

#### UPCOMING MEETINGS

The 11th Pan-American Section IST Congress will be held at the Grand Casa Hotel, Guarujá, São Paulo State, Brazil, November 3-8, 2013, in conjunction with the 12th Congress of the Brazilian Society of Toxinology.

The next Asia-Pacific Section IST Congress will be held in Changsha, China, June 14-18, 2014.

The next European Section IST Congress will be the IST World Congress, in 2015, at Oxford University, Oxford, UK. Tentative dates are September 25th to 30th, 2015 (to be confirmed).

IST Council has agreed to a changed schedule for IST congresses, commencing in 2015 with the World Congress held every second year, rotating between the 3 regions.

Venomics: Drug Discovery From Nature's Deadliest. New York Academy of Sciences, New York, November 4th, 2013

3rd Toxinology Society of India conference, Goa, India, December 19-21, 2013.

Clinical Toxinology Short Course, Adelaide, Australia, March 31st to April 5th, 2014.

#### FROM THE IST EXECUTIVE

The main purpose of this edition of the Newsletter is to provide a summary of the recent IST Council meeting (see later in the newsletter).

As you may read in the meeting summary, Council had two bids for the 2015 World Congress to choose between, one from the UK and one from Switzerland. Both were well presented and attractive bids. However, Council decided to accept the UK bid. The congress will be held at Oxford University in historic university buildings and with an opportunity for some lucky members to stay in historic university college student accommodation.

Congress organisers will progressively contact members for ideas and suggestions for the congress scientific program. This congress should be rather special, because of the historic setting, quite different from meetings in modern hotel or convention facilities.

Oxford is a charming town. I recently had the chance to look at likely venues and stay in college accommodation while attending the small Venomics2013 meeting in September and it was a most enjoyable experience. A big thank you to Muhammad Sohail, Eddie Rowan and David Warrell for making this meeting possible.

Don't forget about the upcoming Pan-American IST Congress in Brazil in November and the Toxinology Society of India meeting in December, 2013, in Goa.

Julian White, Secretary/Treasurer, IST

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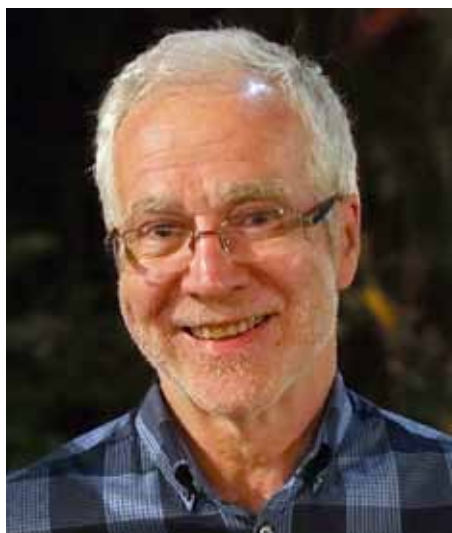
Because of file size, the Newsletter is too big to email and so it is more practical to post the

As discussed in an email to members earlier in 2011, changes at my workplace meant that as of June 2011 I was no longer able to use my hospital to collect IST dues by credit card. We now have an online payment system for all IST dues, on the IST website. This commenced in early January, 2012. The old system, of sending in forms for credit card payments, or cheques, no longer apply. ALL payments must be through the online website system.

President: A Harvey  
Secretary/Treasurer: J White  
President Elect: J Fox  
Immediate Past President: P Gopalakrishnakone  
Toxicon Editor: A Harvey  
President European Section: J Calvete  
Secretary European Section: R Harrison  
President Pan-American Section: D Tambourgi  
Secretary Pan-American Section: Y Cury  
President Asia-Pacific Section: E Grishin  
Secretary Asia-Pacific Section: vacant  
General Councillors  
Europe: D Warrell & R Stocklin  
Pan-America: JM Gutierrez & L Posani  
Asia-Pacific: G King & M Kini



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**MESSAGE FROM THE PRESIDENT (I.S.T)**

an early sample of the unique atmosphere of this location. York, but I will look forward to meeting many of you in Guarujá.

It is now less than one month With best wishes

until the 11th Congress of the Pan-American Section of the IST, which will be held jointly with the 12th Congress of the Brazilian Society of Toxinology. I am sure that this will be a highly productive opportunity for a wide spectrum of the venom and toxin community to get together to share ideas.

Alan Harvey  
President, IST  
Email: A.L.Harvey@strath.ac.uk

Dear IST members,

Last month saw another successful meeting on venoms and toxins: Venoms 2013: making sense of venoms in health and disease. This was held in Oxford and was organised by Eddie Rowan and David Warrell. Many IST members participated, and I am sure that all appreciated the friendly atmosphere that encouraged much discussion between toxinologists. Oxford, of course, will be the venue for the IST's next international Congress in 2015, and it was good to have

Unfortunately, the official IST meeting in Brazil overlaps with an interesting symposium that is being hosted by the New York Academy of Sciences - Venomics: Drug Discovery from Nature's Deadliest

on November 4th. While it is encouraging to see more interest in venoms and toxins among the wider community, it is disappointing the organisers of specialist conferences do not check for possible conflicts before they set their dates.

I won't be seeing people in New

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**THE FUTURE OF THE IST NEWSLETTER**

The IST Newsletter needs input from IST members to make it a more effective communication tool within the Society. The move to electronic format may open up opportunities for new sections. For instance, it might be possible to have annotated bibliographies of recent toxinology publications from other journals, or reports of other meetings with toxinology content. Available toxinology-related jobs and student postings could be listed. There are doubtless many other possibilities members may think of.

So I ask all IST members to consider what they want from the Newsletter and let me know by email. I also want to hear from IST members prepared to contribute regular sections to the Newsletter. To be vibrant and relevant the Newsletter must become more than just a brief report on IST business by myself and our President, but that requires your input.

Julian White  
Secretary/Treasurer IST  
julian.white@adelaide.edu.au

IST Council Minutes March/April 2013

## IST COUNCIL MEETING SUMMARY

*The IST Council now meets regularly via email, to discuss, decide and act on matters pursuant to Society affairs.*

*Council has decided to trial release of a summary of minutes of Council meetings, via the Society newsletter, to keep members informed about Society business. The full minutes may, from time to time, contain matters of a sensitive or contractual nature, such as finances and agreements pertaining to Society congresses, which cannot be given unrestricted release. Council has yet to determine if and how full minutes might be made available to members.*

### INTERNATIONAL SOCIETY ON TOXINOLOGY COUNCIL MEETING

September, 2013

Meeting held via email

#### SUMMARY OF MINUTES

1. **Those participating:** J White, G King, J Fox, J Calvete, D Warrell, J Gutierrez, P Gopalakrishnakone, L Possani, A Harvey, M Kini, D Tambourgi, Y Cury, R Harrison, R Stocklin, E Grishin
2. **President's report:** A Harvey did not have any major news to discuss.
3. **Secretary/Treasurer's report:** J White outlined the current state of IST finances. At this stage the Society has sufficient income to cover expected expenses. A reserve of funds is being built up to help support future congresses.
4. **Toxicon Editor's report:** A Harvey noted the journal continues to grow in stature, with a steady rise in manuscript submissions. Several special issues are in preparation. He also noted changes in the way papers may be submitted, in line with the "your paper, your way" initiative.
5. **Clinical toxinology initiative/ Board of Clinical Toxinology:** Following Council's adoption of a constitution to cover a Board of Clinical Toxinology and establishment of the inaugural Board of Clinical Toxinology at the March Council meeting, the Board has met (by email) and has commenced the tasks before it. It is too early in this process to report major progress, but an initial diploma-level course structure has been developed for further consideration.
6. **GSI report:** No further update at this time (recent update at July meeting).
7. **Snake Taxonomy Advisory Committee report:** Council decided, on advice from J White, to invite W Wuster to take over as chair of the committee, with a view to organising regular updates for members. W Wuster has agreed to take on this role.
8. **IST Pan-American Congress 2013:** The meeting organisers on Council (D Tambourgi & Y Cury) reported further progress with this meeting. There will be a busy program with 74 invited speakers and 3 satellite meetings and courses.
9. **IST Asia-Pacific Congress 2014:** A second announcement update was provided (see elsewhere in this newsletter).
10. **IST European Congress/World Congress 2015:** Council considered the rival bids from the UK and Switzerland. Both bids were strong. Council voted to accept the UK bid, for the congress to be held at Oxford University. Council also agreed to develop a guideline document for congress organisers.

11. **European Section report:** No matters reported.
12. **Pan-American Section:** No matters reported.
13. **Asia-Pacific Section:** No matters reported.
14. **Global Alliance for Venoms Into Medicines report:** Progress slow at this early stage.
15. **Newsletter:** J White made some suggestions for improving the newsletter and R Stocklin suggested establishing a committee to help coordinate content. R Stocklin and G King both made suggestions for development of new sections within the newsletter (a “toxdigest” section and a laboratory profile section). All members are reminded that the Newsletter is for their use and interest and they are encouraged to submit material.
16. **Other business:** D Warrell raised the issue of ethical guidelines for live animal research in toxinology, particularly in regard to use of analgesia in studies where pain may be caused. Several research developments in this area were noted. Council decided to establish an Ethics Subcommittee, chaired by Prof. Warrell, to examine these and related issues and report back to Council with recommended courses of action, which might include development of guidelines for researchers.

Council commenced discussion on the possibility of incorporation of the Society and a subcommittee was established to develop this idea and make recommendations to Council.

J White raised the possibility of developing a unified IST congress website structure and tools, for all future congresses. This would have a development cost, but might save costs for congress organisers longer term. However the majority on Council considered it was preferable to maintain diversity of approach, by allowing organisers to develop their own website structures. Council considered and rejected an offer from the OMICS Group to link the Society to them.
17. **Next Council meeting:** The next meeting of Council, by email, will be held in late 2013 (dates yet to be set). Members wishing Council to consider any matters should either send a request to the Secretary/Treasurer, or via a Council member representing their region.

## TOXINS AVAILABLE FOR RESEARCH

Dear Dr. Harvey,

After working on structure function relationships in several invertebrate toxins for the past several decades, I'm retiring at the end of the current academic year. In the course of going through my freezers, I've found several tubes of recombinant wt and mutant anemone (*A. xanthogrammica*) toxins, containing from 200uG to 2mG of HPLC-purified peptides, which I'd happily make available to any research group that might desire them. If IST has a mechanism by which this information can either be posted to the web, or circulated to its membership and/or attendees at the 2012 congress, I would appreciate your doing so. Interested parties, if any, can contact me through June at this email address.

Thanks for your help, and best wishes,  
Ken Blumenthal

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Senior Associate Dean for Research and Graduate Education, School of Medicine and Biomedical  
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URL:      <http://medicine.buffalo.edu/content/medicine/faculty/profile.html?ubit=kblumen>

## IST Nomenclature Committee

At the last IST World Congress held in Recife, Brazil in March 2009, a symposium devoted to the topic of toxin nomenclature received significant interest from IST members. The IST Council subsequently decided to form a nomenclature committee to examine the issue of toxin naming standards and recommend possible solutions. The mandate of this committee was to propose a nomenclature system, with interim reports to IST Council and a "final" report to be delivered at the IST World Congress in 2012. This deadline was not met, but it is hoped progress will be made in the following triennium. If you have any comments or suggestions on toxin nomenclature, could you please send them to a member of the nomenclature committee, which is currently comprised of the following members:

Dr Gerardo Corzo, Mexico (Email: corzo@ibt.unam.mx)

Dr Florence Jungo, Switzerland (Email: Florence.Jungo@isb-sib.ch)

Dr Evanguedes Kalapothakis, Brazil (Email: ekalapo@icb.ufmg.br)

Prof. Glenn King, Australia (Chairman; Email: glenn.king@imb.uq.edu.au)

Prof. Manjunatha Kini, Singapore (Email: dbskinim@nus.edu.sg)

Prof. Graham Nicholson, Australia (Email: graham.nicholson@uts.edu.au)

Prof. Toto Olivera, USA (Email: olivera@biology.utah.edu)

Prof. Jan Tytgat, Belgium (Email: jan.tytgat@pharm.kuleuven.be)

### ***ArachnoServer spider toxin database***

ArachnoServer is a manually curated database that provides detailed information about proteinaceous toxins from spiders. Key features of ArachnoServer include a new molecular target ontology designed especially for venom toxins, the most up-to-date taxonomic information available, and a powerful advanced search interface. Toxin information can be browsed through dynamic trees, and each toxin has a dedicated page summarising all available information about its sequence, structure, and biological activity. ArachnoServer currently manages 567 protein sequences, 334 nucleic acid sequences, and 51 protein structures. ArachnoServer is available online at [www.arachnoserver.org](http://www.arachnoserver.org).

