



THE UNIVERSITY OF TOLEDO  
*College of Medicine  
and Life Sciences*

# *spotlight*

2016



COLLEGE OF MEDICINE  
AND LIFE SCIENCES

THE UNIVERSITY OF TOLEDO



## *Contents*

<b>Letter from the Dean</b>	<b>3</b>
<b>Facts &amp; Figures</b>	<b>4</b>
<b>Education</b>	<b>7</b>
<b>Research</b>	<b>15</b>
<b>Clinical Care</b>	<b>21</b>
<b>Faculty Notes</b>	<b>25</b>



## Fulfilling our Mission



The Spotlight presented before you is a snapshot of fiscal year 2015. I hope it provides great insight into the wonderful work going on each and every day at The University of Toledo College of Medicine and Life Sciences.

Inside, you will find a glimpse of how we are fulfilling our three mission pillars of education, research and clinical care.

Among the highlights of 2015, we initiated a new partnership with ProMedica that will provide additional and expanded opportunities for the College of Medicine. This will include expanded research and learning opportunities for our faculty and students, as well as capital investment to improve the College of Medicine facilities.

With new resources, we, along with our partners at ProMedica, have plans to markedly enhance our community in several key areas: transforming ProMedica Toledo Hospital and Toledo Children's Hospital into an academic medical center, doubling biomedical research funding by 2020, and developing and recruiting leadership to lead our organization into the future.

Philanthropy plays a vital role to ensure the continued advancement of medical science and our mission to improve the human condition. In 2015, a strong performance in fundraising for the College of Medicine raised \$6.5 million. This report will highlight that success with the story of the new Medical Research Society, which awarded its first \$50,000 grant to a faculty member leading promising research. Our donors have also helped to ensure the dream of a medical education is within reach for many of our new and continuing students by providing scholarship opportunities.

The Commission on Cancer of the American College of Surgeons awarded The University of Toledo Medical Center's (UTMC) Eleanor N. Dana Cancer Center an Outstanding Achievement Award in 2015. U.S. News and World Report named UTMC Best Hospital and Most Connected Hospital in 2015, and the American Stroke Association recognized UTMC with Get with the Guidelines Gold Plus Award for our diligence in following protocols in response to patients presenting with stroke. The Heart Association also recognized the hospital with a Heart Failure Silver Plus Quality Achievement Award.

As we look into 2016, there are several major initiatives that we'll continue to pursue, including the ProMedica affiliation and improving communication throughout the College and University at large. This report is an example of our strategic plan to improve that communication.

In closing, I would like to thank the faculty, staff, students, alumni, donors, supporters and trustees who have contributed to the remarkable achievements and successes in fiscal year 2015 and I'm looking forward to even more success in the future.

A handwritten signature in black ink, appearing to read "C. J. Cooper".

**Christopher J. Cooper, MD**

*Executive Vice President for Clinical Affairs*

*Dean of the College of Medicine and Life Sciences*

# Facts & Figures

## HISTORY

In the 1960s, a critical shortage of doctors developed in the United States due to the limited number of medical schools that existed to train them. In response to this shortage, the Toledo State College of Medicine — later renamed Medical College of Ohio and, after that, Medical University of Ohio — was founded in 1964 as a freestanding, state-supported institution that eventually blossomed into an academic health sciences center.

One of 14 state universities in Ohio, The University of Toledo was established in 1872 and became a member of the state university system in 1967. UT and the Medical University of Ohio merged in July 2006 to form an institution with a breadth of undergraduate, graduate, and professional programs matched by fewer than 20 universities across the nation and with the third-largest public university operating budget in the state.

## MISSION

The mission of The University of Toledo College of Medicine is to improve the human condition. We do this by providing a world-class education for the next generation of physicians and scientists, by creating new knowledge that is translated into cutting edge clinical practice, and by providing the highest level of professionalism and compassion as we deliver university quality health care.

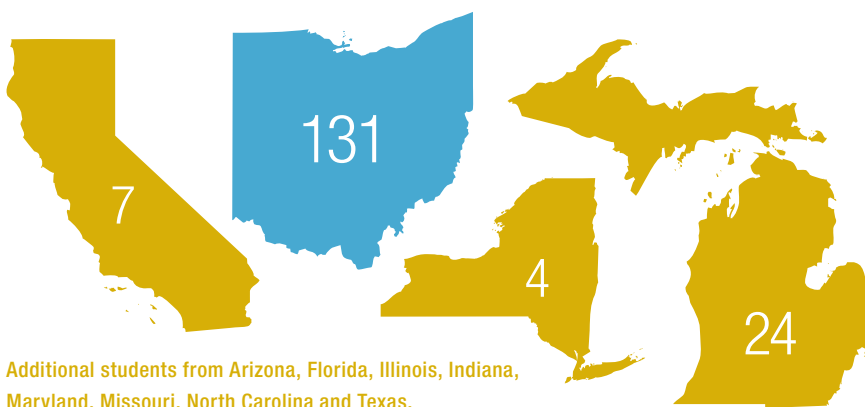
## STUDENTS

The College enrolled 702 medical students and 506 graduate students in the Spring 2016 semester with 17 dual degree MD-PhD students.

## MEDICAL STUDENTS: RECENT CLASS PROFILE

The 177 medical students most recently admitted to the College represent 57 different universities or colleges, including 19 institutions in Ohio. All students hold Bachelor's degrees, with 41 holding a Master's and five with PhD degrees. There are 101 men and 76 women.

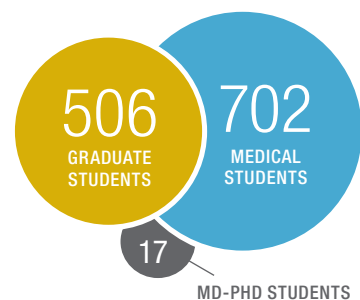
The entering class of 2015 was filtered from 4,216 applications. The average total GPA of this class is 3.66. The average MCAT score was 30.7, which places this class in the top quartile of all applicants nationally, according to the AAMC.



