

Our Mission: To promote the impact and value of medical toxicology in the provision of safe, high quality care.



Changing the Landscape of Medical Toxicology Through Research and Innovation

As a passionate member in the field of medical toxicology, Jeffrey Brent, MD, PhD, looks forward to the day — albeit, unlikely in the near future — when all major hospitals across the United States staff medical toxicologists who can offer immediate assistance to physicians and to patients at their bedside. Dr. Brent’s passion in this field was ignited early in his medical career, when completing his residency in Emergency Medicine at Grady Memorial Hospital in Atlanta.

It was there that he was first exposed to patients who needed the expertise of a medical toxicologist. Seeing their acute presentation and the opportunity to provide pivotal influence in their healing fascinated him.

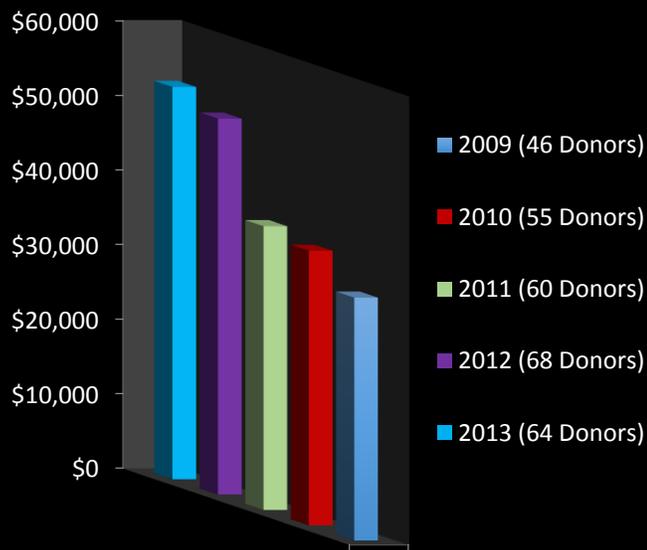
“To me, medical toxicology patients are, by far, the most interesting to work with,” said Dr. Brent, who is a Distinguished Professor at the University of Colorado, School of Medicine.

“Most often in a hospital, or even an ER setting, you will see patients who have multi-organ dysfunction — heart issues, respiratory failure or others. They are usually older or have degenerative diseases.

“Medical toxicology patients, by contrast, are usually physically intact, younger and in all other ways they are healthy. But at this moment they are very sick and immediate action can save their lives.”

(continued on page 6)

MTF Annual Donation Summary



Help MTF Reach Its Goal

The Medical Toxicology Foundation works to advance the field of medical toxicology through providing funds for research and innovation, travel and teaching while also recognizing exceptional work conducted by professionals in the field.

It is through donations from those in the field and outside parties that allow the MTF to continue providing our most qualified individuals with opportunities to advance their work and positively impact patient outcomes.

“MTF grants are made possible, in part, by members’ generosity,” said ACMT Research Committee member Russ Kerns, MD. “Given our relatively small professional college, we have made substantial progress in developing financial support of research for the membership over the last few years. “Continued ACMT member giving to the Medical Toxicology Foundation allowed an unprecedented \$31,500 in total funded research in 2014. The MTF Board of Directors and ACMT Research Committee are very appreciative of this generosity and are dedicated to good stewardship of these funds. “

The MTF goal for fundraising for calendar 2014 is \$65,000. If you would like to contribute to this effort, please go to the [MTF website](http://www.acmt.net/medical_toxicology_foundation/) (http://www.acmt.net/medical_toxicology_foundation/) or use the form on page 4 of this report. All donations—small and large—are greatly appreciated and tax deductible.

Dear Colleagues and Friends,

As you read this message, I believe I can make a few very important assumptions. You care about the small, yet powerful specialty of Medical Toxicology. You have an interest in how this highly specialized area of medicine serves patients and populations exposed to intoxicants. And you also have an appreciation for those who have chosen to dedicate their professional lives toward advancing the knowledge and practice of medical toxicology.

Like my colleagues across the U.S., medical toxicology has been my passion and my calling. It excites me as I see the possibilities for helping patients and realizing breakthroughs we never before thought would be possible. This specialty requires ongoing research and innovation to keep it moving forward to achieve even greater successes both in the lab and at the bedside of patients.