*The IST has established a special wiki site for members of this Nomenclature Committee to use to both communicate and develop information and recommendations. Members of the committee will soon receive an email detailing how they may access this site.*

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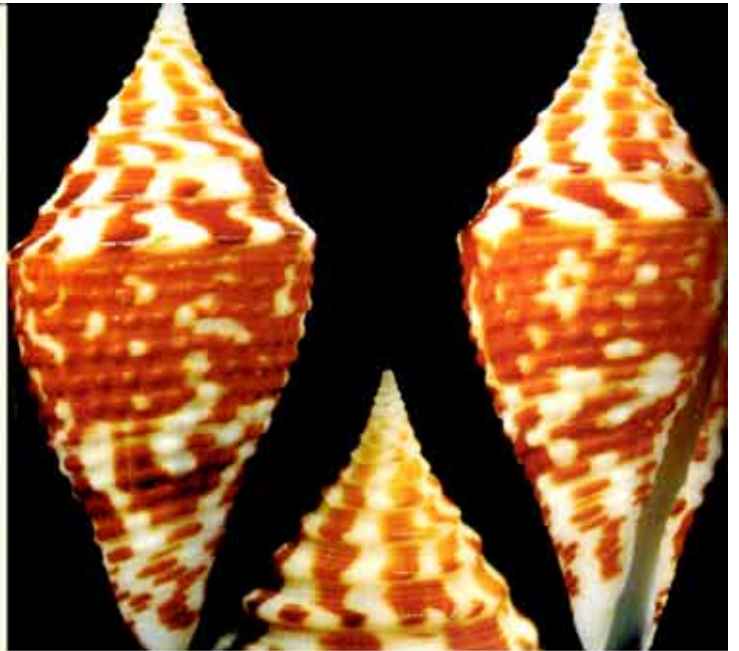
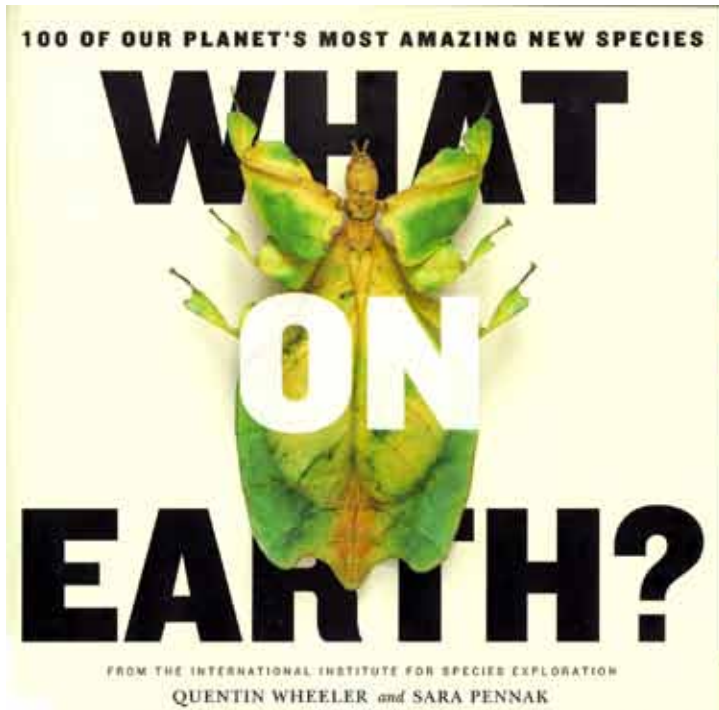
## IST Snake Taxonomy Advisory Group

Keeping up with changes in taxonomy for venomous animals is always a challenge for toxinologists, but it is important to do so, if published research is to maintain viability longer term, as taxonomy evolves. To improve dissemination of information on taxonomic changes the IST has invited Dr. Wolfgang Wuster (UK) to chair the snake taxonomy committee with a view to generation of regular taxonomy updates which can be made available to members.

We will consider making these updates available through the newsletter and, possibly, the IST website.

Julian White, Secretary IST





## Andre Menez's Cone Snail

### CONE OF (DEADLY) SILENCE

Between 2000 and 2010, approximately eighty new living species of cone snails were described, including *Conus andremenezi*, which was collected in the nets of trawl fishermen near Aliguay Island, Philippines. With more than six hundred species, cone snails are both diverse and one of the most venomous marine groups. In nature, cone snails use their teeth like harpoons to paralyze prey with a battery of toxins. The geographic cone snail (*C. geographus*) has such a fast-acting and powerful toxin that it has earned the nickname "cigarette snail"—after being stung by *C. geographus*, a human would have only enough time to smoke a cigarette before dying. Although the venom of cone snails—conotoxins—can be strong enough to kill a human, pharmaceutical research is continuing to find medical uses for them, such as nonaddictive painkillers and treatments for epilepsy and other neurological diseases.



BALDOMERO M. OLIVERA

<b>DISCOVERED</b>	Aliguay Island, Philippines
<b>SCIENTIFIC NAME</b>	<i>Conus andremenezi</i> Biggs, Watkins, Corneli, & Olivera 2010
<b>ETYMOLOGY</b>	<i>Conus</i> is a genus of mollusks named by Linnaeus in 1758; <i>andremenezi</i> is in honor of Andre Menez, for his contributions to the field of toxicology.
<b>CLASSIFICATION</b>	Animalia • Mollusca • Gastropoda • Neogastropoda • Conidae



## XI Congress of the Pan-American Section of the International Society on Toxinology

## XII Congress of the Brazilian Society of Toxinology

*Envenomation by poisonous animals: a neglected disease*

November 3-8, 2013  
Casa Grande Hotel  
Guarujá - SP - Brazil

The city of Guarujá, State of São Paulo, will host the XI Congress of the Pan American Section of the International Society on Toxinology and the XII Congress of the Brazilian Society of Toxinology. The theme of the meeting is "Envenomation by poisonous animals: a neglected disease".

Important names of the Toxinology field will be present in this multidisciplinary event. It aims to serve as a platform for the discussion of results and promotion of collaboration networks.

The goal is to deepen the understanding of the structural, molecular and clinical aspects associated with toxins and venoms. The results will be presented in the form of plenary sessions, symposia and poster sessions, and the event will feature national and international speakers.

We are certain that we will have an event of high scientific level in an environment of friendliness, since we will be celebrating the 25th anniversary of the founding of the Brazilian Society of Toxinology.

From 3 to 8 November 2013, come and enjoy with us a carefully elaborated scientific program and the beauty of one of the most delightful beaches in São Paulo, Brazil. We count on your presence!

### PROGRAM

- Antivenoms
- Biology of venomous/poisonous animals
- Caterpillar toxins and envenomation
- Clinical aspects of scorpion envenomation
- Clinical aspects of snake envenomation
- Clinical aspects of spider envenomation
- Drug design based on venom components
- Education and diffusion in Toxinology
- Marine toxins
- Mechanism of action of toxins
- Others
- Plant toxins
- Scorpion toxins
- Spider toxins
- Structure and function of toxins
- Toxin genomics
- Toxin proteomics
- Toxins and evolution
- Toxins and haemostasis
- Toxins and inflammation
- Toxins and ion channels
- Toxins and pain
- Toxins from microbes

### SCIENTIFIC COMMITTEE

- Alan Harvey - University of Strathclyde, Glasgow, UK
- Carl W. Vogel - University of Hawaii Cancer Center, Honolulu, USA
- Carlos Alvarez-Valcárcel - Universidad de la Habana, Cuba
- Consuelo Latorre Fortes Dias - Fundação Ezequiel Dias, MG, Brazil
- Denise V. Tambourgi - Instituto Butantan, SP, Brazil
- Frank Mari - Florida Atlantic University, FL, USA
- Gilberto B. Domont - Universidade Federal do Rio de Janeiro, RJ, Brazil
- Jay W. Fox - University of Virginia, VA, USA
- Jorge Kalil - Instituto Butantan, SP, Brazil
- Jose Maria Gutierrez - Instituto Clodomiro Picado Institute, San Jose, Costa Rica
- Lourival D. Possani - Universidad Nacional Autónoma de México, Cuernavaca, México
- Marcos R.M. Fontes - Universidade Estadual Paulista, SP, Brazil
- Yara Cury - Instituto Butantan, SP, Brazil

### REGISTRATIONS

Category - values in Reals (R\$)	Until 05/23/2013	Until 07/26/2013	Until 10/18/2013	At venue
Undergraduate student - Member* from SBTx	R\$ 150,00	R\$ 180,00	R\$ 200,00	R\$ 225,00
Undergraduate student - Non-member	R\$ 230,00	R\$ 270,00	R\$ 300,00	R\$ 340,00
Graduate Students (MSc/PhD) - Members* from SBTx** or IST***	R\$ 340,00	R\$ 410,00	R\$ 480,00	R\$ 510,00
Graduate Students (MSc/PhD) - Non members	R\$ 420,00	R\$ 490,00	R\$ 550,00	R\$ 590,00
Members * from SBTx or IST	R\$ 520,00	R\$ 600,00	R\$ 660,00	R\$ 700,00
Nonmembers	R\$ 700,00	R\$ 840,00	R\$ 880,00	R\$ 920,00
Accompanying person	R\$ 220,00	R\$ 280,00	R\$ 290,00	R\$ 300,00

\*up to date with the annual fees till 2012 | \*\* SBTx- Sociedade Brasileira de Toxinologia | \*\*\* IST- International Society on Toxinology

[www.jzbrasil.com/congressos/toxinologia](http://www.jzbrasil.com/congressos/toxinologia)

#### Executive Secretariat:

**JZBRASIL**

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#### Organized by:



#### Supported by:





**XIth Congress of the Pan-American Section of IST  
and  
XIIth Congress of the Brazilian Society on Toxinology**

**PRELIMINARY PROGRAM**

**November, 3<sup>rd</sup> 2013 - Sunday  
AFTERNOON**

14h00 - 17h00

Satellite meeting

Meeting from the Iberoamerican network Biotox-CYTED - "Toxins of interest for Biomedicine"

14h00 - 17h00

Meeting registration

18h30 - 20h30

OPENING CEREMONY

OPENING CONFERENCE: To be announced

20h30 –Cocktail

**November, 4th 2013 - Monday  
MORNING**

07h30 – 8h10: Course # 1 Ferramentas ômicas aplicadas ao estudo de venenos (course will be presented in portuguese)

07h30 – 8h10: Course # 2 A Citometria de Fluxo e sua aplicabilidade na Toxinologia (course will be presented in portuguese)

08h30 - 09h30

**CONFERENCE #1: OVERVIEW OF CLINICAL FEATURES AND THERAPY OF SNAKE-BITE  
ENVENOMING IN THE AMERICAS**

Chair: Julia Prado Franceschi (Brazil)

Speaker: David Warrell (UK)

10h00 - 12h00

**SESSION # 1: INTEGRATIVE TOXINOLOGY**

Chairs:

1- Jay Fox (USA)

2- Carlos Sevcik (Venezuela)

Speakers:

1- Stephen Mackessy (USA) "Effects of positive selection on structure/function evolution of colubrid three-finger toxins: coevolutionary adjustments?"

2- Carlos Sevcik (Venezuela) - Title to be announced

3- Inácio Junqueira de Azevedo (Brazil) "Combining transcriptomics, proteomics and

functional characterization to a better knowledge of colubrid venoms”

- 4- André Pereira P. Zelanis (Brazil) “Systemic approaches in Toxinology: perspectives and implications of omics methodologies on the study of snake venom toxins”
- 5- To be selected from the abstracts

10h00 - 12h00

## **SESSION # 2: CLINICAL ASPECTS OF SNAKE ENVENOMATION**

Chairs:

- 1- Fan Hui Wen (Brazil)
- 2- Abdulrazaq G. Habiib (Nigeria)

Speakers:

- 1- Fan Hui Wen (Brazil) “Clinical Toxinology in a globalized world”
- 2- Abdulrazaq G. Habiib (Nigeria) “Overview of clinical features and therapy of snakebite envenoming”
- 3- Marcos Lacerda (Brazil) “Snakebites in the State of Amazonas: a preliminary analysis of a largely neglected problem”
- 4- Steven Seifert (USA) “A new dosing regimen for a Fab antivenom in rattlesnake bite with recurrent venom effects”
- 5- To be selected from the abstracts

10h00 - 12h00

## **SESSION # 3: MARINE TOXINS**

Chairs:

- 1- Frank Mari (USA)
- 2- P. Gopalakrishnakone (Singapore)

Speakers:

1. Frank Mari (USA) “Adventures with marine toxins from the Americas: the discovery of Conotoxin structures and their functional implications”
2. María E. Lanio (Cuba) “Novel approaches for nanobiotech applications of Sticholysins, two pore-forming toxins”
3. Kathleen Rein (USA) - Title to be announced
4. To be selected from the abstracts
5. To be selected from the abstracts

## **AFTERNOON**

13h30 - 14h30

## **CONFERENCE #2: VENOMICS OF SNAKES FROM THE AMERICAS**

Chair: Jonas Peralez (Brazil)

Speaker: Juan Calvete (Spain)

15h00 - 17h00

## **SESSION # 4: TOXIN PROTEOMICS**

Chairs:

- 1- Gilberto Domont (Brazil)
- 2- Bruno Lomonte (Costa Rica)

Speakers:

- 1- Gilberto Domont (Brazil) “Discovery driven-venomics: poisons of Brazilian rattle and coral snakes”
- 2- Bruno Lomonte (Costa Rica) “Venomous snakes of Costa Rica: taxonomical, biological, and clinical implications of their proteomic profiling through the strategy of “snake venomomics”

- 3- Mario Sérgio Palma (Brazil) “Proteomics as experimental strategy for proofing the functional targets of mastoparan peptides”
- 4- Alexandre K. Tashima (Brazil) “Venom peptidomics of the Brazilian spider *Acanthoscurria gomesiana*”
- 5- To be selected from the abstracts

15h00 - 17h00

#### **SESSION # 5: TOXINS AND ION CHANNELS**

Chairs:

- 1- Paulo Sérgio Beirão (Brazil)
- 2- Jan Tytgat (Belgium)

Speakers:

- 1- Jan Tytgat (Belgium) “Cone snail venom peptides: an inexhaustible treasury for drug leads”
- 2- Paulo Sérgio Beirão (Brazil) - To be announced
- 3- Frank Bosmans (USA) “ $\mu$ -Diguetoxin-Dc1a promotes BgNav1 opening by influencing the domain II voltage sensor”
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

