

#### UPCOMING MEETINGS

**There are currently no IST Congresses scheduled for the remainder of 2012.**

There is a proposal for a Pan-American Section IST Congress in Brazil, in 2013, but details await confirmation.

There is a firm proposal for an Asia-Pacific Section IST Congress in Changsha, China, June 14-18, 2014.

The next European Section IST Congress will likely be the IST World Congress, probably in 2015, but location and details are not currently available.

Following the IST Constitution revision, approved at the IST World Congress in Hawaii, July 2012, there may be a progressive change in IST Congress scheduling.

***Plus see later in this newsletter for other meetings scheduled in the next few months.***

#### FROM THE IST EXECUTIVE

The IST World Congress in Hawaii, July 8-13, 2012, has been and gone. On behalf of members I thank the organisers, especially Prof. Steve Seifert and Prof. Carl Vogel, for their efforts in making the Congress a success. There were about 350 registrants from around 40 nations, with 344 abstracts submitted, so it was a busy Congress.

As usual, the IST held its AGM during the Congress and apart from the routine reports, some major items of business were transacted. Nominations were taken for IST Executive and Council positions (see later in the Newsletter for details) and a vote on contested positions will occur shortly via email to Financial Members. A revised Constitution was voted on and unanimously approved by members present. This will allow Council to start developing the management structure needed for a formal clinical toxinology training program, so will allow progression of our Clinical Toxinology Initiative. Our new President, Prof. Alan Harvey, proposed a new initiative for IST, a Global Alliance for Toxins Into Medicines (see later in the Newsletter) which I commend to Members. Prof. Harvey also reported on Toxicon, as Editor of our Society Journal. The IST Annual Dues were discussed, with a recommendation they be raised to US\$55 per year, and approved at the meeting.

The IST has a growing number of activities it is involved in, all promoting various aspects of toxinology on the global stage, and Members should be excited about what we can achieve together in the betterment of our science of toxinology and in improving the outcome for the millions of people affected by venom/toxin-based diseases every year.

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.

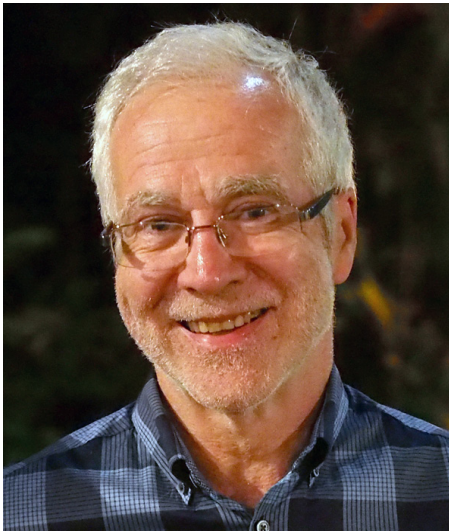
Julian White  
Secretary/Treasurer IST

President: A Harvey  
Secretary/Treasurer: J White  
President Elect: awaiting vote  
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  
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## MESSAGE FROM THE PRESIDENT (I.S.T)



Dear Fellow Toxinologists,

The 17th World Congress of the IST was held in Honolulu between 8-13 July. For the first time, the Congress was held in association with Venom Week. There were over 300 delegates and a very full scientific programme that truly covered 'all things venomous'. The Congress was very successful, both professionally and socially, and the organisers Carl-Wilhelm Vogel (University of Hawaii Cancer Center) and Steven Seifert (University of New Mexico) did a fantastic job. 'Mahalo' to both!

The IST's business meeting was held during the Congress. Following his presidential report, Professor Gopalakrishna-kone handed over office to me. I would like to pay tribute to Gopal for his efforts and dedication to the Society and to wish him continued success in his toxicological research.

The business meeting also confirmed the re-election of our Secretary/Treasurer, Julian White, for another three years in office from 2015-2018. Congratulations to Julian – and many thanks for his huge contribution to the IST since he took over the position from Dietrich Mebs.

There are several plans for further developments of our society, including on-line access to Toxicon for all paid-up members. Further details will appear in coming newsletters, but, as always, the success of any initiative will depend on active support from members. I hope you will engage enthusiastically for our mutual benefit.

One possible IST initiative that I announced at the business meeting was the proposal for a Global Alliance for Venoms into Medicines. More details appear elsewhere in this newsletter, but the general aim is to pool the considerable resources and expertise of IST members in order to transform our ability to contribute to the discovery and development of medicines based on venom components.

I hope that I will be able to continue the long tradition of Presidents in helping the development of the IST. To that end, I will always be happy to receive comments and suggestions from members.

With best wishes

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

## 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  
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## 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 is 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 is trialling an internet-based process for taxonomists to interact through.

The first stage is a small invited group of experts on snake taxonomy, who can interact through a special wiki site and develop updates and recommendations for dissemination to all IST members through the main IST website or the Newsletter. This group is in its formative stages at present and our experiences with this will be used to guide establishment of similar groups in the future to cover other areas of taxonomy, such as scorpions, spiders, marine organisms etc.

Once this early stage has allowed us to develop a viable structure and processes the IST will invite members to submit names of taxonomists in each major taxa who could then be approached re involvement in this initiative. Until then I ask that members do not send me names or indicate their own interest in this area, but rather allow me to work with this initial trial group to iron out details of how to make the process deliver results.

Julian White, Secretary IST

**IST WORLD CONGRESS - HAWAII July 8-13, 2012**

With 350 registrants from 39 countries and 344 submitted abstracts, the Hawaii Congress can only be considered a success, allowing toxinologists from around the World to both present their latest research and listen to the work of many others, across the breadth of toxinology. Particularly pleasing was a clear clinical toxinology track throughout the program, making the meeting very worthwhile, not just for basic research toxinologists, but for clinical toxinologists as well. The participation of a clinicians from a number of African countries was especially welcome.

Indeed, the clinical relevance of the meeting was evident even in the choice of Prof. David Warrell as Redi Award recipient for 2012. David gave an outstanding lecture in commemoration of his award.

The Congress was held at the Hilton Hawaiian Village, next to Waikiki, on the island of O'ahu. The Hilton complex is massive, with 3,700 rooms and several meeting venues, and is set up very much as a holiday resort facing onto the far end of the Waikiki beach.

Given the location, the weather was typically balmy and for many people, "shorts and thongs (sorry, "flip-flops" for Americans) weather". With several pools and a good beach, all in the resort, plus proximity to Waikiki, attendees had much to tempt them away from the meeting, but for most the many and varied scientific sessions proved the top attraction.

The meeting had an official opening, chaired by the joint Congress Organisers, Prof. Carl Vogel (University of Hawaii) and Prof. Steve Seifert (University of New Mexico), first with a welcoming traditional Hawaiian blessing by Dr. Kalani Brady, a local physician. This was followed by most thoughtful welcoming speeches by the Governor of Hawaii, Neil Abercrombie and the Mayor, Peter Carlisle. Both commended Hawaii as a place to conduct toxinology research and to be considered in international toxinology collaborations.



The outgoing IST President, Prof. P Gopalakrishnakone (Singapore) then welcomed IST members and opened the Congress.

Profs Vogel and Seifert then took over the running of the Congress, keeping attendees informed as minor changes in the complicated program occurred.

The scientific program, with so many abstracts to accommodate, was inevitably rather packed. In planning the Congress a decision had been made early to keep virtually all oral presentations brief, even invited plenary lectures, the only two exceptions being the Elsevier Guest Lecture and the Redi Award Lecture. Thus most oral presentations were limited to just 12 minutes, with invited plenary lectures mostly around 20 minutes. This ensured the maximum number of participants had an opportunity to present their work orally. Even so there were also many poster presentations.

On the evening of the official opening day, Monday July 9th, there was a hosted reception on one of the hotel lawns, where all participants could mingle. As the evening progressed there was a spectacular entertainment provided by a Japanese-style local drum troop who gave an energetic and skilled performance, enthralling the assembled members.

As part of this musical display some senior IST members were press ganged into providing comic relief, by showing their skills (or rather lack of skills in at least some cases) as “guest” drummers. I am not sure if sympathies should be directed to the 4 toxinology “drummers”, Profs Harvey, White, Gopalakrishnakone and Seifert, or to their audience! Anyway, a good time was had by all.





An important part of every IST World Congress is the Redi Award, the highest honour the Society can bestow on a member.

The Awardee for 2012, Prof. David Warrell, University of Oxford, UK, is a clinician and clinical toxicologist well known and respected in both the toxinology and medical communities. He was presented his Award by the outgoing IST President, Prof. Gopalakrishnakone. Prof. Warrell chose a clinical theme for his lecture, detailing the many areas of clinical toxinology he had been involved with over his working lifetime, in so many parts of the World, emphasising the many collaborators he had the privilege to work with, in each region.

The text of the Award reads as follows:

*In recognition of his outstanding contributions to the field of toxinology, the Redi Award of the International Society on Toxinology is given to Professor David Warrell.*

*David Warrell has had a stellar career in clinical medicine, where he has contributed substantially to the understanding of tropical diseases and to improving outcomes for patients. From his initial degree in animal physiology, through his clinical and doctoral studies and beyond, David's path has been marked by prizes, honours and awards. He has worked extensively in the field, including being a consultant for the World Health Organisation in India, Sri*

Lanka, Burma and Malaysia.

