. She approaches the task with enthusiasm, and she is effusive in her praise for all who partner with her both on and off campus, which has led to much success. The Ailey II residencies have always had steady funding from state and county art grant programs, and more recently a grant from the National Endowment for the Arts. The aforementioned partnership with BCPSS provided funds to facilitate the participation of campers from Title I schools, thus solidifying AileyCamp Baltimore's mission to enhance the lives of underserved children. It also required Fisher-Harrell to document more rigorously the positive impacts that the camp has on participants. That led to funding from the Baltimore Towson University Partnership and also opened up the possibility for new avenues of funding.

Of course, funding has not been the program's only challenge. In late spring, it appeared likely that the COVID-19 pandemic would shut the camp down. However, the passion for the program by all involved – BCPSS, AAADT, and TU – overcame what appeared to be insurmountable obstacles. With significant behind the scenes work, lots of creativity, and adaptability, an abbreviated Virtual AileyCamp experience was held for returning campers in July and August. The Ailey programs are much beloved across the TU community and the impact of the camp experience in particular is palpable for all who participate. In fact, this past year campers from the first group started college—some are even studying dance at TU with Professor Fisher-Harrell once more.

CONVERTING MATHEMATICS TEXTBOOKS TO BRAILLE: A STEP TOWARD MORE ACCESSIBLE MATHEMATICS

In 2019, TU professor of mathematics Alexei Kolesnikov, TU mathematics professor emerita Martha Siegel, and former National Security Agency mathematician Al Maneki joined forces with a group of mathematicians working to create open source mathematics textbooks by compiling single source files for books that can then be produced in a variety of formats (web browser, printed, audiobook, etc.). With funding from the American Action Fund, a national service agency that specializes in providing help to blind people that is not readily available to them from government programs or other existing service systems, they were able to begin in earnest the project titled, “College Mathematics Textbooks to Braille.” While the group started with a text used by college mathematics majors, they aim to create a tool that will easily convert any open source mathematics textbook to braille—software that can potentially do this for any book prepared in this format. Moreover, the final tool will not be a commercial product in order to further their broader goal of making textbooks as accessible as possible.

When the start of term approaches, most students have a wealth of options at their fingertips for purchasing textbooks. Buying or renting, print or electronic, Amazon, Chegg, and the University Store are just some of the
many options available to acquire textbooks in mere days, no matter how specialized the topic. But did you know that it typically takes six months to produce a mathematics textbook in braille? While audio options are available, they are not ideal, particularly when the formula is complex. In such cases, blind students may forget the beginning of the formula by the time the end is being read.

As Kolesnikov explains, “The hurdles that blind students face in entering technical fields, mathematics in particular, are unreasonable.” His role in reducing those hurdles began in 2018 when he received a mass email from Siegel, who was seeking assistance acquiring a statistics textbook for a student who was blind. Eventually, Siegel connected with Maneki and they agreed to gather a team of people to make braille mathematics textbooks more accessible. Kolesnikov is not an expert in Nemeth Braille Code, the braille code for encoding mathematical and scientific notation linearly using standard six-dot braille cells for tactile reading by the visually impaired. So he was hesitant to respond to Siegel’s continued emails until a slow summer day provided him with the time necessary for some light experimentation. Kolesnikov figured it would be easy enough to take input, essentially a text file of a mathematics textbook, and use an existing conversion tool to produce an output, a file that could be sent to a brailling device for production. He spent the remainder of the summer testing other existing conversion methods and printing the output on a brailler in Cook Library only to have each version rejected by Maneki for serious mistakes. By the end of the summer it was clear that converting mathematics textbooks to braille was a serious problem with only partial solutions and promising results, but nothing foolproof.

Converting mathematics textbooks to a format for tactile reading is particularly challenging because they are complex books composed of literary text, mathematics, graphs, diagrams, and other images. The team’s current process begins with converting an original mathematics textbook file (LaTeX file) to an XML file format. The literary text is then separated from the mathematics and images. Pre-existing open-source conversion tools then convert the literary text to braille while the mathematics is passed to a speech-rule-engine for conversion to Nemeth Braille. The literary text and speech-rule-engine output are then compiled into a single document that can be sent to the brailler for production. Graphs, diagrams, and images present more of a challenge because the labels often overlap the images when they are generated automatically. The initial draft includes 300 unique expressions that form the building blocks of 6,125 total math formulas. A number of certified Nemeth translators checked for accuracy and the team is working on a list of corrections.

In early August, the group held a virtual workshop sponsored by the American Institute of Mathematics (AIM). Participants included members of the open-source textbook group, researchers in assistive technologies, disability support specialists, and accessibility industry representatives. All engaged in activities to improve transcription tools and produce raised graphics while gathering information about available technologies, advice for authors, and policy recommendations. Kolesnikov views the project as service to the discipline. “We’re making something available, in the hope that next time a student is deciding between pursuing mathematics or doing something else, there will be fewer hurdles to overcome and fewer people will be turned away from the field because of an accessibility issue.”
THE SCHOOL YEARS: EXPLORING THE RELATIONSHIP BETWEEN K-12 EXPERIENCES AND ADULT OUTCOMES FOR YOUNG ADULTS WITH AUTISM SPECTRUM DISORDER

Connie Anderson is passionate about her research, which focuses on young adults with autism spectrum disorder (ASD). The qualitative research methods that she uses delve deeply into the personal histories and experiences of individuals with ASD, their parents, and educators. By allowing all involved the opportunity to tell their stories, Anderson hopes to enhance the success of individuals with ASD and to empower them to advocate for change.

An associate professor in the Department of Health Sciences, Anderson and her co-investigator, assistant professor Caroline Wood, are funded by a grant from the Organization for Autism Research (OAR) that builds on an earlier project they funded along with the A. J. Drexel Autism Institute. In the previous study, Anderson conducted interviews with young adults with ASD and their parents to explore their experience transitioning from high school to young adulthood. While large statistical studies demonstrate that young adults with ASD are less likely to be in school or working, no one knew why. As the interviews progressed, a common theme emerged. The current study reexamines the data from the earlier study but targets the school years with the additional perspective of educators who work with children and teens with ASD. As of this year, Anderson and Wood have conducted a total of 66 one-on-one interviews: 35 parents, 12 young adults with ASD, and 19 educators in a variety of roles and from a variety of different schools. While the analysis is not yet complete, patterns are emerging. Problems such as delayed diagnosis, unaddressed bullying, and a lack of interventions to provide basic social skills and the ability to self-advocate are often at the root of current problems faced by high school graduates with ASD as they transition to young adulthood.

