

Migration research reveals key to declines in rare songbirds

By Christine Billau

The annual long-distance migration of rare, tiny songbirds that reproduce in the Great Lakes region and Appalachian Mountains is no longer a mystery.

By tracking one of the smallest species ever monitored over thousands of miles using cutting-edge technology, a team of ornithologists led by scientists at The University of Toledo found that it is where golden-winged warblers spend the winter in the tropics that determines if a population is declining or stable, not factors associated with the breeding grounds thousands of miles north in the United States and Canada.

Over the course of the five-year study, the scientists found that different populations of the birds, which are about the size of a ping-pong ball and weigh less than three pennies, do not mix between their separate northern nesting grounds occupied

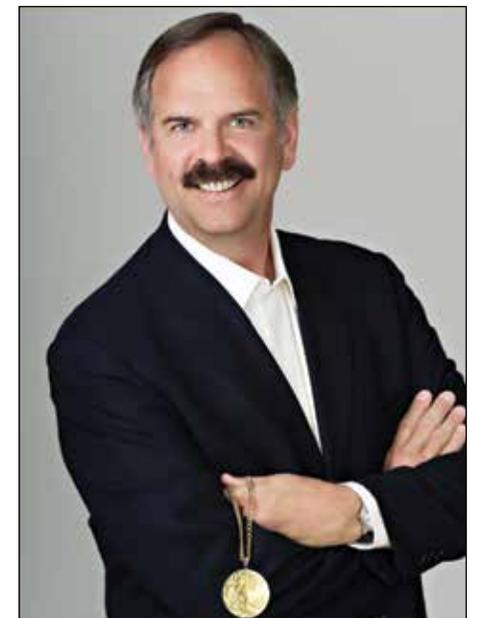


continued on p. 5 **FLIGHT MAPPER:** A golden-winged warbler carrying a geolocator was photographed in Minnesota.

Olympic gold medalist to talk business March 22

By Bob Mackowiak

John Naber, Olympic gold medal winner and sportscaster, will visit The University of Toledo to give the Edwin Dodd Distinguished Lecture Series in Business Ethics.



Naber

The public is invited to hear him speak Thursday, March 22, at 7 p.m. in the Driscoll Alumni Center Auditorium.

Naber's presentation is titled "Pursuing Victory With Honor."

In today's difficult business environment, the temptation to "cut corners" has never been greater. Delivering his remarks in a friendly and unthreatening manner, Naber enables his audiences to learn how to succeed without violating ethical standards. He believes that nice guys can finish first.

In 1976, Naber became the most highly decorated member of the U.S. Olympic Team, winning four gold medals and one silver, and setting four world records in the sport of swimming. In the process, he became the first swimmer in Olympic history to win two individual medals on the same day.

One year later, he led his school, the University of Southern California, to his and its fourth consecutive undefeated season and national title, and won the James E. Sullivan

UT engineer creates solution to cheaper, longer lasting battery packs

By Christine Billau

An electrical engineer at The University of Toledo, who nearly died as a girl in Africa because of a hospital's lack of power, has developed a new energy storage solution to make battery packs in electric vehicles, satellites, planes and grid stations last longer and cost less.

The new technology called a bilevel equalizer is the first hybrid that combines the high performance of an active equalizer with the low cost of the passive equalizer.

"It's a game-changer because we solved the weak cell issue in lithium ion battery storage for packs with hundreds of cells," said Dr. Ngalula Mubenga, UT assistant professor of electrical engineering technology. "Whenever we are talking about batteries, we are talking about cells connected in a series. Over time, the battery is not balanced and limited by the weakest cell in the battery."



Photo by Daniel Miller

POWER ON: Dr. Ngalula Mubenga, UT assistant professor of electrical engineering technology, held a battery cell next to a large battery pack.

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UT president creates opioid task force

By Christine Billau

The University of Toledo President Sharon L. Gaber has created a task force to address the opioid epidemic.

Dr. Linda Lewandowski, dean of the UT College of Nursing, and Dr. Amy Thompson, professor of public health and president of Faculty Senate, serve as co-chairs of the committee.

“There are many researchers, physicians and educators across the University working on issues related to the opioid crisis. Our goal is to bring all of these individuals together to ensure that we are collaborating to find solutions to this public health crisis across our region and state,” Gaber said.

The first meeting for faculty and staff at UT with interest or expertise in opiates and related issues will take place Thursday, March 15, at 8 a.m. in Collier Building Room 2010 on Health Science Campus.

Anyone involved in research, education or clinical care pertaining to opioids is invited to attend.

“Opioid abuse, addiction and overdoses affect families of every socio-demographic group,” Lewandowski said. “Our research, education and service activities can help make a difference in the state of Ohio, as well as the nation.”

The committee’s activities will include identifying and coordinating current research, education and community service that UT faculty and students are engaged in; meeting with community and government leaders to strengthen partnerships; and identifying possible funding sources to support future collaborative projects.

“We are dedicated to unifying our academic expertise and efforts to help stem the tide of the opioid crisis,” Thompson said.

Match Day: UT medical students to learn residency placements March 16

By Sarah A. Velliquette

On Match Day, thousands of graduating medical students across the country will open at noon Friday, March 16, the envelopes that contain their residency placements.

Fourth-year medical students at The University of Toledo will gather at Stranahan Theater’s Great Hall for Match Day to learn where they will spend the next three to seven years training in their chosen specialty.

The 2018 Residency Match Reception will begin at 11 a.m. with the envelope-opening ceremony precisely at noon. This event is invitation-only because space is limited.

Students spend months interviewing at hospitals and universities across the nation to find the institutions that will best help them perfect their chosen specialties. The students then rank their top choices, and academic and community-based medical centers nationwide rank their top student choices.

A computer algorithm administered by the National Resident Matching Program then “matches” students and residency programs together.

Residents are licensed physicians who care for patients under the supervision of attending physicians and represent the medical workforce of tomorrow.

STEMM initiative established in honor of UT faculty member

The new Tony Quinn We Are STEMM Initiative recognizes the immunologist in the Department of Biological Sciences for his work in deciphering the interplay between diabetes and immunity, as well as his dedication to the recruitment and retention of underrepresented minority students.

Dr. Anthony Quinn, associate professor of biological sciences and assistant dean for diversity and inclusion in the College of Natural Sciences and Mathematics, created in 2015 a We Are STEMM initiative designed to bring high-profile underrepresented minority scientists to UT in the fields of science, technology, engineering, mathematics and medicine as role models for University students of color, inspiring them to engage in STEMM fields of study.

In recognition of his contributions during his 16 years of educational leadership, UT has created the Tony Quinn We Are STEMM Initiative that will build upon the existing We Are STEMM lecture series to also include fellowships for graduate and professional education and mentoring programs.