In addition to his contributions to infectious and other tropical diseases, David has produced significant insights into the clinical effects of snake bite, and his work has helped the treatment of patients. He published the first randomised comparative clinical trial in snake bite (and followed up with similarly pioneering work in cerebral malaria and rabies), and he has produced many papers that document precisely the signs and symptoms following envenoming. He has collaborated with research scientists to develop rapid diagnostic tests for snake bites. Taken together, his work has substantially improved the ability of clinicians throughout the world to deal with medical emergencies associated with snake bites.

Professor Warrell has produced over 400 publications and has also contributed immensely to the health of his discipline through his editorial work and his leadership. Without question, he has made a major contribution to clinical toxinology. It is with admiration and respect that the Society bestows upon him its highest honour – the Redi Award (2012).



The one who makes experiments enhances knowledge;  
the one who is credulous (too ready to believe) increases error



From left: Prof. Alan Harvey (incoming IST President), Prof. Steve Seifert (Congress co-organiser), Prof. Gopalakrishnakone (retiring IST President), Prof. David Warrell (Redi Award winner), Prof. Dietrich Mebs, Prof. Carl Vogel (Congress co-organiser).



From left: Prof. Dietrich Mebs, Prof. Juan Calvette, Prof. Cesare Montecucco, Prof. David Warrell, Prof. Chema Gutierrez, Dr. Bruno Lomonte.



On the Wednesday afternoon of the Congress time was set aside for participants to see a little bit of Hawaii, with an opportunity to visit the local aquarium or zoo.

Those who went to the aquarium had an opportunity to see beautifully displayed marine life from the surrounding Pacific Ocean, a wonderful and colourful array of fish, corals, invertebrates and other marine life.

This aquarium is actively involved in both marine research and conservation, and houses a number of rare animals unique to the Hawaiian region, including reserves of endangered corals that are being used to recolonise damaged reefs.

Apart from the many fish species, there are a number of jellyfish displayed, appropriate given jellyfish stings are a common hazard in Hawaiian waters. Indeed, during the week of the Congress, signs warning of jellyfish infestations and sting risk were erected on the beaches outside the hotel.

Several present or past IST members have been actively engaged in research on these jellyfish and their toxins.

Amongst the special items on display are giant clams and the magnificent orange-red and white striped peppermint angel-fish, *Paracentropyge boylei*.

A few members were lucky enough to be given a behind-the-scenes tour of the aquarium.





The other major social event of the Congress was the traditional Hawaiian Gala Dinner, complete with entertainment provided by a local dance troupe who demonstrated native dances from around the Pacific islands to as far away as New Zealand maoris, with their distinctive tongue extrusion style.



## International Society on Toxinology

### Annual General Meeting

July 13th, 2012

Hilton Hawaiian Village, Hawaii, USA

### MINUTES

1. **Meeting opened:** by Prof. Gopalakrishnakone, IST President & Prof. Julian White, IST Secretary/Treasurer
2. **Apologies:** none tendered
3. **President's Report:** delivered by Prof. Gopalakrishnakone
4. **Toxicon Editor's Report:** delivered by Prof. Alan Harvey, Editor in chief
5. **Secretary/Treasurer's Report:** delivered by Prof. Julian White  
**Moved:** J White; Seconded: A Harvey: That Treasurer's report be accepted. *Carried unanimously.*
6. **Annual dues:** Secretary/Treasurer noted that annual dues should be set for the coming year and that IST Council had debated an appropriate amount and had decided on US\$55.00 per year, noting that this included provisions for increased benefits for Members, particularly the likelihood of access to the electronic version of Toxicon.  
**Moved:** J White; Seconded: A Harvey: That the Annual Dues for the Society be increased to US\$55.00. *Carried unanimously.*
7. **The new proposed IST Constitution:** Prof. White briefly outlined the reasons for the proposed revision and proposed that the meeting first vote on version 2 of the new constitution, which included provisions for developing clinical toxinology. The meeting indicated, by a show of hands, that this was acceptable.  
**Moved:** J White; Seconded: A Harvey: That the meeting vote to accept version 2 as the new IST constitution. *Carried unanimously (33 votes in favor, none against).*
8. **Election of Office Bearers for the Society:** As determined by the Constitution, the offices of President and Secretary/Treasurer were declared vacant.  
The President Elect, Prof. Alan Harvey, was inducted as the new President, which under the terms of the new constitution, will a 4 year post, from 2012 to 2016.  
Prof. Harvey then assumed responsibility for running the meeting and called for nominations for President (Elect), Secretary/Treasurer and 6 Councillors, 2 from each of the 3 current regions (Europe, Pan-America, Asia-Pacific).

#### ***There were 3 nominations for President:***

(1) Yara Curry (Brazil): Nominated by A Harvey & J White

(2) Chema Gutierrez (Costa Rica): Nominated by D Mebs & J Fox

(3) Jay Fox (USA): Nominated by J Calvette & R Stocklin

Prof. Gutierrez was not present at the meeting and later declined his nomination, leaving 2 candidates, both of whom were at the meeting and accepted their nominations.

The Secretary/Treasurer, Prof. White, indicated he would organise an email election for President, to choose between the 2 candidates, Cury and Fox.

**There was 1 nomination for Secretary/Treasurer:**

Julian White (Australia): Nominated by D Mebs & D Warrell

The President declared Prof. White re-elected as Secretary/Treasurer, to serve for the following term (2016-2020). Prof. White was elected at the previous AGM in 2009 to serve for the coming term (2012-2016).

**Council nominations:**

There were no nominations received during the AGM for the 2 vacant positions for Councillors from the European Section: (Immediately after the meeting Dr. Reto Stocklin (Switzerland), Prof. Dietrich Mebs (Germany) and Prof. David Warrell (UK) indicated their interest in being considered for these positions.)

There were 3 nominations for the 2 positions for Councillors from the Pan-American Section: Prof. Steve Seifert (USA), Dr. Greta Binford (USA), Dr. Alejandro Alagon (Mexico).

There were 4 nominations for the 2 positions for Councillors for the Asia-Pacific Section: Prof. Carl Vogel (USA - Hawaii), Prof. Glenn King (Australia), Prof. Graham Nicholson (Australia), Prof. Manjunatha Kini (Singapore)

The Secretary/Treasurer indicated he would organise an email election for the contested Council positions, after first confirming acceptance of nominations by each candidate.

9. **The next IST World Congress:** The President indicated to the meeting that there was no current firm proposal for a host/venue for the next IST World Congress and invited members to suggest possible places. He further noted that the next World Congress should be in Europe, probably in 2015 and that there were now proposals for the next Pan-American Section Congress in Brazil in 2013 and the next Asia-Pacific Section Congress in China in 2014.

No definite offers were made, but Dr. Stocklin indicated he might be able to help host a European World Congress, most likely in Switzerland, in 2015, subject to budget and other matters being resolved.

There was some discussion from members about the current Hawaii Congress and following this the President noted that the consensus of members appeared to be that a smaller and less expensive venue would be preferable, to keep attendance costs as low as possible and that more student involvement and interaction between members working on different aspects of toxinology was desirable.

10. **New IST initiative:** The President, Prof. Harvey, proposed a new initiative for IST in the coming years, titled the "Global Alliance for Toxins Into Medicines (GATiM)" and presented briefly on what this initiative might involve.

There was general support expressed for this proposal by members.

11. **Other business:** no other business was noted.

12. The meeting was closed.

**Presidential address**

***(During the opening of the 17th World Congress of the International Society on Toxinology, July 8th till 13th at Hilton Hawaiian Village)***

***By Prof. P Gopalakrishnakone, President IST***



The Hon Neil Abercrombie, Governor of Hawaii,  
The Hon Peter Carlisle, Mayor of Honolulu  
Dr Kalani Brady.

Dear Fellow Toxinologists and Friends .

Aloha ,Welcome to Hawaii.

Let me share with you what I have learnt about Hawaii, some interesting facts

More than six million vacationers, most of them from the continental U.S. or Japan, spend close to 11 billion dollars a year in this tropical archipelago. Defense, centered on U.S. military bases at Pearl Harbor, is the second largest moneymaker. Descendants of Asians, who immigrated in the 19th and early 20th century to work on sugar plantations, add to the mix of people in this only state with no ethnic majority: Caucasians constitute 24 percent; Japanese, 18 percent; Filipino, 12 percent. The remainder includes ethnic Chinese and those of Hawaiian ancestry.

Ecologists estimate that 89 percent of Hawaii's flowering plants and 97 percent of its land animals—among them the world's only predatory caterpillars—exist nowhere else on Earth.

No wonder toxinologist chose this exotic paradise to host the world conference.

The 17th World Congress on Animal, Plant and Microbial Toxin of the International Society on Toxinology will be held in Hilton Village, Hawaii from Today July 8 till 13, 2012. This time we are combining the world Congress with the venom week 2012. Over the years there have been concerns that the Society and the meetings have not given sufficient attention to clinical toxinology. This world congress will be well balanced between basic toxinology research and clinical toxinology. The congress programme is well organized with many experts from various parts of the world participating. There will be a special plenary session including "Biotoxins and bioterrorism". "Drug discovery from natural toxins".

We have invited many clinical toxinologists from Asia and Africa to highlight the problems of envenomations which has been described as the "Disease of the poor". While we bring frontier research as basic toxinology we also look into the possibility of the basic research turned into application by translation research with particular reference to human treatment.

There are about 320 participants from over 40 countries. There are nine plenary and 42 concurrent scientific sessions as well as 218 platform and 130 poster presentations.

There will be also discussion on the initiatives of the IST, such as Nomenclature Committee, Global Snake Bite Initiative, Clinical Toxinology Group, etc.