15h00 - 17h00

#### **SESSION # 6: TOXINS FROM MICROBES**

Chairs:

- 1- Wilmar Dias da Silva (Brazil)
- 2- Celia Carlini (Brazil)

Speakers:

- 1- Wilmar Dias da Silva (Brazil) - To be announced
- 2- Jorge Kalil (Brazil) “How M Protein from *Streptococcus* causes Human Diseases”
- 3- Celia Carlini (Brazil) “Ureases are multifunctional toxins”
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

17h00 - 19h00      Poster Session 1

18h30 - 20h00      General Meeting - IST

20h00 SBTx Jovem – Happy hour

### **November, 5th 2013 - Tuesday MORNING**

07h30 – 8h10: Course # 1 Ferramentas Ômicas aplicadas ao estudo de venenos (course will be presented in portuguese)

07h30 – 8h10: Course # 2 A Citometria de Fluxo e sua aplicabilidade na Toxinologia (course will be presented in portuguese)

07h30 – 8h10: Course # 3 Bioinformática estrutural aplicada ao estudo de toxinas (course will be presented in portuguese)

08h30 - 09h30

#### **CONFERENCE #3: SNAKE VENOM PROTEINASES DEGRADOMICS: TOWARDS UNDERSTANDING THEIR EFFECTS UPON HUMAN PLATELETS AND PLASMA, AND MOUSE SKIN**

Chair: Gilberto Domont (Brazil)  
Speaker: Solange Serrano (Brazil)

10h00 - 12h00

### **SESSION # 7: STRUCTURE AND FUNCTION OF TOXINS**

Chairs:

- 1- Marcos Fontes (Brazil)
- 2- Carlos Alvarez (Cuba)

Speakers:

- 1- Marcos Fontes (Brazil) "Proposition of novel comprehensive model for myotoxic activity on bothropic phospholipases A2"
- 2- Carlos Alvarez (Cuba) - To be announced
- 3- To be announced
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

10h00 - 12h00

### **SESSION # 8: ANTIVENOMS**

Chairs:

- 1- Jorge Kalil (Brazil)
- 2- José María Gutiérrez (Costa Rica)

Speakers:

- 1- José María Gutiérrez (Costa Rica) "New antivenoms for sub-Saharan Africa: Key issues related to their design and evaluation"
- 2- Carlos Sevcik (Venezuela) - To be announced
- 3- Carla Cristina Squaiella Baptistão (Brazil) "Anticomplementary activity of horse IgG and F(ab')<sub>2</sub> antivenoms"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

10h00 - 12h00

### **SESSION # 9: TOXINS AND INHIBITORS**

Chairs:

- 1- Consuelo Latorre Fortes Dias (Brazil)
- 2- Jonas Perales (Brazil)

Speakers:

- 1- Consuelo Latorre Fortes Dias (Brazil) "Inhibitors of Phospholipases A2 in the blood plasma of Brazilian snakes"
- 2- Jonas Perales (Brazil) "Inhibitors of snake venom metalloproteinases: state of the art and perspectives"
- 3- Paulo Melo (Brazil) "Ability of some natural and synthetic substances to antagonize toxins"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

## **AFTERNOON**

13h30 - 14h30

### **CONFERENCE #7: SNAKE VENOM PROTEINS AFFECTING PLATELET RECEPTOR FUNCTION**

Chair: Ana Marisa Chudzinski Tavassi (Brazil)  
Speaker: Kenneth J. Clemetson (Switzerland)



15h00 - 17h00

**SESSION # 10: TOXINS AND HAEMOSTASIS**

Chairs:

- 1- Russolina B. Zingali (Brazil)
- 2- R. Manjunatha Kini (Singapore)

Speakers:

- 1- R. Manjunatha Kini (Singapore) "Toxins in thrombosis and hemostasis"
- 2- Russolina B. Zingali (Brazil) "Antithrombotic agents isolated from venoms and bacteria"
- 3- Ivo Francischetti (USA) "Antihemostatics from Blood-Sucking Arthropods"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

15h00 - 17h00

**SESSION # 11: CLINICAL ASPECTS OF ARTHROPODS ENVENOMATION AND THERAPEUTICS**

Chairs:

- 1- Mario Sérgio Palma (Brazil)
- 2- Julian White (Australia)

Speakers:

- 1- Fábio Bucarechi (Brazil) - To be announced
- 2- Julian White (Australia) - "Treating arthropod envenoming; do we have a clearly appropriate management strategy?"
- 3- Ceila Malaque Sant'Ana (Brazil) "Loxoscelism: how to evaluate the safety and efficacy of antivenom in clinical practice?"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

15h00 - 17h00

**SESSION # 12: TOXINS AND EVOLUTION**

Chairs:

- 1- Inácio Junqueira (Brazil)
- 2- Lisle Gibbs (USA)

Speakers:

- 1- Lisle Gibbs (USA) "Phylogeny-based comparative analysis of venom proteome variation in a clade of rattlesnakes (*Sistrurus* sp.)"
- 2- Inácio Junqueira (Brazil) "Snake toxin genes origins and evolution in the light of toxin-related genes background"
- 3- To be announced
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

17h00 - 19h00      Poster session 2

18h30 - 20h00      General Meeting - SBTx

20h00 SBTx jovem – Happy hour

**November, 6th 2013 - Wednesday**  
**MORNING**

07h30 – 8h10: Course # 1 Ferramentas Ômicas aplicadas ao estudo de venenos (course will be

presented in portuguese)

07h30 – 8h10: Course # 2 A Citometria de Fluxo e sua aplicabilidade na Toxinologia (course will be presented in portuguese)

07h30 – 8h10: Course # 3 Bioinformática estrutural aplicada ao estudo de toxinas (course will be presented in portuguese)

08h30 - 09h30

**CONFERENCE #5: To be announced**

Chair: Solange Serrano (Brazil)

Speaker: Jay Fox (USA)

10h00 - 12h00

**SESSION # 13: TOXINS AND INFLAMMATION**

Chairs:

1- Catarina Teixeira (Brazil)

2- Thereza Christina Barja Fidalgo (Brazil)

Speakers:

1- Catarina Teixeira (Brazil) - To be announced

2- Thereza Christina Barja Fidalgo (Brazil) “Pro-inflammatory response of vascular cells to toxins: the early beginning of everything”

3- Jay Fox (USA) - to be announced

4- Sandra Coccuzo (Brazil) “Modulatory action of Crotoxin on events involved in the tumour progression. In vitro assay”

5- To be selected from the abstracts

**SESSION # 14: DRUG DESIGN BASED ON VENOM COMPONENTS**

Chairs:

1- Ana Marisa Chudzinski Tavassi (Brazil)

2- Carl W. Vogel (USA)

Speakers:

1- Ana Marisa Chudzinski Tavassi (Brazil) “Amblyomin-X: development of a factor Xa inhibitor as a new antitumor molecule”

2- Carl W. Vogel (USA) “Intelligent drug design from a venom component: humanized Cobra Venom Factor for immunotherapy of diseases with complement pathogenesis”

3- P. Gopalakrishnakone (Singapore) “Pip Peptides: Novel Leads for Treatment of Inflammation Relating to PLA2”

4- To be selected from the abstracts

5- To be selected from the abstracts

10h00 - 12h00

**SESSION # 15: EDUCATION AND SCIENCE DIFFUSION IN TOXINOLOGY**

Chairs:

1- Norma Yamanouye (Brazil)

2- Julian White (Australia)

Speakers:

1- Norma Yamanouye (Brazil) “The Post-graduation Program in Toxinology”

2- Julian White (Australia) “New developments in clinical Toxinology education and training”

3- Martha Marandino (Brazil) “Education and Science Diffusion in Toxinology”

4- Rejane Maria Lira da Silva (Brazil) - To be announced

5- To be selected from the abstracts

**AFTERNOON**

12h00 - 13h00 – Meeting of the SBTx jovem

Free afternoon

14h00 - 17h00 - Satellite meeting

Annual Meeting from the National Institute of Science and Technology on Toxins (INCTTox) - Brazil

**November, 7th 2013 - Thursday****MORNING**

07h30 – 8h10: Course # 1 Ferramentas Ômicas aplicadas ao estudo de venenos (course will be presented in portuguese)

07h30 – 8h10: Course # 2 A Citometria de Fluxo e sua aplicabilidade na Toxinologia (course will be presented in portuguese)

08h30 - 09h30

**CONFERENCE #6: SCORPION VENOM COMPONENTS**

Chair: Paulo Sérgio Beirão (Brazil)

Speaker: Lourival Possani (Mexico)

10h00 - 12h00

**SESSION # 16: SCORPION TOXINS**

Chairs:

1- Lucia Helena Faccioli (Brazil)

2- Lourival Possani (Mexico)

Speakers:

1- Lucia Helena Faccioli (Brazil) “CD14, TLR2 and TLR4 are essential to macrophages recognize Tityus serrulatus venom and its toxin 1 and to release lipid mediators, IL-6 and TNF $\alpha$ ”

2- Gina D'Suze (Venezuela) “Macrophage activation by inflammatory toxins isolated from Tityus discrepans scorpion venom. The role of Na<sup>+</sup>/Ca<sup>2+</sup>exchangers”

3- Fernanda C.V. Portaro (Brazil) “Insights into scorpion venom peptides: A new naturally occurring bioactive pentapeptide has resulted from the alternative processing of B-KTx propeptide from Tityus serrulatus venom”

4- To be selected from the abstracts

5- To be selected from the abstracts

10h00 - 12h00

**SESSION # 17: TOXINS AND PAIN**

Chairs:

1- Yara Cury (Brazil)

2- Richard J. Lewis (Australia)

Speakers:

1- Richard J. Lewis (Australia) “Analgesic x-conopeptides”

2- Gisele Piccolo (Brazil) “Interaction of the cannabinoid and opioid systems in the modulation of antinociception induced by crotalphine”

3 - To be announced

4 - To be selected from the abstracts

5- To be selected from the abstracts

10h00 - 12h00

### **SESSION # 18: TOXIN GENOMICS**

Chairs:

- 1- Paulo Lee Ho (Brazil)
- 2- Juan Calvete (Spain)

Speakers:

- 1- Juan Calvete (Spain) "Omic and structural studies evidence two clades of independently evolving short-sized disintegrins"
- 2- Matheus F. Fernandes Pedrosa (Brazil) "Profiling the venom gland of the scorpion *Tityus stigmurus* through a transcriptomic survey: new peptides potentially applicable in pharmaceutical research and biotechnology"
- 3- To be announced
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

## **AFTERNOON**

13h30 - 14h30

### **CONFERENCE #7: UNDERSTANDING LOCAL TISSUE PATHOLOGY INDUCED BY SNAKE VENOMS: UNSOLVED ISSUES**

Chair: Catarina Texeira (Brazil)

Speaker: Jose Maria Gutierrez (Costa Rica)

15h00 - 17h00

### **SESSION # 19: SNAKE TOXINS**

Chairs:

- 1- Ana Maria Moura da Silva (Brazil)
- 2- Heloisa Selistre de Araújo (Brazil)

Speakers:

- 1- Ana Maria Moura da Silva (Brazil) "Diversity of snake venom metalloproteinases targeting hemostasis: an adaptive advantage for Viper snakes with consequences for human pathology"
- 2- Heloisa Selistre de Araújo (Brazil) "RGD disintegrins and the effects of v3 integrin blockade in the tumour microenvironment"
- 3- Danielle Paixão Cavalcante (Brazil) "Biochemical characterization of African adders' venoms (*Bitis* spp)"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

15h00 - 17h00

### **SESSION # 20: ARTHROPOD TOXINS**

Chairs:

- 1- Elizabeth F. Schwartz (Brazil)
- 2- Maria Elena de Lima (Brazil)

Speakers:

- 1- Elizabeth F. Schwartz (Brazil) "α-KTx isolated from scorpion venoms and their potential therapeutic use"
- 2- Maria Elena de Lima (Brazil) "Spider toxins: exploring new peptides to possible drug models"
- 3- Adolpho Borges (Venezuela) "Towards a risk map for scorpionism in tropical America: a proposal for a toxinological partitioning of the *Tityus* scorpion fauna"



- 4- Denise Tambourgi (Brazil) - To be announced
- 5- To be selected from the abstracts

15h00 - 17h00

### **SESSION # 21: ENVENOMATION AND THERAPEUTICS**

Chairs:

- 1- Vidal Haddad Junior (Brazil)
- 2- David Warrell (UK)

Speakers:

- 1- Vidal Haddad Junior (Brazil) "Stings of freshwater stingrays as a real neglected problem in North, Midwest and Southeast regions of Brazil"
- 2- David Warrell (UK) "Challenges in the management of envenoming in developing countries"
- 3- Fábio Tozzi (Brazil) "Assistance to riverside communities in the Amazon and its implications for snakebites"
- 4- To be selected from the abstracts
- 5- To be selected from the abstracts

17h00 - 19h00      Poster Session 3

20h00 Galla Dinner

## **November, 8th 2013 - Friday MORNING**

08h30 - 09h30

### **CONFERENCE #8: WHAT CAN TOXINS PROVIDE FOR DRUG DISCOVERY**

Chair: Yara Cury (Brazil)  
Speaker: Alan Harvey (UK)

10h00 - 12h00

### **SESSION # 22: INITIATIVES IN TOXINOLOGY**

Chairs:

- 1- Osvaldo Sant'Anna (Brazil)
- 2- Alan Harvey (UK)

Speakers:

- 1 - Osvaldo Sant'Anna (Brazil) "Five years of the National Institute of Science and Technology on Toxins [INCTTOX]"
- 2 - Hugo Harmelin (Brazil) "Toxins and Cell Signalling Networks"
- 3 - Carlos Alvarez (Cuba) "Iberoamerican Network BIOTOX "
- 4 - Abdulrazaq G. Habiib (Nigeria) "Initiatives for snakebite management in sub-Saharan Africa: The EchiTab study Group (Nigeria-UK)"
- 5 - David Warrel (UK) "The Global Snakebite Initiative"

12h00 - 14h00

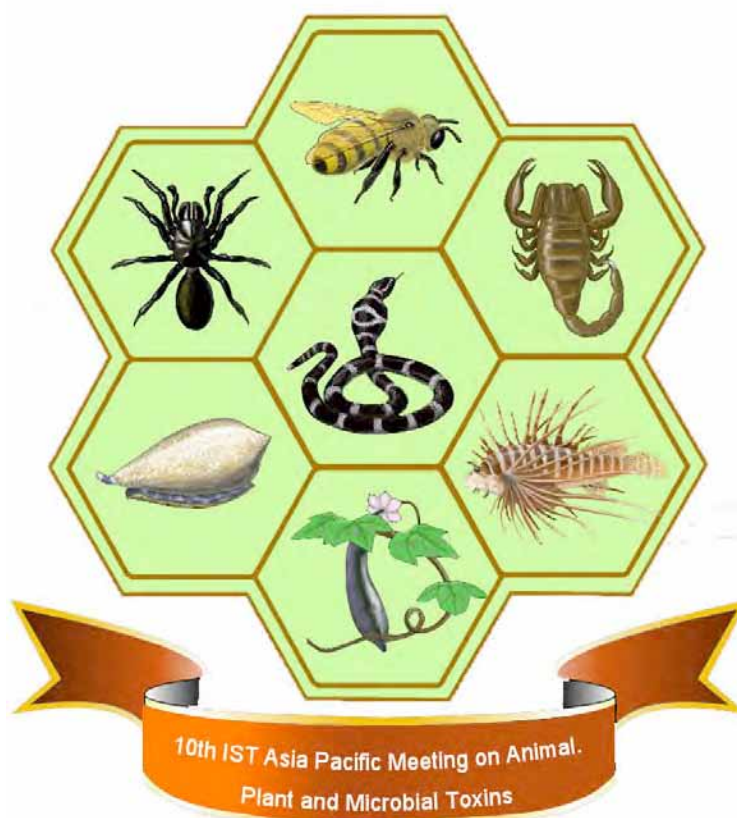
### **Celebrating 25 years of SBTx**

Chair: Lea Simioni (Brazil)  
Speaker: Julia Prado Franceschi (Brazil)

Closing Session  
Awards

## Invited and confirmed speakers

Abdulrazaq G. Habiib (Nigeria)	Jan Tytgat (Belgium)
Adolfo Borges (Venezuela)	Jay Fox (USA)
Alan Harvey (UK)	Jonas Perales (Brazil)
Alexandre K. Tashima (Brazil)	Jorge Kalil (Brazil)
Ana Maria Moura da Silva (Brazil)	Juan Calvete (Spain)
Ana Marisa Chudzinski Tavassi (Brazil)	Julian White (Australia)
André Pereira P. Zelanis (Brazil)	Lisle Gibbs (USA)
Bruno Lomonte (Costa Rica)	Lourival Possani (Mexico)
Carl W. Vogel (USA)	Lucia Helena Facioli (Brazil)
Carlos Alvarez (Cuba)	Marcos Fontes (Brazil)
Carlos Sevcik (Venezuela)	Marcos Lacerda (Brazil)
Catarina Teixeira (Brazil)	María E. Lanio (Cuba)
Consuelo Latorre Fortes Dias (Brazil)	Maria Elena de Lima (Brazil)
Danielle Paixão Cavalcante (Brazil)	Mario Sérgio Palma (Brazil)
David Warrell (UK)	Marta Marandino (Brazil)
Denise V. Tambourgi (Brazil)	Matheus F. Fernandes Pedrosa (Brazil)
Elizabeth F. Schwartz (Brazil)	Norma Yamanouye (Brazil)
Fábio Bucaretti (Brazil)	Osvaldo Sant'Anna (Brazil)
Fábio Tozzi (Brazil)	P. Gopalakrishnakone (Singapore)
Fan Hui Wen (Brazil)	Paulo Lee Ho (Brazil)
Fernanda C.V. Portaro (Brazil)	Paulo Sérgio Beirão (Brazil)
Frank Mari (USA)	R. Manjunatha Kini (Singapore)
Gilberto Domont (Brazil)	Rejâne Lira Casais (Brazil)
Gina D'Suze (Venezuela)	Russolina B. Zingali (Brazil)
Gisele Piccolo (Brazil)	Sandra Coccuzo (Brazil)
Heloisa Selistre de Araújo (Brazil)	Solange Serrano (Brazil)
Hugo Harmelin (Brazil)	Vidal Haddad Junior (Brazil)
Inácio Junqueira (Brazil)	Yara Cury (Brazil)

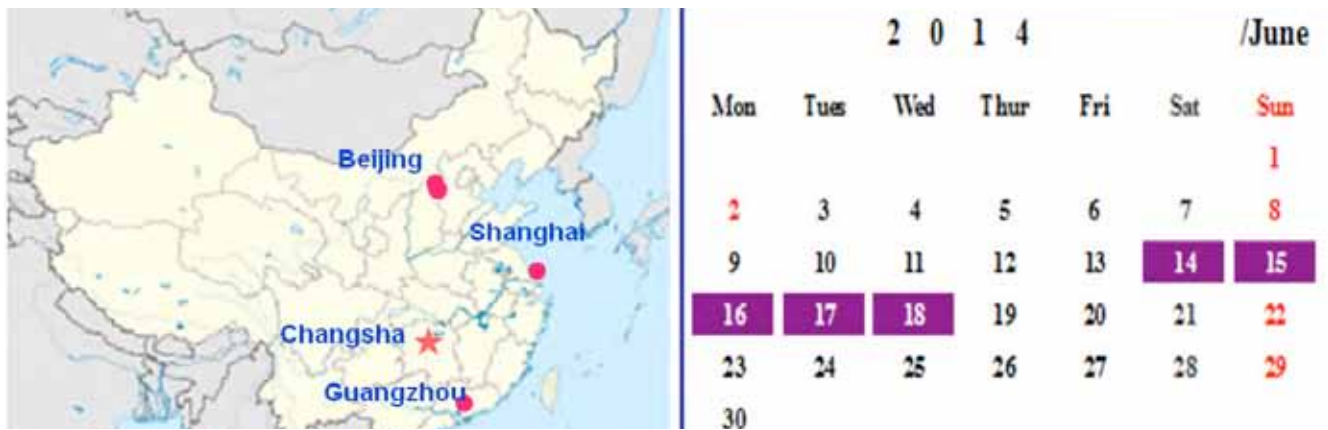
***SECOND CIRCULAR*****10<sup>th</sup> IST Asia Pacific Conference on Animal, Plant & Microbial Toxins (IST-APC 2014)****June 14th –18th, 2014, Changsha, China**

**IST-APC 2014** is the 10th IST Asia Pacific Conference on Animal, Plant and Microbial Toxins approved by the International Society on Toxinology (IST). The local organizers of the conference are the College of Life Sciences, Hunan Normal University; Key Laboratory of Tropical Biological Resources of Ministry of Education, Hainan University and the Bio-toxin Committee of the Chinese Society of Biochemistry and Molecular Biology.

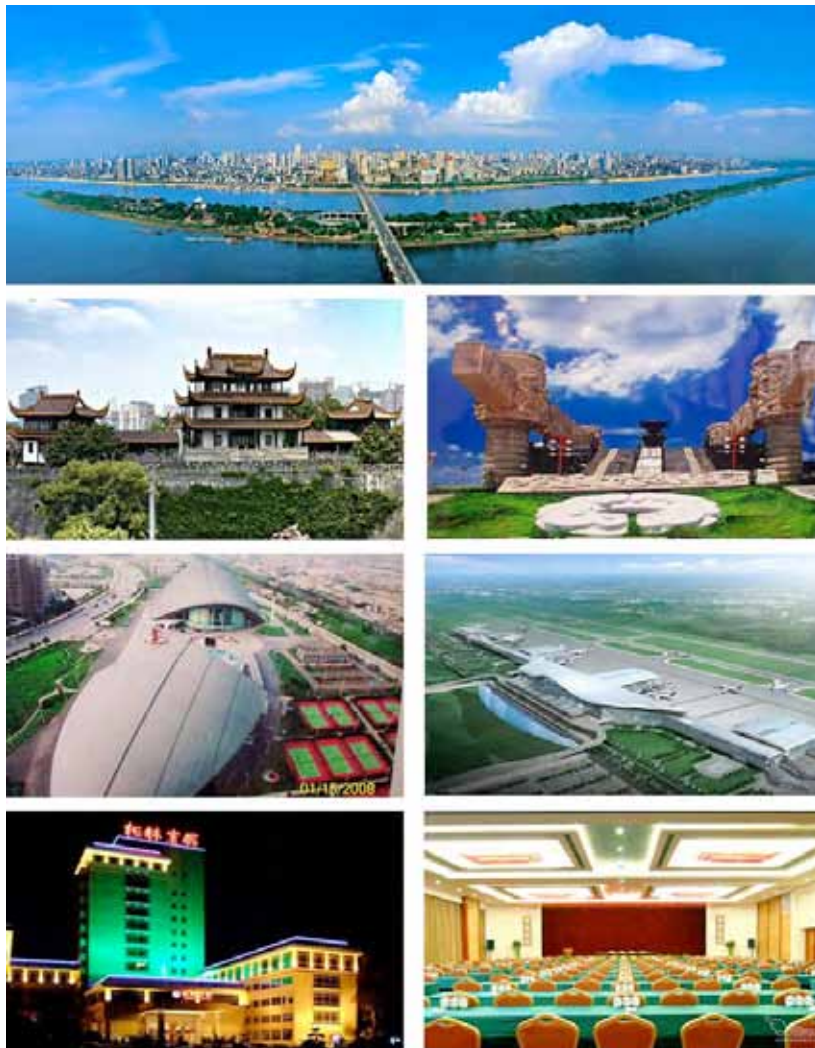
Expecting significant developments in toxinology in the coming years, **IST-APC 2014** is believed to be a unique opportunity to review the progress made and to look into our future. The toxinology community, from young biologists to established practitioners, is invited to meet in Changsha to showcase the toxinology and to enjoy interesting presentations of their colleagues.

## Venue

The Conference will be held at Maple Forest Hotel, Yuelu Mountain, Changsha City, China, between 14-18 June 2014.



Changsha is the capital city of Hunan province with a history of 3,500 years, located in south-central China. The Maple Forest Hotel is a quasi-five star hotel, located in the beautiful hill of Yuelu mountain, in Changsha City.





## Language

The official language of the 10th IST Asia Pacific Meeting on Animal, Plant and Microbial Toxins is English.

## Scientific Program

Continuing the tradition of the 9th IST Asia Pacific Meeting on Animal, Plant and Microbial Toxins (Vladivostok, 2011), the 2014 edition will be a blend of plenary talks given by outstanding personalities in the field of Animal, Plant & Microbial Toxins and contributions of young researchers and students.

The scientific program will consist of invited talks on recent advances in Animal, Plant & Microbial Toxins as well as oral or poster contributions of outstanding results in the following fields:

- **Toxin structure and mode of action**
- **Toxin pharmacology & physiology**
- **Venomics, toxin proteomics and genomics**
- **Bioactive substances from animals, plants and microorganisms**
- **Toxins as leads for drug development**
- **Venomous animal biology**
- **Clinical toxinology-envenomations & management**
- **Biotoxins and bioterrorism**

IST-APC 2014 will consist of plenary talks in the morning which are geared towards a broad audience and several parallel sessions in the afternoon, covering the above mentioned domains. Young researchers and students are strongly encouraged to contribute.