Additional students from Arizona, Florida, Illinois, Indiana, Maryland, Missouri, North Carolina and Texas.

**“I am proud to be a part of an organization that is so caring and willing to meet the needs and requests of its students.”**

— Jordan Burlen, fourth-year med student, Hometown: Erie, MI



30.7  
Average MCAT

3.66  
Average GPA



White 106  
Asian 35  
Black/AA 13  
Hispanic 1  
Middle Eastern 1  
No Response 21

## DIVERSITY

The College of Medicine and Life Sciences is a community of diverse, life-long learners who embrace the value of diversity. We seek to create and sustain an environment in which all members remain aware of and strive to achieve their best potential when relating to patients, learners and colleagues from diverse racial, cultural and ethnic backgrounds.

The Office of Diversity is very active in the admissions process and sits on the College of Medicine Medical School Admissions Committee.

The University of Toledo's chapter of the Student National Medical Association (SNMA) is an organization for medical students, which focuses on the needs and concerns of current students that have historically been underrepresented in medicine and come from underserved communities. The members of this organization strive to ensure that medical education has emphasis on increasing future physicians that are culturally competent and sensitive to the needs of diverse populations.

**“UT gave me the opportunity to get conversant with different cultures and celebrate diversity.”**

*– Sumit Bhattacharya,  
biomedical sciences PhD  
program, Hometown: Kolkata,  
West Bengal, India*

## RESEARCH SUPPORT

### FY15 RESEARCH DATA FOR THE COLLEGE OF MEDICINE AND LIFE SCIENCES

FY15 TOTAL EXPENSES 19,325,234.84

FEDERAL 16,065,116.23

STATE 246,447.16

OTHER 3,013,671.42



78

# of principal investigators



51

# of new awards for FY15



196

# of active awards

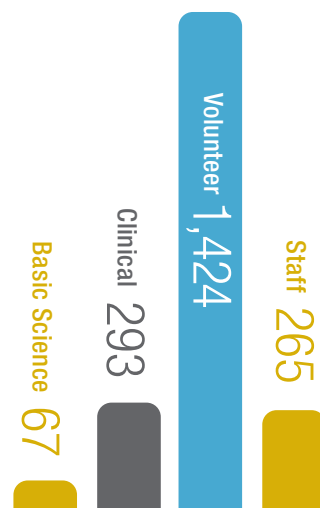


239

# of grant proposals submitted and pending for FY15



DEPARTMENTS



FACULTY







## *Education*

**The University of Toledo College of Medicine and Life Sciences is teaching and training future physicians and world-class researchers who will lead the way to a new model of health care. Facing an aging population and an increased need for health care providers, this work is even more relevant.**

**By fostering new partnerships for academic excellence and expanded opportunities for clinical training and residency placement, UT is on a long-term mission to recruit top-performing students, educate them to be the best doctors, advanced practitioners and research scientists, and retain them in northwest Ohio as they build their careers.**

## Academic Affiliation presents opportunity

In May 2015, The University of Toledo College of Medicine and Life Sciences announced a partnership with Toledo-based health system ProMedica. The partnership establishes a 50-year affiliation between the College and the health system that enriches the quality of medical education and expands clinical training capacity in Toledo.

Beginning in the 2016-2017 academic year, the transition of UT residents to ProMedica facilities for their training will begin. ProMedica will assist the College with teaching and research as well as provide a \$250 million capital investment in new College facilities. ProMedica Toledo and Toledo Children's Hospitals will be developed as a flagship academic medical center. The larger facility will offer more opportunities for specialty training and education.

"Thanks to UT's and ProMedica's affiliation, not only will we retain far greater numbers of the health care providers we educate, but I have no doubt that students, residents and clinical faculty will be drawn to northwest Ohio and what we are creating together," said Dr. Christopher Cooper, executive vice president for clinical affairs and dean of the College of Medicine and Life Sciences.

The partnership is governed by an Academic Affiliation Operating Group (AAOG) with equal representation from each institution and chaired by Dr. Christopher Cooper. Dr. James Kleshinski, UT senior associate dean for clinical affiliations, and Holly Bristoll, chief integration officer for academic affiliations for ProMedica will guide and advise the AAOG and constituencies of both organizations towards the goals of the Academic Affiliation agreement.



*Dr. James Kleshinski, senior associate dean for clinical affiliations in the University of Toledo College of Medicine and Life Sciences*



*Holly Bristoll, MBA, chief integration officer for academic affiliations for ProMedica*

**"UTCOM gives its students ample opportunities to serve the surrounding community. Through this service, students are less isolated to a campus and are more connected and part of the larger community of Toledo."**

*— Karyssa Schrouder, first-year med student, Hometown: Grand Rapids, MI*



*Randy Oostra, FACHE, chief executive officer of ProMedica, and Sharon L. Gaber, PhD, president of The University of Toledo, sign the affiliation agreement.*





THE UNIVERSITY OF TOLEDO  
COLLEGE OF MEDICINE AND  
LIFE SCIENCES/PROMEDICA  
ACADEMIC AFFILIATION

**The Academic Affiliation between the UT  
College of Medicine and Life Sciences  
and ProMedica will:**

- Build a strong academic medical center focused on academic excellence and research
- Offer a broader range of educational and training opportunities for future physicians and medical professionals
- Attract and retain a greater percentage of physicians and other medical specialists
- Increase clinical training capacity that will be comparable to other major academic centers
- Create new jobs and drive community revitalization, economic and business development opportunities
- Enhance research and innovation opportunities

*Students training to be doctors, nurses and physicians assistants worked together to save the human simulator suffering complications resulting from a heroin overdose.*





# Lloyd A. Jacobs Interprofessional Immersive Simulation Center

The University of Toledo's Interprofessional Immersive Simulation Center reflects today's reality of medicine. Students in differing specialties are learning the importance of interdisciplinary teamwork and collaboration.

