Letter from the Provost:

Towson University is proud of its reputation for creating opportunities. These opportunities are made possible through dedicated faculty and staff who implement our teaching, research and service mission on a daily basis in the classroom, in their labs and in the community. Our faculty push the boundaries of learning and knowledge in diverse areas, impacting not only our students but also the world in which we live.

External funding is critical to much of this work. The State of Maryland surely provides our base funding, but external grants expand what is possible on campus. Whether seeking funding to enhance teaching practices, fund scholarships for students, implement a cutting-edge research project or engage in service learning regionally or abroad, I am proud that Towson University’s faculty have achieved significant success in securing external funding for their work. Indeed, during the period from July 1, 2017 – June 30, 2018, Towson University submitted 237 proposals and was awarded $13,196,168 in external funding.

I am pleased that, in addition to the number of proposals, the number of Towson University faculty members involved in grant writing continues to increase. This is largely thanks to the accessible and expert service provided by our Office of Sponsored Programs and Research, and I want to thank them for their hard work and dedication to excellence.

I invite you to explore some of the work that is occurring on the Towson University campus and hope that you will recognize the dedication of the faculty and others whose names are listed to making TU such a vibrant institution and our world a better place.

Sincerely,

David A. Vanko, Ph.D.
Interim Provost and Executive Vice President for Academic Affairs
DEPARTMENTAL TEAMWORK LEADS TO EXCELLENCE IN CYBERSECURITY

Towson University is proud to be a leader in cybersecurity education, regionally and nationally. This reputation can be attributed to the impressive efforts and dedicated collaboration within the faculty ecosystem of the Department of Computer and Information Sciences (CIS), including chair Siddharth Kaza, Subrata Acharya, Aisha Ali-Gombe, Cheryl Thomas Brown, Joshua Dehlinger, Lin Deng, Nam Nguyen, Michael O’Leary, Blair Taylor, and Wei Yu. The grant portfolio in CIS is diverse—ranging from research to student-centered programming and scholarships—and funded by private and public sponsors alike. Members of the department recognize that there is a high need for qualified cybersecurity professionals, a fact that is especially relevant due to Towson University’s strategic location in a region that is home to the federal agencies that require cybersecurity services.

Since it was awarded by the National Science Foundation (NSF) in 2012, CyberCorps has become the nucleus of the department’s grant activity. The program, which provides two-year scholarships and mentoring for students studying computer science with a focus in cybersecurity, has since been renewed for an additional five years. Measured by the amount committed to each student scholar, it is the largest academic scholarship program offered by the university. Further, CyberCorps scholarships are particularly beneficial because they include stipends that allow participants to focus on extracurricular activities that make them more competitive job candidates post-graduation.
CyberCorps depends upon the contributions and commitment of multiple faculty members, and the team emphasizes the importance of not tying the program’s success to a particular individual within the department. Moreover, the program’s impact extends beyond the select undergraduate cohort thanks to funding for weekly cybersecurity seminars in the department that attract up to 50 students plus faculty. The seminars offer important networking opportunities for CIS students and faculty alike. Faculty in particular are able to interact with representatives from various funding agencies in order to explore the prospect of applying to other grant programs. Some of the first CyberCorps graduates have even returned to the program as seminar speakers—an accomplishment of which mentoring faculty are especially proud.

The department also boasts an overall commitment to supporting and encouraging students who are underrepresented in the field. Currently, almost 50% of the student scholars fall into an underrepresented category. Another program, SPLASH, concentrates on encouraging women to get involved in the field. While initially funded by Fisher College and Intel, SPLASH is now primarily supported by the NSF and the National Security Agency. It provides tuition scholarships to high school women, allowing them to take their first computer science course at Towson University. SPLASH has funded 91 individuals so far.

Grants awarded to CIS faculty bolster the research efforts of individuals and TU’s commitment to cybersecurity education, diversity, and student success. Programs like CyberCorps and SPLASH distinguish Towson University from other University System schools and attract new students and faculty from around the country. TU is responsible for a strong regional workforce, and with 95% of CyberCorps students staying in the D.C., Maryland, and Virginia area, there is no doubt that CIS plays an important role in creating that workforce.
NEW INSIGHTS INTO ANCIENT LAVA FLOWS

Wendy Nelson’s newest project, recently funded by a National Science Foundation (NSF) Collaborative Research Grant, began when she and her co-investigator noticed that there were small pockets of volcanic activity in the East African Rift System that could not be explained easily by normal geologic processes. These areas of volcanic activity are chemically distinct from other volcanic provinces. Research conducted in other locations around the world suggest that the chemical differences in the bottom of the Earth’s rigid shell create instabilities that can, in some instances, detach and sink into the Earth. This material melts as it sinks, and these researchers think there are ways to fingerprint the process geochemically by studying the lavas produced by melting the down-going material. The recently funded project hypothesizes that the unexpected volcanism in the East African Rift System may come from melting of descending “drip” material that makes its way to the surface and erupts as lava.

Nelson, an assistant professor in the Department of Physics, Astronomy & Geosciences, believes this activity in the East African Rift System offers a perfect opportunity to further examine the drip melting phenomena due to the type of rocks present. Western Uganda contains lavas that geochemically fit the drip model. Additionally, xenoliths (“foreign rocks”) found within the lava represent pieces of the Earth’s interior that were rafted from great depths to the surface as the lava ascended. The xenoliths have the right minerals to be potentially the source of the lavas. This project will study both the lavas and xenoliths in order to test the connection between them and determine if the lavas were generated by drip melting.