I like to thank the meeting co-organizers and co-chairs Carl-Wilhem Vogel, of the University of Hawaii, and Steven A. Seifert, of the University of New Mexico and 32 Scientific Organizing Committee members and 8 Local Organizing Committee members for their untiring efforts who were supported by very efficient conference coordinators Catherine Wood and Dorrie Murray from the University of New Mexico Office of Continuing Medical Education.

As I have already mentioned Hawaii is well known for its tourist attractions, fabulous sea beaches, volcanoes as well as exotic delicious food and also a melting pot of culture.

As President of the International Society on Toxinology, I warmly welcome you all to Hawaii and for a successful World Congress both intellectually and socially.

Mahalo

P Gopalakrishnakone

## **INTERNATIONAL SOCIETY ON TOXINOLOGY SECRETARY-TREASURER'S REPORT 2009-2012**

### **Introduction**

The 2009-2012 Triennium has been a period of change for IST. Firstly, after 26 years Prof. Dietrich Mebs retired as Secretary/Treasurer of the IST, having been the longest serving member in this position. The Society owes him sincere thanks for looking after IST affairs for such a long period.

Therefore it was my first term as Secretary/Treasurer and I had much to learn and adjust. The Society is now in the internet/electronic age and it is time, both for logistic and financial reasons, to change practices to match the World we live in. Accordingly I initiated an electronic distribution of the IST Newsletter, instead of a posted and printed version. This saved time, money, and allowed a larger Newsletter that could, if required, include rapidly evolving issues.

I also instituted email communication with the members, rather than posted communication. Again, this saved time and money and allowed more rapid communication. Unfortunately, not all members had provided functioning email addresses, thus communication with a few members became disrupted. These members were sent a posted letter requesting an email address, but few responded positively. It is regrettable, but necessary, that those members failing to provide a valid email address will lose contact with the Society. However, there is another impediment to email communication with members; individual email filter systems (SPAM etc) that can prevent receipt of IST emails. It is up to individual members to ensure IST emails are not blocked in this way.

For collection of annual IST dues I continued the system initiated from 2003, whereby members supplied their credit card details and I used systems at my government hospital to charge the credit cards. Unfortunately, because of a variety of problems, including staff reductions at the hospital, changes in government policy and changed accounting systems used by government, this process became increasingly unsatisfactory. In 2010 it became very difficult to collect dues and by 2011 it was clear the system would be shut down and no dues could be collected. I thank all those members who tried to do the right thing for IST during 2010/2011, even though, in most cases, we were unable to successfully collect payments due to those issues.

Therefore, in early 2011 I tried to initiate a new solution for IST. This involved shifting the IST funds from the hospital account to a private bank account in the name of the IST and then setting up an online payment system for dues on the IST website. It soon became apparent that there were taxation and anti-money-laundry laws that affected what IST could do and that we had to change our Constitution to comply with these laws.

This was a lengthy process because the existing Constitution required members to be notified of change at least 90 days in advance and then vote on the change at a properly notified Business Meeting of the Society. Members rallied around to support the process and at the required meeting, in September 2011, the vote in favor of change was unanimous. I thank all the members who supported this process.

With the new Constitution in place, a bank account could be set up and then a PayPal account to allow online payments of dues. This latter process was switched on in mid-January, 2012. I believe it has proved successful.

As part of these changes it became apparent that collection of dues by Elsevier, for those also subscribing to Toxicon, was problematic for the Society. We had no way of reliably recording who was a financial member. Therefore beginning in 2012 I changed the system, so that all members had to pay dues directly to IST via the website. Elsevier would no longer collect dues on behalf of IST.

Inevitably there was a transition period with Elsevier, as a number of members had already paid 2012 dues via Elsevier, but this will be resolved during 2012. Members who paid twice for 2012, once via Elsevier and once via the IST website, will be refunded appropriately, though this process will take months to complete.

When I commenced as Secretary/Treasurer the membership list contained many names who were not financial, so this list was inflated. The membership listing given later in this report is a more accurate reflection of who is a financial or student member and thus shows an apparent decline in

membership. It is the task of the incoming IST Executive and Council to find ways to increase our membership again. In times of financial hardship for the World and the rise of national toxinology societies, this task will not prove easy. I feel sure the Executive and Council would welcome suggestions from present and past members on how we can achieve growth in membership for IST. One clear direction is to “value-add” for members and this is already being actively investigated.

The IST Newsletter can be an important form of communication for members and I have tried to initiate a number of developments for the Newsletter to “value-add” for members, but this requires input from at least some of the membership and to date that is largely lacking. If the Newsletter is to be useful for members, it needs input, regularly from members. It should not just be a venue for a report from the President and the Secretary/Treasurer.

To help stimulate information flow and “value-add” I have initiated several special groups within IST with an expectation they will provide regular updates to members via the Newsletter. To assist the process I set up several dedicated wiki sites for these groups, but they are, so far, underutilised. This comes down to commitment by individual members to actually contribute, in particular areas, to toxinology and IST, on a voluntary basis. Such volunteer work can substantially assist the whole toxinology community and I urge those who have put their hands up so far to please follow through and contribute within their special groups.

I have initiated an on-line database of all members, accessible only to members. This replaces the previous printed membership lists produced by Prof. Mebs and will save a significant amount for the Society. It should also be more up-to-date than printed lists. Every member has been sent details of their IST member number, database username and password. It is the responsibility of members to retain this important information as resupplying it is time-consuming and a superfluous effort.

The IST is governed by an Executive (President, Secretary/Treasurer, President Elect, Toxicon Editor) and a Council. All positions, except Toxicon Editor (appointed by Elsevier, not by the Society) are elected. Council has traditionally only met once every 3 years, at the World Congress of IST, even though the Constitution suggests a more frequent meeting schedule. This has made it impossible for Council to effectively govern IST affairs. To rectify this anomaly I instituted Council interaction by email and this process continues and grows in strength. From 2012 onwards I am trialling a specific wiki site for Council meetings and affairs, to further facilitate the process. As a result of these initiatives I believe we now have a far more involved and functional Council. I thank all Council members for their involvement. Remember, when you nominate members for Council and Executive, then vote on nominations, that those who are elected are there to help toxinology and IST. Please support their work.

At this Congress we will consider changes to our Constitution again, to add further flexibility in Society affairs, such as allowing us to change the meeting schedule. This will hopefully allow, if approved, development of a more useful schedule that will largely avoid clashing meetings, as nearly happened in 2011, and provide better forward planning for IST regional and world congresses. Equally important, the proposed new Constitution, version 2, adds sections to allow development of clinical toxinology. This is potentially a very important development for the Society and, when implemented, has the potential to substantially increase both membership and income, while making our Society far more important at an international level. I strongly support this proposal, not surprising since I developed it before seeking Council approval, and I urge Members to vote in favour of this version 2 new Constitution.

On the financial front, I have tried in the last triennium to reduce costs for IST, by moving to an electronic communication system, so that most or all of our meagre income can be used to support toxinology activities, particularly IST meetings. I believe IST should build up reserve funds to the point that it can underwrite IST meetings and take financial control of those meetings. If this process is enacted appropriately then IST will, longer term, derive income from meetings, in turn investing these resources back into future meetings. To be able to do this we require substantial funds in our account. Members will see that in the last 3 years, despite difficulties collecting members dues, and while still providing limited funds to support IST meetings, similar to previous years, the IST account is substantially greater than in 2009. I commend this achievement to members.

Our Toxicon Editor, Prof. Alan Harvey, who is also our President Elect, has negotiated a deal with Elsevier, who own and publish Toxicon, which would allow all Financial Members of IST access to the electronic version of Toxicon. He suggests this would be an added benefit of IST membership. Of course there is a cost associated and it is substantial, requiring an increase in IST dues. Council have yet to decide on this proposal, but shortly we will need to vote on Annual Dues for the following year, later in this meeting. In principal I believe what Prof. Harvey is suggesting is an important step forward for our Society. I will speak further on the issue of Annual Dues when this matter is specifically discussed later in the meeting.

Julian White  
Secretary/Treasurer  
International Society on Toxinology  
July 5th 2012

## FINANCIAL REPORT

	<b>2006-2009 Triennium</b>		<b>2009-2012 Triennium</b>		
<b>Income</b>	<b>Euro</b>	<b>Aus\$</b>	<b>Euro</b>	<b>Aus\$</b>	
Balance forwarded	4,637.60				A
Membership dues	13,596.06			18,002.30	B
Collected via WCH 2009-2011				4,548.10	
Collected via PayPal 2012 (net after charges)				6,739.50	
Received from Elsevier for dues collected				6,714.70	
Miscellaneous	4,000.00			0	
<b>Total</b>	<b>22,233.66</b>	<b>27,125.07</b>	<b>14,761.89</b>	<b>18,002.30</b>	C

A It is not possible to state this figure accurately because of exchange rate and WCH accounting software issues.

B Note this includes 2012 dues income prior to World Congress, thus extends beyond Triennium. Excluding this amount, the Membership dues income would be Aus\$11,262.80, resulting in a total income of Aus\$.

C Note this figure excludes the balance of funds brought forward because this is not available accurately (see note A above).