I am proud to announce that last year the number of individuals donating to the MTF increased by 35 percent with total contributions of more than \$52,000. Additionally, ACMT made a special \$52,402 matching donation, to bring the 2013 fundraising total to more than \$102,000. This influx of financial resources helped the MTF fund 41 awards totaling more than \$94,000 to talented and dedicated toxicologists to help advance our research and standing as a specialty. The MTF Board is setting the MTF fundraising goal for the 2014 calendar year at \$65,000, which will help maintain our pace of discovery and innovation to positively impact future patients and their outcomes.

With the recent announcements about four new research grants awarded to ACMT, I can feel momentum gaining for the Medical Toxicology Foundation and the work conducted by its members. I humbly ask that you help us reach our fundraising goal so that we can continue to provide the financial support needed by our brightest minds to continue their quest to serve more patients and preserve more lives and families. To make a donation, please go the [MTF website](http://www.acmt.net/medical_toxicology_foundation/) (http://www.acmt.net/medical_toxicology_foundation/). All donations are tax deductible.

I thank you for your support of the subspecialty of Medical Toxicology.

Sincerely,

Suzanne White, MD, M.B.A.
President, MTF



Medical Toxicology Foundation

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2014 Award Winners Shine

Michael P. Spadafora Travel Award
Rachel Wightman, MD, New York University

**Travel Scholarship for Underrepresented Minority
Medical Trainees**

Peter Akpunonu, MD, University of Kansas

MTF/EMF Joint Research Award
Lindsay Fox, MD, Icahn School of Medicine at Mount
Sinai

Research/Teaching Awards
Nathan Menke, MD, University of Pittsburgh Medical
Center

Katherine Katzung, MD, Hennepin County Medical
Center/Regions Hospital

**Inaugural MTF Prescription Drug Abuse Prevention
Research Award**
Katherine Boyle, MD, University of Massachusetts

FIT Research Symposium Best Presenters
Janetta Iwanicki, MD, Rocky Mountain Poison and Drug
Center, Denver
Jillian Theobald, MD, Toxicon Consortium, Chicago

Michael P. Spadafora Travel Award Winners (2009-2013)

2013
Gillian A. Beauchamp, MD; Emergency Medicine
Residency, University of Cincinnati; Medical Toxicology
Fellowship, Oregon Health and Science University, 2014-
2016.

2012
Hallam M. Gugelmann, MD; Emergency Medicine
Residency, University of Pennsylvania; Medical
Toxicology Fellowship, University of California San
Francisco, 2013-2015.

2011
Travis Olives, MD; Emergency Medicine/Internal
Medicine Residency, Hennepin Medical Center; Medical
Toxicology Fellowship, Regions Hospital/Hennepin
Medical Center, 2014-2016.

2010
Jared W. Pelo, MD; Emergency Medicine Residency,
University of Virginia School of Medicine.

2009
Fiona M. Garlich, MD; Emergency Medicine Residency,
Hennepin Medical Center; Medical Toxicology
Fellowship, New York University School of Medicine,
2010-2012; Board Certified in Medical Toxicology, 2012.

Medical Toxicology Foundation Award Summary 2009-2014

41 Awards Totaling \$94,572



- Michael P. Spadafora Travel Award \$8,500
- Travel Scholarship for Under-represented Minorities \$6,000
- EMF/MTF Joint Research Grant \$15,000
- Innovative Teaching Award \$5,000
- Practice Award \$5,000
- Best Presentation Awards \$2,500
- FIT Research Travel Awards \$23,650
- Prescription Drug Abuse & Prevention Award \$5,000
- MTF Research & Teaching Awards \$23,922

Working to Find Treatments and Foster Interest



From the time he was a resident at the University of Pittsburgh, David Jang, MD, has followed that not-so-small voice in his head. Even then, the field of medical toxicology called to him, a specialty that, by comparison, a small number in the medical field opt to pursue.

But he saw the possibilities of advancements that would help those in immediate need overcome their potentially critical situations, and that strengthened his resolve. It also helped that voice grow stronger and today, as a former winner of the MTF's Spadafora Award (2008), he is speaking out. Dr. Jang is reaching out to colleagues and residents with whom he works and others about the importance of gathering the brightest minds to enter this specialty. His goal is to advance prevention and treatment of those impacted by toxicologic poisoning of public health significance such as drug overdoses and exposures like carbon monoxide.

Dr. Jang recently started as a NHLBI K12 scholar at the University of Pennsylvania and is working with Dr. Lance Becker, internationally recognized for his translational research on cardiac arrest at the Center of Resuscitation Science. He is also working with Dr. Douglas Wallace, a pioneer in mitochondrial research looking at mitochondrial DNA and mutations at the Center of Mitochondrial/Epigenomic Medicine. Dr. Jang plans to study the role of the mitochondria in shock and cardiac

arrest as it relates to acute toxicologic poisoning in a translational approach. He plans to submit a K08 Career Development Grant to continue his training trajectory toward research independency in this area at the University of Pennsylvania.