## Congress Chairman:

<b>Songping Liang</b>	Hunan Normal University
<b>Sulan Luo</b>	Hainan University
<b>Yun Zhang</b>	Yunnan Zoology Institute, Chinese Academy of Science

## International Scientific Committee:

**David Craik**, Queensland, Australia  
**Jou-Fang Deng**, Taipei, Taiwan  
**Pierre Escoubas**, Nice, France  
**P. Gopalakrishnakone**, Singapore  
**Eugene Grishin**, Moscow Russia

**Glenn F. King**, Queensland, Australia  
**Trinh Xuan Kiem**, Hanoi, Vietnam  
**Baldomero Olivera**, Utah ,USA  
**Maria Elena de Lima**, Belo Horizonte, Brazil  
**Reto Stocklin**, Switzerland  
**Toru Tamiya**, Tokyo, Japan  
**Anthony T Tu**, Fort Collins, USA  
**Jan Tytgat**, Leuven, Belgium  
**Victor Tsetlin**, Moscow, Russia  
**Wayne Hodgson**, Clayton Australia  
**Julian White**, North Adelaide, Australia  
**Dacheng Wang**, Beijing, China  
**Jisheng Chen**, Beijing, China  
**Zhengwu Qi**, Shanghai China  
**Sulan Luo**, Haikou China  
**Maikun Teng**, Hefei, China  
**Yun Zhang**, Kunming, China  
**Yonghua Ji**, Shanghai, China  
**Songping Liang**, Changsha, China

### Invited speakers :

<b>Prof. Alan L. Harvey</b>	Strathclyde Institute for Drug Research, University of Strathclyde, United Kingdom
<b>Prof. P. Gopalakrishnakone</b>	Venom and Toxin Research Programme, National University of Singapore, Singapore
<b>Prof. Baldomero Olivera</b>	Department of Biology, University of Utah, Salt Lake City, USA.
<b>Prof. Jan Tytgat</b>	Laboratory of Toxicology, University of Leuven(KUL), Leuven, Belgium
<b>Prof. David Craik</b>	Institute for Molecular Bioscience ,The University of Queensland, Australia
<b>Prof. Glenn F. King</b>	Institute for Molecular Bioscience ,The University of Queensland, Australia
<b>Prof. Deng-Fwu Hwang</b>	Department of Food Science, National Taiwan Ocean University, Taiwan
<b>Maria Elena de Lima</b>	Lab. Venenose Toxinas Animais, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Belo Horizonte - MG, Brasil

**Prof. Eugene Grishin**Shemyakin-Ovchinnikov Institute of  
Bioorganic Chemistry, Russian Academy of  
Science, Russian Federation**Prof. Trinh Xuan Kiem**Venom Research & Antivenom Production  
Unit. The National Poison Control Center of  
Vietnam 78 Giai Phong Road, Hanoi,  
Vietnam**Prof. Julian White**Toxinology Dept., Women's and Children's  
Hospital, Australia**Prof. Pierre Escoubas**University of Nice-Sophia Antipolis,  
France**Prof. Reto Stocklin**

Atheris Laboratories, Switzerland

**Prof. Toru Tamiya**Department of Materials and Life Sciences  
Sophia University, Japan**More speakers to be confirmed soon.....****Secretary General:****Dongyi Zhang,** National University of Defense Technology, China**Zhonghua Liu,** Hunan Normal University, Changsha, China**Organizing Committee**

Songping Liang

Sulan Luo

Yun Zhang

Chunguang Wang

Xianchun Wang

Ren Lai

Xianchun Wang

Zhonghua Liu

Xiongzhi Zeng

Ping Chen

Zuohong Chen

Maikun Teng

Wenxing Li

Yonghua Ji

Jiuping Ding

Shuanglin Xiang

Hongzhuan Chen

Yingliang Wu

Dongyi Zhang

Qiuyun Dai

Ying Wang

Zhen Liu

**Conference fees**

	<b>EARLY RATE</b> <b>Deadline March 15, 2014</b>	<b>LATE RATE</b>
<b>IST Member</b>	US\$450	US\$500

<b>Non-Member</b>	US\$520	US\$570
<b>Student</b>	US\$250	US\$300
<b>Accompanying person</b>	US\$250	US\$250

### **Registration fee includes:**

**Meeting materials**

**Lunches and dinners** (during the time of Meeting)

**Coffee breaks** (during the time of Meeting)

**Meeting rooms, poster rooms**

**Transportation** Between Changsha Airport and the hotel for registered participants and accompanying persons

**Local sightseeing in Changsha city**

### **Pre-registration and abstract submission**

The Program Committee invites the submission of abstracts. The deadline for abstract submission is March 15, 2014. Abstracts must be submitted by uploading on the conference website (<http://ap-ist.hunnu.edu.cn>), in the specified format. Abstracts may be submitted for talks or "poster" presentations. Final placement of the abstracts will be decided by the Program Committee.

### **Registration and accommodation**

Please fill in the registration at: <http://ap-ist.hunnu.edu.cn>. The conference will start in the morning on Sunday, June 15, so most of the participants are expected to arrive in Changsha on Saturday, June 14.

It is strongly suggested to book the room at the Maple Forest Hotel, where the conference is held. The price for a double bed room is about 70 USD. You can also book the hotel room through the web site: <http://ap-ist.hunnu.edu.cn>.

### **Important dates**

March 15, 2014	Deadline for abstract submission
April 15, 2014	Notification on selected talks and posters
March 15, 2014	Deadline for Registration and Accommodation with reduced fees

## Post-Conference sightseeing trip

Zhangjiajie National Forest Park is one of the most famous tourist destination in China for its unique natural scenery and abundant tourism resources. It is home to a number of endangered plant and animal species. It was listed into the World Natural Heritage Catalogue by the UNESCO in 1992. What's more, Zhangjiajie was awarded the title of "World Geological Park" in 2004



## Conference connection

All correspondence should be addressed to:

**Dr. Zhonghua Liu**

College of Life Sciences, Hunan Normal University

Lushan Road 36, Yuelu District, Changsha, P.R.CHINA

Tel.: +86 731 88872556, Fax: +86 731 88861304

E-mail: [ap-ist2014@hunnu.edu.cn](mailto:ap-ist2014@hunnu.edu.cn)

All information will be posted on the conference web page  
<http://ap-ist.hunnu.edu.cn/>

# Looking forward to welcoming you in Changsha !

**Organizing Committee of IST-APC 2014**

Sept 1, 2013



## NEXT IST WORLD CONGRESS

As noted in the September IST Council minutes summary, Council has voted to accept the bid from Oxford, UK, to host the 2015 IST World Congress, representing the European Section of IST.

It is early days yet for details on this meeting, but we have tentative dates in September 2015 booked (Friday Sept. 25th to Wednesday Sept. 30th). The congress will be held in the Examination School building and the Sheldonian Theatre, University of Oxford (see photos below), which will impart a sense of history to the congress, in keeping with the long history of Oxford as the host university and town.

I sent out an email to members asking for guidance on interest in staying at Oxford University colleges during the Congress. The organisers are particularly looking at Christ Church, one of the largest colleges of residence. The main dining hall of this college is noteworthy because it is quite splendid in appearance, redolent of history, and for this reason was chosen as a setting for the mythical dining hall for the Harry Potter films. This drew some interesting comments from members. I include what I consider the most amusing so far, below, from Alex Kasheverov.

Julian White  
Secretary/Treasurer, IST

*Dear Julian,*

*This is a wonderful idea to hold a scientific Congress in a historic building, where recently the young magician fled on a broom and prepared the love-philtre. I would be happy to try on his gown and live the Congress days in a single room with ensuite (£76/nt). So if it is not too late, please include me in your magic waiting list.*

*Best regards, Igor*



***Sheldonian Theatre, Oxford***



***Sheldonian Theatre, Oxford***



***Exam School, Oxford***



**Christ Church, Oxford**





Register  
Now!



# Venomics: Drug Discovery from Nature's Deadliest

Image credit: Bryan Grieg Fry

 Register at [www.nyas.org/Venomics](http://www.nyas.org/Venomics)

Spiders, snakes, scorpions, sea snails and leeches produce over 10 million compounds, offering great potential in drug discovery. Encouraged by the substantial medicinal and fiscal success of hypertension remedy Captopril and analgesic Prial<sup>®</sup>, used to alleviate chronic pain in HIV and cancer patients, many pharmaceutical companies are investing heavily in venom-based drug discovery programs. New analgesics, anti-tumor agents and even agricultural pesticides await discovery and can be realized through an integrated approach combining genomic, proteomic, and transcriptomic data, now referred to as 'venomics'. This symposium will investigate integrated strategies necessary to harness the cornucopia of venom compounds using mass spectrometry, nucleotide sequencing, and synthetic chemistry.

## Organizers

**Mandë Holford**, PhD, Hunter College, CUNY / American Museum of Natural History

**Steven Gross**, PhD, Weill Cornell Medical College

**Jennifer Henry**, PhD, The New York Academy of Sciences

## Speakers

**Anirban Banerjee**, PhD, National Institute of Child Health and Human Development, NIH

**Carole A. Bewley**, PhD, National Institute of Diabetes and Digestive and Kidney Diseases, NIH

**Pierre Escoubas**, PhD, VenomeTech

**Bryan Fry**, PhD, The University of Queensland, Australia

**Mandë Holford**, PhD, Hunter College, CUNY / American Museum of Natural History

**Inés Ibañez-Tallon**, PhD, The Rockefeller University

**Baldomero Olivera**, PhD, University of Utah

**Mark E. Siddall**, PhD, American Museum of Natural History

**Beatrix Ueberheide**, PhD, NYU Langone Medical Center

**Silver Sponsor:**  **Agilent Technologies**

Presented by **Hot Topics in Life Sciences** at the **New York Academy of Sciences**

Mission Partner support for the Frontiers of Science program provided by **Pfizer**

NOV  
04  
8:30 AM-  
5:00 PM

## Reception to follow

### Registration

Member: \$30

Student/Postdoc Member: \$15

Nonmember (Academia): \$65

Nonmember (Corporate): \$85

Nonmember (Non-profit): \$65

Nonmember (Student/Postdoc/  
Resident/Fellow): \$45

### Location

The New York  
Academy of Sciences  
7 World Trade Center  
250 Greenwich St, 40th Fl  
New York, NY 10007

### Customer Service

Email:

[customerservice@nyas.org](mailto:customerservice@nyas.org)

Phone (Toll Free):

1.800.843.6927

Phone (Outside USA):

1.212.298.8640

### Sponsorship Opportunities

For sponsorship opportunities,

contact **David Smith**

at [dsmith@nyas.org](mailto:dsmith@nyas.org)

or 212.298.8671

**3<sup>rd</sup> ANNUAL CONFERENCE OF THE TOXINOLOGICAL  
SOCIETY OF INDIA (TSICON)**



&

**1<sup>ST</sup> INTERNATIONAL CONFERENCE ON  
'BIOLOGY OF NATURAL TOXINS'**



**THE DEPARTMENT OF BIOLOGICAL SCIENCES,  
BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI,  
K K BIRLA GOA CAMPUS, GOA, INDIA**

**19<sup>th</sup> to 21<sup>st</sup> DECEMBER, 2013**

**Organising Secretary: Dr. Dibakar Chakrabarty; [diba27@yahoo.com](mailto:diba27@yahoo.com)**





# TSICON 2013



**3<sup>rd</sup> Annual Conference of the Toxinological Society of India  
& 1<sup>st</sup> International Conference on  
"Biology of Natural Toxins"**



With great pleasure, we invite you all to the 3<sup>rd</sup> Annual Conference of the Toxinological Society of India and 1<sup>st</sup> International Conference on **"Biology of Natural Toxins"** to be held in BITS Pilani K K Birla Goa Campus, Goa, India from **19-21 December, 2013**. This conference aims to provide a common platform for all researchers, clinicians, students, conservationists and industries working on different aspects of natural toxins of animals, microbes and plant, snake bite management and related environmental issues to discuss their research findings. The conference will consist of plenary sessions, invited lectures, oral and poster presentations.

## OBJECTIVES

To create awareness and understanding of issues related to natural toxins (animal, microbial, plant) and snake bite management.

To discuss:

- ❖ Current research trends in natural toxins
- ❖ Management of envenomation/intoxication of biological origin
- ❖ Applications of biological toxins in drug discovery and as research tools
- ❖ Anti-venom production and related issues
- ❖ Conservation of poisonous and venomous species
- ❖ Ethics in toxin research

## TSICON 2013

### Organizing Secretary & President Elect

Dr. Dibakar Chakrabarty  
Associate Professor,  
Department of Biological  
Sciences, BITS Pilani K.K  
Birla Goa Campus.

Email:  
[tsicon2013@gmail.com](mailto:tsicon2013@gmail.com)

Phone:  
+91 832 2580173





## SCIENTIFIC AREAS TO BE COVERED

- ❖ Venomics
- ❖ Clinical toxinology
- ❖ Characterization of natural toxins
- ❖ Pharmacology, pharmacokinetics and drug discovery
- ❖ Anti-venom/Antidotes and Industry
- ❖ Ethics, Conservation and more...

## REGISTRATION INFORMATION

Advance registration is encouraged. Registration fee includes cost towards conference material, beverages and all meals from dinner on 18 December till farewell high-tea on 21 December except conference dinner on 20 December.

CATEGORY	Registration till 15 <sup>th</sup> September, 2013		Late registration between 16 <sup>th</sup> September to 15 <sup>th</sup> October 2013	
	Indian Delegates (INR)	Foreign Delegates* (USD)	Indian Delegates (INR)	Foreign Delegates (USD)
<b>Delegates</b>	4000 (TSI Members) 5000 (Non Members)	500	4500 (TSI Members) 5500 (Non Members)	550
<b>Student</b>	3500	300	4000	350
<b>Accompanying person</b>	3500	300	3500	300
<b>Corporate</b>	10000	1000	12000	1200
<b>Conference Dinner (On the Cruise)</b>	150/person	5/person	150/person	5/person

\* Registration fees for delegates from Nepal, Bangladesh, Myanmar, Sri Lanka and Pakistan: USD 250 (regular), USD 300 (late) and accom. person USD 200.

## MODE OF PAYMENT

**Indian Delegates:** Demand Draft/Multi-city Crossed Cheque in favour of **Director, BITS Pilani K K Birla Goa Campus**, payable at **State Bank of India, Goa**.

**International Delegates:** Online transfer to be made to **State Bank of India, Commercial Branch, Vasco da Gama**, using the following details:

**Beneficiary Name:** BITS Pilani K K Birla Goa Campus  
**Beneficiary Account Number:** 30803684122  
**IFSC Code:** SBIN0010720  
**SWIFT Code:** SBININBB229  
**Remarks:** TSICON 2013

TSICON 2013  
19-21 December 2013



Information on convenient hotels and their tariffs will be posted soon.





## STEP BACK AND FEEL THE SAND BETWEEN YOUR TOES...UNPLUG, UNWIND, STEP OUT IN THE SUNSHINE...

Goa dubbed as the 'Pearl of the Orient' is one of the most sought after holiday destination in India. This tiny but beautiful state located in the western coast of Indian peninsula is full of surprises that leave every visitor spell bound with its magical charm and splendor. Goa is resplendent with picturesque palm dotted beaches, fascinating forts, churches, breathtakingly beautiful waterfalls, absorbing wildlife parks, sanctuaries and much more.