Anderson observed that the interviews conducted were both deeply personal and intensely emotional for many participants. One educator believed that advocating for the students and requesting additional resources led to negative career consequences for her. An African-American teacher emphasized the unique challenges faced by some because of the enormous disparity in funding between schools due to systemic racial inequality. Stories that inspire hope were also told. Students and parents often detailed the positive impact had by individual teachers who truly understood ASD. Even in schools with fewer resources, those educators stood out as shining examples. These are the areas Anderson seeks to explore with her research. How do you create an inclusive and accepting culture at a school? What are the incredible lengths some educators will go to in order to help others understand students with ASD and support their success? But also, where do things go wrong and when do all the principles of special education and the intent of the law fail? And what consequences may this have in the long term?

In the field of autism studies, these issues in schools are well-known, but anecdotal. There is very little concrete research that puts the pieces together and relates them to adult outcomes. And there is even less that relates these issues between parents and educators. Anderson anticipates that her research will be that piece in the literature that substantiates the anecdotal pieces and lends legitimacy to them with careful analysis saying, “I hope that this will shine a light on some of these issues, empower advocates, change policies, and inspire more research.”
INCREASING THE PARTICIPATION OF FATHERS IN THE CLASSROOM

Educators seek to engage parents because they know that their involvement is critical to their children’s success. And while the call for greater parental involvement is a universal one, few delve further to discern whether barriers may inhibit some from participating. With funding from the Maryland State Department of Education two faculty members from the College of Education are working to identify factors that may deter fathers and father figures from participating in their children’s schooling and implement strategies to encourage their participation.

Amy Noggle and Sara Hooks, associate and assistant professors of special education and early childhood education respectively, focus on several barriers. First is a lack of information. Although research demonstrates that increased parental involvement can enhance social and emotional development outcomes, many educators don’t realize that it is important to actively reach out to fathers and father figures specifically. Second, is time. Many parents, particularly those of children attending Title I schools, may work two to three jobs, making it difficult for them to drop in during the school day. Traditional patterns often make it more acceptable for a mother or mother figure to take time off from work to attend school-day activities than for a father or father figure. Another constraint is maternal gatekeeping, which impacts families with a separate living situation particularly hard because it can lend itself to one parent not keeping the other informed. “Too often as teachers,” says Noggle, “we’ll send flyers or notices home in backpacks. We assume that information will get disseminated to everyone, but that isn’t always the case. And we assume that when we don’t see one parent in school, they don’t care, but that isn’t always the case either.” The final barrier is the demographic makeup of school staff, which is predominantly female, especially in early childhood and elementary classrooms. The often younger female teachers relayed that they are more accustomed to interacting with mothers. Meanwhile, the fathers expressed that they don’t know what to do, or what questions to ask in the classroom setting. These feelings are often compounded by cultural and linguistic barriers.

To further explore the topic of father engagement, the pair partnered with Stevens Forest, a Title I elementary school located in Howard County that includes 50% non-native English speakers. They created the Father Involvement Task Force comprised of the Assistant Principal and Principal, Noggle and Hooks, four fathers, and key staff, including the Spanish-speaking liaison, to determine the best way to bolster father engagement. Their approach included hosting “A Day Out with Dad” at the start of the school year. At the event, Stevens Forest students rotated through activities alongside their father figures and two fathers from the community served as guest speakers in an effort to facilitate the involvement of fathers and other male role models specifically.

The project also emphasizes professional development. Sessions dealt with state and federal initiatives to increase father involvement, the significance of and barriers to their involvement, and working with challenges facing culturally and linguistically diverse fathers and fathers of children with disabilities. They also simulated a parent teacher conference wherein TU education majors were asked to handle a parent-
The 30-35 year-old man. The point was to provide students with an opportunity to convey sometimes difficult news to parents. And, to upend the more typical scenario when new teachers are delivering this news to a woman. Noggle said that it was a challenge for some students, but that “dealing with initial uncomfortableness is really what strives to make us stronger in this case.” Noggle and Hooks hope this project builds awareness among those working in education and creates a model that can be emulated by other Title I schools in the county and beyond to create a shift in the culture toward increased father involvement.

HARNESSING INTERNATIONAL EXPERIENCES TO BUILD A SUSTAINABLE FUTURE

Towson University was honored to be the home institution of two Fulbright Distinguished Chair Award recipients during the 2019-2020 academic year. Professor Brian Fath, department of Biological Sciences, was selected as a Fulbright Distinguished Chair in Social Sciences at Masaryk University in Brno, Czech Republic and Professor Jeremy Tasch, Department of Geography & Environmental Planning, was selected as a Fulbright Distinguished Chair in Sustainable Development at the National Research University: The Higher School of Economics (HSE) in Moscow, Russia. The Fulbright Distinguished Chair Awards are among the most prestigious appointments in the Fulbright Scholar Program, and approximately 40 are offered each year to individuals who have eminent teaching and research records. Along with the larger Scholar Program that offers 1,100 awards to U.S. scholars annually, the Fulbright Programs recognize and promote the critical relationship between educational exchange and international understanding.

Professors Tasch and Fath both found that the experience enriched their individual scholarship, opened the door to future international collaboration, and enhanced their ability to provide a well-rounded education of exceptional quality to their TU students.

Each engaged in teaching activities at their host institutions. Fath taught graduate and undergraduate courses in the Masaryk University Department of Environmental Studies, teaching for the first time from Foundations for Sustainability: A Coherent Framework of Life Environment Relations, a new text he co-authored, and honing an overview of the main topics and themes in environmental science. Among the most rewarding facets of the experience was the opportunity to work within a school of social sciences. Fath welcomes the interdisciplinary exchange of ideas between his home in the natural/physical sciences and the social sciences, which will further enhance his teaching in the future.

Professor Tasch traveled to Russia in January only to have the semester abroad cut short by the COVID-19 pandemic. While much of his teaching was virtual, Tasch directed his graduate students through individual projects that combined theory and practice to develop locally relevant solutions that lessen local dependence on traditional forms of development and energy resources. For instance, one student project explored ways to create innovative green spaces in tight urban areas to grow niche products for personal consumption and sale to other residents as a way of augmenting minimal salaries. Tasch is proud of the work his students accomplished and found each focused on bringing the future today in participatory, grounded, bottom-up, and sustainable ways.
Fath and Tasch are certainly no strangers to international collaboration. Fath currently holds a position as a Senior Research Scholar with the Advanced Systems Analysis (ASA) Program with the International Institute for Applied System Analysis (IIASA) in Laxenburg, Austria. For him, the Fulbright opportunity was particularly well-timed. One of his collaborators in Austria recently received a grant to fund 15 Ph.D. students dispersed to a handful of universities across Europe, including Masaryk. For his part, Fath committed to co-supervise Ph.D. students in Brno with one of his new colleagues and he was grateful to be there in person when the work began.

In Tasch’s case, the Fulbright award led to a new relationship with the Valdai Discussion Club, a well-known think tank in Moscow. Before COVID-19, he intended to conduct research to determine how to work with northern communities—population centers that can be quite small—that exist beyond the Arctic Circle so they can produce their own energy and gain independence from large-scale energy production. The Valdai Discussion Club ultimately invited Tasch to be one of four keynote speakers at a conference centered on the potential for conflict in the Arctic among Russia, China, and the United States. He also wrote an article for the think tank that has since been published and maintains a standing invitation to join their continued Arctic Initiatives throughout 2020.