The NSF-funded research builds upon seed data collected using funds from a Faculty Development & Research Committee grant. While that data played an important role in strengthening Nelson’s NSF proposal, she now has the flexibility and resources to gather more. Ultimately, she hopes to take the data gathered and use it to create a numerical model that will test the physics of the drip hypothesis based on the geochemical data. Nelson’s work also promises to enhance the classroom experience for students: she is planning a new geophysics minimester course as part of the grant.

FINDING THE PATH TO PEACE AFTER CIVIL WAR

Matthew Hoddie, professor of political science, is entering the final year of a three-year collaborative research grant from the National Science Foundation (NSF). “Power Sharing, Political Goods Provision, and Post-Conflict Stability in the Philippines,” examines the theory that power-sharing—political, military, territorial, and economic—can have a positive impact on building political trust in the peace-making process following civil war. Through collecting micro-level data on elites’ and masses’ knowledge about and perceptions of the effects that institutions have on the growth of political trust, Hoddie and his collaborators hope to understand the ingredients essential for successful power-sharing arrangements, particularly those that lead to peaceful transitions.
While Hoddie’s earlier work used existing datasets, NSF funding allowed he and his collaborators, Caroline Hartzell of Gettysburg College and Joe Eyerman of RTI International, to collect their own data on site in the Philippines, conducting both surveys and focus group interviews. Their work focused on Mindanao, one of the islands of the Philippine archipelago, and a region with a central role in the conflict. The civil war in the Philippines has taken the form of a religious conflict between the country’s Catholic majority and Muslim minority. Several agreements between Muslim independence organizations and the central government have been negotiated since 1996. They appear to be effective, but the collaborators sought to explore citizens’ understandings and perceptions of power sharing as a means of delivering political goods and maintaining peace.

The results indicate that the perception that a peace agreement yields political goods seems to matter for building political trust in a national government after civil war. Moreover, this study illustrates that individuals from different groups have different perceptions of a settlement’s plan to provide political goods, an issue that should play a significant role in determining the design of future peace settlements.

Looking forward, Hoddie intends to explore similar research questions in other venues. Is the Philippines case unique? Or can the theory of power sharing and political goods be applied to other civil war-torn countries?

HELPING TO MINIMIZE HEARING LOSS

When Nirmal Srinivasan joined TU’s Department of Audiology, Speech-Language Pathology & Deaf Studies two years ago, he brought with him a passion for understanding hearing loss, a condition that affects millions of older adults. “Understanding and Decoding CAPD in Adults,” funded by the Hearing Health Foundation, sought to identify a set of behavioral tests that has the potential to distinguish the effects of hearing loss from the effects of Central Auditory Processing Disorder (CAPD). The grant was instrumental in Srinivasan’s transition to Towson University and will contribute to his future research, the field of audiology, and the educational experience of Towson University students.

According to Srinivasan, in a realistic clinical environment, audiologists usually have less than an hour to work with patients. While aging and hearing loss are inherently connected, it is difficult to differentiate quickly whether hearing loss is due to age or an auditory processing disorder. In order to better help those experiencing hearing loss, Srinivasan proposed isolating a series of tests to bridge the gap between a research and a clinical setting and allow for a diagnosis in 15-20 minutes outside a controlled environment. While hearing loss due to aging is irreversible, identifying the presence of an auditory processing disorder would allow for earlier intervention in the form of rehabilitation and therapy.

Ultimately, the work highlighted a series of tests that should be used and collected preliminary data for further research. The project also allowed three graduate students to gain important research experience, which will give them an advantage when applying for positions at research-based audiology labs and centers. Srinivasan’s next goal is to explore funding opportunities to test his results in a clinical environment.
IMPACTFUL EXPOSURES: TU AND PERU

Towson University faculty members Colleen Ebacher, Ronn Pineo, and Lea Ramsdell know that experiences abroad can propel mastery of a foreign language, while providing first-hand exposure to the history and culture of a foreign country. Over the years, Towson University students and teachers have benefited from a variety of programs abroad. Indeed, Ebacher, professor of Spanish in the Department of Foreign Languages, and Pineo, professor of history, have a long history with the U.S. Department of Education’s Fulbright-Hays program, having organized three trips to Mexico and, more recently, two to Peru. Targeting K-12 teachers across the United States, these immersion programs combine exposure to the Spanish language and Latin American history and culture to enhance participants’ mastery of the Spanish language and culture while providing the content so teacher participants may develop curriculum that they can use in their classrooms and disseminate to other teachers across Maryland and the U.S. The program’s longevity has allowed Pineo and Ramsdell to develop beneficial relationships with locals in host countries and Dr. John Shock, a K-12 curriculum liaison, who attended one of the earlier iterations of the program. His expertise maximizes the program’s alignment to the standard U.S. curriculum teachers are expected to follow.

A second grant spearheaded by Ramsdell, professor of Spanish and chair of the Department of Foreign Languages, and Ebacher also capitalized on the relationships that TU faculty members developed with Peruvian universities. The $100K Strong in the Americas grant facilitated a unique exchange program for 10 Towson University students majoring or minoring in Spanish and 10 students from the Universidad de Piura, a private university located in a mid-sized city near Peru’s northern coast. Students from Piura first visited the U.S. to attend language classes and collaborate with American students on a service-learning project in Baltimore that addressed local environmental issues. Subsequently TU students visited Piura, where they had the opportunity to improve their Spanish language skills and similarly worked on a service-learning project with a local elementary school. Ramsdell and Ebacher chose to pair off the students for the duration of the exchange program—something they now consider to be one of the keys to the project’s success because it provided an opportunity for each student to practice the other’s language on a regular basis. Moreover, the collaborative element of the service-learning projects also allowed students to hone their leadership skills.