The three-story, 65,000-square-foot facility is the first in the nation to incorporate three integrated simulation centers: a progressive anatomy and surgical skills center, an advanced clinical simulation center, and a virtual immersive reality center.

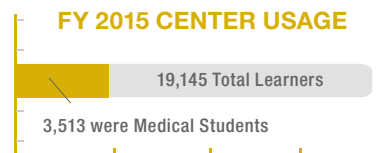
"Our graduates leave UT better equipped for their careers due to the amplified experience they receive from the Interprofessional Immersive Simulation Center," said Dr. Christopher Cooper, executive vice president for clinical affairs and dean of the College of Medicine and Life Sciences. "They are more confident in their abilities, which leads to higher patient confidence and safety."

In its first year of operation, the Center has been the source of training for approximately 2,000 learners per month, including those from the colleges of medicine and nursing as well as paramedics from local fire and rescue departments and military units. The Center's technology can also be applied in nonmedical fields including the arts, humanities, natural sciences and engineering.

In March 2015, UT named the Center in honor of former president Dr. Lloyd A. Jacobs. A vascular surgeon, Jacobs served as UT's president from 2006 to 2014 and oversaw the merger between the Medical College of Ohio (MCO) and UT. He served as the sixth president of MCO before the merger.

Opened April 22, 2014

65,000 sq. ft.



40,000+ learners since opening



6 Patient simulation rooms

3 Floors: Virtual Immersive Reality  
Advanced Clinical Simulation Center  
Progressive Anatomy & Surgical Skills Center



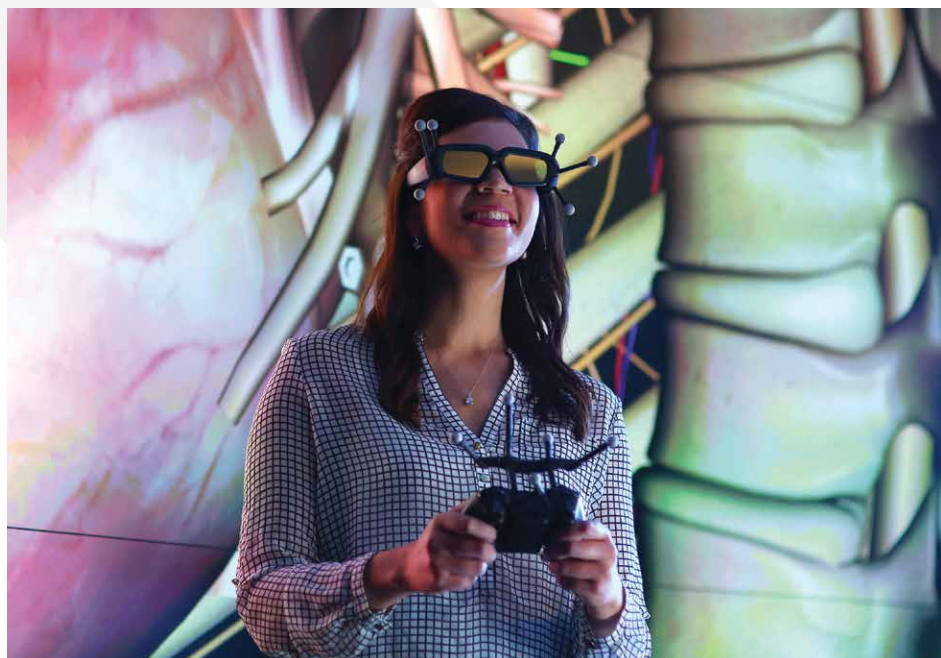
13 Surgical Bays

ACS Accredited

LEED CERTIFIED

**"I'm proud of the knowledgeable, experienced and compassionate physicians that are produced at UT with the many resources provided through the Simulation Center, incredible professors, and opportunities given on the Health Science Campus."**

— *Moriah Muscaro, first-year med student, Hometown: Commerce Township, MI*





## UT Match Day

Each year, fourth-year medical students at The University of Toledo wait anxiously to reveal their future as part of National Match Day — the day when medical students are informed of where the National Residency Matching Program has placed them to complete their medical residency.

“The residency matching program is highly competitive,” said Dr. Ronald McGinnis, senior associate dean of student affairs in the College of Medicine and Life Sciences. “Our students perform very well against their peers on the USMLE step exams, which are key to the residency match. As a result of their strong academic and clinical performance, they earn top-choice placements in residency programs across the country where they will pursue their medical specialty.”

In 2015, 166 fourth-year medical students matched to residencies in 29 states. Of the students matched, 64 were placed at hospitals in Ohio, 19 in Michigan and 15 remained in the Toledo region. The University of Toledo College of Medicine also received 10,641 applications for core residency programs.

“These and all of our graduates exemplify The University of Toledo’s mission,” said Dr. Christopher Cooper, executive vice president for clinical affairs and dean of the College of Medicine and Life Sciences. “They are poised to improve the human condition through compassionate care, new treatment methods and community service. They are ready to become leaders and agents of change.”



## WHITE COAT CEREMONY

As the UT College Medicine and Life Sciences welcomes each new class of first-year medical students, the white coat ceremony is an important initiation to the professional education and training upon which they are embarking. During new student orientation, each student is presented with a white coat from the faculty of the College at a ceremony hosted by the dean of the College.

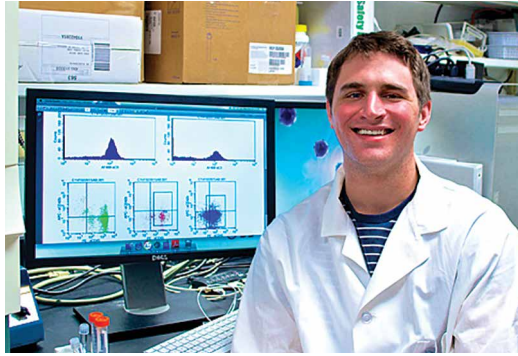
“The ceremony represents the transition from the role of a student to that of a member of the medical profession,” said Dr. Ronald McGinnis, senior associate dean of student affairs in the College of Medicine and Life Sciences.