While the Fulbright experience was truncated, Tasch was able to lay the groundwork for a number of future potential research projects. For Fath, teaching in the Czech Republic was a gratifying way of coming full circle from his experience as an exchange student while the country was opening after the fall of the Soviet Union. Similar to Professor Tasch, he was able to pave the way for future projects in Europe—a network of opportunities he actively opens to his TU students. Both professors assert that their time abroad is essential to what makes them better educators at TU. It adds to their cache of real-life experiences to draw from when teaching the theoretical, abstract, and intangible elements of their respective fields in what Tasch described as “a different way of making learning active.” Fath enthused, “I’m always trying to expand and broaden students’ perspectives through these different connections and experiences.” In this increasingly globalized world, TU is fortunate to have faculty who can bring the world outside the United States to life for its students.

**THE POWER OF CORRESPONDENCE: MAPPING THE NETWORK OF SUFFRAGE ACTIVISTS**

The National Park Service (NPS) turned to two Towson University faculty members to create an interactive series of story maps that commemorate the 100th anniversary of the 19th Amendment, which granted women the right to vote. While in practice the Amendment only ensured the franchise for primarily white, middle and upper class women, the achievement was momentous. Sam Collins and Matt Durington, professors in the Department of Sociology, Anthropology & Criminal Justice, are working to illustrate the breadth, complexity, and often contradictory nature of the U.S. suffrage movement through the extensive network of suffrage correspondence.

The NPS oversees many sites that are important to the suffrage movement. Some are well-known, such as Seneca Falls, New York, the location of the first women’s rights convention. Others are not. For example, the Minuteman National Historic Site in Concord, Massachusetts is often associated with the American Revolution,
However, it also features Wayside House, a 17th century structure that was once home to 19th century author Louisa Alcott, famous for writing Little Women and for her activism within the suffrage movement.

Collins and Durington were tasked with highlighting such NPS sites. The project, titled “Let’s Have Tea-Reconstructing the Network of the 19th Amendment,” is their fourth with NPS and builds upon a methodology they developed with a grant from the National Science Foundation that aimed to “conduct media-based research in a more ethical and transparent way through the lens of anthropology using social network analysis and collaborative media making.”

The duo observes that the power of the suffrage movement lies in its breadth: “It brought together a variety of different people from various places, from the very local to the very global. There were huge figures like Jane Adams, alongside smaller figures as well. Every town in the United States had someone who was active in the movement.” Nothing demonstrates that geographical scale and complexity better than its extensive network of correspondence, the social media network of the time.

Beginning with 50 of the best-known suffrage activists, Collins, Durington, and their team researched their correspondence in digital archives and the footnotes of secondary source material. They read letters and identified correspondence referencing the suffrage movement. Each activist was then plotted on story maps created using mapping software. Individuals are represented with an orange dot. When clicked, their network of correspondents is revealed. From there, one can bounce from activist to activist in a way that viscerally demonstrates the interconnectivity of the movement.

So far, the team has created a robust map that illustrates the connections among 1,000 suffrage activists and various other intertwined social movements. They continue to add content, build applicable models for different NPS sites, and create curricular materials that utilize the maps. One of their main goals is to establish a crowdsourcing model for people to contribute information about local suffragists. Creating an open network that allows the public to share in the intellectual discovery of new suffrage activists will result in a map that represents as full a picture of the movement as possible.

The project relied upon an impressive network of support and collaboration. Undergraduate students identified suffrage activists, located their correspondence and supporting visual media, decided which information should be included, and edited the text featured on the maps. Kate Wilkinson, an associate professor in the Department of Women’s & Gender Studies, and Paporn Thebpanya, a professor in the Department of Geography & Environmental Planning, contributed historical content and expertise. They were especially grateful to have the Division of Strategic Partnerships & Applied Research (SPAR) Center for GIS (CGIS) as a partner. Christina Nemphos and Alexandra Mikulski, GIS Specialists with CGIS, were essential for bridging the technical aspects of mapmaking with the intellectual element of building a correspondent network.

A virtual event was held on August 18th to officially launch the Suffragist Storymap featuring opening remarks from General Linda Singh, TU’s inaugural Leader-in-Residence. Maps of suffrage correspondence show the movement to be, in many ways, the first truly modern social movement. The letters of the suffrage activists reveal that it intersected with a host of other social movements, including abolition, temperance, pacifism, spiritualism, and even vegetarianism. Collins and Durington hope that the project will bring the people behind the letters to life as the complex and often contradictory human beings that they were.
FUNDING RECEIVED
July 1, 2019 – June 30, 2020
Towson University faculty and staff receive funding from a diverse array of sponsors to complete projects in all fields. This year $6.7 million in new funding was secured, enriching activities across campus. The list below includes external funding awarded, both new awards and supplements to existing awards. Congratulations to all those who received funding during this period.

COLLEGE OF BUSINESS

BUSINESS ANALYTICS AND TECHNOLOGY MANAGEMENT

- Natalie Scala
  Co-PI: Joshua Dehlinger
  Anne Arundel Board of Elections Election Judge Training for 2020
  Anne Arundel County Board of Elections $5,000

MANAGEMENT

- David Brannon
  Co-PI: Anna Obedkova
  Outcomes of Entrepreneurial Education: Perceptions of Career Readiness Judge Training for 2020
  Colonial Academic Alliance $7,000

COLLEGE OF EDUCATION

EARLY CHILDHOOD EDUCATION

- Ocie Watson-Thompson
  FY20 Child Care Career and Professional Development Fund
  U.S. Department of Health and Human Services via Maryland State Department of Education
  $137,123

EDUCATIONAL TECHNOLOGY & LITERACY

- William Sadera
  The Neuroscience of Learning: Mathematics and Educational Disabilities MOOC
  Maryland State Department of Education via Kennedy Krieger Institute $25,680

ELEMENTARY EDUCATION

- Lijun Jin
  China Experience: Empowering American Public School Teachers to Transform Social Studies Curriculum in Secondary Classrooms
  U.S. Department of Education $99,586

- Vicki McQuitty
  Co-PI: Pamela Hickey
  2020-2021 National Writing Project/ National Park Service Science in the Park National Writing Project
  $3,500

SECONDARY & MIDDLE SCHOOL EDUCATION

- Todd Kenreich
  Maryland Geographic Alliance Professional Development Delivery 2020
  National Geographic Society $10,000

SPECIAL EDUCATION

- Amy Noggle
  Co-PI: Sara Hooks
  Focus on Fatherhood: Engaging Fathers and Father Figures in a Title 1 School
  U.S. Department of Education via Maryland State Department of Education $22,574