The project, which targeted underrepresented students who otherwise might not have had the opportunity for international study, represents a true collaboration with ongoing impact. The team worked with partners including Christopher Jensen, Director of Civic Engagement & Social Responsibility, who joined Ebacher in Peru while Ramsdell led the U.S.-based activities. Further, the program inspired TU students to form TUMEE, the Towson University UDEP Movement for Environmental Education. Through TUMEE, students seek to continue the service-learning activities initiated in both countries by raising awareness and funds for environmental programs in schools.
College of Education colleagues Patricia Rice Doran, Betsy Neville and Gilda Martinez-Alba are energized by the challenge of ensuring that teachers are prepared to meet the needs of today’s increasingly diverse schools. In so doing, they are helping to advance Towson University’s reputation as a leader in teacher preparation, within the state and beyond. Indeed, Rice Doran, an associate professor in the Department of Special Education, had TU’s history as a leader in teacher preparation in mind when she approached department chair Betsy Neville with a proposal to submit an application to the U.S. Department of Education’s Office of English Language Acquisition.

EMPOWER - “English Learners Moving to Proficient Outcomes with Engagement and Rigor” – is a $2.2 million project designed to address the needs of Anne Arundel County’s growing population of English learners. Rice Doran and her colleagues found that English learners are marginalized in the classroom, hampered by a curriculum that is inaccessible to them and instructional methods that do not facilitate their success. Whereas school systems once relied solely upon English to Speakers of Other Languages (ESOL) teachers, as the population of English learners increases, it is imperative that all teachers receive the professional development necessary to meet the needs of this population. Through sustained professional development, technical assistance, resources, and community engagement, EMPOWER promises to help teachers respond to the linguistic, cultural, and instructional needs of English learner students. The grant also facilitates changes to Towson University’s teacher education model to better prepare graduates to serve English learner students.

During the project’s first year, the team focused on planning and fostering strong relationships with partners Anne Arundel County Public Schools and the Children’s Guild, an educational non-profit that operates two schools in partnership with the public school system. The first cohort of educators began classes in fall 2018 with the goal of completing a Master’s in leadership with integrated ESOL, special education, and induction support. The first group of undergraduate EMPOWER recruits are scheduled to begin coursework in January 2019. The investigators hope that providing ESOL as a free opportunity for undergraduate students will encourage more to consider it as an option. Rice Doran, Martinez-Alba, and Neville agree that EMPOWER is stronger now after one year than they ever thought possible.

The three investigators consider EMPOWER to be a large undertaking that will yield impressive results. Neville shares that while she would not have attempted this work on her own, she strives to create a departmental culture that encourages and supports faculty members to pursue ambitious projects. In the end, the EMPOWER investigators are an overwhelmingly positive team, built on respect for one another and gratitude for this opportunity. Expect to see continued exemplary results during the next four years.
FUNDING RECEIVED

July 1, 2017 – June 30, 2018

The list below includes external funding awarded, both new awards and supplements to existing awards. Amounts are not listed for fellowships awarded directly to an individual and awards administered by the Towson University Foundation. We congratulate all those who received an award or additional funding during this period.

COLLEGE OF BUSINESS

**e-BUSINESS & TECHNOLOGY MANAGEMENT**
- Tobin Porterfield
  Motivating Commercial Participation in Disaster Recovery
  Baltimore Gas & Electric Company
  $5,000

**ECONOMICS**
- Howard Baetjer
  The Political Economy Project
  The Charles Koch Foundation
  $6,300

COLLEGE OF EDUCATION

**COLLEGE OF EDUCATION ADMINISTRATION**
- Laila Richman
  Co-PI: Laurie Mullen
  Improving the Practice of Teaching
  University System of Maryland
  $29,800

**EARLY CHILDHOOD EDUCATION**
- Ocie Watson-Thompson
  FY18 Child Care Career and Professional Development Fund
  Maryland State Department of Education
  $163,424

**ELEMENTARY EDUCATION**
- Lijun Jin
  Dimensions of China: Empowering American Public School Teachers to Transform Social Studies Curriculum in Secondary Classrooms
  U.S. Department of Education
  $99,556

  Vicki McQuitty
  2018-2019 National Park Service Collaboration Grant – Hampton National Historic Site
  National Park Service through National Writing Project
  $3,500

**SPECIAL EDUCATION**
- 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
  Yr. 1: $272,246, Total: $2,221,723

  Katherine Holman
  Towson University Immersion Training Classroom and Family Support Program
  University System of Maryland
  $39,964

  Elizabeth Neville
  Stipends to Support Participants of TU Campus 2018 Cohort M.Ed
  Maryland State Department of Education
  $50,000

**ASIAN ARTS & CULTURE CENTER**
- Joanna Pecore
  Asian Arts & Culture Center FY18 – Towson University
  Maryland State Arts Council
  $14,976

**COMMUNICATION STUDIES**
- Desiree Rowe
  Critical Investigations into American Popular Culture: Feminism, Superheroes, and Reflexive Ethnography – Kyushu University
  Fulbright Scholar Award

**DANCE**
- Linda-Denise Fisher-Harrell
  FY18 Ailey II RFF - MSAC Basic Grant
  Maryland State Arts Council
  $2,500

  Ailey Camp Baltimore 2018
  WBAL Radio Kids Campaign

**THEATRE ARTS**
- Tavia La Follette
  Ancient Instincts
  Greater Baltimore Cultural Alliance

**COLLEGE OF FINE ARTS & COMMUNICATION**

**ART + DESIGN, ART HISTORY, ART EDUCATION**
- J. Susan Isaacs
  FY18 Art Gallery
  Maryland State Arts Council
  $2,500

- Nancy Siegel
  Political Appetites
  American Antiquarian Society

  Political Appetites: Revolution, Taste, and Culinary Activism in the Early Republic
  New England Regional Fellowship Consortium – Radcliffe Institute for Advanced Study, Massachusetts Historical Society, Historic Deerfield and Connecticut Historical Society

