

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



## MTF Co-founder Provides Leadership and Funding for Medical Toxicology

Erica Liebelt, M.D. has been a practicing physician for 21 years. While her specialty began in pediatrics, she soon found the field of medical toxicology to be both challenging and unexpectedly fascinating. And in 2008, when she was president of the ACMT, she

and the college's executive director, Paul Wax, M.D., founded the Medical Toxicology Foundation (MTF).

"It had long been a goal of mine to form the MTF," Dr. Liebelt said. "Medical toxicology is a very interesting and challenging field of medicine. I find that the patients are so interesting because they have such a wide variety of medical conditions and unusual presentations. Additionally, it is very challenging from an intellectual standpoint to be a diagnostician and to assimilate all of the clinical information and arrive at a diagnosis."

She also finds it intriguing that medical toxicology interfaces with so many other disciplines. In this regard, being a medical toxicologist has allowed her to be a lifelong learner who actively collaborates with those in other medical specialties to advance and truly coordinate care for the patient.

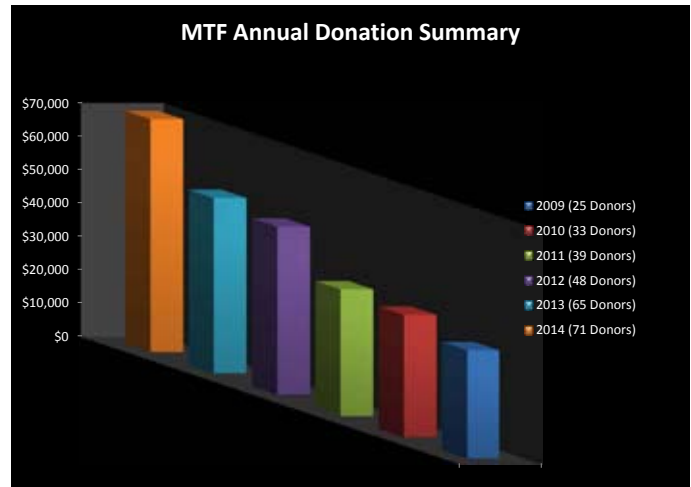
"Collaboration in medicine is very important," Dr. Liebelt added. "Sometimes medicine is advancing so quickly it's hard to keep up with new advances and treatment. But by working together we can share our knowledge and help our patients even more as a team."

However, in order to advance this field Dr. Liebelt believes a number of things must happen:

- More basic science and clinical research
- Quality metrics that establish national benchmarks for clinical care
- The fostering of more inquisitive minds of medical students and young physicians to pursue this subspecialty
- More opportunities to practice this specialty

Much of this is already being accomplished through donations to the MTF and the programs and awards that it has developed to address these needs. Dr. Liebelt has been a donor since the inception of the Foundation and most recently decided to leave a significant portion of her estate to the MTF.

"I feel very, very passionate that to advance the field of medical toxicology, we need ongoing support from our colleagues," she said. "It is a very small subspecialty with an incredibly large commitment of a small number of people. Our sustainability needs to come about through ongoing training of medical toxicologists and demonstrating credibility of our subspecialty through the practice of cost-effective, high quality and safe



## Did you know...

... that in the last three years two MTF members have matched donations submitted to our Foundation? In 2012 past MTF President Suzanne White matched \$15,000 in donations. Last year, Dr. A. Nelson Avery did the same, matching \$10,000.

"So what do donors want now? Research says that people want candor, connection to a cause and respect," said Dr. Avery. "We have to make a meaningful appeal for donations. Educational needs within our specialty are great, and I am more than willing to contribute to a field of medicine that I have been blessed to be associated with."

Every donation directly supports the vitality of the MTF, the careers of its most promising members and, most importantly, the impact on patient health.

"From my perspective, research is the force that will drive and sustain our future as we help the key players in healthcare see the value of our subspecialty," said Dr. White. "I love the fact that MTF supports such innovation."

If you would like to participate in this creative donation method for 2015, please contact MTF Executive Director Paul Wax at paul.wax@me.com. If you would like to donate to the MTF, please go to the donation page on the MTF website or use the donation form on page 4 of this annual report.