“Tony’s dedication and contributions of energy and intellect to the full participation of individuals from marginalized groups in the scientific enterprise has benefited The

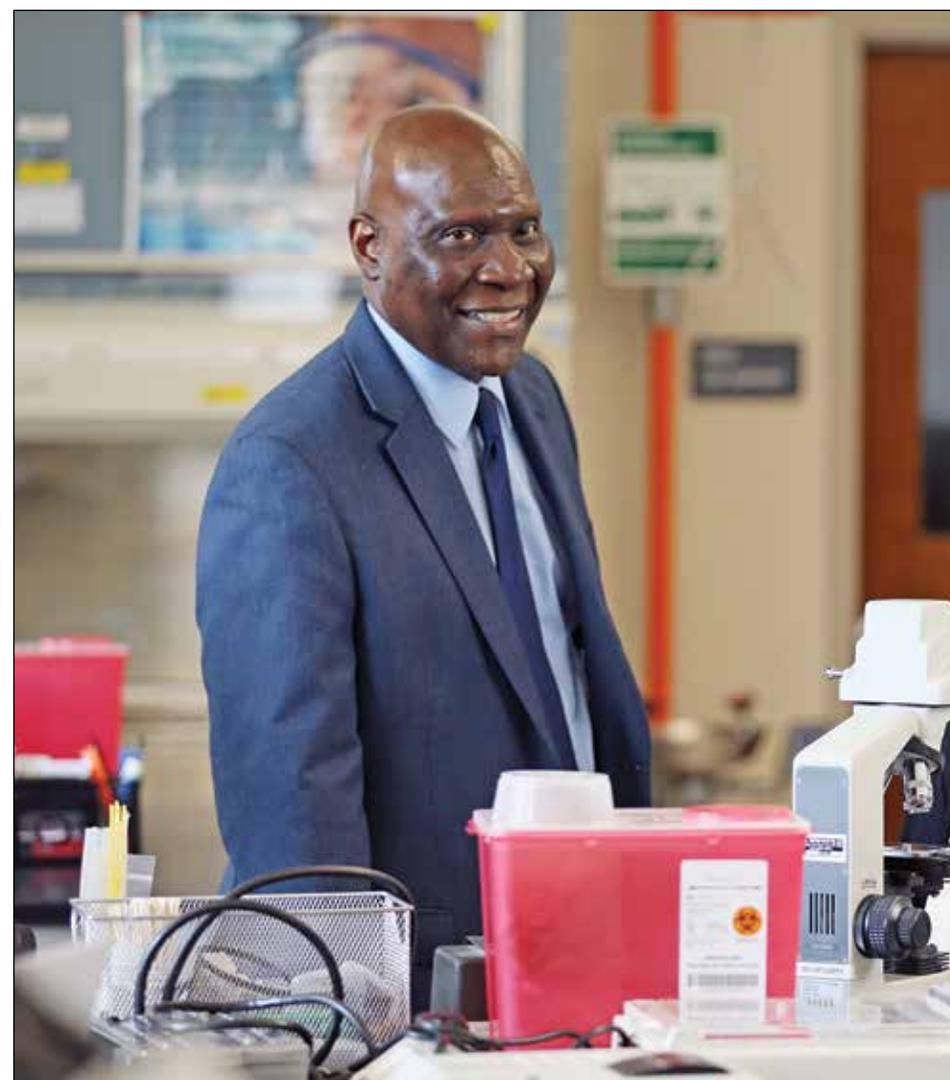
University of Toledo and our community greatly,” said Dr. Amanda Bryant-Friedrich, dean of the College of Graduate Studies. “His work has impacted our students at all levels through the creation of a diverse and inclusive campus. This work must continue.”

While battling pancreatic cancer, Quinn co-developed UT’s strategic plan, co-directed the Multicultural Emerging Scholars Summer Bridge and Living Learning Community Program, and led the Brothers on the Rise mentoring program.

“We recently visited Dr. Quinn and his family where we shared with them this recognition. They are pleased to have this honor in recognition of Tony’s contribution to the University,” said Dr. Willie McKether, vice president for diversity and inclusion.

The Tony Quinn We Are STEMM Fellowship Fund has been created to support the initiative to ensure ongoing support of underrepresented graduate students in STEMM disciplines — scholars so important to Quinn.

For more information about donating to the fund, visit utfoundation.org/give/quinnfellowship.



Quinn

Three Distinguished University Professors named

By Meghan Cunningham

Three faculty members have been named Distinguished University Professors in recognition of their exemplary teaching, research, scholarship and professional service.

The newest Distinguished University Professors, who were approved and recognized by the UT Board of Trustees at its February meeting, are Dr. Abdollah Afjeh of the College of Engineering, Dr. Paul Chongkun Hong of the College of Business and Innovation, and Dr. Joseph Slater of the College of Law.

"It is an honor to recognize the careers of these outstanding faculty members who are accomplished experts recognized for advancing their fields of study and who are great teachers dedicated to sharing their knowledge with our students," said Dr. Andrew Hsu, provost and executive vice president for academic affairs.

Afjeh, chair and professor of mechanical, industrial and manufacturing engineering, joined UT in 1984. He is a Fellow of the American Society of Mechanical Engineers and an internationally recognized researcher in propulsion and energy conversion systems.

Afjeh's focus is on the development and validation of computational models that are used to predict behavior of aerospace propulsion systems under flight conditions. His work supports the design and development of aircraft engines and small gas turbine engines. He also has been working on comprehensive aeromechanics analysis of utility-scale wind turbines.

"I am profoundly honored by this recognition," Afjeh said. "I am deeply grateful to my colleagues and students

who inspired me and fueled my passion for learning. This honor is also a recognition of the great work of my talented students who knew no boundaries and believed in impossible things."

Afjeh has received 49 research awards for more than \$22 million and has authored 115 peer-reviewed publications. He received UT's Outstanding Researcher Award in 2014.

Hong, professor of information operations and technology management, joined UT in 1999. He is an internationally recognized researcher in network capabilities, global supply chain management, international comparative studies, and building growth engine industries for national competitiveness.

Hong's expertise is in the implementation of supply chain management practices to build firms for domestic advantage and global competitiveness. Much of his work has been in the service sector, notably, U.S. health-care industries as well.

"This recognition is about the value of teaching, research and outreach of business faculty for the world at large," Hong said. "I accept this honor along with my colleagues here at The University of Toledo and around the world who have worked with me over the years."

Hong, who was selected as Fulbright Scholar in 2017, has published more than



Photo by Daniel Miller

HONORED: UT Board of Trustees Chair Steven M. Cavanaugh, left, and UT President Sharon L. Gaber posed for a photo with the new Distinguished University Professors, from left, Dr. Paul Hong, Dr. Abdollah Afjeh and Dr. Joseph Slater. The three faculty members received the honor in recognition of their exemplary teaching, research, scholarship and professional service.

200 peer-reviewed articles and three books. He received UT's Outstanding Researcher Award in 2015.

Slater, the Eugene N. Balk Professor of Law and Values, joined UT in 1999. He is the nation's leading expert in public-sector labor law respected in academia, as well as by practicing attorneys, the courts, and national and international media.

Slater's work has influenced two separate fields of study — labor history and modern labor law. He is an expert witness on the history of labor law.

"This means a lot to me. I know The University of Toledo employs many outstanding faculty, excellent scholars and

excellent teachers. I am deeply honored to join the ranks of law school colleagues past and present, as well as the amazingly impressive Distinguished University Professors from other colleges," Slater said. "Also, I am pleased because this award reflects the importance of the field of labor and employment law, and the study of unions, workers and employers, in this community and beyond."

Slater, who is a Fellow of the College of Labor and Employment Lawyer, has published four extensively cited books and 29 peer-reviewed articles and essays. He received UT's Outstanding Researcher Award in 2016.

Olympic gold medalist

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Award as the nation's outstanding amateur athlete.

Moving to broadcasting, Naber worked for all the major networks and almost every cable channel covering his sport at local, national and international meets. In 1984, he was inducted into the U.S. Olympic Committee Hall of Fame, just two days before he carried the Olympic torch, and later the Olympic flag, into the Los Angeles Olympic opening ceremony.

In 1986, Naber began working as a play-by-play announcer, covering sports as varied as motorcross, skiing, gymnastics,

football, bowling and equestrian events. He has hosted coverage for more than 30 different sports and for seven Olympic Games.

As a keen observer of excellence, Naber has discovered the method by which champions in all walks of life use to reach their goals, and he shares this process along with his personal insights to audiences all over the globe.