  Curious Taste: The Appeal of Transatlantic Satire
  Terra Foundation for American Art

**AUDIOLGY, SPEECH-LANGUAGE PATHOLOGY & DEAF STUDIES**
- Diana Emanuel
  2018 Audiology Externship - Eleni Mitoulis
  Coastal Ear, Nose, and Throat
  $19,200

  2018 Audiology Externship - Tiffany Connatser
  Ear, Nose and Throat Associates of Chester County
  $10,400
2018 Audiology Externship - Kelley Finck
Hearing Assessment Center
$32,000

2018 Audiology Externship - Michael DiSanti
Johns Hopkins Regional Physicians LLC dba ENTAA Care
$32,400

2018 Audiology Externship - April Jones
Potomac Audiology
$12,000

KINESIOLOGY
- Jessica Braunstein-Minkove
  Innovative Strategies for High Impact Practices: Access, Success, and the CAA Student-Athlete
  Colonial Academic Alliance
  $2,500

NURSING
- Adriane Burgess
  Nursing Educator Doctoral Grants for Practice and Dissertation Research Award
  Maryland Higher Education Commission
  $20,000

- Elizabeth Crusse
  Towson Degree Completion Initiative
  Maryland Higher Education Commission
  Yr. 3: $342,908; Total: $1,658,385

- Karen Frank
  FY18 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $5,000

- Kyungsook Gartrell
  FY18 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

- Renada Gilliard
  FY18 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

- Hayley Mark
  Co-Pls: Elizabeth Austin, Nancy Hannafin
  Increasing the Supply of Qualified Nurse Faculty
  Maryland Higher Education Commission
  Yr. 1: $285,247; Total: $902,000

Co-Pls: Teresa Nikstaitis, Regina Twigg
Towson University Nursing Collaborative Partnership Program
Maryland Higher Education Commission
Yr. 2: $256,611; Total: $1,266,250

- Teresa Nikstaitis
  FY18 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

- Kathleen Ogle
  Planning Grant: Graduate Program Planning & Revisions
  Maryland Higher Education Commission
  Yr. 1: $75,400; Total: $146,570

- Briana Snyder
  Online Option for Degree Completion
  Maryland Higher Education Commission
  Yr. 1: $269,363; Total: $1,050,062

- Walter Wilson
  FY18 New Nursing Faculty Fellowship
  Maryland Higher Education Commission
  $20,000

COLLEGE OF LIBERAL ARTS

FOREIGN LANGUAGES
- Lea Ramsdell
  The Garifuna Collective Featuring Umalali
  Mid-Atlantic Arts Foundation
  $5,600

GEOGRAPHY & ENVIRONMENTAL PLANNING
- Kelsey Hanrahan
  Caring across Living, Dying, Death: Community-based Later Life and End of Life Care in Northern Ghana
  University of Maryland Women's Forum Faculty Research Award

- Jeremy Tasch
  Resources, Communities, and the Asian Pivot: Opinions Matter in Pacific Russia
  U.S. Department of State
  Pacific Russia in the Asian Pacific: The Political Economies of the Asian Pivot
  German Historical Institute of Moscow/Deutsche Historische Institut in Moskau

More than just a “Bridge”? Russia’s Asian Pivot through Vladivostok
American Association of Geographers NSF International Geographical Travel Grant

- Virginia Thompson
  Maryland Geographic Alliance
  National Geographic Society
  $114,518

HISTORY
- Kimberly Katz
  Law and Society: Hebron under the Jordanians
  Fulbright Distinguished Scholar Award

  Law and Society: Jordanian Rule in the Hebron District, 1951-1953
  American Center for Oriental Research

POLITICAL SCIENCE
- Matthew Hoddie
  Power Sharing, Political Goods Provision, and Post-Conflict Stability in the Philippines
  National Science Foundation through Gettysburg College
  Yr. 3: $11,964; Total $45,233

PSYCHOLOGY
- Bethany Brand
  Top DD Supplemental Funds
  Towson University Foundation
  $55,000

WOMEN’S & GENDER STUDIES
- Cindy Giessendanner
  Girls in the Game - Ashley Pilgrim
  Girls in the Game
  $21,600

FISHER COLLEGE OF SCIENCE & MATHEMATICS

BIOLOGICAL SCIENCES
- Jacqueline Doyle
  SNP Genotyping of Neotoma magister
  Individuals Sampled in the New Jersey Palisades
  New Jersey Department of Environmental Protection
  Yr. 2: $9,910; $16,086
Laura Gough  
*The Role of Biogeochemical and Community Openness in Governing Arctic Ecosystem Response to Climate Change and Disturbance*

National Science Foundation  
Yr. 2: $35,999; Total: $214,000

Co-PIs: Ryan Casey, Matthew Hemm, David Schaefer  
*TU-REP: Our Path to Inclusive Excellence*

Howard Hughes Medical Institute  
Yr. 1: $1,000,000

Elana Ehrlich  
Co-PI: Michelle Snyder  
*Bridges to the Baccalaureate*

National Institutes of Health  
Yr. 1: $200,761; Total: $1,335,910

Co-PI: Michelle Snyder  
*Bridges to the Doctorate: A Partnership between Towson University and University of Maryland School of Medicine*

National Institutes of Health  
Yr. 5: $271,349 Total: $1,016,274

Barry Margulies  
*Single Dose, One-Week Oral Famciclovir to Treat Acute Herpes Outbreaks*

Burroughs Wellcome Fund  
$7,000

Richard Seigel  
*Ecology and Management of Northern Map Turtles in the Susquehanna River*