## Dear Friends,

I often wonder how many of our members know who Michael P. Spadafora was. The Medical Toxicology foundation awards a scholarship in his name every year to partially fund travel for a resident who is interested in medical toxicology training to attend the ACMT annual scientific meeting. I feel a little bit awkward writing about this as the ACMT president because Michael was my husband.



But I think he and the award recipients are embodiments of the specialty of medical toxicology. Although we are a small specialty, we love our art and want the world to know what we do through our research and patient care. Michael was an emergency medicine attending physician at the University of Cincinnati and loved teaching residents. Toxicology always fascinated him, but he did not do fellowship training. Yet, he was eligible to take the ABEM medical toxicology sub-board exam by grandfathering in with his experience of caring for poisoned patients, teaching residents and fellows, and voluntarily covering call for the poison control center. He was so excited and proud when he passed the exam.

Michael was much like many medical toxicologists I know — brilliant, extremely witty, compassionate and possessing a love of learning and teaching. Months after he won the first ACMT CPC competition at the NACCT meeting in San Diego as faculty discussant, he died tragically in an automobile accident. Fortunately, for those of us who were privileged to know him, his love for medical toxicology lives on through the medical toxicology foundation. The Michael P. Spadafora scholarship was founded to encourage residents who are interested in (but not committed to) medical toxicology to pursue fellowship training. The recipients have been amazing — most entered fellowship training programs and are prolific members of ACMT. The first recipient, Kjell Lindgren, MD, is currently on the International Space Station!

Every year when the award is announced, I shed some tears. Not just tears of sadness, but also tears of happiness. I am so grateful for the contribution that Michael gave to our specialty and that his spirit lives on in those he cherished the most — the residents trying to make the world a better place. By reading this Annual Report, I hope you appreciate how important the Medical Toxicology Foundation is for the maintenance and growth of this specialty we love. Please support the momentum by donating this year and in the years to come.

Kind regards,

Leslie Dye, MD, FACMT  
President, MTF

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Kevin Maskell, Jr., MD

## Michael P. Spadafora Travel Award Winners

### 2015

Aaron Fields, MD – Emergency Medicine Resident,  
University of Rochester Medical Center.

### 2014

Rachel Wightman, MD – Emergency Medicine Resident,  
New York University

### 2013

Gillian A. Beauchamp, MD – Emergency Medicine  
Resident, University of Cincinnati. Medical Toxicology  
Fellowship, Oregon Health and Science University,  
2014-16.

### 2012

Hallam M. Gugelmann, MD – Emergency Medicine  
Resident, University of Pennsylvania. Medical Toxicology  
Fellowship, University of California San Francisco,  
2013-15.

### 2011

Travis Olives, MD – Emergency Medicine /Internal  
Medicine Resident, Hennepin Medical Center. Medical  
Toxicology Fellowship, Regions Hospital/Hennepin Medical  
Center, 2014-16.

### 2010

Jared W. Pelo, MD – Emergency Medicine Resident,  
University of Virginia School of Medicine.

### 2009

Fiona M. Garlich, MD – Emergency Medicine Resident,  
Hennepin Medical Center. Medical Toxicology Fellowship,  
New York University School of Medicine, 2010-12; Board  
Certified in Medical Toxicology, 2012.



# MTF

## Medical Toxicology Foundation

### Medical Toxicology Foundation Award Summary 2009-2015 49 Awards Totaling \$126,114



- Michael J. Spadafora Travel Award \$10,000
- Travel Scholarship for Under-represented Minorities \$9,000
- 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 \$10,000
- MTF Research & Teaching Awards \$40,964

## 2015 MTF GRANTS AWARDED

In total, as of August 2015, more than \$120,000 MTF grants and awards were presented to worthy recipients. All of these donations are made possible through the generosity of our donors. We appreciate your support and request that you consider contributing to the MTF once again.