- Patricia Rice Doran
  Co-PIs: Gilda Martinez-Alba; Elizabeth Neville
  English Learners Moving to Proficient Outcomes with Engagement and Rigor (EMPOWER)
  U.S. Department of Education Year 3: $548,261; Total: $2,221,722

COLLEGE OF FINE ARTS & COMMUNICATION

ART + DESIGN, ART HISTORY, ART EDUCATION

- Katharine Fernstrom
  Maryland Open Source Textbook Initiative Mini-Grant
  University System of Maryland $1,000

- Judith Isaacs
  Maryland State Arts Council Creativity FY20 Gallery
  Maryland State Arts Council $3,500

ASIAN ARTS & CULTURE CENTER

- Joanna Pecore
  Asian Arts & Culture Center FY20 Grants for Organizations
  Maryland State Arts Council $15,838

- Asia North
  William G. Baker, Jr. Memorial Fund $10,000

- Asian Arts & Culture Center Howng & Vercauteren Borja Showcase
  E. Rhodes and Leona B. Carpenter Foundation $25,000

- Asian Arts & Culture Center Operating FY20
  Baltimore County Commission of Arts & Sciences $7,500

COMMUNICATION STUDIES

- Christopher Abbott
  Colonial Academic Alliance Debate for Civic Learning
  Colonial Academic Alliance $4,500

DANCE

- Linda-Denise Fisher-Harrell
  Alvin Ailey Camp License Agreement 2019-2023
  Alvin Ailey Dance Foundation, Inc. Year 1: $25,000; Total: $125,000

MASS COMMUNICATION

- Pallavi Guha
  Maryland Open Source Textbook Initiative Mini-Grant
  University System of Maryland $1,000

COLLEGE OF HEALTH PROFESSIONS

HEALTH SCIENCES

- Connie Anderson
  Parent and Youth Transition Hopes and Fears: Implications for Continued Engagement in SPARK
  The Simons Foundation via Kennedy Krieger Institute $112,830
- Marsha Davenport
  Towson Physician Assistant Student Society Stop the Bleed Initiative
  nccPA Health Foundation
  $1,000

- Gerald Jerome
  Center to Accelerate Translation of Interventions to Decrease Premature Mortality in SMI
  National Institutes of Health via Johns Hopkins University
  Year 2: $13,148; Total: $26,037

- Karla Kubitz
  A Mixed Methods Investigation of the Team Cohesion/Performance Relationship across the Semester in Team-Based Learning Teams
  Team-Based Learning Collaborative
  $2,284

- Elizabeth Austin
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Nasreen Bahreman
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Adriane Burgess
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Seung Choi
  PLAN: Dementia Literacy Education and Navigation for Korean Elders with Probable Dementia and their Caregivers
  National Institutes of Health via Johns Hopkins University
  Year 1: $21,940; Total: $49,610

- Elizabeth Crusse
  Towson Degree Completion Initiative
  Maryland Higher Education Commission
  Year 5: $430,246; Total: $1,658,385

- Mary Curran
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Stanjay Daniels
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Karen Frank
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Janice Hoffman
  FY20 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

- Marie Kemerer
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Susan King
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Mary Lashley
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Marguerite Lucea
  FY20 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

- Teresa Nikstaitis
  Nurse Support Program II Academic Nurse Educator Certification
  Maryland Higher Education Commission
  $5,000

- Kathleen Ogle
  Nurse Support Program II Graduate Program Planning & Revisions
  Maryland Higher Education Commission
  Year 2: $71,770; Total: $146,570

- Briana Snyder
  Online Option for Degree Completion
  Maryland Higher Education Commission
  Year 2: $473,336; Total: $1,050,062

- College of Liberal Arts
  Foreign Languages
  Colleen Ebacher
  Partners in Education: Working Together to Enhance the Teaching of Latin America - Peru 2019-2020
  U.S. Department of Education
  $99,995

- Philosophy & Religious Studies
  Emily Bailey
  Maryland Open Source Textbook Initiative Mini-Grant
  University System of Maryland
  $1,000

- Political Science
  Matthew Hoddie
  Power Sharing, Political Goods Provision, and Post-Conflict Stability in the Philippines
  National Science Foundation via Gettysburg College
  Year 4: $2,962; Total: $48,195

- Psychology
  Paz Galupo
  Co-PI: Christa Schmidt
  Simulated Conversation Training for Mental Healthcare Providers to Improve Care for Transgender and Gender Nonconforming Individuals
  National Institutes of Health via SIMmersion, LLC
  $199,035

- Wonjin Sim
  International Students’ Dreams during Cultural Transition
  International Association for the Study of Dreams via Chatham University
  $3,120

  Enhancing Practice-Based Evidence for Spiritually Integrated Psychotherapies: An Interdisciplinary Big Data Project
  John Templeton Foundation via Brigham Young University
  $79,968
**SOCIOLOGY, ANTHROPOLOGY & CRIMINAL JUSTICE**

- **Samuel Collins**  
  Co-PI: Matthew Durington  
  Let’s Have Tea-Reconstructing the Network of the 19th Amendment  
  National Park Service  
  Year 1: $74,307; Total: $113,306

**WOMEN’S & GENDER STUDIES**

- **Cindy Gissendanner**  
  Girls in the Game - FY20  
  Girls in the Game  
  $4,999

**FISHER COLLEGE OF SCIENCE & MATHEMATICS**

**BIOLOGICAL SCIENCES**

- **Jacqueline Doyle**  
  Population of Indiana’s Allegheny Woodrats  
  Indiana Department of Natural Resources  
  $13,924

- **Laura Gough**  
  The Role of Biogeochemical and Community Openness in Governing Arctic Ecosystem Response to Climate Change and Disturbance  
  National Science Foundation via the Marine Biological Laboratory  
  Year 4: $36,000; Total: $214,000

- **Steven Kimble**  
  Identification of Ranavirus Infection-associated Genes in a Zoo Population of Eastern Box Turtles (Terrapene c. carolina)  
  North American Box Turtle Conservation Committee  
  $1,000

- **Michelle Snyder**  
  Bridges to the Doctorate: A Partnership between Towson University and University of Maryland School of Medicine  
  National Institutes of Health  
  Year 3: $283,513; Total: $768,884

- **Co-PI: Renee Dickie**  
  Bridges to the Baccalaureate, Yrs. 15-19  
  National Institutes of Health  
  Year 3: $278,107; Total: $1,430,076

- **Petra Tsuji**  
  Evaluation of Sorghum Bioactive Compounds in Cancer Metabolic Pathways  
  U.S. Department of Agriculture  
  Year 1: $20,000; Total: $45,000

**CHEMISTRY**

- **John Sivey**  
  CAREER: BrCl and Other Highly Reactive Brominating Agents in Disinfected Waters: Implications for Disinfection By-Product Formation and Control  
  National Science Foundation  
  Year 4: $ 98,814; Total: $500,536