	<b>2006-2009 Triennium</b>		<b>2009-2012 Triennium</b>		
<b>Expenses</b>	<b>Euro</b>	<b>Aus\$</b>	<b>Euro</b>	<b>Aus\$</b>	
Office expenses	1,593.72		0	0	
Postage	4,504.38		0	0	
Printing	2,711.14		0	0	
Miscellaneous	2,180.91		0	0	
IST-Sections	4,080.99		4,707.16	5,740.44	
2010 PanAmerican Congress - Costa Rica				2,240.44	
2011 European Congress - Spain				3,500.00	
World Congress	4,000.00		4,260.59	5,195.84	
Redi Award	1,891.83		1,558.03	1,900.04	
<b>Total</b>	<b>20,962.97</b>	<b>25,574.82</b>	<b>10,525.78</b>	<b>12,836.32</b>	

**2006-2009 Triennium**

Balance in checking account as per March 2009:	1,270.69 Euro
Australian account (membership fees March 2009):	5,678.14 Euro

**Total (2006-2009)****6,948.83 Euro**Total (2006-2009) converted to Aus\$ Aus\$8,475.89 <sup>D</sup>

D Note this figure is not corrected for variations in currency exchange rates, therefore is an underestimate of actual funds held as Aus\$. This will affect the “funds increase” figure, below.

Amount transferred to WCH account for IST (May 2009) (transfer from Prof. Mebs of remaining IST funds)	Aus\$7,897.54
Amount in WCH account for IST (October 2009) (includes May transfer from Prof. Mebs)	Aus\$11,450.51

**2009-2012 Triennium**

Balance in IST bank account as at July 4th, 2012:	Aus\$26,127.95
Balance in PayPal account for IST as at July 4th, 2012:	Aus\$6,739.50

**Total (2009-2012)****Aus\$32,867.45**Nominal funds increase during Triennium <sup>E</sup>: Aus\$24,391.56

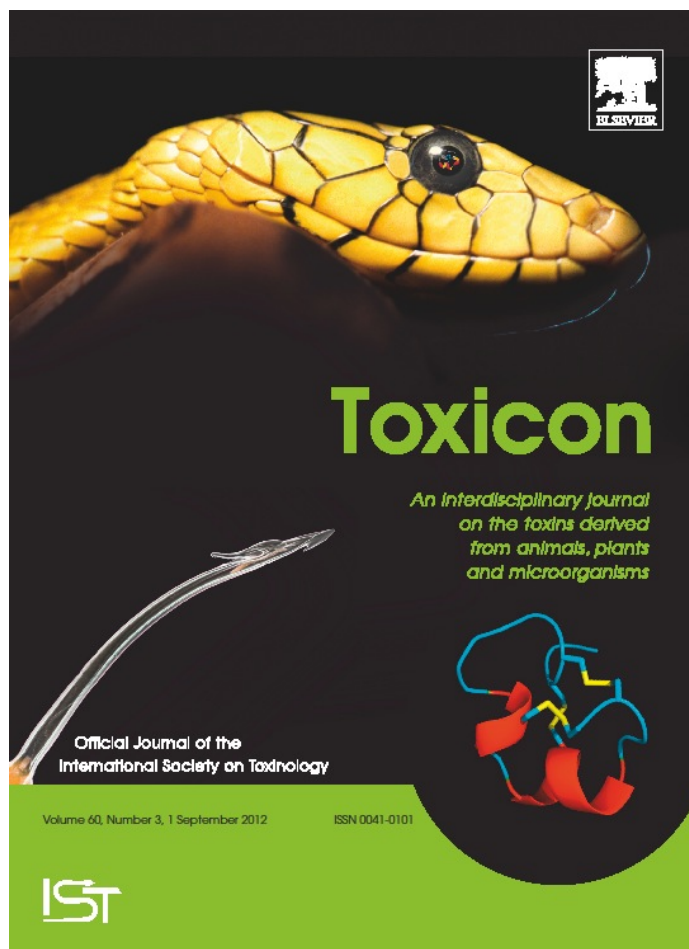
E Note this figure is artificially high because of inability to accurately determine actual “Balance of funds brought forward” in 2009, owing to problems with the WCH accounting system.

**MEMBERSHIP DETAILS**

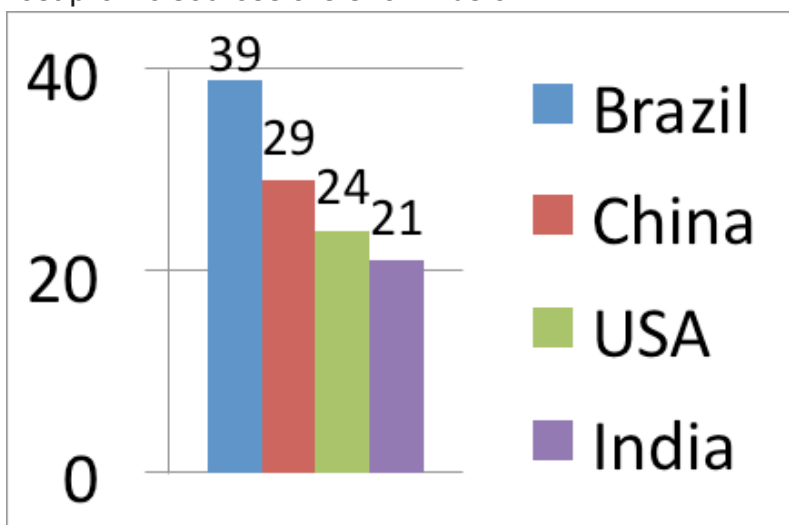
<b>Membership Class</b>	<b>Year 2012</b>
Full members (financial)	252
Full members (financial) + subscribe to Toxicon	64
Affiliate members (Financial)	7
Affiliate members (Financial) + subscribe to Toxicon	14
Student members	93
Unfinancial Full members	185
Unfinancial Affiliate members	35
Resigned or died	13
Lapsed	2
<b>TOTAL Active Financial &amp; Student members</b>	<b>432</b>
New Members in triennium	220
Full members	153
Affiliate members	15
Student members	52

## Report on Toxicon 2009-2012

After some years, the journal has a new cover. Many thanks to Reto Stöcklin and his colleagues for help with the illustrations and design.

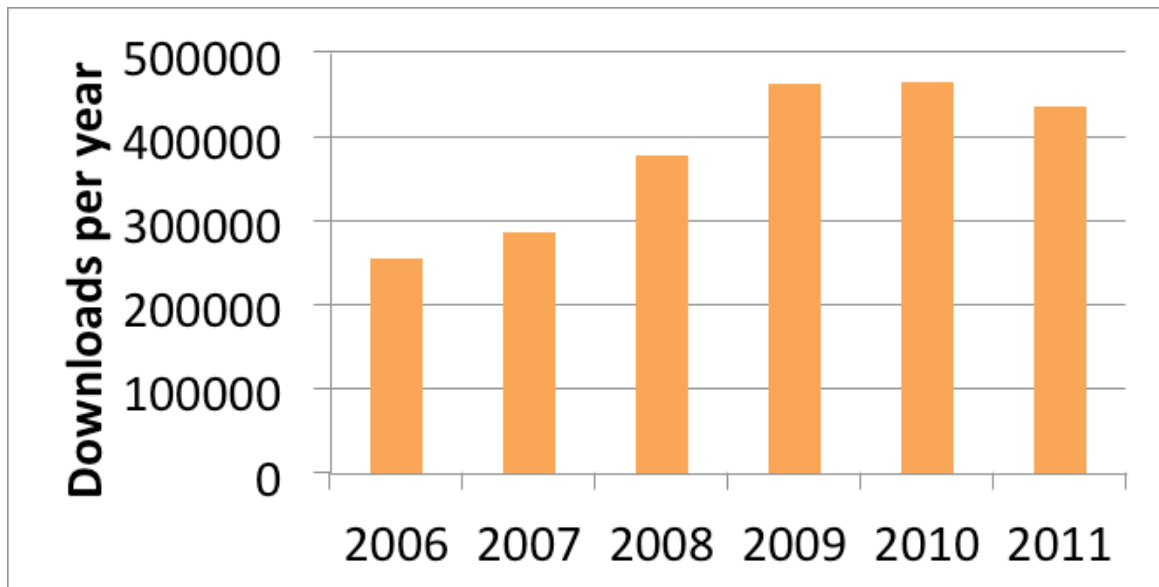


The flow of manuscripts continues to be healthy: it has been over 500 each year for the last few years (529 in 2011), and 308 this year so far. These come from many different countries: 49 in the last full year. The most prolific sources are shown below.



The editorial process time has shortened: 9.4 weeks on average from first submission to final decision in 2011, whereas it was 13.6 weeks in 2009. It takes 2-3 weeks after acceptance for the final version to appear on the web.

The Impact Factor for Toxicon has gone up from 2.128 in 2009 to 2.508 in 2011. This increase may be related to the growing availability of articles on-line. There are over 400,000 downloads of full papers from the journal in recent years:



In conclusion, I would like to thank reviewers for their timely and constructive reports on new submissions, and members of the IST for their continued support of the journal.

Alan Harvey  
Editor-in-Chief

## A new initiative of the IST: the Global Alliance for Venoms into Medicines

Throughout the history of drug discovery, the chemical diversity from nature has been consistently the most important source of leads for new medicines (Harvey, 2008; Newman & Cragg, 2012), and leads from venoms and venom components have played a substantial part. There are several examples of therapeutic agents being developed from components originally found in venoms, and many members of the IST are engaged in some form of drug discovery activity as part of their toxin-related research.

When it comes to discovering compounds that are active on assays relevant to different diseases, the chances of finding successful 'hits' increase with the size and diversity of the chemical collection being screened. That is why pharmaceutical companies create huge libraries from different sources of chemical diversity. Academic groups tend to be limited both in the range of bioassays at their disposal and in the size and diversity of their screening collection. It is proposed that IST members who are interested in expanding their possibilities for drug discovery from venom components should form a research collaboration as part of an IST initiative, the Global Alliance for Venoms into Medicines (GAViM).