In 2015, the UT College of Medicine and Life Sciences received 4,216 applications and accepted a class of 177 new medical students. The class placed in the top quartile of all applicants to medical schools nationally.

# MD/PhD student receives top honors

Committed, intelligent and extremely busy are just a few of the qualities professors used to describe Adam Blatt.

The MD/PhD dual degree student is the recipient of two prestigious honors: the Dr. Freimer Excellence in Microbiology and Immunology Award and the Dr. Freimer MD/PhD Scholarship.



Adam Blatt in the lab. Photo by Adaeze Izuogu.

The awards are named for Dr. Earl Freimer, a co-founder of the original Medical College of Ohio and founding chair of the Department of Microbiology. The awards are presented to students with the highest marks in the infection and immunity block of the medical curriculum, and to support MD/PhD students conducting research in the medical microbiology and immunology track, respectively.

Blatt has completed two years of medical school and is spending his third year researching in the lab, focusing on identifying targets for therapeutic treatments to prevent increased thrombosis and inflammation. His dissertation work is co-funded by the National Institutes of Health R01 grant and an American Heart Association Pre-Doctoral Fellowship.

Dr. Viviana Ferreria, associate professor of medical microbiology and immunology, is Blatt's PhD advisor. He also works in Ferreira's lab on his dissertation project.

## Supporting the Mission: Scholarships support a legacy of academic excellence

Community and alumni support for UT's College of Medicine and Life Sciences make it possible for students to pursue their dream of a medical education. In 2015, the College awarded 97 scholarships totaling \$1,070,192 to 85 students either entering or continuing their education at UT.

"Medical school indebtedness is one of the greatest barriers to pursuing a medical education and a career as a physician," said Dr. Christopher Cooper, dean of the College of Medicine and Life Sciences. "This is why we work so diligently and consistently to grow our scholarship program."

Throughout the year, the University hosts several events with proceeds benefiting the scholarship program. Many UT alumni and supporters have also established named scholarship funds to continue the legacy of academic excellence they have appreciated at the University.

### FUNDS CREATED

In Fiscal Year 2015, The University of Toledo Foundation established several new endowed scholarships to support new and continuing College of Medicine and Life Sciences students.

- Eric B. Stein, MD Memorial Scholarship Fund, 7/8/14
- Medical Research Society Endowed Fund, 7/11/14
- College of Medicine Grant Holding Fund, 8/7/14
- Patricia J. Metting, PhD Scholarship Fund, 10/23/14
- Helen Brown & Jessie Niedermeyer College of Medicine Scholarship Fund, 11/21/14
- Frances M. Weirich Gangrene Research Fund, 11/21/14
- Dr. Charles M. Balch Medical Student Award, 12/22/14
- Medical College of Ohio Alumni Endowed Chair in Surgery, 2/26/15
- Sunderji Prize in Maternal and Fetal Medicine Fund, 2/27/15
- Sunderji Lecture Fund in Maternal and Fetal Medicine, 2/27/15
- Office of Global Health Medical Mission Fund, 5/6/15
- College of Medicine General Scholarship, 6/17/15
- Brain Disease and Injury Fund, 6/23/15







## *Research*

**For centuries, through the process of investigation and discovery, researchers have contributed to the advancement of society. Better health, longer lives, greater prosperity. The University of Toledo College of Medicine and Life Sciences continues to encourage scientific investigation among its faculty and learners by supporting promising new research and identifying new sources of seed funding. It's through this level of discovery that our researchers are helping to ease pain, build memories and safeguard the next generation of scientists.**

## UT neurologist finds source of migraines for those with childhood trauma

Dr. Gretchen Tietjen has for 25 years studied correlations between migraine headaches and stroke. As chair of the department of neurology and director of The University of Toledo Medical Center Headache Treatment and Research Program, Dr. Tietjen continues to search not only for the cause of migraines, she's looking also for a personalized treatment for people who suffer them.

In a recent study, Dr. Tietjen and her team examined the connection of biomarkers for endothelial dysfunction (a condition in which blood vessels can become inflamed and elevated proteins cause coagulation), migraines and childhood adversity. The study is the first of its kind to investigate a link between the three.

Dr. Tietjen says early results indicate that adverse childhood experiences (such as emotional and physical

neglect, emotional, physical or sexual abuse, exposure to domestic violence, parental substance abuse, mental illness, criminal behavior or parental separation or divorce) may lead to long-term abnormalities of blood vessels that, in turn, increase a patient's risk for migraines and stroke.

Identifying biomarkers indicative of endothelial dysfunction can help physicians more accurately determine if a patient is at risk for stroke and suggest daily medication therapies to prevent the condition. Dr. Tietjen notes that the research also supports the value of cognitive behavioral therapies that can alter how some individuals respond to stressors, particularly stressors tied to headaches, in lessening inflammation and endothelial dysfunction and preventing the occurrence of headaches and vascular diseases like stroke.

---

**“I am proud to be at UT because of the diversity of students and staff and the amount of interprofessional opportunities that are available.”**

*— J. Chika Morah,  
third-year med student, Hometown:  
Xenia, OH*

---



Tietjen

## *UT researcher develops experimental compound that could help Alzheimer's patients*

Dr. Kenneth Hensley, associate professor of pathology, is using a compound that he developed and patented known as LKE, or XN-001, to explore the possible medical benefits for Alzheimer's patients. The experimental therapeutic drug mimics a natural chemical found in the body that he believes protects the brain and its neurons.

LKE treatment reduces neural damage and accelerates recovery in a mouse model of diffuse axonal injury, which is a common type of brain injury in motor vehicle accidents, combat injuries and football players. The compound works by binding to a protein called CRMP2 that helps stabilize connections that neurons use to communicate with one another. In traumatic brain injury, these connections are damaged; however LKE helps nerve cells repair the CRMP2.