Sponsored by Dana Inc. and Owens-Illinois Inc., and co-hosted by the UT College of Business and Innovation, the College of Law, and the Jesup Scott Honors

College, the event is free, but registration is requested at utoledo.edu/business/EdwinDodd.

The Edwin Dodd Distinguished Lecture Series in Business Ethics celebrates the legacy of the late chairman, CEO and president of Owens-Illinois Corp. Established in 2003 through a collaborative effort led by the Dodd Family with partners Owens-Illinois and the Dana Corp., this fund was established as an enduring memorial to Dodd, spotlighting his work in the business world and the Toledo community. The purpose of the fund is to

support the ongoing Distinguished Lecture Series in Business Ethics.

The fund is housed in the College of Business and Innovation and partners with both Dana Corp. and Owens-Illinois with representatives sitting on the planning committee, along with a member of the Dodd family, with the goal of leveraging national networks to identify and feature experts in the field on a biannual basis.

Engineering battery

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Before the bilevel equalizer, battery makers and automotive manufacturers balanced the cell voltages in a large battery pack using either a passive circuit, which loses more energy, or an active circuit, which is 10 times more expensive.

“In spite of their significant losses, passive equalizers are used in most applications because they are relatively simple and low-cost,” Mubenga said.

In Mubenga’s new technology, the cells are grouped into sections. Each cell within the section is balanced by a passive equalizer, while the entire section is balanced by an active equalizer.

“If there are 120 cells in a battery, divide the cells into 10 groups of 12,” Mubenga said. “Then you only need nine active equalizer units and 120 passive equalizer units using the bilevel equalizer. With current active equalizers, manufacturers would have to use 120 active equalizers. For manufacturers that can’t afford to use only active equalizers, the bilevel equalizer is the solution to the problem.”

Experiments have shown that the bilevel equalizer increases the discharge capacity of lithium ion batteries by about 30 percent, and the pack lasts longer because the cells are balanced.

“Instead of an electric vehicle’s battery lasting only four years, it would last much longer,” Mubenga said.

Mubenga worked on the project with Dr. Tom Stuart, UT professor emeritus of electrical engineering and computer science, who had the idea for the bilevel equalizer.

Their team is licensing the hybrid equalizer and retrofit kit to manufacturers. The research was recently published in *Batteries*, an international journal, and can be found at mdpi.com/2313-0105/3/4/39. Project funding was provided by the Ohio I-Corps program and Ohio Third Frontier program.

Mubenga presented their new, patented technology March 7 at the Advanced Design and Manufacturing Expo at the Huntington Convention Center of Cleveland in a session titled “Lowering the Cost of Energy Storage for E/HV and Grid Applications Using a Bilevel Equalizer for Large Li-Ion Batteries.”

Mubenga understands the life-changing power of electricity. When she was 17 years old in her native country of the Democratic Republic of Congo in Africa, she waited three days for surgery after her appendix burst because there was no power at the hospital.

“I was living in a small town called Kikwit, far away from the big and beautiful capital city of Kinshasa,” Mubenga said. “I was very sick, doctors needed to do surgery, but they couldn’t find any gas to turn on the power generator. For three days, my life



Photo courtesy of SMIN Power Group

POWERHOUSE: A solar panel, which was developed and installed by the SMIN Power Group, serves a community in the Democratic Republic of the Congo.

depended on electricity. I was praying. I could not eat. And decided if I made it alive, I would work to find a solution so people wouldn’t die because of lack of electricity.”

The hospital found fuel to power the generator, doctors did the surgery, and Mubenga survived.

She started studying renewable energy at the UT College of Engineering in 2000 and earned a bachelor’s degree, master’s degree and PhD in electrical engineering. After earning her professional engineer license in Ohio, she went on to found her company called the SMIN Power Group, which develops and installs solar power systems in communities throughout the Democratic Republic of Congo.

“My passion is deep,” Mubenga said. “In places like that small town of Kikwit, if you have solar power, you can have electricity and save lives.”

Another factor fueling Mubenga’s research motivation is a connection between her native country and lithium ion batteries.

“Most of the minerals for today’s electronics are mined in the Democratic Republic of the Congo,” Mubenga said. “The Democratic Republic of the Congo is a leading producer of cobalt, copper, gold, diamond, tantalum and tin in the world. Indeed, the Democratic Republic of the Congo contains about 50 percent of the world’s reserve of cobalt, a mineral used to make lithium ion batteries.”

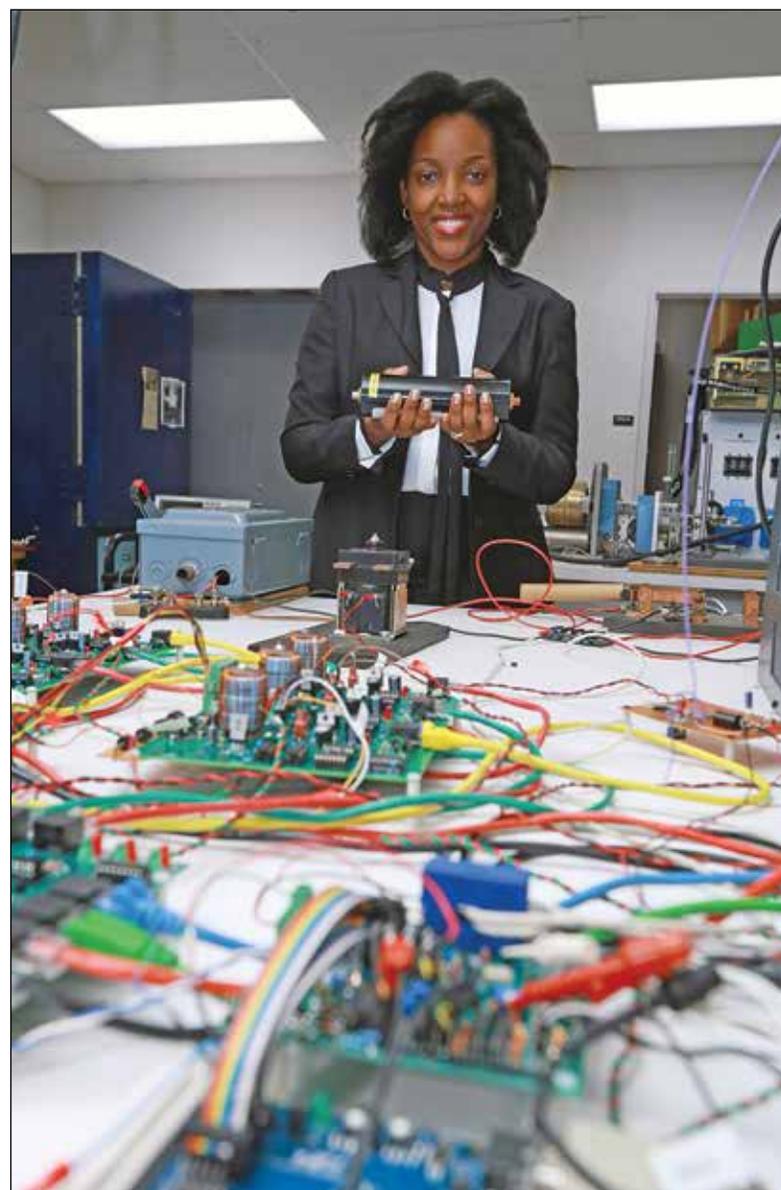


Photo by Daniel Miller

ALL CHARGED UP: Dr. Ngalula Mubenga, UT assistant professor of electrical engineering technology, held a battery cell next to the bilevel equalizer.

Migration research

continued from p. 1

during the spring and summer and the tropical sites where they spend the winter.

