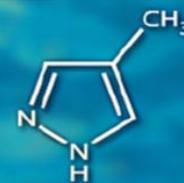


# Clinical and Translational Toxicology Specialty Section



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## Announcements & Reminders

Don't forget to **register** for the SOT Annual Meeting! The deadline for early bird registration is **January 15<sup>th</sup> 2016**.

Send in your **CTTSS travel award** applications! The deadline for graduate and postdoctoral CTTSS travel support is **December 31<sup>st</sup>, 2015**.

We are planning **new CTTSS poster presentation awards** for the Annual Meeting! **Stay tuned** for more info...

## Current CTTSS Officers and Contacts

President	Prof. Horst Thiermann
Past President, Councilor	Dr. Kenneth McMartin
Vice President	Dr. Jiri Aubrecht
Vice President-Elect	Dr. Donna Mendrick
Secretary/Treasurer	Dr. Tao Wang
Councilors	Dr. Charles Lindamood Dr. Sally Bradberry
Postdoc Rep	Dr. Mitchell McGill
Grad Student Rep	Ms. Corie Robinson

## Message from the President

### Prof. Horst Thiermann

When the Oktoberfest in Munich and the November festivities end, Christmas is just around the corner. This is the period of the year in which we desire to look back on our activities during the year and also to look ahead to what we are planning for the next year and what we want to achieve in the future.

The SOT Annual Meeting in San Diego was very successful for the CTTSS. Two symposia were organized and chaired by CTTSS officers. In the symposium "Local and Systematic Toxicity from Cobalt and Chromium-containing Hip Prosthesis," problems arising from increased metal concentrations, principally cobalt and chromium, were discussed. The recent events in the Middle East with the verified use of nerve agents resulting in more than 1,000 deaths showed clearly the importance of the second symposium entitled "New Developments in the Management of Nerve Agent Poisoning." Especially in this symposium, the importance of adequate translation of experimental findings into a toxicological human situation became obvious because clinical experience with this type of poisoning is extremely rare and improvement of therapy can only be achieved when scientific results are translated into therapeutic strategies. A symposium "Genomics of Nonrodent Mammalian Species and Impacts on Nonclinical Safety Evaluation of Pharmaceuticals and Clinical Translation" and a CE course "Skeletal System Endocrinology and Toxicology" (CE course), supported by our CTTSS, were also very successful.

**An absolute highlight of the meeting was our reception.** As expected, Professor Richard S. Paules, PhD, the Acting Chief of the Biomolecular Screening Branch in the National Toxicology Program at NIEHS gave a great talk and was awarded with the Career Achievement Award for recognition of his distinguished contributions to clinical and translational



toxicology. We were also very happy that we could bestow Blessy George from Rutgers University with our Graduate Student Travel Award for her Poster on “Urinary KIM-1 Detection of Subclinical Nephrotoxicity in Oncology Patients Treated with Cisplatin” and Mira Pavkovic, PhD, from Harvard with our Postdoctoral Fellows Travel Award for her poster on “Early Detection of Kidney Toxicity in Humans using Urinary microRNA-21, -200c and -423”.



The election of new officers for our Specialty Section who took over on 1<sup>st</sup> of May was very important. I warmly welcome the Vice President-Elect Donna Mendrick, the new Councilor Sally Bradberry, the postdoctoral representative Mitchell McGill and the student representative Corie Robinson. Cordial thanks for their outstanding effort and excellent work for our CTTSS are directed to our past president Ken McMartin, former Councilor Richard Wang, postdoctoral representative Tracie Baker and student representative Michelle Carroll Turpin. I hope that they will stay with us in the future and provide us with their further support.