"There are just not enough of us in Emergency Medicine entering the field of Medical Toxicology, particularly to conduct independent research," he said. "This type of transitional research, where we study from the bench to the bedside, is extremely rewarding and effective."

"Toxicology is a field where you can see the positive impact of your work in a relatively short period of time," he continued. "Not only can we see amazing recovery by patients, but I have already seen the benefits of research and innovation in the field in just the past five years. But there are still many things we do not know, which allows for future studies."

Today, Dr. Jang is outspoken about the need to continue to increase the amount of awards given to young, gifted researchers and innovators to pursue their calling in the field of medical toxicology. He has personally encouraged residents with whom he has worked to apply for the Spadafora Travel Award, including 2014 winner Dr. Rachel Wightman (NYU) and Dr. Meghan Spyles, who recently started her toxicology fellowship at the Banner Good Samaritan Medical Center.

"I am very excited about the research with which I am currently involved, and winning the Spadafora travel award strengthened my resolve to enter this field," Dr. Jang said. "At that time I was able to attend the ACMT conference, where I met other professionals with the same interest and passion. Our field relies heavily on donations to provide opportunities to those like me who have a thirst for pursuing this specialty. I strongly encourage anyone to consider making a donation to the MTF so that we can continue to empower future promising physicians to enter this field, whether in research or teaching." ♦



To make a donation to the MTF, please use this form in this report, or make a secured online donation by going to the [MTF website](http://www.acmt.net/medical_toxicology_foundation/) (http://www.acmt.net/medical_toxicology_foundation/).

Make a Tax-Deductible Gift to support the future of medical toxicology

The Medical Toxicology Foundation is a not-for-profit charitable organization affiliated with the American College of Medical Toxicology and is intended to provide ACMT members, the general public and commercial sponsors with a tax deductible mechanism to support Medical Toxicology. Your gift to the Medical Toxicology Foundation – a 501(c)(3) educational organization – is tax-deductible to the fullest extent allowable by law. Please make all checks payable to the **Medical Toxicology Foundation**; 10645 N. Tatum Blvd., Suite 200-111; Phoenix, AZ; 85028

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Innovative Research and Teaching Award Draws Strong Field

Finding ways to accelerate quality medical toxicology research and the development of novel educational tools is imperative to the growth of this field. It is, therefore, exciting to reveal the winners of the 2014 MTF Innovative Research and Teaching Award — two physicians who were deemed the best out of a very strong field of 14 applicants.

Because of the exceptional applicant response and high level of work presented by the two top-scoring applicants, the intended award amount was increased from \$20,000 to \$24,000. This year's winners were:



Katherine Katsung, MD — HealthPartners® Institute for Education and Research/Regions Hospital, Department of Emergency Medicine. In addition to being awarded this funding, Dr. Katsung was one of the 2013 Best FIT Research Forum presenters on this topic as well.

Protocol: *Effect of Norepinephrine on Cerebral Oxygenation in a Porcine Model of Propranolol Toxicity After Maximization of High Dose Insulin (HDI) Therapy.* Notably,

Dr. Katsung was designated as one of the 2013 Best FIT Research Forum presenters on this topic.



Nathan Menke, MD, PhD — Division of Medical Toxicology, Department of Emergency Medicine, University of Pittsburgh Medical Center.

Protocol: *Utilizing Machine Based Learning Algorithms to Predict Mortality in Acetaminophen Overdoses.*

The MTF would like to thank all the applicants for their hard work and dedication to the field of medical toxicology.

Update: Medical Toxicology Practice Grant Progress

In 2013 Dr. Anthony Pizon and his co-investigators from the University of Pittsburgh Medical Center were awarded a \$5,000 grant to examine the economic and clinical impact of a Medical Toxicology service. The study is entitled *“Effect of Specialty Care on Cost and Length of Stay Following Hospitalization of the Poisoned Patient.”*



Dr. Pizon and his team are currently performing data analysis and will present the study results at the 2015 ASM conference.

FIT Research Forum Presentations Reviewed and Evaluated

For the seventh time, a prestigious group of medical toxicology fellows stood before a panel of ACMT researchers, who listened to and evaluated the presenters' intended research studies as part of the 2014 ASM Fellow-in Training (FIT) Research Forum. Though this forum is conducted on an informal basis, the exercise and evaluations provide great learning tools and motivation for the fellows as they progress in their medical toxicology careers. A total of 15 potential projects were presented; of those, two were selected as the Best 2014 FIT Research Forum Presentations. They were:

Janetta Iwanicki, MD, Rocky Mountain Poison and Drug Center, Denver.