Mapped using data from 76 light level geolocators recovered from the birds, each population shows strong migratory connectivity, or geographic segregation, that confirms that populations of the birds stay together in different locations for the seasons throughout the year. This strong link between breeding and non-breeding areas means that populations may be exposed to different threats and conditions during the winter.



Kramer

According to the study recently published in the Proceedings of the National Academy of Sciences, golden-winged warblers from declining populations spend winters in northern South America. Stable populations of the species spend winters in Central America. Read the study at pnas.org/content/early/2018/02/23/1718985115.

“They’re separate, and it’s remarkable,” said Gunnar Kramer, PhD student researcher in environmental sciences at UT. “Most species we track like this don’t show strong connections between breeding sites and wintering sites.”

“These golden-winged warblers that breed throughout the Great Lakes region and Appalachian Mountains are going to different areas in the winter,” said Dr. Henry Streby, assistant professor in the UT Department of Environmental Sciences. “That’s pivotal because those tropical areas experienced different rates of forest loss

during the last 60 years. When we look at forest-loss rates, it correlates closely with golden-winged warbler population changes on breeding grounds thousands of miles away.”

When it comes to saving the species that is under consideration for federal Endangered Species protection, the researchers say conservationists should switch their focus away from places where their efforts cannot benefit the species and toward restoring habitat and preventing further deforestation in northern Venezuela, “which is, unfortunately, one of the most difficult places to do conservation work in the Americas,” Streby said.

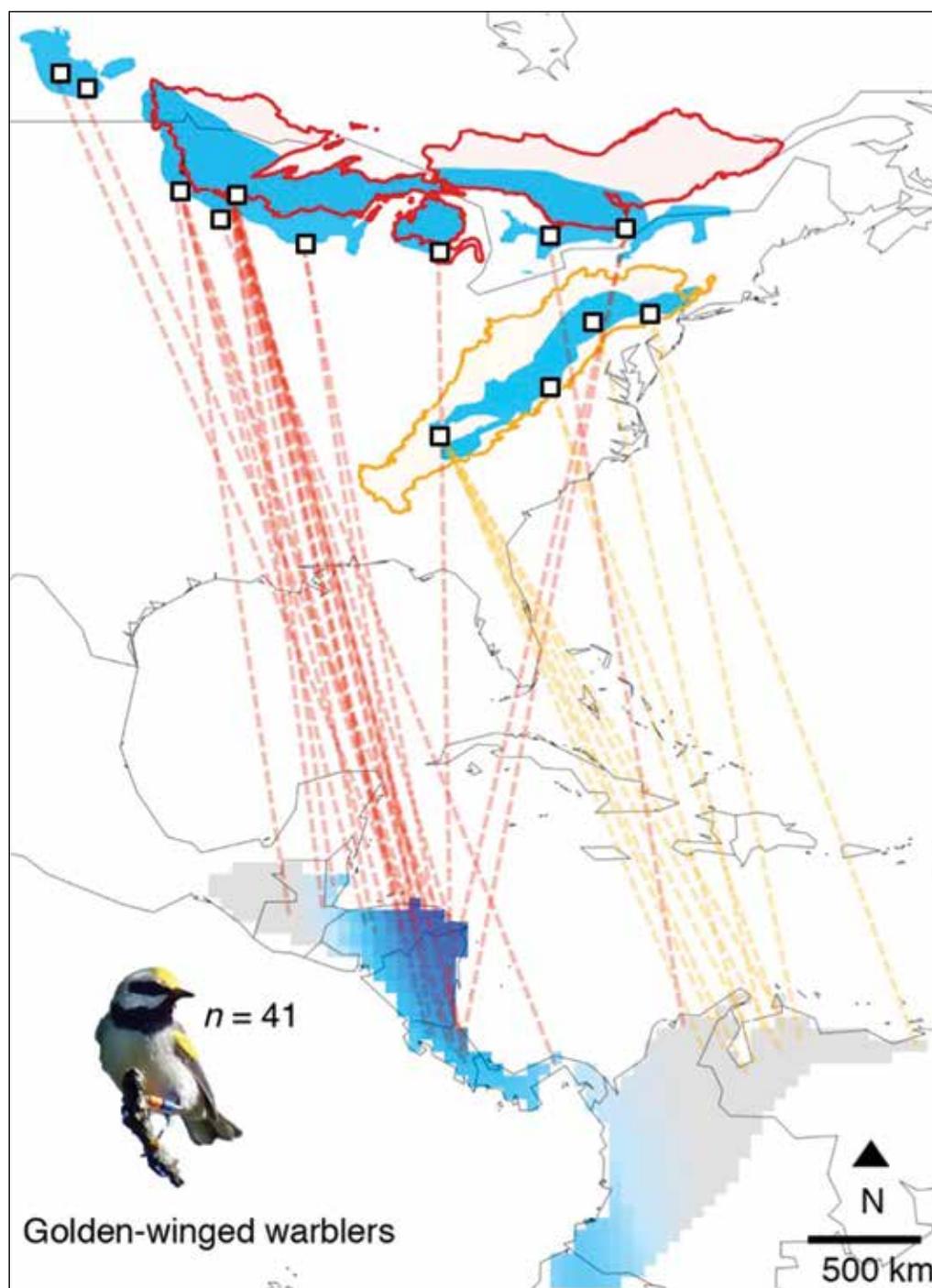
“If the winter habitat keeps disappearing, the warblers that winter in northern South America won’t survive and come back to the Appalachian Mountains no matter how much breeding habitat is available to them,” Streby said.

Kramer and Streby tracked the birds using the geolocators attached to the birds with tiny backpacks around their legs. Figure-eight harnesses secured the geocator backpacks, which contained a battery, a computer chip and a light sensor. The whole thing weighs less than half of a paper clip and does not inhibit flight or movement.

“The light sensor records ambient light and stores it with a time stamp on the unit every couple minutes,” Kramer said. “We used differences in day length and changes in how fast dawn and dusk occur to predict daily locations of the birds throughout the year. Based on how long the day and night are and features of the transitions between day and night, you can tell with reasonable accuracy where you are on the planet.”

Unlike other heavier tracking devices, geolocators do not transmit data, so the researchers had to recapture every bird marked with a geocator and remove the device to recover data.

“Comprehensive studies like this one show the importance of understanding the complex relationships migratory species have with different environments throughout the year and demonstrate that



MAPPING IT: A team led by UT researchers tracked where golden-winged warblers traveled for the winter.

songbirds that spend the summer in our backyards may be experiencing challenging conditions elsewhere that are causing declines,” Kramer said. “These studies also provide information that can immediately be used to start improving conservation efforts, and that’s really exciting.”

The UT researchers collaborated with scientists from several universities and agencies, including the U.S. Geological

Survey, the University of Tennessee and West Virginia University.

Funding was provided by the U.S. Fish and Wildlife Service, the U.S. Geological Survey and the National Science Foundation.



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Global Medical Missions Hall of Fame induction ceremony set for March 17

The University of Toledo College of Medicine and Life Science's Global Medical Missions Hall of Fame will induct a new class of honorees Saturday, March 17.

Inductees will be recognized during a ceremony at 7:30 p.m. in Collier Building Room 1000 on UT's Health Science Campus.

Members of the 2018 class are **Dr. Diane Cappelletty, Dr. Ziya Celik** and **International Samaritan**.

Cappelletty is a professor and chair of pharmacy practice in the UT College of Pharmacy and Pharmaceutical Sciences. The Monclova, Ohio, resident has been involved with medical missions and local medical clinics for 15 years.