### Michael P. Spadafora Travel Award

Aaron Fields, M.D. – Emergency Medicine Resident, University of Rochester Medical Center – \$1,500

### Prescription Drug Abuse & Prevention Award

Rachel Wightman, M.D. – PGY4 Emergency Medicine Resident, New York University/Bellevue, New York – \$5,000

### Travel Scholarship for Under-represented Minorities

Jason Holmes, M.D. – Emergency Medicine Resident, Emory University – \$1,500

### EMF/MTF Joint Research Grant

Not awarded in 2015

### MTF Research and Teaching Award

*(formerly, Innovative Teaching Award)*  
Jennifer Carey, M.D. University of Massachusetts Medical Center; "Adolescent at Risk: Intentional toxic exposures in self-harm attempts and the role of social media" – \$6,042

Christine Murphy, M.D. Carolinas Medical Center; "A pilot study of the efficacy of hydroxocobalamin in treating nifedipine-induced shock" – \$11,000

### Practice Award

Tim Wiegand, M.D. University Rochester Medical Center, Rochester, NY; "Does Direct Medical Toxicology Bedside Care Improve Upon Poison Center Based Protocols for Pediatric Antidepressant Ingestion?" – \$5,000

**TOTAL 2015 AWARDS: \$30,042**

NAME OF AWARD	Number Given	Amount
Michael P. Spadafora Travel Award	7	\$ 10,000
Travel Scholarship for Underrepresented Minorities	6	\$ 9,000
EMT/MTF Joint Research Grant	3	\$ 15,000
Innovative Teaching Award	1	\$ 5,000
Practice Award	2	\$ 10,000
Best Presentation Award	6	\$ 2,500
FIT Research Travel Award	21	\$ 23,650
Prescription Drug Abuse & Prevention Award	2	\$ 10,000
MTF Teaching & Research Awards	4	\$ 40,964
<b>TOTALS</b>	<b>49</b>	<b>\$126,114</b>



### Former Research Award Winner Investigates Antivenom

Bolstered by winning the 2013 MTF-EMF, Jennifer Parker Cote, M.D. is making her mark on the field of medical toxicology through her work of investigation revolving around the coral snake, its lethal venom and an antivenom. Currently a second-year toxicology

fellow at University of Virginia Health System, she recently presented her platform at ACMT 2015. She also had a poster presentation of this work at ACMT 2015 and at ACEP in the fall of 2014.

The following is a short excerpt from a conversation with Dr. Cote:

#### Q. What is your platform and what appeals to you about this subject matter?

A. "My platform was based on the research I completed through the MTF-EMF grant entitled: Efficacy of Trypsin in Treating Coral Snake Envenomation in the Porcine Model. Investigating new alternative therapies for envenomations by coral snakes is an intriguing and needed research interest due to the lack of antivenom being produced. Trypsin potentially could be used in other elapid envenomations as well. Although death by snake envenomation is rare in the United States, it is a leading cause of morbidity and mortality worldwide."

#### Q. What still thrills you about medical toxicology?

A. "Medical toxicology is an evolving field with a cornucopia of topics such as envenomations, medication safety, alternative

therapies, student and resident education, in addition to new drugs of abuse and addiction medicine. I don't think I will ever say my field is boring."

#### Q. Why is the MTF and its donor base so important?

A. "My research would not have been possible without the MTF-EMF grant. The continued support of the grant through generous donations has not only enabled me to create and complete my project, but inspired me to undertake a Medical Toxicology Fellowship."

#### Q. On a personal note, why did you enter the field of medical toxicology?

A. "I originally became interested in toxicology working in a pharmacology/toxicology laboratory as an undergraduate. I was looking at the effectiveness of griffonia seed extract and valerian root compared to alprazolam in a rat model. I found it intriguing how there are many potential new remedies or alternative therapies that should be studied for efficacy."

#### Q. Where did your interest in snakes and venom originate?

A. "Venomous animals have always been intriguing to me, particularly various venoms' pharmacological/toxicological mechanism and their effects on humans. During my emergency medicine residency, my mentor William J. Meggs, M.D. encouraged my research interest and guided me through the process of creating a research design and setting up an in vitro pilot study for analyzing the efficacy of trypsin in a murine model. After completion of that project I wanted to explore an in vivo model, addressing efficacy of trypsin in coral snake envenomation. The MTF-EMF grant made it possible for me to continue my research interest. The project found that trypsin significantly improved survival in the porcine model compared to controls."