Presentation: *Universal Screening for Prescription Opioid Drug Abuse Within the Screening, Brief Intervention, and Referral to Treatment (SBIRT) Model.*



Jillian Theobald, MD, Toxicology Consortium, Chicago.

Presentation: *Heavy Metals, Heavy Breathing?*



To make a donation to the MTF, please use the form in this report, or make a secured online donation by going to the [MTF website](http://www.acmt.net/medical_toxicology_foundation/): (http://www.acmt.net/medical_toxicology_foundation/).

Dr. Katherine Boyle Wins Inaugural Award

The MTF [Prescription Drug Abuse Prevention Award](#) was developed in memory of Ryan Donovan, the son of Dr. Ward Donovan, Chief of Medical Toxicology of the PinnacleHealth System in Harrisburg, Pennsylvania. Ryan died in 2007 of an accidental drug overdose of a prescription opiate he purchased from a friend. Last year, Dr. Donovan established the Drug Abuse Prevention Award.



In its inaugural year, this \$5,000 award was presented to Katherine Boyle, MD, Division of Medical Toxicology, Department of Emergency Medicine at the University of Massachusetts Medical School in Worcester, based on her protocol entitled: *Teaching Effective Opioid Prescribing Through a Simulation Curriculum*.



This protocol met the requirements of the award, which are to support initiatives that have potential to reduce the misuse and abuse of prescription drugs. A total of six innovative proposals were adjudicated for this first-year award. Congratulations to Dr. Boyle on her accomplishment and contribution to the field of medical toxicology.

To learn more about this important award, please go to the [MTF website](#)

([http://www.acmt.net/MTF Prescription Research Award.html](http://www.acmt.net/MTF_Prescription_Research_Award.html)).

Opioid Prescribing Takes Lead in MTF-EMF Research Award



Now in its fourth year of partnership with the Emergency Medical Foundation (EMF), the Medical Toxicology Foundation is proud to announce that Lindsay Fox, MD — Icahn School of Medicine at Mount Sinai, New York — won the \$5,000 2014-15 MTF-EMF Research Award.

Dr. Fox effectively explored the relationships between opioid prescribing, patient characteristics and overdose. As noted by Dr. Russ Kerns, Chair of the ACMT Research Committee, Dr. Fox's topic and research were "particularly timely to a tremendous issue that healthcare providers face."

Congratulations to Dr. Fox on her outstanding work and the award. Because of the success of this co-sponsored research grant, the Research Committee announced that the award has been increased to \$10,000 for next year.

[MTF-EMF Recipient Update](#)

Both James Cao, MD and Jennifer Parker Cote, MD have made great strides since winning the MTF-EMF Research Award in 2012 and 2013, respectively. Both are currently in Medical Toxicology fellowship training.

Dr. Cao, RMPDC-Denver, presented his study data at the 2013 ACEP Scientific Assembly and at the 2014 ACMT Annual Scientific Meeting. A manuscript of his project was recently accepted for publication in *Clinical Toxicology* and is available online.

Dr. Parker Cote, University of Virginia, Charlottesville, Virginia, completed her experimental protocol and is expected to present her study results at the 2015 ASM meeting in Clearwater, Florida.

Congratulations to Drs. Cao and Cote on their ongoing work and dedication to the field of medical toxicology.

(continued from page 1)

For Dr. Brent, a three-pronged approach is necessary for the advancement of medical toxicology — research, creative innovation and education. He points to several ways that innovation has contributed to patient safety and more effective therapies. While newer, commonly prescribed pharmaceuticals are safer than those used when he entered the field more than 25 years ago, proactive education for physicians in prescribing drugs such as opioids and putting new safety controls in place to reduce medication errors — both within hospitals and in the outpatient setting — are seen by Dr. Brent as a major focus today.

But it is the research aspect of medical toxicology that has been a driving force in Dr. Brent's career. His most significant contribution to date are his clinical trials that have led to the routine use of the antidote fomepizole. More recently, Dr. Brent's research focus has shifted to ACMT's Toxicology Investigator's Consortium (Toxic). With the help and support of ACMT and the MTF, Dr. Brent, along with his close colleague Dr. Paul Wax, started Toxic more than five years ago. Today, Toxic is a wide ranging research effort that is participated in by almost all medical toxicologists with bedside clinical practices in the U.S. along with a number of international sites. Toxic promotes multi-center research in medical toxicology, focusing on the collection of data from patients at the bedside. This real-world, real-time approach now in practice at dozens of hospitals across the U.S. is critical to advancements in medical toxicology.