**COMPUTER & INFORMATION SCIENCE**

- **Siddharth Kaza**  
  The Cybersecurity Labs and Resource Knowledge-base (CLARK) - A Prototype  
  National Security Agency  
  Year 4: $300,000; Total: $847,958

- **Michael McGuire**  
  Collaborative Research: Creating and Integrating Data Science Corps to Improve the Quality of Life in Urban Areas  
  National Science Foundation  
  $173,790

- **Yeong-Tae Song**  
  Co-PI: Jinie Pak  
  Maryland Institute for Emergency Medical Services Systems (MIEMSS) Invited Project  
  Maryland Institute for Emergency Medical Services Systems  
  $64,979

**ENVIRONMENTAL SCIENCE & STUDIES PROGRAM**

- **Christopher Salice**  
  Physiological, Ecological and Environmental Determinants of PFAS Uptake in Freshwater Fish: Towards an Improved Bioaccumulation Model  
  U.S. Department of Defense  
  Year 1: $442,739; Total: $1,735,137

**PHYSICS, ASTRONOMY & GEOSCIENCES**

- **Parviz Ghavamian**  
  A Tale of Two Remnants: A Comparative Study of the Young Ia SNRs 0509-67.5 and 0519- 69.0  
  National Aeronautics and Space Administration via the Space Telescope Science Institute  
  $16,000

**MATHEMATICS**

- **Lindsey-Kay Lauderdale**  
  Research Experiences for Undergraduates in Mathematics at Towson University  
  National Security Agency  
  $99,500

- **Pamela Lottero-Perdue**  
  Developing Preservice Elementary Teachers’ Ability to Facilitate Goal-Oriented Discussions in Science and Math via the Use of Simulated Classroom Interactions  
  National Science Foundation via Educational Testing Service  
  Year 2: $7,000; Total: $14,000

- **Joel Moore**  
  Why is Sulfate Elevated in (Sub)urban Watersheds and Declining Slower than Atmospheric Deposition? Fingerprinting Sources of Sulfate in Forested, Suburban, and Urban Streams  
  Maryland Water Resources Research Center  
  $6,895
Using High-frequency Data and Concentration-discharge Relationships to Describe Solute Mobilization and Transport in Suburban and Urban Watersheds (Graduate Fellowship)  
U.S. Geological Survey via the Maryland Water Resources Research Center  
$6,000

- **James Overduin**  
  Summer Research Internship for Undergraduates in Physics and Astronomy at Towson University  
  Maryland Space Grant Consortium  
  Year 2: $4,099; Total: $13,819

- **Jennifer E. Scott**  
  Co-PI: Patricia Westerman  
  Faculty Academic Center of Excellence at Towson (FACET) Open Educational Resources (OER) Teaching and Research Initiative  
  University System of Maryland  
  $20,000

- **Vera Smolyaninova**  
  Nanostructured Metamaterials for High-Tc Superconductivity  
  Office of Naval Research  
  Year 3: $23,525; Total: $77,661

**SCITECH STUDENT LEARNING LAB**

- **Mary Stapleton**  
  Harbor Scholar Professional Learning Workshop  
  National Oceanic and Atmospheric Administration  
  $149,975

**ADMINISTRATIVE OFFICES**

**COOK LIBRARY**

- **Joyce Garczynski**  
  Co-PI: Clare Kuntz  
  Lift Every Voice African American Poetry Grant  
  Library of America  
  $1,200

- **Sara Arnold-Garza**  
  Assessment Toolkit for High-Impact Practices in Academic Libraries  
  Colonial Academic Alliance  
  $4,000

**COUNSELING CENTER**

- **Emily Sears**  
  FY19 Alcohol, Tobacco, and Other Drugs (ATOD) Prevention Center  
  U.S. Department of Health and Human Services via Maryland Department of Health  
  Year 2: $159,701; Total: $319,402

  FY21 Alcohol, Tobacco, and Other Drugs (ATOD) Prevention Center  
  Maryland Department of Health  
  $159,701

**OFFICE OF THE PROVOST**

- **Melanie Perreault**  
  Co-PIs: David A. Vanko, Cynthia Ghent  
  The AGEP Alliance State System Model to Transform the Hiring Practices and Career Success of Tenure Track Historically Underrepresented Minority Faculty in Biomedical Sciences  
  National Science Foundation  
  Year 2: $58,804; Total: $119,534

**STUDY ABROAD**

- **Jacklyn Fisher**  
  Peer Advisor Mentoring Grant  
  Center for International Studies Abroad  
  $2,020
The Division of Strategic Partnerships & Applied Research (SPAR) plays a unique role at Towson University, securing contracts to support the needs of Maryland agencies and private businesses. In the period from July 1, 2019 to June 30, 2020, SPAR staff secured $1.2 million to provide services to the organizations below. The projects ranged from economic analysis to professional development workshops to geographic information services. The list below indicates the names of the organizations providing awards to the various areas within SPAR.

**CENTER FOR GIS**
- Harford Community College
- Maryland Department of Agriculture
- Maryland Department of Commerce
- Maryland Transit Administration
- U.S. Department of Health and Human Services via the Maryland Department of Health

**CENTERS FOR PROFESSIONAL STUDIES**
- Cisco Systems, Inc.
- Maryland Center for Construction
- Education and Innovation
- Maryland Department of Labor, Licensing & Regulation

**ENTREPRENEURSHIP**
- Baltimore County Government

**OFFICE OF IT SERVICES**
- Empowering Minds Resource Center
- Maryland Department of Assessments & Taxation
- Maryland Department of Housing and Community Development
- Retrospective Index to Music Periodicals (RIPM) Consortium
- U.S. Department of Health and Human Services via the Information & Technical Assistance Center for Councils

**REGIONAL ECONOMICS STUDIES INSTITUTE**
- Baltimore Office of Promotion & The Arts
- Maryland Department of Health
- Maryland State Arts Council
- Maryland State Highway Administration

**PROPOSALS SUBMITTED**

The process of preparing a proposal demonstrates commitment to one’s scholarly work as well as to Towson University and its students. The finished product represents hours of scholarly work that will be reviewed through a rigorous peer review process. The following list illustrates the diverse array of scholarly interests and the dedication of the TU faculty. The list includes proposals submitted from July 1, 2019 to June 30, 2020. We thank the individuals who have submitted a proposal during this period.