Through the collaboration, participants would share chemical resources and access to biological assays. For instance, one set of compounds could be tested in the originator's laboratory on a certain set of assays and may be found to be inactive. The compounds could then go to one or several collaborating laboratories for testing on additional assays. The more assays used, the higher the chance of a 'hit' being discovered.

The collaboration would also include members with expertise in 'hit-to-lead' development work, which is a critical feature to enhance the value of any initial discovery and make it more attractive as a candidate for possible clinical development.

The collaboration would operate under a defined agreement that covers intellectual property rights, publication procedures and sharing of any commercial benefits. It is expected that the collaboration will be an attractive vehicle for bidding for external support for the proposed drug discovery activities.

The overall mission of GAViM will be to transform the ability of toxin researchers to contribute to the discovery and development of medicines for unmet therapeutic needs. The vision is that, by 2017, GAViM will be delivering bioactive compounds with valuable therapeutic potential through its global network of toxinologists with unique access to novel venoms and toxins, and with combined expertise in natural products chemistry and drug discovery and development.

It is intended that GAViM will provide several benefits to participants, including:

- increased chance of successful drug discovery
- enhanced training and spread of expertise
- opportunities for funding
- north-south and south-south collaborations
- potential to contribute to development of novel medicines
- possibility of shared commercial benefits

Several IST members who were participating in the 17th World Congress of the IST expressed their interest in developing the possibility of GAViM. I now invite you to contact me to express your interest. This does not commit you to anything at this stage; it is simply to assess the degree of enthusiasm for the proposed initiative.

When responding, it would be useful if you could indicate the types of bioassays and/or the chemical resources that you might be able to contribute to the collaboration. Please contact me by email: [a.l.harvey@strath.ac.uk](mailto:a.l.harvey@strath.ac.uk), by 30 September 2012. Please also contact me if you have any questions or suggestions.

Thank you.

Alan Harvey  
President, IST

Harvey AL. (2008). Natural products in drug discovery. *Drug Discovery Today* 13: 894-901.

Newman DJ, Cragg GM. (2012). Natural products as sources of new drugs over the 30 years from 1981 to 2010. *J Nat Prod*. 75: 311-335.

## **The New Revised IST Constitution Adopted At The Hawaii World Congress**

# **CONSTITUTION AND BY-LAWS OF THE INTERNATIONAL SOCIETY ON TOXINOLOGY**

### **ARTICLE I**

#### **NAME**

The name of this organization shall be the INTERNATIONAL SOCIETY ON TOXINOLOGY.

### **ARTICLE II**

#### **OBJECT**

The object of the Society is to advance knowledge on the properties and clinical aspects of poisons, toxins and antitoxins derived from animals, plants and microorganisms, and antivenoms and other treatments for toxin-induced illness, and to bring together those scholars and clinicians interested in these substances and their effects through a common Society and to support training and credentialing of medical doctors in the specialty of clinical toxinology.

### **ARTICLE III**

#### **NOT FOR PROFIT CLAUSE**

The assets and income of the organisation shall be applied solely in furtherance of its above-mentioned objects and no portion shall be distributed directly or indirectly to the members of the organisation except as bona fide compensation for services rendered or expenses incurred on behalf of the organisation.

### **ARTICLE IV**

#### **MEMBERS**

- Section 1. The Society shall consist of Members, Associate Members, Student Members, Honorary Members and Corporate Members.
- Section 2. Persons who have conducted and published original investigations in toxinology shall be eligible for Membership in the Society. On payment of annual Society dues they will be Financial Members for that year and entitled to vote at Society meetings.
- Section 3. Persons who do not qualify for Membership but are working or interested in the field of toxinology shall be eligible for Associate Membership. On payment of annual Society dues they will be entitled to vote at Society meetings.
- Section 4. Persons who are registered students studying an aspect of toxinology shall be eligible for Student Membership. Student members do not pay annual dues and are not entitled to vote at Society meetings.
- Section 5. Persons who have, in the view of Council or the Society, made a special or unique contribution to toxinology, shall be eligible for Honorary membership in the Society. Honorary Members shall be exempt from paying annual dues to the Society, but shall have the same rights to vote as Financial Members.
- Section 6. Organizations contributing to toxinology and the Society, which provide a regular Financial contribution to the Society, determined by Council, shall be eligible for Corporate Membership. Corporate Members shall be required to pay annual dues in an amount to be determined, year to year, by Council, but shall not have voting rights in the Society.
- Section 7. Council shall have the right to establish subclasses of Membership as required to further the Objects of the Society. All such subclasses of Membership may attract annual dues as determined by Council which shall be additional to any dues required for the main classes of Membership (Article IV, Sections 2-4) and shall only be open to Members of the Society who meet criteria approved by Council for the subclass of Membership.

## Section 8.

- A. Applications for Membership on behalf of the applicant shall be made by a Member of the Society on forms provided by the Secretary. The Member proposing a candidate must upon request submit to Council a letter in support of the candidate.
- B. Applications for Associate Membership shall be submitted by the applicant on forms provided by the Secretary. Nomination by a Member of the Society is not required.
- C. Applications for Student Membership shall be submitted by the applicant on forms provided by the Secretary. Nomination by a Member of the Society is not required, but proof of student status is required. Student membership status is only permissible while the person is a bona fide student.
- D. A person shall be considered by Council for Honorary Membership if requested in writing by at least ten Financial Members. Honorary Membership shall be recommended by the Council of the Society, by a two thirds majority at secret ballot of the Council, conducted by the Secretary/Treasurer and shall become conferred following a simple majority vote of Financial Members at a general or special meeting of the Society.  
Should a vote of Financial Members of the Society at a general or special meeting fail to attain a simple majority, then the person proposed for Honorary Membership shall not be eligible for reconsideration for such membership for a period of two years after the first failed vote and four years after a second or subsequent failed vote.
- E. Applications for Corporate Membership shall be made to Council. An organization shall be considered by Council for Corporate Membership, by a two thirds majority at secret ballot of the Council, conducted by the Secretary/Treasurer and shall become conferred following a simple majority vote of Financial Members at a general or special meeting of the Society. Corporate Membership, once conferred, shall be reconsidered by Council every four years and reconfirmed following a simple majority vote of Financial Members at a general or special meeting of the Society.

Should a vote of Financial Members of the Society at a general or special meeting fail to attain a simple majority, then the organization proposed for Corporate Membership shall not be eligible for reconsideration for such membership for a period of two years after the first failed vote and four years after a second or subsequent failed vote.

Section 9. The Secretary will, on request of a Council Member, circulate details of all applications for Membership, Associate Membership and Student Membership to all Council Members. After consideration Council Members may effect election and the Secretary will then inform the Member of such election. The Secretary may be delegated by Council to determine, on Council's behalf, if an application can be approved and effect election. A list of all members, including associate and student members, will be made available to all Members of the Society, not less than once a year. Applications for Corporate Membership and proposals for Honorary Membership shall be distributed to all Council Members, in accordance with Sections 5 and 6 (above).

Section 10 Failure of a Member or Associate Member to pay the annual assessment (dues) for two successive years constitutes forfeiture of membership. The Member may be reinstated either at the discretion of the Secretary, or by majority vote of the Council, upon payment of the full amount of the assessment due.

Section 11. Dues. Each Member and Associate Member shall pay annual dues as be prescribed by the Council, and as approved by the membership at a general meeting or special meeting.

## **ARTICLE V**

### **ANNUAL MEETING**

There shall be a regular, formal "annual" meeting of the Society (referred to in this constitution as a "general meeting") which, whenever possible, shall include a meeting of the Council (as determined in By-Laws Article II). The meeting shall be scheduled to occur once each year, except where Council decides that for practical reasons given the international membership of the Society, a meeting must be delayed beyond one year, such a delayed meeting must be held within two years of the pre-

vious meeting. The meeting will be held at a time and place prescribed in the ByLaws, or by notice communicated by electronic or other distribution means to each Member at least 90 days before the date of the meeting; the notice shall state the time, place, and agenda for the meeting. The Council has the right to postpone or cancel the annual meeting for one year if deemed necessary.

## **ARTICLE VI**

### **COUNCIL**

- Section 1. The Council shall consist of the elected Executive Officers (President, Secretary/Treasurer, President Elect), the Immediate Past President, the current presidents and secretaries of the Regional Sections, the Editor-in-chief of Toxicon, the Chairperson or their proxy of any Board or other membership subclass governing body established by Council, and Financial Members elected from the membership. The individuals elected by the membership shall include two Members from each Region of the Society. The President shall act as Chairman of the Council or in the absence of the President, the following, in order of preference, shall act as Chairman; President Elect, Secretary/Treasurer, Immediate Past President.
- Section 2. The purpose of the Council shall be to act as an administrative and governing body to further the activities and interests of the Society, on behalf of members. The Council is authorized to accept any donations of cash or property, voluntarily made to further the purpose of the Society.
- Section 3. The Council shall meet at least once each year at a time and place designated by the President and shall recommend the dues of the membership. The meeting may be at a physical place, or virtual place such as through a teleconference or similar electronic meeting system. Greater than one half of the Members of the Council, but including at least one Executive Officer(President, Secretary/Treasurer, or President Elect) shall constitute a quorum for all purposes.
- Section 4. The Members of the Council, excluding the Executive Officers, shall serve for a term of two years, with a maximum of two consecutive terms, and shall not be eligible for re-election for the two years immediately following their term of office. The Council is empowered to appoint Members to fill any vacancy that may occur.
- Section 5. The Council is empowered to co-opt any Member, including an Associate or Student Member, to serve on Council for a specific purpose, up to a maximum of 3 such co-opted Members, but co-opted Members shall not have voting rights on Council.