Exelon Generation Company, LLC  
Yr. 3: $37,000; Total: $120,875

Response of Amphibian and Reptile Populations to Control of Feral Hogs at the Canaveral National Seashore in Florida  
National Park Service  
Yr. 2: $9,528; Total: $19,020

CHEMISTRY  

Mary Sajini Devadas  
Co-PI: Keith Reber  
*The Jean Dreyfus Boissevain Lectureship at Towson University*

The Dreyfus Foundation  
$18,500

Kelly Elkins  
*Daredevil Gene Testing Study*

McCann Canada  
$18,370

Clare Muhoro  
*Research Advisor*

U.S. Agency for International Development  
Yr. 3: $32,424; Total: $140,000

David Ownby  
*ANS Externship - Steven Pearce FY18 Audubon Naturalist Society*

National Security Agency  
$14,552

John Sivey  
*CAREER: BrCl and Other Highly Reactive Brominating Agents in Disinfected Waters: Implications for Disinfection By-Product Formation and Control*

National Science Foundation  
Yr. 2: $97,402; Total: $500,536

COMPUTER & INFORMATION SCIENCES  

Aisha Ali-Gombe  
*CyberSecurity Curricula Development - Introducing Active Learning to Malware Analysis Curriculum*

National Security Agency through Louisiana State University  
$101,206

Nadim Alkharouf  
*Characterization of Genes Associated with Plant Responses to Abiotic and Biotic Stress Factors*

U.S. Department of Agriculture  
$20,000

Joshua Dehlinger  
*2018 NIST SURF: Golda Meir Chiong*

National Institute of Standards & Technology  
Yr. 1: $100,000; Total: $1,036,027

Lin Deng  
*INSuRE 3.0: INSuRing the Effectiveness of Tomorrow’s Cybersecurity Workforce Today*

National Security Agency through Towson University  
Yr. 1: $1,509,519; Total: $3,972,413

ENVIRONMENTAL SCIENCE AND STUDIES PROGRAM  

Christopher Joseph Salice  
*Advancing the Understanding of the Ecological Risk of Per- and Polyfluoroalkyl Substances - Supplement*

U.S. Department of Defense  
$48,846

MATHMATICS  

Angel V. Kumchev  
Co-PI: Nathan G. McNew  
*Collaborative Research: Mid-Atlantic Seminar On Numbers (MASON)*

National Science Foundation  
$6,000

Lin Deng  
*Explore Algorithms for Large Number Conversions*

Coracias Advance Technology  
$30,782

Siddharth Kaza  
*SPASH and Security Ambassadors - Expanding the Cyber Student and Instructor Pool with a Secure Programming Logic Class in High Schools*

National Security Agency  
$85,540
PI: Nathan G. McNew  
Co-PI: Christopher Cornwell  
M.O.S.T. Grant: Calculus I  
University System of Maryland’s William E. Kirwan Center for Academic Innovation  
$2,500

PI: Felice S. Shore  
Adaptive Learning-USM  
Bill & Melinda Gates Foundation through University System of Maryland  
$20,000

First in the World MMRI Project  
U.S. Department of Education through University System of Maryland  
Year 4: $32,400; Total: $129,600

PHYSICS, ASTRONOMY & GEOSCIENCES

Pamela Lottero-Perdue  
Developing Preservice Elementary Teachers’ Ability to Facilitate Goal-Oriented Discussions in Science and Math via the Use of Simulated Classroom Interactions  
Educational Testing Service  
$7,000

Joel Moore  
MWRRC Fellowship - Gregory Woodward  
Maryland Water Resources Research Center  
$6,000

Wendy Nelson  
Collaborative Research: Geodynamic and Geochemical Investigation of Lithospheric Drip Viability beneath the East African Rift  
National Science Foundation  
$83,946

James Overduin  
Co-PIs: Parviz Ghavamian, Jennifer Scott, Alexander Storrs  
Summer Research Internship for Undergraduates in Astronomy and Space Science at Towson University  
Maryland Space Grant Consortium  
$39,661  
Support for MSGC Summer Research Interns to Present at the 231st AAS Meeting  
Maryland Space Grant Consortium  
$1,837

Jennifer Scott  
Co-PI: Rajeswari Kolagani  
Summer Research Support for a Native American Astronomer-in-Training  
Maryland Space Grant Consortium  
$7,500

Vera Smolyaninova  
Metamaterial Superconductors  
Defense Advanced Research Projects Agency  
$346,064

Co-PI: Mary Sajini Devadas  
Metamaterial-based Generation and Modulation of ULF and VLF Signals  
Defense Advanced Research Projects Agency through Vesperix Corporation  
$340,000  
Nanostructured Metamaterials for High-Tc Superconductivity  
Office of Naval Research  
Yr. 1: $30,494; Total: $77,661

Alexander Storrs  
Co-PI: Jennifer Scott  
Maryland Open Source Textbook (MOST) Initiative High-impact OER Mini-Grant  
University System of Maryland’s William E. Kirwan Center for Academic Innovation  
$2,500

玛丽亚·斯塔普兰顿  
MADE CLEAR 2017-2018  
National Science Foundation through University of Maryland Center for Environmental Science  
$69,399

SCHOOL OF EMERGING TECHNOLOGIES

Heidi Feng  
Graduate Assistantship FY18  
Maryland Department of Human Services  
$22,055

Graduate Assistantship FY19  
Maryland Department of Human Services  
$22,055

COOK LIBRARY

Joyce Garczynski  
Co-PIs: Miriam DesHarnais, Eden Parks  
Truth, Racial Healing & Transformation Great Stories Club  
American Library Association  
$300

NON-ACADEMIC

COUNSELING CENTER

Allison Frey  
ATOD Prevention FY2018  
Maryland Department of Health  
$159,701

Gregory Reising  
FY17 MD Spin  
Maryland Department of Health  
$6,000  
FY18 MD Spin  
Maryland Department of Health and Mental Hygiene via University of Maryland – Baltimore  
$6,000

STUDY ABROAD

Katherine Villamar  
USAC Ambassador Grant FY18  
University Studies Abroad Consortium  
$2,600

STRATEGIC PARTNERSHIPS & APPLIED RESEARCH

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, 2017 to June 30, 2018, SPAR staff secured $4,500,944 to provide services to these organizations. These projects ranged from economic analysis to providing professional development workshops to geographic information services. The list below indicates the names of the agencies providing awards to the various divisions of SPAR followed by the number of awards secured from the agency.