If you would like to donate to the MTF to help fund research by physicians like Dr. Cote, please go to the donor page of the [MTF website \(http://acmt.net/medical\\_toxicology\\_foundation\)](http://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**;

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- Benefactor (\$5,000)

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## Innovative Teaching Award Provides Resources for Complete Study

The process of research is involved, exhausting and rewarding. It can also prove to be frustrating if the proper amount of funding is not available.

Katherine Katzung, M.D. happily avoided this conundrum after receiving

the MTF Innovative Teaching Award, which she coupled with a grant from her home institution. Katzung used this funding to complete a three-arm study of the impact of propranolol toxicity and subsequent resuscitation with both vasopressors (norepinephrine and epinephrine) and high dose insulin (HDI) therapy. Her goal was to determine “what goes on inside the brain” during this toxicity and resuscitation, she said, using three different combinations of treatment.

“The Innovative Teaching Award made it possible financially for me to complete my study as I had envisioned it, with three arms,” Dr. Katzung said. “The money earmarked from the Innovative Teaching Award made it possible for me to compare three study arms, mimicking trends in bedside clinical practice, and, therefore, a more scientifically thorough exploration of this topic. I am very grateful for the opportunity this award has provided me to fully answer the questions I have. The difficulty in medical toxicology research is that performing a double blind, randomized trial is obviously not feasible in humans and can be quite limiting financially if done properly using animal models.”

For her study, Dr. Katzung used a pig model, as they are most akin to the human cardiovascular system, adding to the validity of the resulting data. Ultimately, she wanted to determine if, “during resuscitation, we are saving the cardiovascular system, but losing brain oxygenation and, thusly, having irreversible anoxic brain injury. Therefore, are vasopressors alone really an appropriate treatment versus either high dose insulin alone or the combination of the two?”

Dr. Katzung has a deep interest in bedside toxicology, which, she believes can be aided by this research and other applications of the medical toxicology specialty. For her, adding a focus on addiction studies will place her exactly where she wants to be.

“As toxicologists, we are not limited to a bedside or occupational medicine model,” she said. “Our training can open many avenues such as addiction medicine — I’m taking my boards for this in October — legal consulting or working in an industrial setting with big business. Not only does my training augment my emergency medicine practice, but I look forward to expanding my career to include consulting work as well as a combined medical toxicology and addiction medicine hospital consult service.”

Her work over the years has made the future of medical toxicology quite clear to her. She sees a healthcare world where medical toxicologists with subspecialties such as addiction medicine are marketable assets for any hospital or health system as



## Practice Grant Winner Explores Value of Medical Toxicology

In 2013, Anthony Pizon, M.D., received the Medical Toxicology Practice Grant. With that funding, he launched into research that not only validates the importance of this field, but how the influ-

ence of toxicology can help save healthcare dollars for both the patient and healthcare system.

“Receiving that grant helped to energize me and validate that we are doing good things,” Dr. Pizon said. “It encouraged me to keep going.”

Dr. Pizon has only gained steam since that time and is immersed in further studies that validate the importance of the field. Most recently he had one platform and five abstracts at the March ACMT meeting in Clearwater, Florida and three abstracts at the October NACCT meeting in San Francisco. Some of his most recent areas of focus include investigating the overarching value of medical toxicology — how many healthcare dollars this specialty can save and, more importantly, how it can improve patient outcomes. Springing from this realm of focus is his parallel research project involving the treatment of alcohol withdrawal at University of Pittsburgh Medical Center Presbyterian Hospital.

“We are investigating novel ways of treating this serious form of withdrawal,” he said. “Usually when someone is admitted for severe alcohol withdrawal they are placed in an ICU, at a cost of several thousands of dollars a day. With the use of novel treatments we are greatly reducing the time spent in the ICU, and the hospital.”