## **ARTICLE VII**

### **ELECTED EXECUTIVE OFFICERS**

- Section 1. Number. The Executive Officers of the Society shall be President, President Elect, and Secretary/Treasurer.
- Section 2. Election. The Executive Officers of the Society shall be elected by a majority vote of the Financial Members in a ballot by electronic or other distribution means, and will serve for a term of 4 years for the President and 4 years for the Secretary/Treasurer. Their term of office will begin immediately after the first World Congress (International Congress) following their election.
- The President Elect shall assume the office of the President at the end of the regular term of office or at any time the office of the President becomes vacant. The President may serve for a maximum of two consecutive terms. The Secretary-Treasurer may be re-elected for further terms as agreed by Council.
- Section 3. Vacancies. Any vacant office of the Society, other than that of the President, may be filled by a Financial Member elected at the next Society meeting. During the intervals between meetings of the Society, the Council may elect a Financial Member to fill a vacant office, and the Executive Officer so elected shall serve until the next meeting of the Society.

## **ARTICLE VIII**

### **BOARD OF CLINICAL TOXINOLOGY**

- Section 1. Council shall have the right to establish and modify a Board of Clinical Toxinology, for the purpose of furthering the development of expertise in the medical field of clinical toxinology.
- Section 2. Council shall determine the constitution of and by-laws controlling function of the Board of Clinical Toxinology and shall have the right to modify the constitution and by-laws for the Board.
- Section 3. Membership of the Board of Clinical Toxinology shall be restricted to registered medical practitioners who meet criteria established by the Board and by Council.
- Section 4. The functions and activities of the Board of Clinical Toxinology shall be determined by the Board and by Council and supervised by Council in accordance with the constitution and by-laws of the Board as established by Council.

## **ARTICLE IX**

### **COMMITTEES**

- Section 1. Credentials Committee. Council is empowered to create and dissolve, as it determines, a Credentials Committee to undertake assessment of applications for Membership on behalf of the Secretary and Council. The Committee shall be elected by the Council and shall serve for a term of two years.
- Section 2. Other Committees. Other Committees of the Society may be constituted for the promotion of the objectives of the Society, and shall consist of a limited number of Financial Members, with their number, jurisdiction, and tenure determined by Council.

## **ARTICLE X**

### **AMENDMENT OF CONSTITUTION**

This Constitution may be amended at any meeting of the Society by the affirmative vote of a majority of the Financial Members present in person or represented by proxy provided that notice of the proposed amendment is given to the membership at least 90 days before the meeting at which the amendment is offered.

## **ARTICLE XI**

### **ADOPTION AND AMENDMENT OF BY-LAWS**

By-Laws may be adopted, amended, or rescinded at any meeting of the Society by the affirmative vote of a majority of the Financial Members present or represented by proxy provided that notice of the proposed actions is given to the membership at least 90 days before the meeting where such action is to be considered.

## **ARTICLE XII**

THE EFFECTIVE DATE OF THE CONSTITUTION This Constitution will be deemed to be effective from the date of most recent revision. The most recent revision was approved on July 13th, 2012, in accordance with the rules and articles of this Constitution and the Society.

## **ARTICLE XIII**

### **DISSOLUTION CLAUSE**

In the event of the Society being dissolved, the amount that remains after such dissolution and the satisfaction of all debts and liabilities shall be transferred to another organisation with similar purposes and which has rules prohibiting the distribution of its assets and income to its members.

## **BY-LAWS-ARTICLE I**

### **MEMBERS AND MEETINGS OF MEMBERS**

Section 1. General meeting. The general meeting shall be held at a time and place approved by the Society during a previous general meeting, regularly at the World Congresses or Regional Congresses, or if a time or place for the meeting has not been prescribed, it will be determined by the Council. The Council shall have power to change the time or place of a meeting when circumstances so require.

Section 2. Special meetings. Special meetings of the Society may be called at any time by the President at the request of the Council, or on receipt of a written request of not less than one-third of the Financial Members.

Section 3. Notice of meetings. Notice of the time, place, and purpose or purposes of general and special meetings of the Society shall be given to the Financial Members by electronic or other distribution means at least 90 days before the meeting.

Section 4. Quorum. At any general or special meeting of the Society, fifteen Financial Members must be present or represented by proxy to constitute a quorum. A meeting may be adjourned by vote of a majority of the Financial Members present.

Section 5. Voting. At every meeting of the Society each Financial Member shall be entitled to one vote in person or represented by proxy. The proxy shall be duly appointed by instrument in writing subscribed by the Financial Member appointing the same and bearing date not more than 11 months prior to the meeting.

Section 6. Business of the general meeting. The business of the general meeting of the Society shall be:

- (a) to elect Executive Officers and members of the Council as prescribed by the Constitution;
- (b) to determine the time and place for the next general meeting;
- (c) to fix the annual dues;
- (d) to consider the annual Financial statement and balance sheet presented by the Council and to arrange for any action therewith as seems appropriate;
- (e) to consider reports of the Council and Committees, and motions relating to the adoption of such reports, either in whole or in part, and to arrange for such action to be taken thereon, if appropriate and to consider any resolutions that can properly be considered to affect the purpose of the Society and its membership.

Section 7. Scientific Congresses of the Society. The Society exists for the principal purpose of furthering the science of toxinology and to that end shall promote interchange of ideas and research in toxinology through scientific meetings of the Society which shall be designated as Society Congresses.

The Executive Officers and Council shall work with the officers and members of Society Regional Sections to ensure regular Society Congresses are scheduled. By-Law XI governing Regional Sections of the Society shall guide the Executive Officers and Council in determining a schedule for Society Congresses.

The Society, through the Executive Officers and Council, shall have final say on the place, timing, budget, scientific and social programs for all Society Congresses.

All members of the Society, from all categories, shall be entitled to attend Society Congresses, providing they pay any Congress fees that may be set for a Congress, except where such fees are waived, such as for invited speakers in some cases. Any person involved in toxinology, even though not a member of the Society, may be permitted to attend, at the discretion of the Congress organizers and Council, provisional on payment of any fees that may be set, but as a general principle the regular fees for attending a Society Congress shall be higher for a non-member or a Member who is non-Financial, than for a Financial Member or Financial Associate Member or a Student Member.

## **BY-LAWS-ARTICLE II**

### **COUNCIL**

- Section 1. Meetings. The Council shall meet at each general meeting for the purpose of transaction of business, and if a majority of the Council be present, no prior notice of such meeting need be given. Special meetings of the Council may be held at the call of the President, or upon the written request of four members of the Council, and shall be called by the Secretary/Treasurer. Meetings of Council, held either in person or through electronic communication, may be called by the Secretary/Treasurer to discuss and, where appropriate, decide on action in response to matters concerning the Society as may arise from time to time and no notice is required if the meeting shall be held by electronic communication except that Councilors shall have at least 48 hours to respond as part of the electronic communication process.
- Section 2. Notice of meetings. Notice of all meetings of the Council shall be given by electronic or other distribution means at least 15 days before the meeting, except where the Secretary/Treasurer calls an electronic communication meeting as noted in Section 1 (above), or in regard to general meetings of the Society where a meeting of Council is a requirement as noted in Section 1 (above).
- Section 3. Chairman. At all in-person meetings of the Council the President, or in his absence the President-Elect, shall preside.
- Section 4. Quorum. At all meetings of the Council the act of a majority of those members present shall be the act of the Council. In the absence of a quorum of the Council at a regular meeting of the Society and when it becomes apparent that decisions vital to the Society are necessary, the Financial Members on the Editorial Board of Toxicon, in coordination with the Council Members, shall make the necessary decisions.

## **BY-LAWS-ARTICLE III**

### **ANNUAL AND FINANCIAL REPORTS**

The Council shall submit annually to the Society for adoption and approval a report on the general state and proceedings of the Society for the past year, a balance sheet and Financial statement for the past year.

## **BY-LAWS-ARTICLE IV**

### **CUSTODY OF PAPERS, ADDRESSES AND REPORTS**

All papers, addresses and reports read before the Society, or accepted by the Society, shall be lodged with the President and become the property of the Society. Publications of these reports in the official Journal of the Society, or in any other way, may be recommended by the Council or appropriate Committee.

## **BY-LAWS-ARTICLE V**

### **EXECUTIVE OFFICERS OF THE SOCIETY**

- Section 1. Duties. The Executive Officers of the Society shall perform the duties usually performed by such officers, together with such duties as shall be prescribed by the Constitution and ByLaws or by the Society or Council.
- Section 2. The President. The President shall preside at all meetings of the Society and meetings of the Council. The President shall be an ex officio member of all committees, except the Nomination Committee. The President shall have general charge and supervision of the business and affairs of the Society.
- Section 3. The President-Elect. At the request of the President, or in the event of his absence or disability, the President-Elect may perform any or all duties of the President.
- Section 4. The Secretary-Treasurer shall: 1) attend to the giving of all notices of the Society; 2) have custody of all of the Society's funds and securities, subject to such regulations as may be imposed by the Council; 3) make such payments on behalf of the Society, subject to the control of the Council; 4) enter regularly into the records of the Society full and accurate ac-

count of all money received and paid, or obligations incurred on behalf of the Society, and shall exhibit such records at all reasonable times to any Financial Member of the Society on written request to the office of the Society; 5) provide a report on the Financial situation of the Society at each general meeting; 6) provide a report to Council on new membership applications; 7) may be required to give bond for the faithful performance of his duties should the Council advise.