East and west come together in this sun-soaked state, where the beaches have long served as a magnet for hedonists and Indian culture intertwines with Portuguese influences left over from a 450 year occupation. The state of Goa has 39 beaches and all of them are famous for their own unique charm and tranquility. Some of the top beaches that are visited by tourists all the year round are Arambol, Vagator, Calangute, Baga and Bambolim. These are the north Goa beaches and are popular for their striking features and are regular host of all the happening activities and festivals that take place in Goa. Some of the most visited beaches in South of Goa which are perfect for tourists looking forward to experience the tranquility of the beaches and nature are Bogmalo, Majorda, Palolem and Caveossim Beach. These beaches are ideal for water sports as well as adventurous activities.

Churches of Goa are a reflection of Portuguese dominance in the area. Be sure to visit Basilica of Bom Jesus, Church of St. Alex, Church of St. Cajatan, Convent & Church of St. Francis of Assisi and Se Cathedral. An evening cruise in the river Mandovi with local folk songs and dance add to the tourist attractions in Goa. Other major attractions in Goa are the exotic seafood and the festivals. Goa maintains a festive mood round the year.

During Christmas and New Year, it seems all roads lead to Goa...



### BITS Pilani K K Birla Goa Campus from:

Goa Airport (Dabolim) – 5 Kms  
Vasco da Gama Railway Station – 10 Kms  
Madgaon Railway Station – 25 Kms

### Taxi Tariff (Source to Venue)

Goa Airport (Dabolim) – INR 200-250

Vasco da Gama Railway Station –  
INR 300-350

Madgaon Railway Station – INR 500-550

## WEATHER IN DECEMBER

With plenty of sun shine seen each day, the weather remains pleasant throughout with barely any rain seen during the month. This may be winter, but the temperatures remain high, so expect beach weather.

The average daily temperature for this month in Goa is 27°C which can reach 32°C or drop to 21°C. There is an average of 10 hours of sunshine each day in Goa. The average temperature of the sea during this month is 27°C.



BITS Pilani a university of excellence in Technology and Sciences. It is ranked as the best private university in India. BITS Pilani has four campuses in Pilani, Dubai, Goa and Hyderabad. The university is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's great challenges. BITS Pilani K K Birla Goa Campus boasts of its innovative teaching methods and state of the art infrastructure. It seeks to develop in each member of its community the ability and passion to work wisely, creatively and effectively for the betterment of mankind.

TSICON 2013

# REGISTRATION FORM

Name \_\_\_\_\_

Organization \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Telephone Number \_\_\_\_\_ Fax Number \_\_\_\_\_

Email Address \_\_\_\_\_

Please tick

☐ I will attend Conference Dinner on Friday evening, 20 December 2013 - INR 150/USD 5 per person.

☐ I will bring an accompanying guest for the Conference Dinner - INR 150/USD 5 per person.

☐ Vegetarian

☐ Non Vegetarian

## PAYMENT DETAILS

### INDIAN DELEGATES

DD/Multi-city Crossed Cheque Number \_\_\_\_\_ Amount \_\_\_\_\_

Bank \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_

Send to: Dr. Angshuman Sarkar, Treasurer TSICON 2013, Department of Biological Sciences, BITS Pilani  
K K Birla Goa Campus, Zuarinagar 403726, Goa, India.

### INTERNATIONAL DELEGATES

Transaction ID \_\_\_\_\_ Amount \_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_

Duly filled registration forms should be emailed to Treasurer ([treasurertsicon2013@gmail.com](mailto:treasurertsicon2013@gmail.com))  
and Cc to Organizing Secretary ([tsicon2013@gmail.com](mailto:tsicon2013@gmail.com)).

# ABSTRACT\* (TEMPLATE)

Submission Category: \_\_\_\_\_

Preference for Presentation (Oral/Poster): \_\_\_\_\_

Title: \_\_\_\_\_

Author(s) \*\*: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Abstract (Max. 250 words):

ABSTRACT

\*Indian delegates presenting paper(s) must obtain TSI membership (annual/life). Form attached.

\*\*Presenting author's name should be underlined.

(The abstract should be typed using Times New Roman font size 12. Please do not include figures in the abstract. The abstract should be sent to [tsicon2013@gmail.com](mailto:tsicon2013@gmail.com) in .doc/.pdf format before 15 June 2013. Hard copy of abstracts will not be accepted)



## Toxinological Society of India

(Registered under West Bengal Society Act : No. S/1L/77216 )

### MEMBERSHIP APPLICATION

To  
The Secretary  
Toxinological Society of India  
Department of Biochemistry  
KPC Medical College & Hospital  
1F, Raja S.C. Mallick Road, Jadavpur  
Kolkata – 700 032

Dear Sir,

I wish to be Annual Member / Life Member / Corporate Member of the Toxinological Society of India. I am furnishing the required particulars below, and request you to kindly allow me to be a member of the Society. The fee\* for Annual Membership / Life Membership / Corporate Membership is enclosed as a Demand Draft (No. \_\_\_\_\_ Dt \_\_\_\_\_), in the name of "Toxinological Society of India" payable at Kolkata. I am also enclosing a copy of my Curriculum Vitae and two recent Passport size photographs for your record. Yours sincerely,

Place :

Date : (Signature of the Applicant) (Signature of the Nominating member of TSI)

#### Particulars of applicant

Full Name (in Block Letters) : \_\_\_\_\_

Date of Birth : \_\_\_\_\_ Qualifications ( Name of University, Year ) \_\_\_\_\_

Present Designation/ Department/ Institute/ Place : \_\_\_\_\_

Permanent Address : \_\_\_\_\_

Address for Correspondence (With Phone No., & Email ID) : \_\_\_\_\_

----- For Official Use Only -----

Membership No. [ ] Approved [ ] Disapproved

Secretary, TSI

Note : Duly filled application form along with the Bank Draft should be forwarded to :

Prof. Antony Gomes

Secretary, Toxinological society of India

Lab. Of Toxinology & Exp. Pharmacodynamics,

Department of Physiology, University of Calcutta

92, A. P. C. Road, Kolkata – 700 009

E-mail : secretary.tsi@gmail.com

Mobile : +91-9433139031

Fax : 91-033-23519755

\*Rs.1000 /4000 / 20,000 for Annual / Life / Corporate Membership respectively.



## **TENTATIVE LIST OF SPEAKERS**

### **1. Anthony T. Tu**

*Professor Emeritus, Department of Biochemistry and Molecular Biology, Colorado State University - Fort Collins, USA.*

Prof. Tu was bestowed The Order of the Rising Sun by the Japanese Emperor Akihito in November, 2009 for solving case of sarin-gas attacks in Japan in 1994 and 1995

Lifetime Special Recognition and Awards: NIH Merit Award, NIH Career Development Award.

#### Research Interests

Sea snake neurotoxins, Raman spectroscopy, structure-function relations of toxins, chemical weapons defense, NBCR anti-terrorism.

### **2. Alan L. Harvey**

*Professor of Pharmacology in Strathclyde Institute of Pharmacy and Biomedical Sciences and Vice Dean of Research in The Faculty of Science, University of Strathclyde Glasgow, UK*

President, International Society on Toxinology and Editor-in-Chief, Toxicon

#### Research Interests

Physiology and Pharmacology of synaptic signaling, with particular interests in drugs and toxins affecting receptors and ion channels

### **3. P. Gopalakrishnakone**

*Professor, Department of Anatomy, Yong Loo Lin School of Medicine, National University Health System, Singapore.*

#### Research Interests

Mechanism of action of venoms and toxins from various marine creatures, mechanism of venom secretion, venom and toxin induced muscle damage, immunology and cloning of toxins, microarray technology for proteomics and genomics, biosensors and biomedical applications.

### **4. Julian White**

*Professor and Head of Toxinology, Women's & Children's Hospital, Adelaide, Australia*

Secretary/Treasurer of International Society on Toxinology.

#### Research Interests

Envenomation by snakes and other venomous animals and their clinical implications.

### **5. Shripad B. Deshpande**

*Professor of Physiology, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India.*

Fellow of Indian Academy of Neuroscience  
Editor, Indian Journal of Physiology and Pharmacology

Research Interests

Neuroscience, Electrophysiology, Toxicology and Toxinology.

**6. Antony Gomes**

*Laboratory of Toxinology & Experimental Pharmacodynamics, Department of Physiology, University of Calcutta, India.*

Fellow of the Indian Pharmacological Society

Research Interests

Snake venom hemorrhagins, antivenom from plants, therapeutic uses of venom, nanopeptides for applications in iron deficiency anemia and snakebite in animal models, Anticancer potential of animal venoms and toxins, Toxins from Indian toad, Indian monocellate cobra and Indian black scorpion.

**7. Glenn F. King**

*Institute for Molecular Bioscience, The University of Queensland, Australia.*

Research Interests

Structure-function characterisation, and therapeutic development of venom peptides from the venoms of spiders, scorpions, centipedes, and other venomous animals.

**8. Jay W. Fox**

*Professor & Associate Dean of Research of Microbiology, Immunology & Cancer Biology, University of Virginia School of Medicine.*

Research Interests

Basement Membrane Structure & Metalloproteinases.

**9. R. Manjunatha Kini**

*Professor, Department of Biological Science, National University of Singapore.  
Affiliate Professor in the Department of Biochemistry at Virginia Commonwealth University.*

Founder and Chief Scientific officer of Pro-Therapeutics Private Ltd.  
Chairman and co-chairman of the Registry of Exogenous Hemostatic factors.

Research Interests

Structure-function relationships and mechanism of action of proteins especially snake venom toxins, Protein-protein interaction and Protein design and engineering.

**10. Romulus Whitaker**

Noted Herpetologist and conservationist. Founder of Irula Snake Catchers' Co-operative Society and Madras Snake Park. World renowned expert on King Cobra behavior. Known as savior of gharials of India.

## 11. Gerry Martin

*Founder Director of The Gerry Martin Project (TGMP)*

Herpetologist, Naturalist, Wildlife conservation expert and educationist.

In 2000, Martin became the first Indian Adventurer for the National Geographic Channel and worked with them in India.

## 12. Manas Mandal

*Associate Professor of Pharmaceutical Sciences, College of Pharmacy, University of Southern Nevada, South Jordan UTAH, USA.*

### Research Interests

Cellular immunology, vaccine development and cancer immunotherapy.

18-Dec-13				
5.30-7.30 pm	7.45-9.30pm			
Registration	Welcome Dinner			
19-Dec-13				
8.00-9.00am	9.00-9.50am	9.50-10.20am	10.20-10.30am	10.30am-11.15am
Breakfast	Inauguration by Prof. Alan L. Harvey (President IST)	Plenary Lect. I	Tea	S.C Lahiri Memorial Oration
11.15-12.00pm	12.00-1.00pm	1.00-2.00pm	2.15-2.45pm	2.45-3.45pm
Lectures (3X2)	Poster Session I	Lunch	Plenary Lect. II	Lectures (4X2)
3.45-4.00pm	4.00-5.00pm	5.00-6.15pm		
Tea	Lectures (4X2)	Lectures (5X2)		
20-Dec-13				
8.00-9.00am	9.00-9.45am	9.45-10.15am	10.15-10.30am	10.30-11.30am
Breakfast	A.K Nag Chaudhuri Memorial Oration	Plenary Lect. III	Tea	Lectures (4X2)
11.30am-12.30pm	12.30-1.30pm	1.30-2.00pm	2.00-4.00pm	4.00-4.15pm
Poster Session II	Lunch	Plenary Lect. IV	Lectures (8X2)	Tea
4.15-5.15pm	5.15-6.30pm	6.30 pm onwards		
Lectures (4X2)	Annual General Meeting	Gala Dinner		
21-Dec-13				
8.00-9.00am	9.00-10.00am	10.00-11.15am	11.15-11.30am	11.30am-1.00pm
Breakfast	Lifetime Achievement Award to Prof. Anthony T. Tu	Lectures (4X2)	Tea	Lectures (6X2)
1.00-2.00pm	2.00-2.45 pm	2.45-3.00pm	3.00-3.30pm	3.30-4.30pm
Lunch	Student Lectures (Best Poster Winners-3)	Tea	Plenary Lect. V	Validictory Ceremony
4.30pm onwards				
Farewell High Tea				



**University of Adelaide  
Faculty of Health Sciences**



# **CLINICAL TOXINOLOGY SHORT COURSE 2014**

**Women's & Children's Hospital  
Adelaide, Australia  
March 31st to April 5th  
2014**



**The Premier Clinical Training  
Course in Toxinology at an  
International Level**

**Courses Co-ordinator  
Prof. Julian White  
Head of Toxinology**

**Women's & Children's Hospital**

**email: [julian.white@adelaide.edu.au](mailto:julian.white@adelaide.edu.au)**

**Website: [www.toxinology.com](http://www.toxinology.com)**



## IMPORTANT COURSE INFORMATION

### COURSE RELATED QUESTIONS:

#### **Who is this course designed for?**

Primarily for doctors/health professionals requiring detailed and practical information on snakebite, spiderbite, scorpion stings, marine envenoming, poisonous plants & mushrooms and related topics with a global and Australian perspective. It is particularly relevant for those working in emergency medicine, toxicology, intensive care, or in rural practice. Throughout there will be an emphasis on practical clinical issues and development of clinically relevant skills. It will also be of interest to poisons information pharmacists and graduate nurses in emergency medicine and toxinology scientists. You should be fluent in English, as no language translation will be available.