Already during, or just after the meeting, we started preparation for the New Orleans meeting. We achieved acceptance of several symposia and CE courses organised by CTTSS officers and endorsed symposia dealing with translational items (see details elsewhere). We are currently on the way to establishing student and postdoctoral poster awards that will be bestowed during our reception. The goal is to strengthen clinical and translational toxicological ideas and to broaden the platform for further discussions in our field. **Our reception/business meeting is scheduled to take place on Tuesday evening (March 15) from 6 to 7:30, so please put it in your calendar.** We will provide you with details on our invited speaker in our next newsletter planned for February. **It is also important to note that the awards deadline for the Graduate Student and Postdoctoral Travel awards to attend the SOT meeting is coming up very soon (December 31<sup>st</sup>, 2015).** We encourage applications from members and their trainees – details are on our webpage on the SOT website. Note that the application process is very easy, just a copy of your abstract and a letter from the mentor (who has to be a CTTSS member).

The development of our Specialty Section is encouraging and everyone’s efforts are

appreciated. Nevertheless, new ideas are necessary to establish our group more firmly. **Hence, let us know how you think we can support innovative approaches in clinical toxicological translation.** Presenting a CTTSS-relevant webinar or webinar series would be an option. Our Specialty Section could also officially sponsor a CCT (Contemporary Concepts in Toxicology) meeting. Such a meeting could take one or two days and should focus on CTTSS-related topics. SOT does provide seed money and is ready to help in the planning and will share the profits. Details on such activities are provided at the SOT website. By the way, it is important to know that our Specialty Section does not have an endowment fund, but that any money donated to the section will be used strictly for awards (until now \$300 per award). Hence, if you send any money to SOT that you want to be dedicated to CTTSS, it should be indicated clearly! Finally, it is also an option to put together a symposium for the Annual Meeting. It is not necessary to be an officer to organize one!

**Best wishes,**  
**Horst Thiermann**





## Officers Q&A -

Three CTTSS officers were asked for their views on clinical and translational toxicology and the future of the CTTSS. The diversity of answers shows the breadth of the CTTSS and the emphasis on science that improves patient care.

**What do you believe is the most significant advancement in clinical or translational toxicology in the past decade?**

*Dr. Jiri Aubrecht*  
*CTTSS Vice President*

Historically, the application of classical safety biomarkers such as ALT, AST, or urinary protein in clinical trials has been based on decades of empirical observations and research. However, this timeline for biomarker development is not compatible with current needs. For instance, personalized medicine cannot be implemented and drug development will be severely limited in the absence of new biomarkers. Therefore, I believe that the establishment of a formal biomarker qualification process pioneered by the US FDA will be the key enabler for the application of emerging safety biomarkers in preclinical and clinical studies. The biomarker qualification process provides a common framework for evaluating performance of emerging safety biomarkers with respect to their context of use and it streamlines the path to their implementation in drug development and clinical practice. In my opinion, this is an essential condition for advancing the field of translational and clinical toxicology.

*Dr. Kenneth McMartin*  
*CTTSS Councilor and Past President*

This is a dorky answer, but I can't think of a scientific advancement that I could pinpoint as being most significant. Rather, I would say the likely most significant advancement would be the establishment of the Clinical and Translational Toxicology Specialty Section by SOT. I know that the Society has been trying for a while to bring clinical and experimental toxicologists together in a way to advance the translation of experimental results to the clinic. Their initial efforts included focusing on bringing more clinical topics into the SOT meeting. But the strongest effort has been establishment of this specialty section, which has allowed scientists, including physicians, a

platform that generates better interactions than are available otherwise.

**What specific advancement do you hope to see in the next decade?**

*Dr. Jiri Aubrecht*  
*CTTSS Vice President*

Since the access to tissue samples from human subjects is limited (for obvious ethical reasons), the availability of new non-invasive approaches enabling interrogation of toxic mechanisms in humans is essential. Thus, I am enthusiastic about the concept of the "liquid biopsy." For instance, recently published data suggest that one could detect sets of cell-free miRNAs in serum (miR signatures) that provide clues for what molecular processes are affected in distant tissues. This approach, if successfully developed and implemented, has the potential to revolutionize clinical and translational toxicology.

*Dr. Kenneth McMartin*  
*CTTSS Councilor and Past President*

To me, the most significant advancement would be the development of an effective antidote for paraquat poisoning. Although incidences of this poisoning have decreased due to tighter regulations and lesser usage, it remains a toxicant without treatment. The mechanism of toxicity is extremely interesting – it is a key part of my lectures to graduate and medical students as an example of mechanism-based toxicity. I always lament in these lectures that no antidote exists yet. If I were younger and smarter, this would be a fun area for translational research.