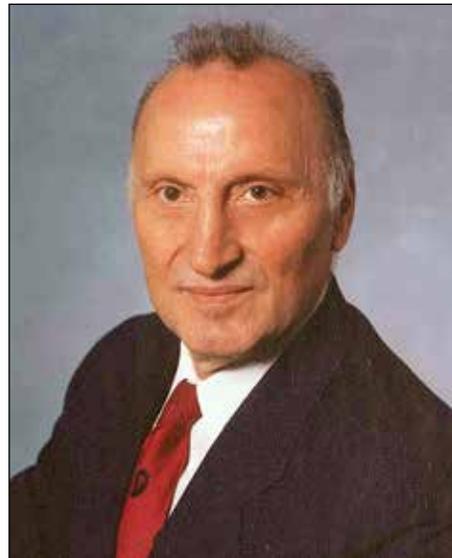
Cappelletty

Her mission work began in 2003 when she went with a team to Peru. Since then, Cappelletty has been on numerous missions to Guatemala and Honduras, and has inspired students to serve alongside her. She compounds medications in the field, comes up with innovative techniques to provide meds during the missions, and mentors students, showing them the humanistic side of pharmacists in trying conditions. Her work has been recognized by the Ohio Society of Health System Pharmacists.

In Toledo, Cappelletty volunteers at the free Community Care Clinic, which, thanks to her efforts, was licensed by the Ohio State Board of Pharmacy.

A UT alumna, she received a bachelor of arts degree in biology from the University in 1982. Cappelletty continued her education at Ohio State University and received a bachelor of science degree in pharmacy and doctor of pharmacy in 1991 and 1993, respectively.

Celik is a surgeon who has participated in missions for more than three decades. He has worked with Midwest Medical Missions, Medishare and Medecins Sans Frontieres/Doctors Without Borders, serving in the Dominican Republic, Kenya, Haiti and Nigeria.



Celik

Born in 1941 in Rize, Turkey, Celik moved to the city of Erzurum to complete his early education. In 1960, he started medical school at the University of Istanbul, completed a surgery residency, and was an instructor at the University of Ataturk in Erzurum until 1971. A research fellowship followed in 1972 at the University of Boston, where he was selected for a position. In 1976, he completed a residency in general surgery at the former Medical College of Ohio.

In addition to medical missions and earthquake relief, Celik maintained a general surgery private practice in Oregon, Ohio, for 30 years, retiring in 2006. Affiliated with St. Charles Hospital, he was a 20-year member of its executive committee, director of surgery for 10 years, and chief of staff while volunteering his surgical skills around the globe. He lives in Pompano Beach, Fla.

International Samaritan is a ministry based in Ann Arbor, Mich. For nearly two decades, this nonprofit organization has established programs to alleviate severe poverty and health issues in numerous countries.

In 1994, the Rev. Donald Vettese, a Jesuit priest who was then president of St. John's Jesuit High School in Toledo, founded this ministry after a trip with students

to an orphanage in Guatemala City. He and his students took a detour and stopped beside a garbage dump where the scene seemed like a nightmare: Drove of people scavenging through trash, searching for plastic, glass, metal and other materials to sell to recyclers. After talking with the students and the mayor of Guatemala City, Vettese agreed they would work together to help improve the plight of garbage workers and others living near the dump. In 1995, Vettese was able to incorporate the not-for-profit, originally calling it Central American Ministries, but renaming it International Samaritan in 2009 to reflect the growing global outreach.

In 16 years, the ministry has started programs in Guatemala, Egypt, El Salvador, Honduras, Nicaragua, Panama and Haiti.

The organization also is conducting feasibility studies for similar efforts in Ethiopia, Sierra Leone and the Philippines. Each year it serves more than 13,000 people.

Oscar Dussan, president of International Samaritan, will attend the ceremony to accept the award.

In addition, **Dr. Andrew Casabianca**, associate professor and chair of anesthesiology in the UT College of Medicine and Life Sciences, and medical director of operative services at UT Medical Center, will receive the Dr. Lawrence V. Conway Lifetime Distinguished Service Award. He also is associate professor of surgery and dentistry.

Since traveling to the Dominican Republic on his first medical mission trip in 1994, Casabianca has returned every year. A member of the Midwest Medical Missions, he has participated in more than 30 trips, conducting primary care, anesthesia and

dentistry. Casabianca has been the faculty adviser for UT

Students for Medical Missions and is on the missions committee at Calvary Church in Maumee.

He also was on the planning committee for Serve Week, participated in medical clinics for Vision Ministries and Convoy of Hope, and is a board member for Midwest Medical Missions.



Casabianca

Casabianca completed his undergraduate education at New York University and received a doctor of medicine in dentistry degree from the University of Pennsylvania in 1979. He graduated from the former Medical College of Ohio with his medical degree in 1988, and completed his dental residency at St. Vincent's Hospital, a transitional internship at Mercy Hospital, and an anesthesiology residency at the former MCO.

In conjunction with the induction ceremony, the College of Medicine Students for Medical Missions will host a free symposium Saturday, March 17, from 8:30 a.m. to 1:30 p.m. in Health Education Building 110. Speakers will include Cappelletty, Celik, Dussan and Casabianca.

Dr. Lawrence V. Conway, UT professor emeritus of finance, founded the Global Medical Missions Hall of Fame in 2004 to honor individuals and organizations that have made significant contributions to advancing the medical well-being of people around the world. In 2006, the Global Medical Missions Hall of Fame became affiliated with the UT College of Medicine and Life Sciences. The hall of fame can be seen in the lobby of the Jacobs Interprofessional Immersive Simulation Center.

RSVPs are requested for the free, public induction ceremony: Call 419.530.2586 or 1.800.235.6766, register online at toledoalumni.org/events/events.aspx?eid=753 or email medmissionhof@utoledo.edu.



UT alumna wins 2018 ASCAP Herb Alpert Young Jazz Composer Award

By Angela Riddel

Estar Cohen, of the Estar Cohen Project and a 2015 alumna of The University of Toledo Music Department, is one of 15 recipients of the ASCAP Foundation's 2018 Herb Alpert Young Jazz Composer Awards.

The program, which was established in 2002 to encourage young gifted jazz composers up to the age of 30, is named in honor of the trumpeter/composer/bandleader in recognition of the Herb Alpert Foundation's multi-year financial commitment to support this program. Additional funding is provided by the ASCAP Foundation Bart Howard Fund.

The recipients, who receive cash awards, range in age from 14 to 29, and are selected through a juried national competition. The ASCAP composers/judges for the 2018 competition were Sylvie Courvoisier, Wycliffe Gordon and Sachal Vasandani.

In addition, one of the recipients of the Herb Alpert Awards will be featured during the 2018 Newport Jazz Festival in August.

Cohen is a vocalist, lyricist, composer and educator based in Ypsilanti, Mich.

She graduated with a bachelor of music degree in jazz performance from the University, where she studied voice, improvisation and composition with pianist Tad Weed, guitarist Jay Weik and Jon Hendricks, the father of vocalese and former UT Distinguished Professor of Jazz, who called her lyrics "beautiful."

Some highlights over the course of her four years include recording her first album, "Waiting for Dawn"; lyricizing the instrumental pieces of late jazz pianist Herbie Nichols for Weed's Freedom Ensemble; putting on clinics and concerts with her jazz



Photo by Daniel Miller

CENTER STAGE: Estar Cohen performed as a student with the UT Vocalstra Ensemble at the 2013 UT Holiday Jazz Concert in Doermann Theatre.

quintet Talking Ear at numerous southern Michigan universities; and exploring the art of free improvisation and improvised poetry with Weik.