CENTER FOR GIS

 Abilities Network (1)  
 Maryland Department of Agriculture (2)  
 Maryland Department of Commerce (1)  
 Maryland Department of Information Technology (2)  
 Maryland Department of the Environment (1)  
 Maryland Port Administration (2)  
 Maryland State Highway Administration (4)  
 National Fish & Wildlife Foundation (1)  
 National Oceanic and Atmospheric Administration (1)
Preparing a proposal represents an important commitment to one’s scholarship work and to Towson University. The following list illustrates the diverse array of scholarly interests of the TU faculty. The list includes proposals submitted by the Academic Affairs Division from July 1, 2017 to June 30, 2018. We thank the following faculty members for submitting a proposal during this period.

**COLLEGE OF BUSINESS & ECONOMICS**

**BUSINESS EXCELLENCE**

- Lisa Simmons  
  *Business Communication Case Study Competition*  
  Target Corporate Giving

**E-BUSINESS & TECHNOLOGY MANAGEMENT**

- Tobin Porterfield  
  *Motivating Commercial Participation in Disaster Recovery*  
  Baltimore Gas and Electric Company

- Natalie Scala  
  *Challenges and Opportunities to Promote Collaborative Scheduling in Construction Projects*  
  Construction Industry Institute

  *A Comprehensive and Validated Risk Framework for Risk Mitigation for the Cross-Domain Solutions*  
  National Security Agency through University of Maryland - College Park

**MANAGEMENT**

- Jan Baum  
  *Center for Innovation and Entrepreneurship Capacity Building Grant*  
  Philip E. and Carole R. Ratcliffe Foundation

**COLLEGE OF EDUCATION**

**COLLEGE OF EDUCATION ADMINISTRATION**

- Gilda Martinez-Alba  
  *TLC at our TLC*  
  National Book Foundation

  *Wordless Books Project*  
  Wells Fargo

- Laaila Richman  
  *SEED: Maryland ExPERT Project*  
  U. S. Department of Education through University System of Maryland

**EARLY CHILDHOOD EDUCATION**

- Ocie Watson-Thompson  
  *FY19 Child Care Career and Professional Development Fund*  
  Maryland State Department of Education

**ELEMENTARY EDUCATION**

- Shelly Huggins  
  *Reading Clinic 2018-2019*  
  Dollar General Literacy Foundation

- Vicki McQuitty  
  *2018-2019 National Park Service Collaboration Grant – Hampton National Historic Site*  
  National Park Service through National Writing Project

**EDUCATIONAL TECHNOLOGY & LITERACY**

- Qing Li  
  *Equity and Computational Thinking: A Professional Development Model for Elementary Teachers to Make Computational Thinking Accessible to ALL Learners*  
  National Science Foundation

- William Sadera  
  *Reducing the Literacy Achievement Gap: A Transdisciplinary Focus on High Incidence Disabilities*  
  Maryland State Department of Education through Kennedy Krieger Institute
INSTRUCTIONAL LEADERSHIP & PROFESSIONAL DEVELOPMENT

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

SPECIAL EDUCATION

- Katherine Holman
  Towson University Immersion Training Classroom and Family Support Program
  University System of Maryland

- Kandace Hoppin
  Enhancing Multi-tiered Frameworks: Integrating, Aligning, and Strengthening Behavioral, Social, and Emotional Supports
  Maryland State Department of Education

- Gregory Knollman
  An Interdisciplinary Approach to the Development and Implementation of a Fitness to Work Program among High School Students with Disabilities
  Maryland State Department of Education

- Elizabeth Neville
  Stipends to Support Participants of TU Campus 2018 Cohort M.Ed
  Maryland State Department of Education
  Continued Scholarships to Support Participants of TU Campus 2018 Cohort
  Maryland State Department of Education

- Amy Noggle
  Supporting and Engaging Fathers of Children in a Title I School: Fathers of Children with Disabilities and Culturally and Linguistically Diverse Fathers
  Maryland State Department of Education

COLLEGE OF FINE ARTS & COMMUNICATION

ART + DESIGN, ART HISTORY, ART EDUCATION

- J. Susan Isaacs
  Isla: Regarding Paradise
  Maryland Humanities Council
  FY19 Art Gallery
  Maryland State Arts Council

ASIAN ARTS & CULTURE CENTER

- Joanna Pecore
  Asian Arts & Culture Center - Towson University
  Baltimore County Commission of Arts and Sciences
  E. Rhodes and Leona B. Carpenter Foundation
  Maryland State Arts Council

- Erin Lehman
  Form.Print
  Baltimore County Commission of Arts and Sciences

- Nirmal Srinivasan
  Temporal Processing Ability across the Lifespan
  Department of Veterans Affairs through VA Portland Health Care System

- Kaitlyn Wilson
  Effects of Video Modeling on Social Communication Behaviors of Adults with Autism Spectrum Disorder in a Community-based Social Skills Group
  Organization for Autism Research