**What direction do you envision for the Clinical and Translational Toxicology Specialty Section over the next decade?**

*Dr. Jiri Aubrecht*  
*CTTSS Vice President*

CTSS is a young specialty section within the Society of Toxicology. As it matures, I would like to see the specialty section to continue providing a forum for scientists from academia, clinical laboratories, industry and regulatory agencies for discussing scientific advances and moving the field forward.

*Dr. Kenneth McMartin*  
*CTTSS Councilor and Past President*

I hope that the CTTSS becomes a more active participant in the SOT meeting. Although we



have been fairly successful in the past two years in getting proposals accepted for the Annual Meeting, more can certainly be done. It would be interesting if we could generate greater interest in our section (i.e. getting more members) by producing great symposia. Also, because we involve a broad spectrum of members, the CTTSS could help to generate common interests with other societies that have translational or clinical interests. As such, we may be able to present a CTTSS-generated SOT symposium at another meeting, thus stimulating interest among translational or clinical scientists in what we are doing within SOT.

### **The student perspective...**

*Corie Robinson*  
*Graduate Student Representative*



#### **Why did you join the CTTSS?**

I heard about this specialty section through my mentor, Ken McMartin, a few years ago. He encouraged me to apply for the travel award for my first national Society of Toxicology meeting in Phoenix. I applied and received the award, and after attending the reception at the national meeting, I felt it was a good fit for me. I got the opportunity to meet some great people and had a great time at the reception. I decided to join the CTTSS after hearing great things from the previous student representative and I wanted to be more involved and help guide the direction of



the specialty section as much as possible. I then decided to run for graduate student representative and help contribute to a wonderful up-and-coming section.

#### **What do you find exciting in the field of Clinical and Translational Toxicology?**



One of the most exciting things in the field is the merger between the clinical aspect and biomedical research. It seems like such an inherent idea, but the bridge of communication between basic scientists and clinicians is often lost, as each becomes engulfed in their own day-to-day lives. I'm excited to hear first-hand about ideas to move the field of toxicology forward through biomedical research and clinical application.

#### **What would you like to see in the future of the CTTSS?**

Moving forward, I would like to see more student and trainee involvement in the CTTSS. We are a fairly new specialty section, but I believe we have a lot to offer and many young and emerging toxicologists could truly benefit from being a part of this section. I will do my best to help recruit and encourage students to look into the great things our specialty section is doing and hopefully get them involved.





## Annual Meeting Information

<b>Important Dates</b>	
<i>SOT Annual Meeting</i>	<i>New Orleans, LA March 13<sup>th</sup> – 17<sup>th</sup>, 2016</i>
<b>CTTSS Reception</b>	<b>6:00 PM, March 15<sup>th</sup>, 2016</b>
<b>CTTSS Travel Award Deadlines*</b>	<b>December 31<sup>st</sup>, 2015</b>
*To apply, send a copy of your accepted abstract and a letter of reference from your mentor/adviser (must be a CTTSS member) to <a href="mailto:kmcmr@lsuhsc.edu">kmcmr@lsuhsc.edu</a>	

<b>CTTSS Reception Keynote Speaker</b>
<i>Translation of basic science into clinical use: TRP-channels as therapeutic targets</i>
Prof. Dr. Thomas Gudermann Director Walter Straub Institute for Pharmacology and Toxicology Ludwig-Maximilians-Universität Munich
March 15 <sup>th</sup> , 2016

<b>Confirmed CTTSS-sponsored Symposia and CE Courses at the SOT Meeting</b>	
CE Course: <i>Discovery and Validation of miRNA Biomarkers Bridging Preclinical and Clinical Toxicity: Lessons Learned from Hepatotoxicity</i>	Sunday, March 13 <sup>th</sup> , 2016
Stay tuned for additional CTTSS-sponsored events...	

# *Happy Holidays from the CTTSS!*