## **BY-LAWS-ARTICLE VI**

### ***LIABILITY OF COUNCIL MEMBERS AND EXECUTIVE OFFICERS***

Each Council member or Executive Officer, or former Council member or Executive Officer of the Society, shall be indemnified by the Society against expenses actually and necessarily incurred by him/her in connection with the defense of any action, suit or proceeding in which he/she is made a party by reason of his/her being or having been a Council member or an Executive Officer of the Society, except in relation to matters as to which he/she shall be adjudged in such action, suit or proceeding to be liable for negligence or misconduct in the performance of his/her duties as such Council member or Executive Officer.

## **BY-LAWS-ARTICLE VII**

### ***CONTRACTS***

The Council, except as provided in the By-Laws may authorize any officer or officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Society, and such authority may be general or confined to specific instances; and unless so authorized by the Council, no officer, agent or employee shall have power or authority. to bind the Society by any contract or engagement or to pledge its credit or render it liable Financially for any purpose or amount.

## **BY-LAWS-ARTICLE VIII**

### ***FISCAL YEAR***

The fiscal year of the Society shall begin on the first day of January in each year and shall end on the thirty-first day of the following December.

## **BY-LAWS-ARTICLE IX**

### ***PUBLICATIONS***

The official journal of the Society is Toxicon. Council shall recommend to the publisher of Toxicon (Elsevier) who should be appointed as Editor-in-chief, but the publisher shall have final say on who is appointed. Tenure for this position is not defined and is determined by the publisher. Society Newsletters will be edited by the Secretary/Treasurer of the Society in order to inform the membership on current Society affairs.

Council may determine, by majority vote, to recommend to the membership of the Society that a further publication or publications be designated as official publications of the Society, but such a recommendation shall only come into effect if a majority of Financial Members vote in favor of the recommendation at a properly constituted general or special meeting of the Society.

## **BY-LAWS-ARTICLE X**

### ***REDI AWARD***

In recognition of distinguished work in the field of toxinology the Society confers the Redi Award at successive international meetings as determined by Council. The Redi Award consists of a framed award describing the merits of the awardee and a Financial contribution to help cover expenses associated with attendance at the meeting.

The recipient is selected by the Redi Award Committee (R.A.C.) which consists of the Editor of Toxicon (chairman), past and present Executive Officers of the Society and former Redi awardees. It is the duty of the chairman to request that members of the Committee propose nominations one

year in advance of the next presentation. A list of all persons previously nominated and those being currently proposed is then sent to all members of the R.A.C., who then select three names, noting their first, second and third choices.

The chairman will award 3 points for 1st place votes, 2 points for 2nd place and 1 point for third place. The awardee is chosen on the basis of the largest number of points, but must receive 25% of the total points counted.

If no candidate reaches this level there shall be a second ballot between the three highest candidates. (Or: If 2 or more candidates receive approximately (within three votes) the same number of votes, a second ballot will be circulated. In the event two or more candidates receive the same number of votes in the final ballot, or a difference of less than three, the award will be shared equally.)

## **BY-LAWS-ARTICLE XI**

### **REGIONAL SECTIONS**

To promote the aims of the Society and to encourage local participation in the discipline of toxinology Regional Sections may be established. These must be approved by the Council. At Regional meetings a Regional President, a Regional Secretary (and if necessary up to three additional members as officers) may be selected. They will serve a fixed term, but can be re-elected. Council shall determine the length of the fixed term and shall modify this fixed term, as necessary, to fit with meeting schedule rosters, but the fixed term shall not be less than 2 years and not more than 4 years.

Council will determine the meeting schedule roster between Regions, such that each Region is regularly responsible for organizing both Regional and World Congresses of the Society, according to the roster.

A Regional Section of the Society encountering difficulty in organizing their rostered meeting may apply to Council to have their roster position deferred and Council can determine to allow such deferment, providing another Regional Section can appropriately agree to swap roster positions with the Region seeking deferment.

At the time of adoption of this Constitution the Society has three Regional Sections; European, Pan-American and Asia-Pacific Sections. The roster for meetings of the Society is based on the number of Regional Sections, and their ability to regularly host full Sectional and World Congresses. Council shall determine the roster and shall amend the roster, as necessary, depending on prevailing circumstances, including the addition of new Sections and the dissolution of current Sections.

The Officers of a Regional Section will be responsible for organizing scientific meetings (Congresses) of the Society in those years in which they are rostered to do so, by direction of Council.

Regional Sections may not collect fees or other monies for the Section. All Financial affairs will be the responsibilities of the Secretary/Treasurer of the Society. Exceptions due to special circumstances should be discussed with and agreed by the Council.

The Society does not indemnify any officer of a Regional Section, or Executive Officer of the Society, or any Member of the Society, who incurs any debt or obligation in the course of organizing a meeting of and on behalf of the Society, except where such indemnity is agreed by Council under By-Law VII, but requires that the Executive Officers and Council of the Society be involved in the planning, budgeting and scientific and social programs for the meeting. Notwithstanding the lack of indemnity, the Society, as determined by the Executive Officers and Council may, at their discretion, agree to provide Society funds in support of the meeting, with such conditions and guarantees as may be determined in each such case. The use to which such funds may be put shall be at the sole discretion of the Executive Officers and Council.

Members of IST are automatically members of a Regional Section in their specific region, provided their Financial obligations to the Society are current.

## DEVELOPMENT OF CLINICAL TOXINOLOGY

The IST voted to establish a Clinical Toxinology Initiative at the last World Congress in Recife, Brazil, March 2009. A fundamental part of developing clinical toxinology within the framework of IST is establishment of a process in the IST Constitution.

At the IST World Congress in Hawaii, July 8-13, 2012, IST members voted to adopt a new revised Constitution for IST that incorporates provisions for setting up a global clinical toxinology training and accreditation scheme, under the auspices of IST. So how will this all work?

These clinical toxinology focussed revisions are designed to do several things:

- (1) Provide an ability for IST to develop clinical toxinology within a constitutionally governed framework. It does not require IST to develop clinical toxinology, it just provides a permission framework, which can either be acted on immediately, or delayed for some future time, depending on what IST members decide, through their elected Council.
- (2) Provide a mechanism for development of clinical toxinology, controlled by Council, such that Council does not have to go back to members seeking further Constitutional changes. This places responsibility for development of clinical toxinology with your elected Council. Council can choose both when to act and how to act, though some mechanisms are prescribed in the Constitution.
- (3) Council can, under these Constitution provisions, develop a separate constitution to govern development of clinical toxinology. Council can modify this constitution as required, during the development process, to fine tune it as development progresses.
- (4) Council has before it a provisional draft constitution to develop clinical toxinology and the incoming Council will be able to develop this constitution and approve it, if Council so chooses.
- (5) If Council approves the draft constitution for clinical toxinology then the processes set out in that constitution will govern and guide the development of clinical toxinology into a recognised medical subspeciality.

The major aim of this process is to provide a sound mechanism for accrediting expertise in clinical toxinology so that the global medical community will have a framework for training, assessing skills and accrediting expertise in clinical toxinology. This framework will not rest entirely within IST, but must involve existing medical specialist organisations in individual countries. The model that IST has developed involves direct accreditation of clinical toxinology expertise by these existing medical organisations in cooperation with IST, with IST providing the guidelines for training requirements and skill levels.

As with all such new schemes in medicine, the founding group are initially grandfathered into the qualification structure, to ensure an initial working core of clinicians who then develop the structure for ongoing training, assessment and accreditation. These initial "grandfathered" clinicians will likely then undergo appropriate assessment to confirm their accreditation meets the required standards.

By definition this process for developing clinical toxinology is based on registered medical practitioners. It cannot include persons who do not hold appropriate medical qualifications, because the process is providing accreditation within existing medical specialist organisations at a national level.

At some point in the future, to be determined by Council, Council would have the ability to establish similar processes for developing and accrediting expertise in clinical toxinology for other suitable health professions such as nursing. Council could also decide to develop training schemes for local health workers in developing nations, likely in cooperation with regional, national or sub-national governmental bodies. This would fit with development of clinical toxinology in the broadest meaning of the term, but would be entirely separate from the far more specific development of a medical subspeciality of clinical toxinology.

The primary focus of this stage of the clinical toxinology initiative is development of the medical subspeciality of clinical toxinology.

### ***Some Detail On Development Of Clinical Toxinology As A Medical Subspeciality***

Why treat toxinology as a subspeciality within medicine?

There is currently no medical organisation devoted to clinical toxinology and initially at least it is likely that the number of medical practitioners making this area an important part of their expertise and work will be limited. Small medical organisations have little influence and are often suppressed by the larger, well established organisations. It makes more sense to include clinical toxinology within an existing medical speciality organisation. They would then develop clinical toxinology as a craft group within their main speciality, with a view to making it a formal subspeciality once developed to maturity.

By working within an existing organisation, those doctors wishing to develop skills in clinical toxinology would do so within the framework of an existing set of recognised speciality qualifications, so they would have to meet accreditation criteria for those qualifications as a prerequisite to acquiring skills in clinical toxinology. This ensures they will be accepted by their medical peers as having attained a specialist standing, at least in the major speciality.