Dr. Hensley also hopes that by understanding how the natural and synthetic molecule works, researchers will gain insight into the biological base for Alzheimer's disease in order to develop improved drugs that can safely and cost-effectively slow the disease. He has partnered with Dr. Marni Harris-White, a researcher at the Veterans Administration of Greater Los Angeles Healthcare Center and the University of California at Los Angeles. Dr. Harris-White began testing LKE on genetically altered mice to determine its effects on Alzheimer's disease, and the results have been promising. The drug seemed to improve all of the pathology associated with the disease and slow the loss of memory.



Hensley

Because LKE is still in pre-clinical trials, it will be some time before there will be the possibility of testing on humans. Dr. Hensley continues to work to develop treatment that is generally accessible to those suffering from brain injury and memory loss, which he believes can be done by developing small molecules that are safe and can be manufactured at a low cost.

## *Emergency physician and colleagues work to identify concussion indicators*

Dr. Kris Brickman, chair of emergency medicine at The University of Toledo College of Medicine, is leading research to save young minds. The team doctor for a local parochial school football team, the doctor is working with a team of UT faculty to more scientifically diagnose and treat concussions.

Together with Dr. Daniel Gaudin, assistant professor of surgery, Dr. David Giovannucci, professor of neuroscience, and Dr. Kenneth

Hensley, associate professor of pathology, the multi-disciplinary team is examining the salivary biomarkers of the players. They began by collecting saliva samples from players at the beginning of the season and freezing them. As players sustain a concussive injury, a second saliva sample is taken and compared to the control sample.

The researchers have determined that certain proteins consistently appear damaged in post-injury samples. The biomarker tests the researchers

conduct can help not only determine a more scientific concussion diagnosis, but also what drugs and dosages will best treat the injury.

In the short term, the professors hope to better diagnose and treat concussions in order to mitigate damage to the brain. In the long term, they hope their research will lead to a device that could serve as a field test, allowing trainers and coaches to determine if a player needs medical attention or is cleared to play.





## Supporting the Mission: The University of Toledo Medical Research Society

The University of Toledo College of Medicine and Life Sciences has set a goal to double research funding by 2020. But amid funding reductions from traditional research funding sources, it is difficult for junior faculty members to secure seed funding for new clinical investigations. The University is working to promote and aid these young investigators by establishing a permanent endowed source of grant funds for biomedical projects.

The University of Toledo Medical Research Society supports biomedical research through a community-university partnership by funding grants for promising UT faculty. The society was started by Marianne Ballas, a member of the UT College of Medicine Advisory Council, chair of Women & Philanthropy at UT, and owner of Ballas Buick GMC in Toledo.



**DR. KATHRYN EISENMANN WAS AWARDED THE UT MEDICAL RESEARCH SOCIETY'S FIRST GRANT.**

The \$50,000 award will support her research into new ovarian cancer treatments.



*The UT Medical Research Society is a community-university partnership to fund biomedical research ongoing in the UT College of Medicine and Life Sciences.*

“The Medical Research Society is a direct reflection of our community’s commitment to the research efforts of our faculty,” said Dr. Christopher Cooper, dean of the College of Medicine and Life Sciences. “Biomedical research is critically important for the College of Medicine and the society acknowledges the importance of funded research and the critical need for support for early career investigators who are transitioning to scientific independence.”

In its first year, the society has gained 20 members, including Dr. Cooper and his wife, who have pledged \$25,000 commitments. Additionally, University of Toledo Physicians have agreed to match up to \$1 million.

This strong early commitment made it possible for the society to award its first grant for \$50,000 to Dr. Kathryn Eisenmann, assistant professor in the Department of Biochemistry and

Cancer Biology for her research to develop a drug to fight ovarian cancer. The research examines a drug that blocks tumor cells from binding so tightly together, and, when combined with existing ovarian cancer treatment drugs, more easily penetrates the tumor to kill it.

In addition to advancing new treatments for chronic diseases and conditions, the seed money provided by the Medical Research Society helps researchers to advance their project. Once they are able to prove the ingenuity of the investigation and support it with substantive data, the research is more likely to attract grant funding from other sources, enabling the investigator to more fully develop the research.

The society meets throughout the year to discuss research that is on-going at the University and review the rising projects eligible for funding.





YOU'LL BETTER  
TOGETHER





## *Clinical Care*

**Sharing expert knowledge with students and fostering discovery and development of new treatments for chronic health conditions are key aspects of medical education. But why do we do it? For our patients. Our physicians, researchers and learners keep our patients at the heart of every lecture, every lab and every clinical experience. Expert, patient-centered care is the product of their ongoing research and learning, and they are sharing this with patients from across the country and around the globe.**

## Patient-Centered care on a global stage

Dr. Kris Brickman, professor and chair of the Emergency Medicine Department and director of the UT Office of Global Health, led two of his senior emergency residents, Brandon Stransky and Scott Hackman, to Nepal less than two weeks after a 7.8-magnitude earthquake shook the country. They were in Nepal when aftershocks rippled throughout the recovering nation.

The UT physicians teamed up with the Special Commission on Relief & Education of the Filipino Association of Toledo, known as SCORES. The health care team in Nepal also included two orthopaedic surgeons, a general surgeon, an anesthesiologist, a pharmacist, nurses and several other relief workers.

This is one of several medical missions Dr. Brickman has made in addition to relief work in Haiti and the Philippines.

UT physicians and the UT College of Medicine and Life Sciences are also working to build a sustainable medical mission in La Ceiba,



*Dr. Kris Brickman examined a woman in Nepal. He and two UT residents went to the country following the first earthquake to provide medical assistance.*

Honduras. By joining with Toledo-based Cedar Creek church, which founded the clinic in La Ceiba, UT physicians, faculty, staff and students are providing care to the city of nearly 250,000. The community would otherwise have no local access to health care.