#### **When and where are the courses held?**

The course runs over 6 days; Monday March 31st to Saturday April 5th, 2014. The venue is the Women's and Children's Hospital, North Adelaide, SA, Australia

#### **What does the course cover?**

We cover terrestrial & marine animals, plants & mushrooms, including extensive sessions on venomous snakes by region. Detailed sheets on course content will be available on the web at <http://www.toxinology.com>.

#### **Is the course accredited in any way?**

The course is a University of Adelaide postgraduate training course. We are seeking formal accreditation of continuing education points with relevant colleges and possible incorporation within some college specialist training schemes.

#### **How many people can attend the course?**

The maximum course capacity is 50 registrants, to ensure a chance for interactions with faculty. Previous courses filled early, so early registration is advisable.

#### **How much does the course cost and what does this cover?**

The course costs Aus\$2,200 (+GST for Australians only); the fee covers the full course, course notes, field trip, morning and afternoon teas and light lunches. It does not cover the course dinner or accommodation.

#### **Are there any course notes or reading material available prior to the course?**

We produce course notes for registrants prior to the course, which will include recommended textbooks and reading list. You are still strongly advised to take notes during all sessions. (The 2012 Course Handbook exceeded 500 pages.)

#### **What sort of practical clinical sessions are included?**

The programme includes many interactive sessions discussing "clinical evolving problems" (CEPs) to develop registrant's understanding of clinical skills in toxinology and test those skills in a group setting. These are all based on real patients contributed by faculty members, drawn from their own clinical experience.

#### **Is there any formal evaluation of my performance on the course?**

Yes! Faculty will be evaluating all registrants on their interactions, especially during the clinical evolving problem sessions. On the Saturday there will be a written examination.

**For further information** contact Prof. White ([julian.white@adelaide.edu.au](mailto:julian.white@adelaide.edu.au)) or Dr. David Bates ([david.bates@adelaide.edu.au](mailto:david.bates@adelaide.edu.au)).



1961 West Brichta Dr.  
Tucson, AZ 85745, USA  
Tel: 1 520 884-9345  
Fax: 1 520 884-9345  
ponerine@dakotacom.net

## Southwest Venoms

### CATALOGUE OF INSECT VENOMS (2012-2013)

Prices in U.S. dollars. All venoms are pure venoms (not venom sac or apparatus homogenates) collected according to the methods of Schmidt (1986. *In: Venoms of the Hymenoptera* [T. Piek, ed.], pp. 425-508. Academic Press: London.).

Prod. No.	VENOM	(LD <sub>50</sub> mg/kg, mice)	VENOM PRICE			
			1 mg	5 mg	25 mg	100 mg
SOCIAL WASPS		(LD <sub>50</sub> )				
Yellowjackets -- <i>Vespula</i>						
W-10	<i>V. pensylvanica</i>	(6.4)	50	225	1000	*
W-19	other species**		*			
Hornets -- <i>Vespa</i>						
W-20	<i>V. mandarinia</i>	(4.1)	50	225	1000	*
W-21	<i>V. tropica</i>	(2.8)	50	225	1000	*
W-29	others **		*			
Paper wasps -- <i>Polistes</i>						
W-30	<i>P. comanchus navajoe</i>	(5)	40	180	800	*
W-31	<i>P. flavus</i>	(3.8)	40	180	800	*
W-32	<i>P. canadensis</i>	(2.5)	50	225	*	
W-33	<i>P. erythrocephalis</i>	(1.5)	50	225	*	
W-39	<i>Polistes</i> sp. as available**		30	135	600	2100
New World Polybiine wasps						
W-40	<i>Brachygastra mellifica</i>	(1.5)	60	270	1200	*
W-50	<i>Synoeca septentrionalis</i>	(2.7)	60	270	1200	*
W-60	<i>Parachartergus fraternus</i>	(5)	70	300	1400	*
W-70	<i>Polybia sericea</i>	(6)	80	350	*	
W-71	<i>P. simillima</i>	(4.1)	80	350	*	
W-72	<i>P. occidentalis</i>	(5)	100	*		
W-80	<i>Agelaia myrmecophila</i>	(5.6)	140	*		
Old World Polybiine wasps						
W-90	<i>Belonogaster juncea colonialis</i>	(3)	80	350	*	
SOCIAL BEES						
Honey bees -- <i>Apis</i>						
B-10	<i>A. mellifera</i>	(2.8)	20	90	400	1400
B-11	<i>A. mellifera</i> Africanized bees	(2.8)	20	90	400	1400
B-12	<i>A. mellifera</i> queens		40	180	800	2800
B-13	<i>A. dorsata</i>	(2.8)	50	225	1000	3500
B-14	<i>A. cerana</i>	(3.1)	55	245	*	
B-19	others ( <i>A. florea</i> , etc.)**		*			
Bumble bees -- <i>Bombus</i>						
B-20	<i>B. sonorus</i>	(12)	50	225	1000	*
B-21	<i>B. impatiens</i>	(12)	50	225	*	
B-29	other species**		30	*		



Prod. No.	VENOM	(LD <sub>50</sub> mg/kg, mice)	VENOM PRICE			
			1 mg	5 mg	25 mg	100 mg
<b>ANTS -- FORMICIDAE</b>						
		(LD <sub>50</sub> )				
	<i>Pogonomyrmex</i> -- harvester ants					
A-10	<i>P. barbatus</i>	(0.6)	50	225	1000	3500
A-11	<i>P. maricopa</i>	(0.12)	60	270	1200	4200
A-12	<i>P. occidentalis</i>	(0.5)	70	315	1400	*
A-13	<i>P. rugosus</i>	(0.7)	50	225	1000	3500
A-15	<i>P. desertorum</i>	(0.7)	160	*		
A-19	<i>Pogonomyrmex</i> sp. as available		45	200	900	3200
	<i>Myrmecia</i> -- bull ants					
A-20	<i>M. gulosa</i>	(0.18)	60	270	1200	4200
A-21	<i>M. tarsata</i>	(0.18)	60	270	1200	*
A-22	<i>M. browningi</i>	(0.18)	70	315	*	
A-23	<i>M. rufinodis</i>	(0.35)	70	315	*	
A-24	<i>M. simillima</i>	(0.21)	70	315	*	
A-25	<i>M. pilosula</i>	(5.7)	100	*		
A-30	<i>Pachycondyla (Neoponera) villosa</i>	(7.5)	60	270	*	
A-31	<i>P. (Neoponera.) apicalis</i>	(> 16)	70	*		
A-32	<i>P. crassinoda</i>	(2.8)	80	*		
A-33	<i>P. (Megaponera) foetens</i> (Metabele ant)	(130)	70	315	*	
A-34	<i>P. (Paltothyreus) tarsatus</i> (stink ant)	(64)	50	225	1000	3500
A-35	<i>P. (Bothroponera) strigulosa</i>	(9)	70	*		
A-36	<i>Termitopone commutata</i>	(10)	70	315	1400	*
A-40	<i>Platythyrea lamellosa</i>	(11)	70	315	*	
A-50	<i>Diacamma</i> sp.**	(35)	100	450	*	
A-60	<i>Dinoponera gigantea</i>	(11)	60	270	1200	4200
A-70	<i>Paraponera clavata</i> (bullet ant)	(6.0)	60	270	1200	4200
A-80	<i>Ectatomma tuberculatum</i>	(1)	60	270	*	
A-81	<i>E. quadridens</i>	(17)	60	270	*	
A-90	<i>Odontomachus</i> sp.**	(33)	60	275	*	
A-110	<i>Tetraponera</i> sp**	(.35)	140	600	*	
A-120	<i>Streblognathus aethiopicus</i>	(8.0)	80	360	*	
<b>SOLITARY WASPS AND BEES</b>						
	Spider wasps -- Pompilidae					
SW-10	<i>Pepsis</i> sp.**	(65)	60	270	1200	4200
	Mutillid wasps -- Mutillidae					
SW-20	<i>Dasymutilla</i> sp.**	(71)	70	315	1400	*
SW-39	Other wasps (Scoliidae, Tiphiidae, Sphecidae, Eumenidae, etc.)**		*			
	Carpenter bees -- <i>Xylocopa</i>					
SB-10	<i>X. californica</i>	(21)	50	225	1000	*
SB-11	<i>X. veripuncta</i>	(33)	55	245	*	
SB-20	<i>Proxyllocopa rufa</i>	(11)	100	450	*	
SB-39	Other bees**		*			

\*Inquire for prices and availability.

\*\*Available species provided; exact determinations usually included.

# Natural Toxins

Research Center  
(NTRC)

TEXAS A&M UNIVERSITY  
KINGSVILLE

## VENOM QUALITY GUARANTEE

**Authenticity of Species • Purity of Venom**  
**Maximum Biological Activity • Our Venom is Never Pooled**

**Snake venoms contain important molecules which are valuable for researching the treatments of strokes, heart attacks, and cancer.**

The Natural Toxins Research Center (NTRC) at Texas A&M University-Kingsville is dedicated to providing high quality snake products for biomedical research. We are committed to the procurement and distribution of venoms, venom fractions and tissue for biomedical research. Venoms from the same species can be different, and therefore extracted venoms are never pooled. Each vial contains venom from a single snake, and venoms of the same species are never mixed. The vials are labeled with the snakes' scientific and common names, ID tag number and sex. The ID tag number can be traced back to the NTRC Internet Database ([ntrc.tamuk.edu/cgi-bin/serpentarium/snake.query](http://ntrc.tamuk.edu/cgi-bin/serpentarium/snake.query)) for additional information about each snake.

Southern Copperhead - <i>Agkistrodon contortrix contortrix</i> .....	\$75.00/1g	.....	\$50.63/500mg	
Broad-Banded Copperhead - <i>Agkistrodon contortrix laticinctus</i> ..	\$100.00/1g	.....	\$67.50/500mg	
Northern Copperhead - <i>Agkistrodon contortrix mokasen</i> .....	\$50.00/1g	.....	\$33.75/500mg	
Trans-Pecos Copperhead - <i>Agkistrodon contortrix pictigaster</i> .....	\$75.00/1g	.....	\$50.63/500mg	
Florida Cottonmouth - <i>Agkistrodon piscivorus conanti</i> .....	\$60.00/1g	.....	\$40.50/500mg	
Western Cottonmouth - <i>Agkistrodon piscivorus leucostoma</i> .....	\$56.00/1g	.....	\$37.80/500mg	
Eastern Diamondback Rattlesnake - <i>Crotalus adamanteus</i> .....	\$50.00/1g	.....	\$33.75/500mg	
Western Diamondback Rattlesnake - <i>Crotalus atrox</i> .....	\$45.00/1g	.....	\$30.38/500mg	
Sonoran Sidewinder - <i>Crotalus cerastes cercobombus</i> .....	\$125.00/1g	.....	\$84.38/500mg	
Timber Rattlesnake - <i>Crotalus horridus</i> .....	\$70.00/1g	.....	\$47.25/500mg	
Mottled Rock Rattlesnake - <i>Crotalus lepidus lepidus</i> .....	\$125.00/1g	.....	\$84.38/500mg	
Blacktail Rattlesnake - <i>Crotalus molossus molossus</i> .....	\$400.00/1g	.....	\$270.00/500mg	\$72.90/100mg
Great Basin Rattlesnake - <i>Crotalus oreganus lutosus</i> .....	\$125.00/1g	.....	\$84.38/500mg	
Grand Canyon Rattlesnake - <i>Crotalus oreganus abyssus</i> .....	\$250.00/1g	.....	\$168.75/500mg	\$45.56/100mg
Texas Coral Snake - <i>Micrurus tener tener</i> .....	\$2000.00/1g			
Florida Coral Snake - <i>Micrurus fulvius</i> .....	\$1800.00/1g			
Southern Pacific Rattlesnake - <i>Crotalus oreganus helleri</i> .....	\$400.00/1g	.....	\$270.00/500mg	\$72.90/100mg
Northern Pacific Rattlesnake - <i>Crotalus oreganus oreganus</i> .....	\$400.00/1g	.....	\$270.00/500mg	\$72.90/100mg
Mohave Rattlesnake - <i>Crotalus scutulatus scutulatus</i> (A) .....	\$250.00/1g	.....	\$168.75/500mg	\$45.56/100mg
Mohave Rattlesnake - <i>Crotalus scutulatus scutulatus</i> (B) .....	\$1000.00/1g	.....	\$675.00/500mg	\$182.25/100mg
Prairie Rattlesnake - <i>Crotalus viridis viridis</i> .....	\$70.00/1g	.....	\$47.25/500mg	
Red Spitting Cobra - <i>Naja pallida</i> .....	\$100.00/1g	.....	\$67.50/500mg	
Desert Massasauga - <i>Sistrurus catenatus edwardsii</i> .....	\$1000.00/1g	.....	\$675.00/500mg	\$182.25/100mg
Western Massasauga - <i>Sistrurus catenatus tergeminus</i> .....	\$1000.00/1g	.....	\$675.00/500mg	\$182.25/100mg
Bushmaster - <i>Lachesis muta muta</i> .....	\$2000.00/1g	.....	\$1350.00/500mg	\$364.50/100mg

(A) - neurotoxic venom  
(B) - non-neurotoxic venom  
\*Subject to availability

Venom is collected under stringent laboratory conditions using disposable labwear for each extraction. Venom is collected in new, non-reusable plastic cups with parafilm coverings. Snakes are allowed to bite into the parafilm diaphragm and the venom glands are not massaged. Immediately following collection, each venom sample is clarified by centrifugation at 500 x g for 5 minutes to remove cellular debris and frozen at -90° C until lyophilized.