Furthermore, because IST would be working directly with those existing medical organisations, rather than trying to compete with them by establishing a separate organisation, it is more likely the process will succeed. In effect IST would be offering to help each selected individual medical organisation develop a new subspeciality or craft area, thus potentially enhancing the membership, scope and influence of the organisation.

This would be a win for the organisation. It would also be a win for IST, by facilitating advancement of IST aims using resources from another organisation. Most importantly it would be a win for envenomed patients, because it would raise the profile of envenoming as a medical problem and provide doctors trained to best treat such patients, either directly at the bedside, or by advising other doctors and other health professionals.

What is the first step in this process?

That step has already been taken, when IST members approved the new Constitution on July 13th, 2012. The next step is for Council to consider options for progressing this process, specifically the precise wording and adoption of a constitution to govern the clinical toxinology accreditation scheme. A draft constitution has been developed.

Once this is adopted then an initial Clinical Toxinology Board can be established to undertake the detailed process, on behalf of IST and supervised by IST Council.

How long will the whole process take?

Unfortunately there is no way to determine this, but there are likely many complex negotiations required between IST and national medical organisations in each country. It will be necessary to pick just one, or maybe just a few countries initially, to develop and prosecute this negotiation process, establishing a working example of how accreditation can work. Once this is achieved it may be possible to use this model to speed negotiations in other countries.

However, one clear issue is the availability of suitable national medical organisations. These generally exist in developed nations, but may not be available in some less-developed nations, which may cause implementation issues. These potential problems will have to be dealt with, as they arise, working with the medical community and government in each country.

## INVITATION FROM THE EDITOR OF TOXIN REVIEWS TO IST MEMBERS

As I discussed with members at the IST World Congress, I would like to reach our IST members regarding "Toxin Reviews".

I discussed some of the issues we discussed in the presentation by Tom Shier. The following are the outcomes of my discussions with our Managing Editor.

1. We would like to extend all members of IST free access for the year 2012.
2. All IST members can obtain discounted personal subscription for USD 60/year.
3. All authors will receive free access for one year (Please see attached announcement).
4. I am currently negotiating (a) lower cost for pay-per-view downloads; and (b) open access for all published reviews after two years.

Best wishes,

Prof. Manjunatha Kini  
Editor, Toxin Reviews

### Details of procedure, for IST Members, from Informa Healthcare.

**First**, members will need to register on our website at <https://www.informahealthcare.com/action/registration>. If members are already registered on the site, they will need to log in for the next step. Please note that users who have forgotten their password can reset it at <http://www.informahealthcare.com/action/requestResetPassword>.

**Second**, members need to click on the following link to activate their free access: <http://informahealthcare.com/IST-token>. If they have not registered or logged in at this stage, they will be prompted to do so.


**Members will then have free access** to all the articles published in Toxin Reviews. Once the access has been activated, it will remain active until the 31st December 2012. Members will need to log in each time they want to access full articles.

**Toxin Review's website** is at <http://informahealthcare.com/txr>.

Please rest assured that we fully comply with data protection regulations and members will be free to sign up or not to table of content alerts and other email notifications upon registration. They will also be able to amend their preference and details at any time.

**Joris Roulleau**  
Managing Editor  
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UK

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Yours sincerely,  
Prof. R M Kini  
Editor-in-Chief, *Toxin Reviews*

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## Southwest Venoms

### CATALOGUE OF INSECT VENOMS (2009-2010)

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
ANTS -- FORMICIDAE		(LD <sub>50</sub> )				
Pogonomyrmex -- 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
Myrmecia -- 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	*	
SOLITARY WASPS AND BEES						
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>Proxycopa 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. <sup>00</sup> /1g .....	\$50. <sup>63</sup> /500mg	
Broad-Banded Copperhead - <i>Agkistrodon contortrix laticinctus</i> ..	\$100. <sup>00</sup> /1g .....	\$67. <sup>50</sup> /500mg	
Northern Copperhead - <i>Agkistrodon contortrix mokasen</i> .....	\$50. <sup>00</sup> /1g .....	\$33. <sup>75</sup> /500mg	
Trans-Pecos Copperhead - <i>Agkistrodon contortrix pictigaster</i> .....	\$75. <sup>00</sup> /1g .....	\$50. <sup>63</sup> /500mg	
Florida Cottonmouth - <i>Agkistrodon piscivorus conanti</i> .....	\$60. <sup>00</sup> /1g .....	\$40. <sup>50</sup> /500mg	
Western Cottonmouth - <i>Agkistrodon piscivorus leucostoma</i> .....	\$56. <sup>00</sup> /1g .....	\$37. <sup>80</sup> /500mg	
Eastern Diamondback Rattlesnake - <i>Crotalus adamanteus</i> .....	\$50. <sup>00</sup> /1g .....	\$33. <sup>75</sup> /500mg	
Western Diamondback Rattlesnake - <i>Crotalus atrox</i> .....	\$45. <sup>00</sup> /1g .....	\$30. <sup>38</sup> /500mg	
Sonoran Sidewinder - <i>Crotalus cerastes cercobombus</i> .....	\$125. <sup>00</sup> /1g .....	\$84. <sup>38</sup> /500mg	
Timber Rattlesnake - <i>Crotalus horridus</i> .....	\$70. <sup>00</sup> /1g .....	\$47. <sup>25</sup> /500mg	
Mottled Rock Rattlesnake - <i>Crotalus lepidus lepidus</i> .....	\$125. <sup>00</sup> /1g .....	\$84. <sup>38</sup> /500mg	
Blacktail Rattlesnake - <i>Crotalus molossus molossus</i> .....	\$400. <sup>00</sup> /1g .....	\$270. <sup>00</sup> /500mg	\$72. <sup>90</sup> /100mg ..... \$49. <sup>21</sup> /50mg
Great Basin Rattlesnake - <i>Crotalus oreganus lutosus</i> .....	\$125. <sup>00</sup> /1g .....	\$84. <sup>38</sup> /500mg	
Grand Canyon Rattlesnake - <i>Crotalus oreganus abyssus</i> .....	\$250. <sup>00</sup> /1g .....	\$168. <sup>75</sup> /500mg	\$45. <sup>56</sup> /100mg ..... \$30. <sup>75</sup> /50mg
Texas Coral Snake - <i>Mircrurus tener tener</i> .....	\$2000. <sup>00</sup> /1g		
Florida Coral Snake - <i>Mircrurus fulvius</i> .....	\$1800. <sup>00</sup> /1g		
Southern Pacific Rattlesnake - <i>Crotalus oreganus helleri</i> .....	\$400. <sup>00</sup> /1g .....	\$270. <sup>00</sup> /500mg	\$72. <sup>90</sup> /100mg ..... \$49. <sup>21</sup> /50mg
Northern Pacific Rattlesnake - <i>Crotalus oreganus oreganus</i> .....	\$400. <sup>00</sup> /1g .....	\$270. <sup>00</sup> /500mg	\$72. <sup>90</sup> /100mg ..... \$49. <sup>21</sup> /50mg
Mohave Rattlesnake - <i>Crotalus scutulatus scutulatus</i> (A) .....	\$250. <sup>00</sup> /1g .....	\$168. <sup>75</sup> /500mg	\$45. <sup>56</sup> /100mg ..... \$30. <sup>75</sup> /50mg
Mohave Rattlesnake - <i>Crotalus scutulatus scutulatus</i> (B) .....	\$1000. <sup>00</sup> /1g .....	\$675. <sup>00</sup> /500mg	\$182. <sup>25</sup> /100mg ..... \$123. <sup>02</sup> /50mg ..... \$33. <sup>22</sup> /10mg
Prairie Rattlesnake - <i>Crotalus viridis viridis</i> .....	\$70. <sup>00</sup> /1g .....	\$47. <sup>25</sup> /500mg	
Red Spitting Cobra - <i>Naja pallida</i> .....	\$100. <sup>00</sup> /1g .....	\$67. <sup>50</sup> /500mg	
Desert Massasauga - <i>Sistrurus catenatus edwardsii</i> .....	\$1000. <sup>00</sup> /1g .....	\$675. <sup>00</sup> /500mg	\$182. <sup>25</sup> /100mg ..... \$123. <sup>02</sup> /50mg ..... \$33. <sup>22</sup> /10mg
Western Massasauga - <i>Sistrurus catenatus tergeminus</i> .....	\$1000. <sup>00</sup> /1g .....	\$675. <sup>00</sup> /500mg	\$182. <sup>25</sup> /100mg ..... \$123. <sup>02</sup> /50mg ..... \$33. <sup>22</sup> /10mg
Bushmaster - <i>Lachesis muta muta</i> .....	\$2000. <sup>00</sup> /1g .....	\$1350. <sup>00</sup> /500mg	\$364. <sup>50</sup> /100mg ..... \$246. <sup>04</sup> /50mg ..... \$66. <sup>43</sup> /10mg

(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.

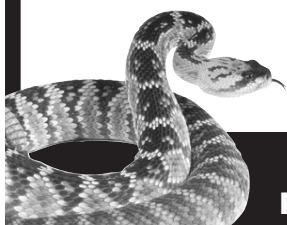
**Venom glands and fractions also for sale - call for pricing & availability**

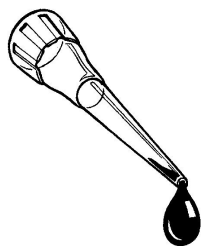
**If you're interested in study or research opportunities  
at the NTRC, call us at the number below!**

**[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

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

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 plasma from snakes

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

We trade or sell 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.

# α

# 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  
Barberie 15  
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)**

# Latoxan

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Searching for your Discovery

## 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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