"Funding to advance research of medical toxicology is crucial," he said. "This is why it is so important that organizations such as the MFT provide financial assistance for those gifted at research to pursue their passion and advance our field," he said. "With donations to help fund research, we can collectively help many more patients recover from their acute illness and return to optimal health."

A number of years ago Dr. Brent and his wife, Dr. Laura Klein, resolved to commit a certain portion of their income every year to important causes. Realizing that the field of medical toxicology needs the MTF to advance its mission, the couple has made the MTF the largest single recipient of their charitable giving. ♦

Current Medical Toxicology Foundation Funding Opportunities

The following awards are currently available for those wishing to apply:

MTF Innovations in Medical Toxicology Research and Education

The MTF Innovative Research Award.

Supports highly innovative research that could ultimately lead to critical discoveries or major advancements that accelerate the field of medical toxicology research. The Innovative Research Award promotes new ideas; therefore, proposals need not include preliminary data. However, a solid rationale for the work must be provided. Proposed work should have a high probability of success within the funding period. This program aims to provide seed funding that should lead to successful competition for additional funding beyond the pilot period. Results are to be presented at the ACMT Annual Scientific Meeting.

The MTF Innovative Teaching Award.

Supports the development of novel tools to provide education on relevant issues in medical toxicology, specifically, pioneering or progressive educational activities, methodologies, and/or curricula. Contemplated programs are not limited by format – the focus is on innovation in concept, technique, and/or technology. Prioritization will be given to practical end-products or educational activities that focus on the prevention, diagnosis, or treatment of human poisoning. The intended audience is medical professionals and/or the public. The awardee is expected to present results at the annual ACMT Annual Scientific Meeting.

Funding. The MTF has allocated \$20,000 to support either innovative research or teaching. Applications are now available October 1. Requests for support of direct costs between \$5,000 and \$20,000 are due February 15, 2015. Awardees will be notified March 27-29, 2015 at the 2015 ASM. Applicants may request a project period of up to two years beginning July 2015.

MTF Career Development And Travel Scholarships

(providing funding for defined research topics and the development of careers in medical toxicology.)

MTF/EMF Grant for Med Toxicology Fellows and Emergency Medicine Residents.

In partnership with the [Emergency Medicine Foundation](#), MTF co-sponsors a \$5,000 Research Grant to support Medical Toxicology fellows-in-training and Emergency Medicine residents in executing medical toxicology research. Applicants may apply for up to a total of \$5,000 for a one-year period. Both scientific review and awarding decisions will be made independent of the sponsor. Studies utilizing the American College of Medical Toxicology (ACMT) ToxIC (Toxicology Investigators Consortium) Registry are encouraged. The 2015 awardee's abstract is to be presented at the 2016 ACEP Research Forum with the option to submit and present at the 2017 ACMT Annual Scientific Meeting. Applications are due in January each year.

http://www.acmt.net/EMF_Research_Grant.html

MTF Award on Prescription Drug Abuse Prevention.

Supports outstanding research and initiatives that have the greatest potential to reduce the misuse and abuse of prescription drugs, particularly among young people. A major goal is to support the development and/or analysis of innovative prevention, treatment, and/or harm reduction strategies. Requests for support of direct costs up to \$5,000 are due February 15, 2015. Awardees will be notified March 27-29, 2015 at the 2015 ACMT ASM. Applicants may request a project period of up to two years. The awardee is expected to present results at the annual ACMT Annual Scientific Meeting in 2016 or 2017.

Michael P. Spadafora Travel Award. Established to encourage the pursuit of Medical Toxicology fellowship training by providing residents the opportunity to attend the ACMT Annual Scientific Meeting. Any member of an ACGME or AOA accredited residency program is eligible to receive the award. One recipient will be selected each year. Recipients receive an award of \$1,500 to cover travel expenses to the meeting. Applications are due July 15 each year.

http://www.acmt.net/medical_toxicology_foundation/development_awards.html

MTF Minority Student Travel Award. Supports underrepresented minority medical trainees' attendance at the ACMT Annual Scientific Meeting. One medical student or resident will be selected annually to receive the \$1,500 travel scholarship. Applications are due July 15 each year.

http://www.acmt.net/medical_toxicology_foundation/development_awards.html