THEATRE ARTS

- Tavia La Follette
  Icarus at the Border
  Theater Communications Group

COLLEGE OF HEALTH PROFESSIONS

AUDIOLGY, SPEECH-LANGUAGE PATHOLOGY & DEAF STUDIES

- Diana Emanuel
  2018 Audiology Externships - Eleni Mitoulis, Tiffany Connatser, Kelley Finck, Michael DiSanti, Maria Makhina, April Jones
  Coastal Ear, Nose, and Throat Ear, Nose and Throat Associates of Chester County
  Hearing Assessment Center
  Johns Hopkins Regional Physicians
  LLC dba ENTAA Care
  Live Better Hearing
  Potomac Audiology

- Connie Anderson
  Co-PI: Caroline McNicholas
  The Role of Schools in Adult Outcomes for Students with Autism Spectrum Disorder: Perspectives of Young Adults, Families, and Educators
  Organization for Autism Research

KINESIOLOGY

- Gerald J. Jerome
  Enhancing Weight Loss Self-Efficacy among Young Adults
  American Heart Association

- Jessica Braunstein-Minkove
  Innovative Strategies for High Impact Practices: Access, Success, and the CAA Student-Athlete
  Colonial Academic Alliance

NURSING

- Adriane Burgess
  Nurse Education Doctoral Grant
  Maryland Higher Education Commission
Scott Choi
PLAN: Dementia Literacy Education and Navigation for Korean Elders with Probable Dementia and their Caregivers
National Institutes of Health through Johns Hopkins University

Hayley Mark
New Nursing Faculty Fellows – Karen Frank, Kyungsook Gartrell, Renada Gilliard, Teresa Nikstatis, Walter Wilson
Maryland Higher Education Commission
Co-PIs: Elizabeth Austin, Nancy Hannafin
Increasing the Supply of Qualified Nurse Faculty
Maryland Higher Education Commission

Margaret McCormick
Providing Authentic Learning Experiences about Parkinson’s Disease: Bringing Humanity into the Classroom
Parkinson’s Foundation

Kathleen Ogle
Planning Grant: Graduate Program Planning & Revisions
Maryland Higher Education Commission

Brian Snyder
Online Option for Degree Completion
Maryland Higher Education Commission

Regina Twigg
Co-PI: Katherine Rabon
Hagerstown Equipment Grant
The Maryland Clinical Simulation Resource Consortium

OCCUPATIONAL THERAPY & OCCUPATIONAL SCIENCE
Sonia Lawson
Co-PIs: Heidi Feng, Katherine Tang
ARMStrokes: Promoting Health Outcomes through a Mobile App
Retirement Research Foundation

M. Beth Merryman
Disability and Rehabilitation Research Projects Program: Expanding Community Living and Participation for Individuals with Disabilities through Medicaid Long-term Services and Supports
National Institutes of Health through University of Maryland - Baltimore County

COLLEGE OF LIBERAL ARTS

ENGLISH
Salvatore Pappalardo
Modernism in Trieste: Habsburg Phoenicians and the Literary Invention of Europe
National Endowment for the Humanities

FAMILY STUDIES & COMMUNITY DEVELOPMENT
Hana Bor
From Holocaust to Revival: Exploring Social Justice and Education - Towson University Israel Study Abroad 2018 Application
Charles Crane Family Foundation

FOREIGN LANGUAGES
Lea Ramsdell
Co-PI: Colleen Ebacher
Resource Conservation in the Face of Urbanization: Peruvian and U.S. Students Study Water and Energy Management in Transnational Urban Centers
Partners of the Americas Foundation

GEOGRAPHY & ENVIRONMENTAL PLANNING
Jeremy Tasch
Russia’s Asian Pivot: Moving Pacific Russia from Resource Periphery to Asian-Pacific Center
National Council for Eurasian and East European Research

HISTORY
Kimberly Katz
Law and Society: Hebron under the Jordanians
National Endowment for the Humanities

LIBERAL ARTS ADMINISTRATION
Karen Eskow
Comprehensive Mental Health Programming on a University Campus
Substance Abuse and Mental Health Administration

PSYCHOLOGY
M. Paz Galupo
Psychometric Evaluation of the Sexual-Romantic and Gendered Sexuality Scales
American Institute of Bisexuality

WOMEN’S & GENDER STUDIES
Jameta Barlow
Evaluation of Health Care Policies, Delivery and Management Practices to Address the Unmet Needs of Black Women’s Health
National Institute for Health Care Management

Re-imagining Black Girls’ and Women’s Health Conference and Workshop
National Science Foundation

Co-PI: Marcia Vandiver
Afrocentric Education: Does Culturally Relevant Education Affect Health Outcomes and Behaviors
The Spencer Foundation

Cindy Gissendanner
Girls in the Game - Ashley Pilgrim, Year 1 & 2
Girls in the Game

FISHER COLLEGE OF SCIENCE & MATHEMATICS

BIOLOGICAL SCIENCES
Mark Bulmer
Collaborative Research: Immunity as a Functional Trait Impacting Decomposer Species Interactions and Ecosystem Function
National Science Foundation

Renee Dickie
Bridging the Gap Between in vivo and in vitro Vascular Toxicity Assays: Endothelial Cell-pericyte Co-culture
Johns Hopkins University

The Shifting Role of Angiogenesis in Pro-regenerative Environments
National Institutes of Health

Jacqueline Doyle
Genotyping of Neotoma magister Individuals Sampled in the New Jersey Palisades
New Jersey Department of Environmental Protection

Elana Ehrlich
Comparative Proteomics: The KSHV Ubiquitome in Latency and Reactivation
National Institutes of Health

POLITICAL SCIENCE
John McTague
For God and Party: Descriptive Representation, Religion, and the American Party System
Social Science Research Council
- Brian Fath
  Visualizing, Analyzing, Simulating, and Designing Interacting Urban FEWshed Networks
  National Science Foundation