**COLLEGE OF BUSINESS & ECONOMICS**

**E-ECONOMICS**
- Seth Gitter
  *REU Site: Economics of Demographic and Health Outcomes in Low Income Countries*
  National Science Foundation

- Juergen Jung
  *Co-PI: Vinish Shrestha*
  *Healthcare and Gender Specific Child Investments in Developing Countries*
  National Science Foundation

**ECONOMICS**
- Thomas Rhoads
  *Biblical Models of Family and Church as Moral Foundations for the Free Market*
  *Acton Institute*

**COLLEGE OF EDUCATION**

**EARLY EDUCATION**
- Lisa Herbst
  *Towson University - The University Child Care Center Accreditation Project*
  SC Johnson & Son, Inc.
● Ocie Watson-Thompson  
FY21 Child Care Career and Professional Development Fund  
U.S. Department of Health and Human Services via Maryland State Department of Education

EDUCATIONAL TECHNOLOGY & LITERACY
● Mahnaz Moallem  
SaTC: Cybersecurity Health Check Course  
National Science Foundation

● William Sadera  
Co-PI: Scot McNary  
Instrument Development and Construct Validation for the One-to One Technology Teaching Competencies  
U.S. Department of Education via Johns Hopkins University

ELEMENTARY EDUCATION
● Morna McDermott McNulty  
COVID: Imagining School Redesign - Voices from University Students  
The Spencer Foundation

● Vicki McQuitty  
Young Writers Workshop: Advocacy & Action  
State Farm

● Marcia Vandiver  
Increasing Diversity in STEM: Recruitment, Retention, and Multicultural and Culturally Responsive Capacity Building in Science Education  
National Science Foundation via University of North Carolina Charlotte

INSTRUCTIONAL LEADERSHIP & PROFESSIONAL DEVELOPMENT
● Jessica Shiller  
Teacher Unions, Tactical Actions, and Health Advocacy in Response to Covid-19  
The Spencer Foundation via the State University of New York College at Cortland

Community School Partnership: Towson University Working in Partnership with Baltimore City’s Community Public Schools  
T. Rowe Price

SPECIAL EDUCATION
● Katherine Holman  
Co-PI: Elizabeth Neville  
Project CASE: Enhancing Early Childhood Outcomes through a Comprehensive Coaching System  
U.S. Department of Education

● Gregory Knollman  
Incorporating a Person Centered Approach to Teacher Education with Support from Students & Families across the Life Span  
Maryland State Department of Education

● Jennifer Kouo  
Designing Effective Strategies for Online Instruction of Computational Thinking and Programming Efficacy through PBL STEM Modules  
National Science Foundation

COLLEGE OF FINE ARTS & COMMUNICATION
ART + DESIGN, ART HISTORY, ART EDUCATION
● Susan Isaacs  
Visions of Place: Complex Geographies in Contemporary Israeli Art  
ARTIS Foundation

Maryland State Arts Council Creativity FY21 Gallery  
Maryland State Arts Council

● Erin Lehman  
Baltimore County Commission of Arts and Sciences FY21 Project Grant for TU Gallery  
Baltimore County Commission of Arts and Sciences

ASIAN ARTS & CULTURE CENTER
● Joanna Pecore  
Illuminating Asian Baltimore: Amplifying Community Voices at Asia North (Spring 2021 and 2022)  
Institute of Museum & Library Services

Exploring Filipino American Experiences: Support for Asian Arts & Culture Center’s Exhibit “To My Homeland” Featuring Work by Artist Lek Vercauteren Borja  
National Endowment for the Arts

Asian Arts & Culture Center Baltimore County Commission of Arts and Sciences Operating FY21  
Baltimore County Commission of Arts and Sciences

DANCE
● Linda-Denise Fisher-Harrell  
To Support Ailey II Residency at TU  
National Endowment for the Arts

COVID-19 Virtual AileyCamp 2020  
Baltimore Community Foundation via Towson University Foundation

AileyBaltimore Baltimore County Commission of Arts and Science Operating FY21  
Baltimore County Commission of Arts and Sciences

MASS COMMUNICATION
● Pallavi Guha  
Off the Limits: The Impact of Social Media and News Media on Sexual Assault and Harassment as a Campaign Issue during the Indian Parliamentary Elections of 2019  
Association for Education in Journalism and Mass Communication

COLLEGE OF HEALTH PROFESSIONS

COMMERCE ADMINISTRATION
● Lisa Plowfield  
Co-PI: Marsha Davenport  
Promoting Access to Primary Care throughout Maryland  
Health Resources & Services Administration

HEALTH SCIENCE
● Mary Carter  
The Problem of Dual Loyalty and Nursing Home Quality of Care  
Borchard Foundation Center Law & Aging

● Jillian Fry  
INFEWS/T3-Reducing Resource Use at the Seafood-Energy-Water Nexus: Focus on Efficient Production and Waste Reduction  
U.S. Department of Agriculture via Johns Hopkins University

KINESIOLOGY
● Devon Dobrosielski  
Co-PI: Rian Landers-Ramos  
Physical Therapy and Research  
Occupational Training for Underrepresented and Diverse Program  
National Institutes of Health
• Gerald Jerome
  Workplace Weight Loss for Adults with Low Vision
  American Heart Association

  NURSING
• Hayley Mark
  Co-PI: Regina Twigg
  Faculty Facilitated Group Senior Practicum Project
  Maryland Higher Education Commission

  OCCUPATIONAL THERAPY & OCCUPATIONAL SCIENCE
• Kendra Heatwole Shank
  Co-PIs: Mary Carter, Paporn Thebpanya
  Mapping Community Mobility for People in Early-stage Dementia to Predict Participation Trajectories while Aging in Place
  National Institutes of Health

  SPEECH-LANGUAGE PATHOLOGY & AUDIOLOGY
• Saradha Ananthakrishnan
  Physiological and Psychophysical Indices of Auditory Stream Segregation
  Hearing Health Foundation
• Jennifer Smart
  Working with People with Intellectual Disabilities: Creating a Lasting Impact for Inclusive Health
  Special Olympics International

  PHILOSOPHY & RELIGIOUS STUDIES
• Makmiller Pedroso
  The Impact of Environmental Uncertainty on the Evolution of Cooperation
  National Science Foundation

  PSYCHOLOGY
• Christina Dardis
  Implementing Empowerment Self-Defense for Women at Military Academies
  U.S. Department of Defense via Norwich University
• Paz Galupo
  Gender Dysphoria as a Measure of Proximal Stress: Development and Psychometric Evaluation of a Novel Measure of Social Gender Dysphoria
  National Institutes of Health

  SOCIOLOGY, ANTHROPOLOGY & CRIMINAL JUSTICE
• Michael Elliott
  Unmasking the Sacred in Popular Culture: A Social Scientific Study of Comic-Con Fan Communities
  John Templeton Foundation

  FISHER COLLEGE OF SCIENCE & MATHEMATICS
• Mark Bulmer
  Collaborative Research: Socio-eco-Immunology of Globally Important Ecosystem Engineers
  National Science Foundation

  BIOLOGICAL SCIENCES
• Alondra Maria Diaz-Lameiro
  Ancient Population Genomics Explore How Humans Survived in the Andean Altiplano by Domesticating South American Camelids
  National Geographic Society
  Co-PI: Petra Tsuji
  Morphological, Molecular, and Ecological Exploration of New Species of Dwarf Gecko from Northwestern Puerto Rico
  National Geographic Society