“I like the idea of us integrating with a local community,” Dr. Brickman said. “By sending medical teams to this community every few months, we provide better continuity and education for the local medical staff, including specialty care, more than a once-a-year mission.”

Dr. Samer Khouri, professor and director of non-invasive cardiology in the UT College of Medicine and Life Sciences, was the first cardiologist to treat patients in La Ceiba. He was joined by Dr. Eddie Kakish, Dr. Jean-Paul Amegee and registered nurse Julia Benfield, on the mission trip in May 2015, during which time they treated about 80 patients a day.

Residents flocked to the clinic where UT’s team had set up. Many of the

patients had questions about heart pain and palpitations, but the clinic generally lacks specialty care and provides only the most basic medical treatment for routine illnesses and injuries.

“The nearest hospital with a cardiologist is two and half hours away,” Dr. Khouri said. “Hardly anyone has health insurance and it would cost a month’s salary for any type of heart treatment. These people were so appreciative of the help and care that we brought to their city.”

“It’s the right thing to do,” Brickman said of UT’s medical mission and disaster relief work. “As emergency physicians, we need to be engaged or lead these efforts to respond when the infrastructure of a country is overwhelmed in trying to manage a crisis like this.”

UT students also make regular mission trips to Central America as part of the UT chapter of Global Medical Brigades, the largest student-led undergraduate medical mission trip organization in the world.



*Dr. Samer Khouri was the first-ever cardiologist to treat patients in La Ceiba during a 2015 trip to Honduras.*



## Comprehensive health care in an aging community

When it comes to mental health, caring for seniors can be very different than caring for children, adolescents or young adults. Seniors metabolize medicine differently. They can have difficulties expressing feelings, become combative or aggressive, and may experience thoughts and feelings that are unusual for them.

The University of Toledo Medical Center now offers a senior-based inpatient medical program to monitor the health of adult patients 55 years and older who are experiencing emotional or behavioral health issues.

“Senior Behavioral Health is a specialized program that is able to provide appropriate and individualized care for older adults,” said Ryan Domschot, community education manager for Senior Behavioral Health.

Geropsychology facilities are different from long-term care or assisted living. They are meant to be short term to help patients readjust. Providers test all aspects of the patient’s condition and examine prior and current health issues, medications and lifestyle choices. The UT program is outcomes-based

and is designed to track changes in symptoms and behaviors.

“Our goal is to give the patient the best quality of life with the least amount of medication,” Domschot said.

Opened in 2014, UTMC’s Behavioral Health Center has 18 beds and accepts patients 24 hours-a-day. The program provides patients with individualized occupational, physical and other therapies from an integrated team that includes nursing staff, recreational therapists and family therapists.

The center also offers free mental health educational programs in the community.

## Cardio-Oncology clinic addresses specialized needs

In 2015, The University of Toledo Medical Center established a cardio-oncology clinic focusing on the heart health of cancer survivors.

Located in the Eleanor N. Dana Cancer Center, the weekly clinic assists patients in continuing their chemotherapy and radiation care while minimizing the potential for a negative impact on their heart.

“We want to minimize cardiotoxicity for those undergoing cancer treatments as well as decrease any long-lasting cardiovascular problems after treatment,” said Dr. Jodi Tinkel, associate professor, assistant chief medical officer and medical director of ambulatory care at UTMC.

Tinkel, a cardiologist who is running the clinic, said cardiotoxicity could cause the heart muscle to weaken and not circulate blood as efficiently. It is a concern for some patients being treated for breast cancer, for example. Fortunately, not all chemotherapies cause cardiotoxicity.

“Oncologists could consider referring a patient to us if they think someone is at risk or has developed cardiac symptoms suggestive of toxicity,” Tinkel said. “We can image the heart



Dr. Jodi Tinkel

using echocardiography with strain imaging, which detects toxicity at an earlier stage than routine echo.”

Tinkel also consults with patients who are already suffering from cardiac problems because of previous chemotherapy treatments. Medications can be used to reduce the risk or help with existing cardiac problems.

---

**“UT is deeply invested in the community, striving to serve it as best as possible through service and education.”**

— Justin Julian, first-year med student, Hometown: Green, OH

---



# Supporting the Mission: Grateful Patients

## MARISSA GIBBONS



Marissa Gibbons was diagnosed with Postural Tachycardia Syndrome (POTS) in high school. Living in a small town, her access to medical care was limited to community hospitals without specialists familiar with her condition.

As Marissa began her college search, her parents were simultaneously concerned with finding a physician that could address her health needs and improve her quality of life while she was away from home. Their hunt culminated at The University of Toledo with UT Physician Dr. Blair Grubb.

The Gibbons family was gratified to find that a world-class physician and expert on POTS was at the very school Marissa was considering to pursue her undergraduate degree in business.

“We went through some trial and error, tried a couple different methods,” Gibbons said of the early years of her treatment with Dr. Grubb. “Now I’m in my senior year at UT and I barely recognize the symptoms anymore.”

Gibbons describes Dr. Grubb, a distinguished university professor in the Department of Medicine and director of the Clinical Electrophysiology Program, as a doctor who takes time with patients and remembers them.

“Every time I’ve gone back, he remembers everything about me and checks in on how things are going at school and different things like that,” Gibbons said. “He’s very personable.”

Marissa’s mother, Angela Gibbons, shared her thanks as well.

“It is truly amazing what a difference Dr. Grubb and Beverly Karabin, the cardiovascular nurse practitioner, have made in Marissa’s life. You would never know the struggles this girl has dealt with,” she said. “We will be forever grateful for the help of the UTMC staff. POTS robbed her high school years, but Dr. Grubb and Bev helped make her college years so much better.”

“Our five-year journey to find the talented and caring staff at UTMC was worthwhile,” Angela said. “The proper diagnosis and treatment plan have made a life-changing difference.”