In 2015, she was chosen as a finalist in the Herb Alpert Young Jazz Composer Awards and in 2014, she was given the Craig's Keyboard Student Composer Award for her original vocal ensemble composition, "The Day the Government Shut Down."

Since her graduation, she has traveled as a performer and educator throughout

the Midwest and to major cities, including New York and Chicago. She has performed alongside renowned musicians, including Hendricks, Weed, Peter Eldridge, Pete Siers, David Bixler, Vinny Golia and Ken Filiano. Notable performances include New York City's Rockwood Music Hall, the Earthwork Harvest Gathering, Ann Arbor's Edgefest at Kerrytown Concert House, and Michigan's River Street Anthology Project.

Cohen is an avid writer, penning lyrics for Midwest jazz artists, including Weed,

Travis Aukerman, Dan Palmer and Benjamin Maloney. Her poetry has been published in Ohio Anthology, Bards Again 2016 and Khroma Magazine.

As an educator, she has taught songwriting with Michigan label Earthwork Music in partnership with the nonprofit SEEDS and is a private music instructor in the Ann Arbor area.

Visiting writer to read poetry March 20

Jenny Molberg will read from her new book of poetry, "Marvels of the Invisible," Tuesday, March 20, at 6 p.m. in Libbey Hall.



Molberg

The assistant professor of English at the University of Central Missouri won the 2014 Berkshire Prize from Tupelo Press, which published her debut last year.

Powerful and mesmerizing, Molberg's poetry weaves together the personal and the scientific, examining relationships and immortality, the known and the unknown. The author analyzed archival letters from 17th- and 18th-century scientists, and read new studies on biological phenomena.

"One thing I love about the scientific texts I explore is their language. Centuries-old science that now may seem outdated to us was filled with moments of shock and wonder for scientists then. I love to mine these texts for diction that I may not have otherwise used," Molberg said in an interview with How a Poem Happens.

The Texas native believes in inspiration and sweat.

"Yes — sweat and tears galore," she said. "But I live for that outpouring."

Her work has appeared in Best New Poets, Poetry International, Ploughshares, Boulevard, Green Mountains Review, The Adroit Journal, Copper Nickel, The Missouri Review, and other publications.

At the University of Central Missouri, Molberg teaches Advanced Poetry, Introduction to Creative Writing, and American Literature. She also is the poetry editor for Pleiades.

After graduating from Louisiana State University, she went to American University and received a master of fine arts degree in poetry and then continued at the University of North Texas for a doctorate in English and creative writing. She joined Central Missouri in 2015.

Molberg's free, public poetry reading is sponsored by the UT Department of English Language and Literature. For more information, call 419.530.2318.

Frame it: Winners of Lake Erie Center Photo Contest announced

By Jessica A. Guice

A total of 142 phenomenal entries were submitted for the 2017 Lake Erie Center Photo Contest.

The contest theme, “The Nature of Our Region, From Oak Openings to Maumee Bay,” invited participants to submit up to three photos featuring various areas of northwest Ohio.

All entries are on display in the Lake Erie Center lobby.

“The display consists of many fabulous images showcasing the nature of our region, through the eyes of the photographer, for us all to enjoy,” said Rachel Lohner, education program manager for the Lake Erie Center.

First-place winners took home \$25.

Listed by category, they are:

- Youth (7 to 12 years old) — Annika Padhye;
- Teen (13 to 18 years old) — Dustin Canada; and
- Adult — Dr. Sashi Bhatt, UT associate professor of anesthesiology.

Lohner said the purpose of the photo contest is to inspire all camera enthusiasts and others to explore more of the nature within the Lake Erie area.

Visit [facebook.com/lakeeriecenter](https://www.facebook.com/lakeeriecenter) to see more photos from the contest.



Dustin Canada took top honors in the teen category with this photo of downtown Toledo.



Dr. Sashi Bhatt won first place in the adult division.



Annika Padhye placed first in the youth category with this shot.

Juried Student Exhibition opening reception set for March 16

By Angela Riddel

The 2018 Juried Student Exhibition, an annual competitive show, will open this week. More than 30 works of art across a range of media by UT students will be on display.

There will be an opening reception and award ceremony Friday, March 16, from 6 to 8 p.m. in the Center for the Visual Arts Gallery on UT's Toledo Museum of Art Campus.

This year's juror is Alli Hoag, head of the Glass Program at Bowling Green State University. She was recognized as a 2015 Emerging Artist by the Glass Art Society.

Her artistic practice focuses on themes of magic. Seeing magic as the desire to connect with the world outside of perceptual and cognitive abilities, she attempts to create moments where one can believe that distance is overcome. Hoag works across mediums of glass, installation, video, performance and digital technology to investigate this uniquely human desire, and to reveal the simultaneous lightness and heaviness that is created when the imagined or invisible is labored into the physical realm.

Hoag completed her bachelor of fine arts degree in glass at the University of Hawaii at Manoa and graduated from New York State College of Ceramics at Alfred University in 2012. After graduation, she served as adjunct professor, teaching in both sculpture and glass.

She has developed her work internationally through residencies abroad at Cite des Arts International in Paris and S12 Galleri og Verksted in Bergen, Norway. She has exhibited both internationally and nationally, with solo exhibitions recently at UrbanGlass in New York and upcoming at the University of North Georgia in 2017.

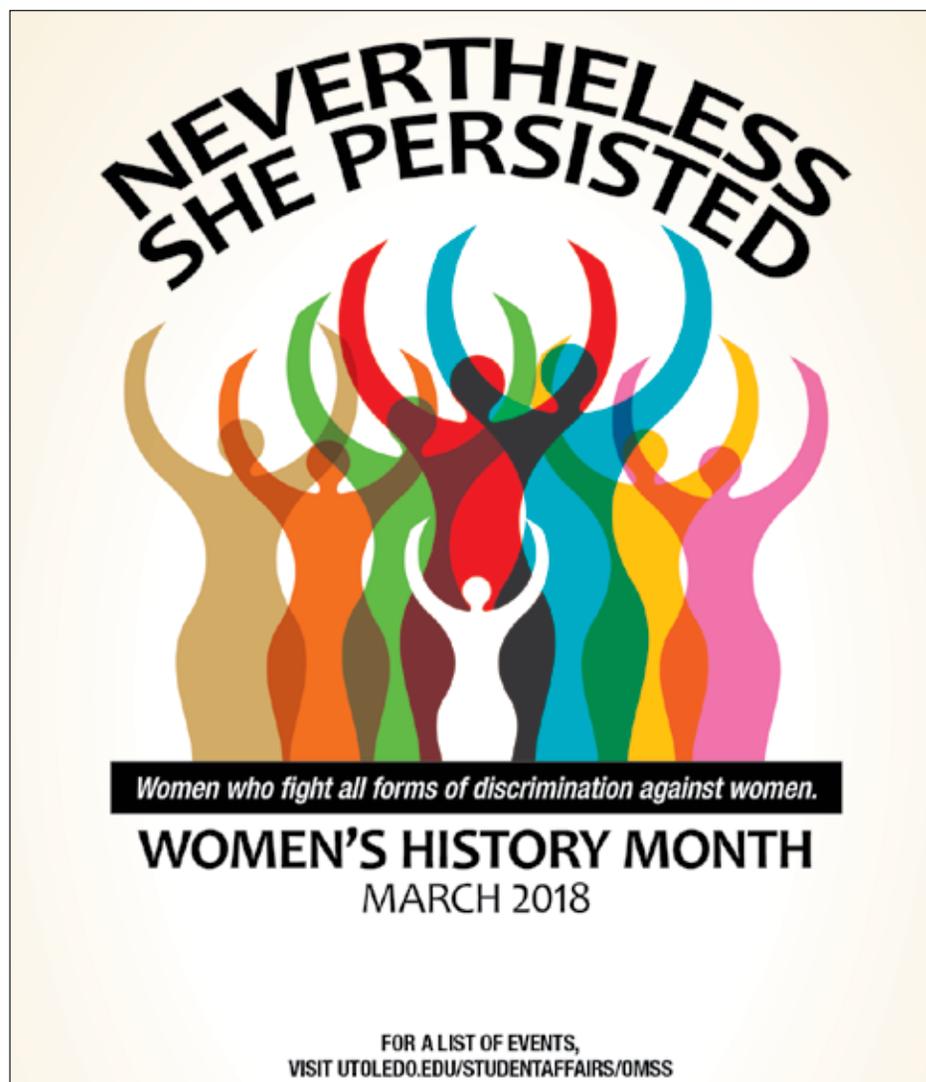
The 2018 Juried Student Exhibition will run through Thursday, March 22. Gallery hours are Monday through Saturday from 9 a.m. to 9 p.m. and Sunday from 10 a.m. to 9 p.m.