**Foreign Investigators:** Please note that your order may be subject to import duties, taxes, tariffs, customs charges, DDP, VAT, and the like, once your package reaches your country. It is your responsibility to pay for these charges. The Natural Toxins Research Center will not be responsible for paying these charges, and we will not bill you for such charges when you place your order.

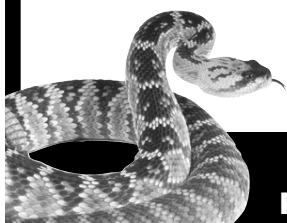
**Venom glands and fractions also for sale - call for pricing & availability**

**If you're interested in study or research opportunities  
at the NTRC, call us at the number below!**

**[www.ntrc.tamuk.edu](http://www.ntrc.tamuk.edu)**

**Please Contact Us for More Information:**

**Phone: (361) 593-3082 • Fax: (361) 593-3798 • Email: [kanmd00@tamuk.edu](mailto:kanmd00@tamuk.edu)**





# Venom Supplies Pty Ltd

ABN number 39 458 465 843

PO Box 547

Tanunda

South Australia

Phone 08 8563 0001

+61 8 8563 0001

Fax 08 8563 0020

+61 8 8563 0020

Email: [venoms@venomsupplies.com](mailto:venoms@venomsupplies.com)Web: [www.venomsupplies.com](http://www.venomsupplies.com)

## Lyophilised Venoms

### Snakes

#### Scientific name

#### Price(US\$)/200mg

#### Price(US\$)/gm

<i>Acanthophis antarcticus</i>	\$170	\$745
<i>Acanthophis praelongus</i>	\$210	\$845
<i>Agkistrodon billineatus</i>	\$50	\$200
<i>Austrelaps superbus</i>	\$400	\$1,600
<i>Austrelaps labialis</i>	\$700	\$3,000
<i>Bitis arietans</i>	\$70	\$300
<i>Bitis rhinoceros</i>	\$75	\$340
<i>Bitis nasicornis</i>	\$75	\$340
<i>Bothriechis schlegelii</i>	\$200	\$850
<i>Crotalus adamanteus</i>	\$100	\$450
<i>Crotalus unicolor</i>	\$200	\$900
<i>Crotalus vegrandis</i>	\$160	\$700
<i>Hoplocephalus stephensii</i>	\$220	\$900
<i>Hoplocephalus bitorquatus</i>	\$220	\$900
<i>Naja kaouthia</i>	\$60	\$250
<i>Naja melanoleuca</i>	\$50	\$200
<i>Naja mossambica</i>	\$60	\$250
<i>Naja siamensis</i>	\$60	\$250
<i>Notechis ater humphreysi</i>	\$350	\$1,600
<i>Notechis ater niger</i>	\$350	\$1,600
<i>Notechis ater serventyi</i>	\$350	\$1,600
<i>Notechis scutatus</i>	\$300	\$1,445
<i>Ophiophagus hannah</i>	\$200	\$850
<i>Oxyuranus microlepidotus</i>	\$300	\$1,300
<i>Oxyuranus scutellatus</i>	\$260	\$1,250
<i>Oxyuranus scutellatus canni</i>	\$400	\$1,500
<i>Pseudechis australis</i>	\$110	\$520
<i>Pseudechis butleri</i>	\$160	\$700
<i>Pseudechis colletti</i>	\$110	\$500
<i>Pseudechis guttatus</i>	\$110	\$500
<i>Pseudechis porphyriacus</i>	\$140	\$650
<i>Pseudechis papuanus</i>	\$288	\$1,380
<i>Pseudonaja affinis</i>	\$800	\$3,900
<i>Pseudonaja aspidorhyncha</i>	\$800	\$3,990
<i>Pseudonaja inframacula</i>	\$800	\$3,990
<i>Pseudonaja nuchalis</i>	\$800	\$3,990
<i>Pseudonaja textilis</i>	\$760	\$3,700
<i>Tropidechis carinatus</i>	\$300	\$1,500

### Spider Venom

*Lampona cylindrata*

\$360 / 10sac contents    \$720 / 25sac contents

*Latrodectus hasseltii*

\$500/50 sac contents.

### Bee Venom

Pure bee venom (*Apis mellifera*)

250mg

\$58

(1-5gm)

\$130/gm

(6-10gm)

\$116/gm

(60gm and over)

\$95/gm

### Amphibian Venoms

*Bufo marinus*

\$95/200mg

\$450/gm

5% discount will apply for all orders over 5 gm and 7% will apply to orders over 15gm for venoms produced at Venom Supplies Pty Ltd.

**Medtoxin Venom Laboratories**  
**2710 Big John Drive**  
**Deland, Florida 32724**  
**Phone: 386-734-3049**  
**386-740-9143**  
**Fax: 386-734-4163**  
**elapid33@aol.com**  
**www.Medtoxin.com**

## VENOM PRICELIST SPRING/SUMMER 2009

Dendroaspis polylepis	\$550.00
Dendroaspis angusticeps	\$400.00
Dendroaspis viridis	\$750.00
Naja nivea	\$205.00
Naja melanoleuca	\$205.00
Naja nigricollis (Tanzania)	\$205.00
Naja nigricollis (Ghana)	\$205.00
Naja h. annulifera	\$125.00
Naja kaouthia	\$205.00
Naja naja (Pakistan)	\$250.00
Ophiophagus hannah	\$150.00
Micrurus f. fulvius	\$2100.00
Bitis arietans	\$150.00
Bitis g. gabonica	\$150.00
Bitis g. rhinoceros	\$150.00
Crotalus adamanteus	\$150.00
Crotalus atrox	\$150.00
Crotalus h. atricaudatus	\$150.00
Crotalus h. horridus	\$150.00
Crotalus s.scutulatus	\$450.00
Crotalus d. terrificus	\$450.00
Sistrurus m. barbouri	\$450.00
Agkistrodon c.contortrix	\$190.00
Agkistrodon c. laticinctus	\$190.00
Agkistrodon c. mokasen	\$100.00
Agkistrodon p. conanti	\$100.00

Many other venoms available in limited quantity, please inquire  
 Special orders to meet research needs

Exact locality data on most species available, Species are guaranteed

Prices are quoted per gram in U.S. dollars, subject to change without notice

Payment terms net 30 days check, money order, or wire transfer

Shipping is free in the U.S. may be extra for international orders

*SERPENTARIUM SANMARU*

## HIGH QUALITY VENOMS & TOXINS

## Lyophilized and crystallized venoms

<b>Bothrops alternatus</b>	<b>1440, 00 US\$</b>
<b>Bothrops jararaca</b>	<b>220,00 US\$</b>
<b>Bothrops jararacussu</b>	<b>264,00 US\$</b>
<b>Bothrops moojeni</b>	<b>300,00 US\$</b>
<b>Bothrops neuwiedi</b>	<b>340,00 US\$</b>
<b>Crotalus durissus terrificus</b>	<b>220,00 US\$</b>
<b>Crotalus durissus collineatus</b>	<b>300,00 US\$</b>

**Lachesis muta muta** **600,00 US\$**

**Bufo marinus / schneideri** **264,00 US\$**

### All venoms collected in a sterile manner

## Blood cells and freeze dried blood plasm from snakes

**We have also other proteins, aminoacids and toxin polyclonal antibodies from brazilian snakes**

**We trade or sale our products only with CITES from the IBAMA (Brazilian Environment Agency & Wildlife)**

**Prices quoted per gram in US\$. Transport FOB**

**Brazilian Contact:**

## Sanmaru Serpentarium,

**Rod. Brig. Faria Lima km 365**

**14765-000 Taquaral SP, Brazil**

**[herpetoscience@hotmail.com](mailto:herpetoscience@hotmail.com)**

[taquaral@gmail.com](mailto:taquaral@gmail.com)

**Fone (55) 14 9731 2436**

(55) 16 3958 7269

**Kentucky Reptile Zoo**

Venom Price List 2009-2010

200 L and E Railroad

Slade, KY 40376

Tel:606-663-9160

Fax: 606-663-6917

Web: [www.kyreptilezoo.org](http://www.kyreptilezoo.org)Email: [reptilezoo@bellsouth.net](mailto:reptilezoo@bellsouth.net)**Crotalidae**

<i>Agkistrodon contortrix contortrix</i>	\$60.00
<i>Agkistrodon contortrix mokasen</i>	\$55.00
<i>Agkistrodon contortrix laticinctus</i>	\$70.00
<i>Agkistrodon contortrix phaeogaster</i>	\$70.00
<i>Agkistrodon contortrix pictigaster</i>	\$70.00
<i>Agkistrodon piscivorus leucostoma</i>	\$45.00
<i>Agkistrodon piscivorus piscivorus</i>	\$45.00
<i>Bothrops asper</i>	\$100.00
<i>Bothrops atrox</i>	\$100.00
<i>Bothrops moojeni</i>	\$100.00
<i>Crotalus adamanteus</i>	\$60.00
<i>Crotalus atrox</i>	\$70.00
<i>Crotalus basiliscus basiliscus</i>	\$200.00
<i>Crotalus cerastes</i>	\$100.00
<i>Crotalus durissus cumanensis</i>	\$300.00
<i>Crotalus durissus durissus</i> (fmr. <i>C. d. dryinas</i> )	\$200.00
<i>Crotalus durissus terrificus</i>	\$175.00
<i>Crotalus horridus</i>	\$100.00
<i>Crotalus horridus</i> (type A neurotoxin)	\$100.00
<i>Crotalus molossus</i> (Texas origin)	\$70.00
<i>Crotalus scutulatus scutulatus</i>	\$250.00
<i>Crotalus viridis viridis</i>	\$70.00
<i>Protobothrops flavoviridis</i>	\$200.00
<i>Trimeresurus borneoensis</i>	\$200.00

**Elapidae**

<i>Dendroaspis angusticeps</i>	\$350.00
<i>Dendroaspis jamesoni kaimosae</i>	\$400.00
<i>Dendroaspis polylepis</i>	\$400.00
<i>Micrurus tenere</i>	\$1000.00
<i>Naja kaouthia</i>	\$100.00
<i>Naja kaouthia</i> (Suphan province)	\$100.00
<i>Naja melanoleuca</i>	\$80.00
<i>Naja naja</i> (India)	\$85.00
<i>Naja naja</i> (Pakistan)	\$80.00
<i>Naja nigricollis nigricollis</i>	\$80.00

<i>Naja nivea</i>	\$100.00
<i>Naja pallida</i>	\$100.00
<i>Naja siamensis</i>	\$60.00
<i>Ophiophagus hannah</i>	\$95.00
<i>Pseudechis colletti</i>	\$320.00

### **Viperidae**

<i>Bitis arietans</i>	\$120.00
<i>Bitis gabonica rhinoceros</i>	\$130.00
<i>Daboia (Vipera) russelli</i>	\$200.00
<i>Daboia (Vipera) siamensis</i>	\$200.00
<i>Echis carinatus</i>	\$350.00
<i>Echis pyramidum</i>	\$350.00

### **Helodermatidae**

<i>Heloderma horridum</i>	\$600.00
<i>Heloderma suspectum</i>	\$600.00

### **Terms**

- All venoms are collected in a sterile manner and frozen at -70C before lyophilization.
- Other venoms are available upon request in small quantities; please contact us for more information on other venoms
- CITES papers available on all CITES listed species. Extra costs apply for permits and inspection fees.
- Locale information available for most species.
- Payment may be made by check, money order, wire transfer, PayPal, MC, Visa, and Discover. All prices are listed per gram in US dollars. Shipping and packing charges are extra.
- Discounts on standing orders and orders of 10g or more.
- KRZ makes every effort to stay current regarding nomenclature and taxonomy. Our listing reflects current trends, with former names in parentheses. If you have questions, please feel free to contact us.
- Scale clippings for DNA analysis available at an extra charge. Please contact us for more information.



$\alpha$ **ALPHA BIOTOXINE**

**Laboratoire de production de venin**  
**Fournisseur en venin**  
**Négociant en toxines purifiées**

**Venom production laboratory**  
**Venom supplier**  
**Pure toxins dealer**

**Venins cristallisés, venins lyophilisés, bases pour teintures mères, plasma,...**

**Crystalised venom, lyophilised venom, mother tincture bases, plasma,...**

**ALPHA BIOTOXINE est une jeune société spécialisée dans la production de venin.**

**Nous mettons à votre service plus de 20 ans d'expérience dans l'étude des animaux venimeux et la production de venin.**

**Notre laboratoire s'adapte à tout type de demande. Contactez nous.**

**ALPHA BIOTOXINE is a young society specialised on venom production.**

**We offer you more than 20 years of experience on study of venomous animals and venom production.**

**Our laboratory is adapted to all kind of request. Please contact us.**

**Rudy Fourmy  
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7911 Montroeuil-au-Bois  
Belgique - Belgium  
[info@alphabiotoxine.be](mailto:info@alphabiotoxine.be)**

**Visitez notre site web : [www.alphabiotoxine.be](http://www.alphabiotoxine.be)  
Please, visit our website : [www.alphabiotoxine.be](http://www.alphabiotoxine.be)**

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## Venoms, Toxins, Ion Channel and Receptor Ligands Alkaloids and Plant Compounds



**LATOXAN** provides an exclusive range of bioactive natural molecules from **Plant** and **Animal** origins:

- ▣ Purified small molecules from unique plants.
- ▣ Venom fractions for an easy access to new peptides, alkaloids or polyamines with high pharmacological activity potential.
- ▣ Pure venoms from over 250 animal species.

**LATOXAN's** products are supplied with reliable taxonomy, elucidated molecular structure or complex mixtures chromatograms.

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