## AL MUNDT

Each August, The University of Toledo Medical Center and the Mundt family host the annual “From the Heart” celebrity wait event, held at Loma Linda, an area Mexican restaurant.

“It is an event we have been doing for five years. It has been very popular from the first year on and we have been very successful,” said Al Mundt, whose family owns Loma Linda.

Mundt had a heart transplant in 1998 at the former Medical College of Ohio.

“My heart was giving out; it was working only 12 percent,” he said. “I have had this new heart for 17 years and it has been going very well.”

Established in 2008, the endowment supports new and innovative programs such as the Left Ventricle Assist Device and other advanced cardiovascular care at The University of Toledo Medical Center.

All the tips raised by the celebrity waiters go toward the fund. Each year, the event raises approximately \$30,000-\$40,000 and draws UT physicians, faculty and staff as celebrity waiters.



Dr. Cooper at the 2015 celebrity wait night.

# Faculty Notes

The following is a snapshot of the many exciting activities in which our faculty participate. In addition to their day-to-day responsibilities, our award-winning doctors share their knowledge and research by making hundreds of presentations in regional, national and international meetings. Faculty serve on scientific societies and organizations, National Institutes of Health (NIH) study sections and journal editorial boards.

## ANESTHESIOLOGY

- Two members of our department, **Dr. Kimberly Jenkins** and **Dr. Gregory Filatoff**, have become American Board of Anesthesiology junior oral board examiners.
- Two members of our department have assumed leadership roles within the Ohio Society of Anesthesiology: **Dr. Daniel Grum** as vice-president who will succeed to president next year and **Dr. Jason Stroud** as an alternate delegate to the American Society of Anesthesiology representing Ohio.
- **Dr. Joseph Atallah**, Chef, Division of Pain Medicine, served as a speaker at the North America Neuromodulation Society annual meeting in December 2014. (Interaction between implantable cardiac devices and spinal cord stimulator devices).
- **Dr. James Hofmann** was a featured speaker at the Society of Cardiovascular Anesthesia annual meeting on the topic of Ethics and Organ Donation.

## BIOCHEMISTRY AND CANCER BIOLOGY

- **Ivana de la Serna, PhD**, gave an invited presentation at the meeting of the XXII International Pan American Society for Pigment Cell Research in Singapore.
- **Lijun Liu, PhD**, gave an invited presentation at the American Society for Biochemistry and Molecular Biology 14th International ATPase Conference in The Netherlands.
- **William Maltese, PhD**, was a visiting professor at the University of Barcelona in Spain.
- **Dr. Maltese**, with **Jean Overmeyer, PhD**, **Paul Erhardt, PhD**, and **Chris Trabbic** received two U.S. Patents for “Materials and methods useful to induce vacuolization and cell death” in cancer cells.
- **Maurice Manning, PhD DSc**, served as a member of the FASEB board of directors, representing the American Peptide Society at meetings with elected representatives in Washington, D.C.

- **Randall Ruch, PhD**, **Cynthia Smas, DSc**, and **Kam Yeung, PhD**, each received \$20,000 pilot research grants from the deArce-Koch Memorial Endowment Fund.
- **Cynthia Smas, DSc**, was elected to serve as an Associate Editor for the American Journal of Physiology, Endocrinology and Metabolism. She also served on the editorial board of the journal, Adipocyte.
- **Kandace Williams, PhD**, served on the editorial boards for the journals Mutation Research and Journal of Carcinogenesis and Mutagenesis.

---

**“I was surprised at the willingness of the faculty and staff to go above and beyond their call of duty to teach us.”**

— *Tina Sulkowski, Physician Assistant,  
Class of 2016 (PA-S2),  
Hometown: Valley City, OH*

---

## GRADUATE MEDICAL EDUCATION

- **Dr. James Kleshinski**, Associate Dean for GME and DIO, presented at the 2014 Generalists in Medical Education Annual Conference in Chicago for a panel session entitled: Bridges Across the Education Continuum: Preparing Medical Students for Their Next Stage of Training.

## MICROBIOLOGY/ IMMUNOLOGY

- Faculty and students made 46 presentations in total in regional, national, and international meetings.
- **Viviana Ferreira, DVM, PhD**, presented at XXV International Complement Workshop in Rio de Janeiro in September 2014. Dr. Ferreira also presented at the 2nd International Symposium on Frontiers in Cardiovascular Research in Huatulco-Oaxaca, Mexico, in November 2014.
- **Jason Huntley, PhD**, and **Jyl Matson, PhD**, presented at the Gordon Research Conference in July 2014 in New Hampshire. Dr. Huntley also presented at the American Society for Microbiology Biodefense and Emerging Diseases Research Meeting in February 2015 in Washington, D.C. **Dr. Matson** also presented with **Robert Blumenthal, PhD**, at Great Lakes Bioinformatics Consortium Annual Meeting in May 2015 in West Lafayette, Indiana.

- **Isabel Novella, PhD**, gave multiple presentations at the American Society for Virology's 34th Annual Meeting in July 2015 in London, Canada.
- **Dr. Kevin Pan**, was an invited speaker at the International Shock-Sepsis Forum in Guangzhou, China, in April 2015, and an invited presenter for Frontiers in Immune Modulation in Singapore in June/July 2015.
- **Stanislaw Stepkowski, DVM, PhD**, was an invited speaker for the Philippine Transplantation Society, Polish Transplantation Society and Dalhousie University in Halifax, Nova Scotia, Canada.
- **Dr. Stepkowski** and **R. Travis Taylor, PhD**, presented at the World Transplant Congress/ American Transplant Congress in San Francisco in July 2014.
- **Akira Takashima, MD, PhD**, was an invited speaker at the 44th Annual Meeting of the Japanese Society for Dermatoallergology and Contact Dermatitis in Sendai, Japan, in November 2014.
- **R. Travis Taylor, PhD**, presented at the American Society for Virology's 33rd Annual Meeting in June 2014 in Fort Collins, Colorado.
- **R. Mark Wooten, PhD**, presented at the 96th Annual Meeting of The American Association of Immunologists in New Orleans in May 2015. Dr. Wooten also presented at the 115th General Meeting of the American Society for Microbiology in New Orleans a few weeks later.