For more information on the free, public exhibit and opening reception, contact Brian Carpenter, UT lecturer of art and gallery director, at brian.carpenter@utoledo.edu.



Photo by Angela Riddel

ON DISPLAY: The 2018 Juried Student Exhibition features more than 30 works, including these pieces.



Women & Philanthropy to donate 1,000 books to second-grade classrooms

By Christine Billau

Women & Philanthropy and the Judith Herb College of Education at The University of Toledo are donating approximately 1,000 books to Toledo Public Schools.

The books will be distributed to 33 second-grade classrooms at 19 TPS schools.

Marcy McMahon, the chair of Women & Philanthropy, and Dr. Romules Durant, TPS superintendent, will present the books to representatives of each school Thursday, March 15, at 10:30 a.m. at Old Orchard Elementary School.

“Second grade is a critical year for learning to read,” said Dr. Thea Sawicki, chair of the Holiday Project for Women & Philanthropy and professor in the UT Department of Medical Microbiology and Immunology. “Choosing one grade to focus on allows us to support more schools.”

As part of its 2017 Holiday Project titled “Encouraging Early Literacy,” Women & Philanthropy partnered with the UT Judith Herb College of Education to raise funds to provide scholastic books for elementary classrooms in TPS schools. Women & Philanthropy will continue to raise funds throughout 2018 with the goal of donating books to all second-grade classrooms in each of the 40 TPS schools this year.

“Our faculty is deeply committed to working collaboratively with our school partners to improve early literacy,” said Dr. Virginia Keil, interim dean of the UT Judith Herb College of Education. “Our partnership with Woman & Philanthropy has allowed the college to work with TPS leaders to place high-interest books in second-grade classrooms. We hope that

making books readily accessible to students will encourage reading and ultimately help to improve academic achievement.”

“We are incredibly grateful that the UT Judith Herb College of Education and Women & Philanthropy have chosen to support classrooms throughout TPS schools, including Old Orchard, which is right in the neighborhood of the University,” Durant said. “As a College of Education graduate, I’m especially proud of this partnership to serve our students.”

Women & Philanthropy, which was founded in 2006, has gifted more than \$424,000 in grants across campus and has 80 active members consisting of both UT alumni and community members.



University Women's Commission welcomes award nominations, scholarship applications

Monday, March 19, is the deadline to submit nominations for the Alice H. Skeens Outstanding Woman Award and for female undergraduates to apply for the University Women's Commission Scholarship.

Award recipients and four \$1,000 scholarships winners will be honored at the University Women's Commission's Outstanding Women's Award Ceremony Wednesday, April 11, at 11:30 a.m. in the Savage Arena Grogan Room.

The scholarship guidelines and application, and the award nomination form, can be found at utoledo.edu/commissions/uwc.

Award nominations should be sent to Kelly Andrews, chair of the University Women's Commission, Mail Stop 302.

Scholarship applications are submitted online.

For information about the awards, contact Andrews at kelly.andrews@utoledo.edu, and for information about the scholarship, contact Terri Hayes-Lepiarz at teresa.hayes@utoledo.edu.

Be sure to check out and like the commission's Facebook page: facebook.com/universitywomenscommission.

Women in leadership panel discussion to take place March 21

By Alyssa Jane Slotke

In celebration of Women's History Month, on Wednesday, March 21, Carlson Library and Career Services invite members of the UT community to participate in a discussion on “Women Making a Difference: A Panel on Inspired Leadership.”

The women in leadership panel will be held at 6 p.m. in Carlson Library Room 1005.

The event will feature four panelists who will address their roles as women leaders and change-makers in business; they specifically will discuss the challenges facing women in leadership positions.

Panelists will be:

- Nina Corder, founder of Women of Toledo and EmpowerWomen;
- Rita Mansour, senior managing director of Mansour Wealth Management;
- Lisa McDuffie, CEO of the YWCA of Northwest Ohio; and
- Andi Roman-Tye, communications and media director for the Toledo Walleye and Toledo Mud Hens.

Panelists will share the stories of what made them successful and challenges they've encountered along the way. Included will be an opportunity for a question-and-answer session and a chance to network at the conclusion of the panel.

Light refreshments will be available at 5:30 p.m.

To learn more about the event, go to libguides.utoledo.edu/utinspires.

Wednesday,
March 21st

Refreshments
at 5:30

Carlson
Library
1005

CAREER SERVICES & CARLSON LIBRARY

**WOMEN MAKING
A DIFFERENCE:
A PANEL ON INSPIRED LEADERSHIP**

An interactive discussion about women in leadership roles

5:30 Doors Open
6:00pm Panel Begins
Light refreshments will be served.

Materials engineering, orthopedic biomaterials topic of Distinguished University Professor Lecture

Dr. Sarit B. Bhaduri, Distinguished University Professor of Mechanical, Industrial, and Manufacturing Engineering, will discuss his research Tuesday, March 20.



Bhaduri

The title of his Distinguished University Professor Lecture is “A Materials Engineer’s Perspective on Orthopedic Biomaterials — From Fundamentals to Research Translation.” The free, public event will be held at 4 p.m. in Doermann Theatre.

Bhaduri is trained in materials science and engineering. His active research career is divided into two halves: the first half was devoted to structural materials research, and the second half involves biomaterials research.

He is listed as an inventor/co-inventor of 45 issued U.S. and foreign patents. 2018 marks the 25th year of his receiving sustained funding from the National Science Foundation. The author and co-author of more than 180 peer-reviewed papers and seven book chapters has received significant additional funding from the U.S. Department of Defense, the state of Ohio and industry.

Bhaduri has been elected as a Fellow of the American Ceramic Society, the American Institute for Medical and Biological Engineering, and the National Academy of Inventors.

He was appointed a Distinguished University Professor in 2017.

A reception will follow his lecture in the lobby of University Hall.

Engineering enthusiasm



Photo by Daniel Miller

Rocksy posed for photos with area students who were on campus Feb. 22 for the College of Engineering’s first Introduce a Girl to Engineering Day. Approximately 350 fifth- through eighth-graders visited the University for the event, which was part of UT’s celebration of Engineers Week.

Engineering solutions on spring break



Dr. Glenn Lipscomb, professor and chair of chemical engineering, traveled with nine students to El Salvador to install and maintain water treatment systems. They posed for a photo after finishing their first set of inspections.



The UT College of Engineering’s Engineers Without Borders chapter spent spring break in Irkaswaa, Kenya, to help provide fresh water to Maasai tribes. Water-related illness is frequent in Irkaswaa, so students collected data and mapped sites for the design of a water system that will distribute to four points in the community and include standpipe stations and animal troughs for livestock. Funds are being raised to complete the \$78,000 project. For more information, go to mychosenvessels.org/irkaswaa-village.