It is this sort of research and application that still fuels Dr. Pizon in his field of choice. In addition to creating new solutions that can improve patient care, he is equally inspired by his work as Fellowship Director for the Medical Toxicology program at UPMC.

“These are people who are enthusiastic about this field,” he said. “Their passion helps to keep me fueled. My hope is that this specialty can grow in the Pittsburgh area and nationwide. This will happen as we continue to show that we can be involved in patient care and make a difference in their outcomes.”

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revenue generators. “But more importantly, we will be better trained to serve our patient population who often have underlying addiction issues that are intertwined with their overdose attempts or misuse and abuse of drugs.”

If you would like to contribute to the Innovation Teaching Award, please make your secure donation through the [MTF website \(http://acmt.net/medical\\_toxicology\\_foundation\)](http://acmt.net/medical_toxicology_foundation).

## 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. This award promotes new ideas; proposals need not include preliminary data, but 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. The awardee is expected to present results at the annual ACMT Annual Scientific Meeting. 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.
  - Requests for support of direct costs between \$5,000 to \$20,000 will be considered. Applicants may request a project period of up to two years.
- **MTF Career Development and Travel Scholarships** provide

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

- **MTF/EMF Grant for Med Tox Fellows and Emerg Med Residents** - In partnership with the Emergency Medicine Foundation, MTF co-sponsors a \$10,000 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 \$10,000 for a one-year period. Both scientific review and awarding decisions will be made independent of the sponsor. Prioritization will be given to proposals utilizing the American College of Medical Toxicology (ACMT) [Toxicology Investigators Consortium\) Registry. \(hyperlink\)](#).
- **MTF Medical Toxicology Practice Award.** ACMT/MTF is offering a one-time award of \$5,000 to fund research evaluating the economic and clinical benefits of medical toxicology clinical services. The impact of medical toxicology on the quality and cost of care in the inpatient or outpatient setting should be measured using appropriate financial and/or clinical outcome performance metrics.
- **Spadafora Travel Award** - The Spadafora award was 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 chosen each year. Recipients receive an award of \$1,500 to cover travel expenses to the meeting.
- **The Minority Student Travel Award** - The 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.

(continued from page 1)

care. These, in fact, are the premises on which the mission of the MTF are based.

"I think it is important for people to realize that there are numerous opportunities when they are planning their end of life affairs. It's something we don't like to talk about, but we need to do. In my situation, I am a single woman and I don't have any immediate family with the exception of siblings, nieces and nephews. I feel that I need to give back to organizations and people that I feel passionate about and have helped me in my life."

Most recently, Dr. Liebelt's career has transitioned to learning and studying pharmacogenomics of psychiatric medications on selected cohorts of children. In addition she feels that medical toxicology research should be focused on the safety of new pharmacologic medical therapies for various medical conditions, including the myriad of biologic drugs; specifically the need to understand their long-term chronic effects. Additionally, studying acute overdoses and their treatments with the large ToxIC database will ultimately result in better outcomes for patients. These are areas of research that will have long-range implications for society. But this, and other avenues of exploration, take funding and support.

"It is important for our members to contribute whatever they can financially, while keeping in mind the mission of the MTF:

To promote the impact and value of medical toxicology in the provision of safe, high-quality care," Dr. Liebelt said. "Through donations we are able to provide numerous awards in research, education and career development. This is how we are going to maintain and sustain our specialty. We need to be innovative and creative even with our donations!"

Dr. Liebelt would particularly like to see medical toxicologists develop independent quality and safety measures that will improve patient care in cost-effective ways. This, of course, is something the government is doing with its regulations and input on CMS contracts. But, Dr. Liebelt believes, any best practices should originate from the specialists who truly understand the field. "Some of the metrics from the government are not really practiced or relevant," she said. "The MTF can have a say in these metrics through the support or research that studies the practice of medical toxicology and clinical outcomes.

"The Medical Toxicology Foundation is now seven years old and I am seven years older. I hope that our members will continue to recognize its importance and make a charitable contribution. Over the next seven years, I hope that we will have been successful in doubling our contributions and supported awards, in obtaining at least one corporate donor ... and minimizing the development of gray hair on my head."