- Sarah Haines
  Teaching Environmental Awareness in Baltimore
  Environmental Protection Agency through National Aquarium

- John LaPolla
  Co-PI: Faith Weeks
  RUI: A Phylogenomic Approach to Understanding the Symbiosis Between Acropyga Ants and Xenococcine Mealybugs
  National Science Foundation

- Barry Margulies
  Single Dose, One-Week Oral Famciclovir to Treat Acute Herpes Outbreaks
  Burroughs Wellcome Fund

- Christopher Oufiero
  CAREER: Quantifying the Major Axes of Locomotor Performance: An Evolutionary Approach Using Cichlids
  National Science Foundation

- Richard Seigel
  Nesting Ecology of Northern Map Turtles in the Susquehanna River, 2018
  Exelon Generation Company

- Michelle Snyder
  Co-PIs: Renee Dickie, Jacqueline Doyle, Elana Ehrlich, Kelly Elkins, David Hearn, Barry Margulies, Petra Tsuji, John Weldon
  Bridges to the Baccalaureate: Facilitating Seamless Transitions from Community College to Towson University
  National Institutes of Health

- John Weldon
  Co-PI: Barry Margulies
  Development and Characterization of Recombinant Immunotoxins for the Treatment of Cancers Originating from Epstein Barr Virus Infections
  National Institutes of Health

- CHEMISTRY
- Mary Sajini Devadas
  Co-PI: Ellen Hondrogiannis
  Development of Versatile Nanostructures for SERS sensing of Gun Shot Residue on a Portable Raman Spectrophotometer
  National Institute of Justice

- Siddharth Kaza
  Collaborative Research: Cyber aCCredit: Putting the CC in Cybersecurity Accreditation
  National Science Foundation
  The Cybersecurity Labs and Resource Knowledge-base (CLARK) - A Prototype
  National Security Agency
  Co-PI: Katherine Tang
  SPLASH: Secure Programming Logic Aimed at Students in High School
  National Security Agency
- Michael McGuire  
  Graduate Externships  
  Maryland Institute for Emergency Medical Services Systems  
  Co-PI: Todd Moore  
  Collaborative Research: Data Integration Tools and Deep Learning Models for the Analysis of Tornado Climatology  
  National Science Foundation

- Nam Nguyen  
  Co-PIs: Subrata Acharya, Michael McGuire  
  A Framework for Sybil Defense in Complex Networks  
  The MITRE Corporation

- Wei Yu  
  National Science Foundation  
  TU-NIST PREP Gaithersburg  
  National Institute of Standards & Technology

- Marius Zimand  
  RUI: New Directions in Kolmogorov Complexity and Network Information Theory  
  National Science Foundation

- Christopher Salice  
  Advancing the Understanding of the Ecological Risk of Per- and Polyfluoroalkyl Substances  
  U.S. Department of Defense  
  Physiological, Ecological and Environmental Determinants of PFAS Uptake in Freshwater Fish: Towards an Improved Bioaccumulation Model  
  U.S. Department of Defense

- Understanding the Role of Fish and Invertebrate Life-history Strategies in the Bioaccumulation of PFAS from Water and Sediment  
  U.S. Department of Defense through U.S. Geological Survey  
  Towson University Pollinator Garden  
  ScottsMiracle-Gro Foundation

- Mathematics  
  Vincent N. Guingona  
  Vapnik-Chervonenkis Density and Related Notions of Dimension in Model Theory  
  National Science Foundation

- Angel V. Kumchev  
  Co-PI: Yunwei Cui, Xiaoyin Wang  
  Methodology for Forecasting Natural Gas Demand  
  Exelon Generation Company

- Felice S. Shore  
  Adaptive Learning in Statistics  
  Bill & Melinda Gates Foundation through University System of Maryland

- Physics, Astronomy & Geosciences  
  Ronald Hermann  
  Co-PI: Joel Moore  
  TU GREATEST (Towson University’s Geoscience Recruitment Experiences Aimed Toward Earth Science Teachers)  
  National Science Foundation

- Thomas Krause  
  2018 NIST SURF: Francis Walz  
  National Institute of Standards & Technology

- 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 through Educational Testing Service

- Deepika Menon  
  Investigating Science Teacher Identities of Prospective Elementary Teachers: A Cross-cultural Analysis  
  The Spencer Foundation

- Joel Moore  
  Chesapeake Bay Trust Chesapeake Conservation Corps  
  Chesapeake Conservation Corps

- Wendy Nelson  
  Collaborative Research: Geodynamic and Geochemical Investigation of Lithospheric Drip Viability beneath the East African Rift  
  National Science Foundation

- James Overduin  
  Support for MSGC Summer Research Interns to Present at the 231st AAS Meeting  
  Maryland Space Grant Consortium  
  Co-PIs: Parviz Ghavamian, Jennifer Scott, Alexander Storrs  
  Summer Research Internship for Undergraduates in Astronomy and Space Science at Towson University  
  Maryland Space Grant Consortium

- Jennifer Scott  
  Co-PI: Rajeswari Kolagani  
  Summer Research Support for a Native American Astronomer-in-Training  
  Maryland Space Grant Consortium

- Vera Smolyaninova  
  Nanostructured Metamaterials for High-Tc Superconductivity  
  Office of Naval Research  
  Photo Induced Instabilities in the System under the Optical-plasmon Resonance  
  Defense Advanced Research Projects Agency through Vesperix Corporation

- Alexander Storrs  
  Co-PI: Jennifer Scott  
  Maryland Open Source Textbook (MOST) Initiative High-impact OER Mini-Grant  
  University System of Maryland
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