Rocket earns MAC Player of the Year honors

By Steve Easton

Senior Tre'Shaun Fletcher has been named the 2017-18 Mid-American Conference Player of the Year, the league office announced last week.

Fletcher is the first Rocket to receive the honor since Harvey Knuckles took home the award in the 1980-81 campaign. The Rockets' previous Player of the Year recipients were Jim Swaney (1979-80), Tom Kozelko (1971-72, 1972-73) and Steve Mix (1968-69).

"I'm extremely proud of Tre, and he's very deserving of being named conference player of the year," Head Coach Tod Kowalczyk said. "He's been unbelievably consistent all season long and, in my opinion, he's one of the best players to ever play at The University of Toledo. This award certainly puts a stamp on it. He really has no weaknesses in his game, and he's very versatile. What's really impressive about Tre, though, is his positive energy, his leadership, and that he's our hardest worker every day in practice."

Fletcher leads UT with 18.7 points per game (third in MAC), 8.2 rebounds per game (fourth) and 4.5 assists per game (third) and 0.9 steals per game, and is one of four players in the nation to rank among

his conference's top five in points, rebounds and assists. The others are UMass-Lowell's Jahad Thomas (America East), Winthrop's Xavier Cooks (Big South) and Illinois State's Milik Yarbrough (Missouri Valley). In addition, Fletcher is the only player in the MAC to rank in the top 15 in points, rebounds and assists. He scored a career-high 31 points vs. Marshall (Dec. 9) and leads the team with 28 double-digit scoring contests.

The native of Wilmar, Ark., registered the second triple-double in program history at Northern Illinois (Feb. 27) by tallying 20 points, 11 rebounds and a career-high 11 assists. He has paced the Rockets in points, assists, steals and rebounds on a team-high 28, 17, 15 and 12 occasions, respectively, and also has produced a team-high 15 20-point outings. Fletcher is third in the MAC with 12 double-doubles. He has led UT in scoring and rebounding 18 times, assists 17 times and steals 15 times.

Fletcher is in his second season with the Rocket program after sitting out the 2016-17 campaign following his transfer from the University of Colorado and was named to the Lou Henson Award Mid-Season Watch List in January.



Fletcher

Photo by Daniel Miller

Toledo raised more than \$12,000 at 'Rockets for the Cure' game

By Brian DeBenedictis

The Toledo women's basketball program made another special contribution to the Toledo Dana Cancer Center, Susan G. Komen Northwest Ohio, and the UT Center for Health and Successful Living at its 12th annual "Rockets for the Cure" game Feb. 17. The Rockets raised \$12,315 for cancer research, marking the ninth straight season they collected at least \$10,000.

Former WTOL news anchor Chrys Peterson, the guest emcee for the 10th consecutive year, encouraged the season-high 5,024 fans in attendance to take part in a silent auction and informed them about Susan G. Komen for the Cure. Most in the crowd wore pink, including many who donned "Rockets for the Cure" T-shirts.

The pink Nike jerseys that UT wore were made for the game against Western Michigan. Four of



Junior Mikaela Boyd's jersey was auctioned off for a team-high \$1,200 after the Feb. 17 game.

the uniforms that were auctioned off after the contest went for at least \$900, including a high of

\$1,200 for junior Mikaela Boyd's jersey.

Dollars raised for Susan G. Komen for the Cure of Northwest Ohio game

2010	—	\$11,393
2011	—	\$14,366
2012	—	\$18,010
2013	—	\$19,845
2014	—	\$13,582
2015	—	\$14,893*
2016	—	\$11,016*
2017	—	\$10,488*
2018	—	\$12,315*

*Total also includes dollars raised for Toledo Dana Cancer Center and UT Center for Health and Successful Living

Centennial recognition



The University of Toledo football team was honored on the floor of the Ohio House and the Ohio Senate for its 100-year anniversary on the gridiron and winning the 2017 Mid-American Conference Championship. The resolution was presented Feb. 28 at the Ohio Statehouse. Posing for a photo to mark the occasion were, from left, State Rep. Theresa Gavarone, a UT law alumna; Andrew Terwilliger, director of UT football operations; State Rep. Stephen Huffman, a UT alumnus and former member of the football team; State Rep. Michael Ashford; football players Nate Childress, Reggie Gilliam and Mitch Guadagni; and State Rep. Michael Sheehy, a UT alumnus.

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In memoriam

Pat A. Ambrose, Tiffin, Ohio, who was an emergency medical services education coordinator from 1993 to 2014, died March 1 at age 64.

Marjorie Jo Culbertson, Fort Wayne, Ind., who was an assistant professor of nursing from 1995 to 2003, died Feb. 21 at age 73. She received a master of science degree in nursing from UT in 1995.



Koo

Dr. Benjamin Koo, Toledo, professor emeritus of civil engineering, died March 1 at age 97. He joined the UT faculty as an associate professor in 1965 and was promoted to professor in 1973. One year later, he received one of the University's Outstanding Teacher Awards. Koo published research on structural engineering; probabilistic mechanics and structural stability; structural fire safety; and engineering education. He was a Fellow of the American Society of Civil Engineers and a member of the American Concrete Institute and American Society of Engineering Education, as well as the academic honor societies Sigma Xi, Phi Kappa Phi and Tau Beta Pi. He retired from the University in 1989.

Roberta (Espan) Oswald, Toledo, a nurse at MCO from 1982 until 2000, died Feb. 23 at age 62.



Weaver

Dr. Ernest W. Weaver Jr., Toledo, professor emeritus of environmental engineering, died March 5 at age 97. The UT graduate who received a bachelor of engineering degree in 1943 served three years as a Navy officer on a destroyer in the Pacific before joining the faculty at his alma mater in 1946. From 1952 to 1956, the assistant professor of mechanical engineering directed UT's former Junior College and later served as a member of the University Community and Technical College Study Committee. He was appointed successively to associate professor of environmental engineering, assistant to the dean of the College of Engineering and assistant dean of the college. In 1964, Weaver became associate dean of the college and held that position until his retirement in 1986. His specialties included thermodynamics, fluid mechanics, jet propulsion, internal combustion energy, thermal environmental engineering, and air pollution control. He was a consultant for several area companies and the UT Research Foundation, and he helped prepare a plan for energy management in the community in 1979. The 1983 recipient of the UT Mechanical Engineering Department's Distinguished Alumnus Award was named a Fellow of the American Society of Mechanical Engineers. Over the decades at the University, Weaver served on many committees; he was chair of the Engineering Building Committee and a member of the Athletic Board of Control, the Honors Program, and the University Planning and Development Committee, among others. In addition, he was chair of the University's Master Plan Advisory Committee and president of the UT College of Engineering Alumni Association.

UT NEWS

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DR. GEORGE BULLERJAHN

Professor of Biology

Bowling Green State University



**“Toxic Planktothrix Blooms
in Nearshore Lake Erie:
A Very Different Villain”**



WHEN



Thursday, March 15, 2018
7-8 p.m.
Free and open to the public

WHERE



The Lake Erie Center
6200 Bayshore Road
Oregon, Ohio



HOW

Take a shuttle from UT's Main Campus to the Lake Erie Center.

The shuttle will depart at 6:15 p.m. from the south side of the University's Bowman-Oddy Laboratories on Towerview Boulevard. Passengers will be returned to Main Campus following the lecture. Passengers must reserve their spots by Tuesday, March 13, by emailing lakeeriecenter@utoledo.edu or calling 419.530.8360.

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