  CHEMISTRY
• Barry Margulies
  Human Cytomegalovirus Glycoprotein pUS27 Interference with Host Defenses
  Hearing Health Foundation

  INSTITUTE FOR WELL-BEING
• Sharon Glennen
  COVID-19 Response: Telehealth Rehabilitation and Support for Children and Adults with Disabilities in Baltimore County
  Baltimore County Government via Towson University Foundation
  COVID-19 Response: Telehealth Rehabilitation Support for Baltimore Children and Adults with Disabilities
  Baltimore’s Promise via Towson University Foundation

  COLLEGE OF LIBERAL ARTS
  GEOGRAPHY & ENVIRONMENTAL PLANNING
• Jeremy Tasch
  Co-PI: Mahnaz Moallem
  Transforming Education of Shymkent STEM Teachers
  American Council for International Education
  Co-PI: Mahnaz Moallem
  Transforming STEM in Uzbekistan
  American Council for International Education

  PHILOSOPHY & RELIGIOUS STUDIES
• Jacqueline Doyle
  CAREER: Influence of Immigrant Fitness on Subpopulation Genetic Variability, Adaptive Potential and Inbreeding
  National Science Foundation

  SPEECH-LANGUAGE PATHOLOGY & AUDIOLOGY
• Elana Ehrlich
  The KSHV Ubiquitome: Developing a CURE (Course-based Undergraduate Research Experience)
  National Institutes of Health

  PSYCHOLOGY
• Brian Fath
  Collaborative Research: AccelNet: The Open Modeling Foundation: An International Network of Networks for Standards-Based Computation in the Social, Ecological, Environmental, and Geophysical Science
  National Science Foundation

  SOCIOLOGY, ANTHROPOLOGY & CRIMINAL JUSTICE
• Sarah Haines
  Monarchs in Schools
  Chesapeake Bay Trust via Monarch Joint Venture

• John LaPolla
  Collaborative Research: ARTS: Stabilizing the Crazy Ants: Integrating Phylogenomics and Taxonomic Training to Overcome the Taxonomic Impediment in the Genus Nylanderia
  National Science Foundation

  CHEMISTRY
• Barry Margulies
  Human Cytomegalovirus Glycoprotein pUS27 Interference with Host Defenses
  Hearing Health Foundation

  INSTITUTE FOR WELL-BEING
• Mary Devadas
  CAREER: Role of Ligand and Metal Doping on the Electronic Structure of Superatom i-Au25 and bi-Au25 Gold Clusters
  National Science Foundation
David Kamber
*Expanding the Scope of Bioorthogonal Chemistry for New Strategies in Peptide Synthesis and Live-Cell Labeling*
National Institutes of Health

Shuhua Ma
*A Multi-pronged Computational Approach to Advance Kinase Drug Discovery*
National Institutes of Health via University of Maryland – Baltimore

Keith Reber
*One-Pot Preparation of Pyrrole-Fused Heterocycles Using Cyclic Sulfates: A Proposed Synthesis of Strychnuxinal A Organic Syntheses, Inc.*

John Sivey
*Co-PI: Keith Reber Parabens as a Tool for Interrogating Halogenation in Environmental Systems: Kinetics, Products, and Implications for Water Reuse*
National Science Foundation

Khanh-Hoa Tran-Ba
*Improving Analyte Separation in Solid-Phase Extraction Using Single-Molecule Spectroscopy*
American Chemical Society

**COMPUTER & INFORMATION SCIENCES**

Subrata Acharya
*Co-PI: Nam Nguyen REU Site: Undergraduate Research Experiences in Educational Cyber Operations*
National Science Foundation

Co-PI: Nam Nguyen
Cyber Scholarship Program 2020, Towson University
National Security Agency

Joyram Chakraborty
*Co-PI: Aisha Ali-Gombe The Effect of UI Attractiveness on Security Policy Awareness Facebook Research*

Saranjan Chakraborty
*Co-PIs: Joshua Dehlinger, Lin Deng Towson University and the University of Cologne Authentic Undergraduate Research in Applied Machine Learning in Software Engineering* National Science Foundation

Lin Deng
*Co-PIs: Suranjan Chakraborty, Joshua Dehlinger Artificial Intelligence Approaches to Automated and Robust Security Vulnerability Discovery The MITRE Corporation*

Jinjuan Feng
*Co-PIs: Jan Baum, Weixian Liao, Ziling Tang Deep Learning Assisted Selection of Evidence-based Practices for Individuals with an Autism Spectrum Disorder in Medical and Educational Contexts National Science Foundation via EduCoLab, LLC*

Ramesh Karne
*Co-PI: Alexander Wijesinha Bare Machine Computing Binary Transformation National Science Foundation*

Siddharth Kaza
*Co-PI: Blair Taylor NSA Cybersecurity Center of Excellence - Regional Hub California State University, San Bernardino via Capitol Technology University*

Blair Taylor
*Co-PI: Siddharth Kaza Collaborative Research: CLARK: High-value, High-impact, Relevant Cybersecurity Curriculum National Science Foundation*

Wei Yu
*Co-PIs: Weixian Liao, Chao Lu Towards a Learning-based Data Driven Detection Framework for Unforeseen Cyber Attacks Air Force Office of Scientific Research*

Co-PI: Chao Lu
*Smart Grid National Institute of Standards & Technology via Prometheus Computing, LLC*

**ENVIRONMENTAL SCIENCE & STUDIES PROGRAM**

Christopher Salice

**MATHEMATICS**

Diana Cheng
*Co-PI: Kimberly Corum STEM Model-Eliciting Activities for Middle School Students Mathematical Association of America*

Lindsey-Kay Lauderdale
*REU Site: Research Experiences for Undergraduates in Mathematics at Towson University National Science Foundation*

Todd Moyer
*Co-PI: Richard M Krach Can the van Hiele Model for Geometric Thought Improve the Learning of Algebra 1? The Spencer Foundation*

Michel O'Leary
*Co-PIs: Alexei Kolesnikov, Lindsey-Kay Lauderdale Recruiting, Educating, and Graduating a Diverse Community of Mathematicians through Mentoring, Peer Support, and Undergraduate Research National Science Foundation*

**PHYSICS, ASTRONOMY & GEOSCIENCES**

Pamela Lottero-Perdue
*The Online Practice Suite: Practice Spaces, Simulations and Virtual Reality Environments for Preservice Teachers to Learn to Facilitate Argumentation Discussions in Mathematics and Science National Science Foundation via Educational Testing Service*

Co-PI: Ming Tomayko
*Simulation-based Approaches for Learning to Facilitate Argumentation-focused Discussions: Tools for Mathematics and Science Teacher Educators and Preservice Elementary Teachers National Science Foundation via Educational Testing Service*
FACULTY DEVELOPMENT RESEARCH COMMITTEE (FDRC) GRANTS

Each year Towson University awards up to $6,000 to faculty members to support faculty research. These grants are peer reviewed by a committee comprised of 12 members, two from each college. FDRC grants provide important support for research initiatives and can provide seed money that lead to future applications for external support. The following FDRC applications were awarded projects in 2019-20.