- **Randall Worth, PhD**, was an invited speaker at Nationwide Children's Research Institute's Center for Microbial Pathogenesis in Columbus in April 2015 and the Midwest Microbial Pathogenesis Meeting in Chicago in September 2014.
- Since 2006, **Dorothea Sawicki, PhD**, has been secretary and treasurer for the American Society for Virology, which has its national headquarters at The University of Toledo.

## NEUROLOGY

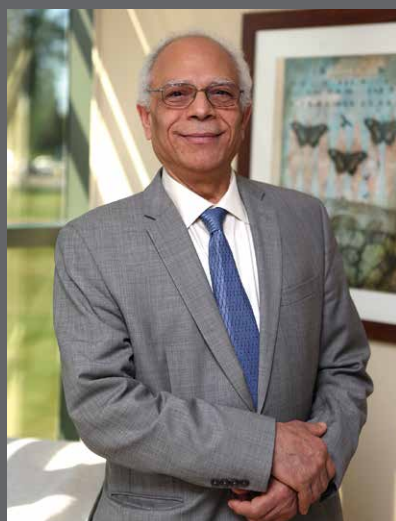
- **Dr. Lawrence Elmer** received the Leonard Tow Humanism in Medicine Award.
- **Dr. Gretchen Tietjen** was elected to Council of Association of University Professors of Neurology (AUPN).

## NEUROSCIENCES

- NIH Study Section Member Assignments: **Bryan Yamamoto, PhD**, **Marthe Howard, PhD**, **Jeremy Laukka, PhD** and **Joseph Margiotta, PhD**.
- **Bryan Yamamoto, PhD** was Plenary Keynote Speaker at 3rd International Conference and Exhibition on Addiction Research and Therapy in Chicago in August 2014. His topic was "Peripheral and Central Mechanisms of Methamphetamine Neurotoxicity: Connecting the Dots." Yamamoto also lectured on "Peripheral and Central Mechanisms of Methamphetamine-Induce Brain Injury" to the Department of Pharmacology and Toxicology at Indiana University-Purdue University in Indianapolis in June 2015.



## ORTHOPAEDIC SURGEON SCORES IN 100TH PERCENTILE ON BOARD RECERTIFICATION



When Dr. Nabil Ebraheim, Orthopaedic chair and surgeon at The University of Toledo Medical Center, received his test results from the American Board of Orthopedics in 2015, it almost didn't register. He had scored in the 100th percentile.

"When I looked at it, I couldn't believe it," Ebraheim said.

"I never expected that. The exam was really hard."

Board certification is a voluntary process, but many

doctors get re-certified every 10 years because it demonstrates expertise in a particular specialty.

In 2004, Ebraheim scored in the 99th percentile. It was his goal to get in the 100th percentile of the about 1,100 physicians who took the test.

"It has always been a goal, but I never thought I could get in the 100th percentile," he said.

"It is an honor and a privilege to have such a gifted physician in our community, let alone on our staff at UTMC," said Dan Barbee, vice president of clinical services at UTMC. "Even better is the fact that as a faculty member and orthopaedic residency director, our students and residents are being trained by one of the finest surgeons in the country."

Ebraheim said he studied for the exam, but attributes the achievement to his 30 years in the field. He graduated from the Cairo University School of Medicine in Egypt and completed his residency in orthopaedic surgery at the Downstate Medical Center, Brooklyn, New York.

He came to Toledo in 1985 and serves as professor and chair of the Department of Orthopaedic Surgery, director of the Orthopaedic Surgery Residency Program and chief of orthopaedic trauma.

"As you get older, the tendency is you are less current and less up-to-date," Ebraheim said, "but I try to be the opposite but I try to be the opposite."

- **Dr. Carlos Baptista**, presented the Plastination Technique Course at the 26th Brazilian Congress of Anatomy in Curitiba, Brazil, in November 2014.

- **Nicolas Chiaia, PhD, Marthe Howard, PhD, Jeremy Laukka, PhD, Joseph Margiotta, PhD, Richard Mooney, PhD, Ruili Xie, PhD and Bryan Yamamoto, PhD**, served as extramural grant reviewers for national foundation and government agencies.

- **Marthe Howard, PhD**, lectured on "Molecular mechanisms of neural crest development" to the Department of Biochemistry and Physiology at Dartmouth College in Hanover, New Hampshire, in 2014. Howard also lectured on "Molecular

Mechanisms of Autonomic Neuron Development" to the Department of Neurosciences at Case Western Reserve University in Cleveland in January 2015.

- The International Plastination Society workshop was organized by **Dr. Carlos Baptista** and was attended by scientists from 16 institutions from 5 countries.

### PHYSIOLOGY AND PHARMACOLOGY

- **Terry Hinds, PhD**, received the 2014 President of the Ohio Physiological Society Award, the 2014 NIH LRP Award for Health Disparities Research and the 2014 NIH KO1 Career Development Award.

- **Dr. Sudhir Jain** received the 2015 American Society of Hypertension, Young Investigator Travel Award in ASH Annual Scientific Meeting in New York May 14-19, 2015.

- **Bina Joe, PhD**, has been named the 2014 Lewis K. Dahl Memorial Lecturer by The American Heart Association's Council on High Blood Pressure Research.

- **Brahma Raju Mopidevi, PhD**, received the Kidney Council New Investigator Award 2014.

### UROLOGY

- **Dr. Michael Rees'** efforts in paired donation led to the world's first ever "reverse transplant tourism" paired kidney exchange.



**COLLEGE OF MEDICINE  
AND LIFE SCIENCES**

THE UNIVERSITY OF TOLEDO

**College of Medicine and Life Sciences**

Mail Stop 1020

3000 Arlington Ave.

Toledo, OH 43614-2595