- **Alondra Diaz-Lameiro**  
  Biological Sciences  
  *Uncovering the Wild Ancestor of the Domestic South American Camelids using Pre-Colombian Ancient DNA*  
  $6,000

- **Seung Choi**  
  Nursing  
  *Impact of Contingency Management on Group Therapy Adherence among Adult Inpatients in Treatment for Substance Use Disorders*  
  $6,000

- **Lisa Custer**  
  Kinesiology  
  *Evaluation of Gait in Individuals with Chronic Ankle Instability while Performing Cognitive Tasks*  
  $6,000

- **Renee Dickie**  
  Biological Sciences  
  *The Interrelationship of Blood Vessels & Stem Cells in Skeletal Regeneration*  
  $6,000

- **Kathleen Eglseder**  
  Occupational Therapy & Occupational Science  
  *The Impact of Healthcare Provider Training on the Provision of Sexuality Services for Adults with Physical Disabilities*  
  $3,640

- **Diana Emanuel**  
  Speech-Language Pathology & Audiology  
  *The Lived Experience of the Audiologist*  
  $595

- **Luis Engelke**  
  Music  
  *Sounds of the Chesapeake*  
  $3,195

- **Mackenzie Fama**  
  Speech-Language Pathology & Audiology  
  *Using Structured Interviews to Understand the Experience of Inner Speech in Aphasia*  
  $5,552

- **Jennifer Figg**  
  Art + Design, Art History, Art Education  
  *Invasive Ecologies*  
  $6,000

- **Harjant Gill**  
  Sociology, Anthropology & Criminal Justice  
  *Tales from Macholand: Immersive Virtual Reality Web Series*  
  $5,997

- **Rachel Gordon**  
  Finance  
  *Joint Ventures as External Firm Monitors*  
  $5,190

- **Kendra Heatwole Shank**  
  Occupational Therapy & Occupational Science  
  *Testing the Feasibility of Go-along Methods to inform 'Dementia-Friendly Community’ Design*  
  $4,358

- **Kimberly Hopkins**  
  Art + Design, Art History, Art Education  
  *Misperception*  
  $5,999
- Jian Huang
  Finance
  *Stock Market Listing, Insider Ownership, and Marketing Expenditures: Marketing When Insiders Are Locked In*
  $6,000

- Hyang-Sook Kim
  Mass Communication
  *Improving Health Literacy through Open Captions in Entertainment Media*
  $6,000

- Karlin Kirilov
  Music
  *CD Album “Digital Accordion and Balkan Music”*
  $6,000

- Dana Kollman
  Sociology, Anthropology & Criminal Justice
  *Bioarchaeological Examination of Pre-Classic Period Human Remains Recovered from a Lime Kiln, El Mirador Complex, Guatemala*
  $5,084

- Jennifer Kouo
  Special Education
  *Comprehensive Autism Resource Environment (CARE): Optimizing Pediatric Emergency Department Care for Patients with an Autism Spectrum Disorder and their Families*
  $3,240

- John LaPolla
  Biological Sciences
  *Investigations of an Obligate Mutualism: A. arnoldi and E. scorpiones*
  $5,100

- Weixian Liao
  Computer & Information Science
  *An Efficient Decentralized Artificial Intelligent System with Ensemble Techniques*
  $5,875

- Susan Mann
  Dance
  *Old Wives Tales*
  $6,000

- Jay Nelson
  Biological Sciences
  *Does Phenotypic Plasticity Determine a Fish Species’ Ability to Persist in Urban Streams?*
  $5,968

- Rachel Riedel
  Kinesiology
  *Breaking the Silence: Investigating Mental Health Education in America*
  $4,509

- Chetna Sethi
  Occupational Therapy & Occupational Science
  *The Influence of Anxiety and Depression on Parental Reasoning*
  $5,670

- Nirmal Srinivasan
  Speech-Language Pathology & Audiology
  *Physiological and Psychophysical Correlates of Attention and Speech Perception*
  $5,980

- Lynn Tomlinson
  Electronic Media and Film
  *Narrative Animation for Fulldome Film*
  $6,000

- Khanh-Hoa Tran-Ba
  Chemistry
  *Single-Molecule Measurements of Molecular Partitioning*
  $5,940

- Kaitlyn Wilson
  Speech-Language Pathology & Audiology
  *Supporting Social Communication in Adults with Autism Spectrum Disorders: Creation of a Video Model Library*
  $4,897

- Donn Worgs
  Political Science
  *Moral Frames and African American Politics*
  $3,000

- Bo Kyum Yang
  Health Sciences
  *Exploring Diverse Staffing Patterns and Resident Care Outcomes in U.S. Nursing Homes*
  $6,000

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**THE OFFICE OF SPONSORED PROGRAMS & RESEARCH**

The Office of Sponsored Programs & Research (OSPR) strives for excellence in the procurement and management of external funding at Towson University. The dedicated staff of the OSPR provide support in the following areas:

- Identifying funding opportunities
- Navigating program requirements
- Developing and submitting competitive proposals
- Developing budgets
- Negotiating awards
- Establishing new awards and managing grant resources
- Administration of the IRB and IACUC
- Support and advice for all areas that relate to sponsored programs administration and related areas (e.g., export controls, intellectual property requirements)
The list below provides an overview of the responsibilities that each OSPR team member oversees. We encourage you to contact us with questions.

**Funding Searches**
Katherine Fusick  
Sponsored Programs Specialist

**Pre-Award Team**
Lissa Rapkin  
Assistant Director  
Primary Pre-Award Contact for College of Business and Economics, College of Education, Biological Sciences, Chemistry, Computer & Information Sciences, Environmental Science & Studies, Strategic Partnerships & Applied Research

Anne Greene  
Pre-Award Administrator  
Primary Pre-Award Contact for College of Fine Arts & Communication, College of Health Professions, College of Liberal Arts, Mathematics, Physics, Astronomy and Geosciences, School of Emerging Technologies; All Non-Academic Departments other than SPAR

**Post-Award Team**
Jai-Lyn Elliott  
Post-Award Administrator  
Primary Post-Award Contact for College of Business & Economics; College of Health Professions; College of Fine Arts & Communication; College of Liberal Arts; Biological Sciences; Non-Academic Departments

Kevin Smith  
Post-Award Administrator  
Primary Post-Award Contact for Fisher College of Science & Mathematics other than Biological Sciences; College of Education

**Compliance**
Ashley Dawson  
Compliance Administrator  
Primary Contact for IRB and IACUC

**OSPR Oversight**
Nancy Dufau  
Assistant Vice President

Special thanks to Katherine Fusick for her work on this booklet