

INTERNATIONAL FEDERATION OF ASSOCIATIONS OF ANATOMISTS



# PLEXUS

THE NEWSLETTER OF THE INTERNATIONAL FEDERATION OF ASSOCIATIONS OF ANATOMISTS

*January 2015*



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## EDITORIAL

This edition of Plexus comes with our best wishes for a happy and rewarding new year. This edition highlights some of the activities that have occurred around the world in the last 6 months and provides some appetizers for the exciting events that are planned for 2015 and 2016. It is great to hear of the successful conferences that are taking place and the wide range of anatomical research that is being undertaken. Perhaps one of the most important aspects of attending a conference is the opportunity to talk to our fellow anatomists. In these, often informal, chats we are able to gain insights into new techniques, hear how others have solved challenges that we are facing and provide support to the anatomists of the future. We also develop strong friendships and collaborations and learn that we can often achieve so much more by working together than we could as individuals. As Professor Kramer mentions Plexus is one way of keeping in touch and we would welcome information from you as individuals and the member societies of IFAA so that we can grow and achieve our potential as anatomists.

Best wishes

Helen and Nalini

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### A note from the President

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As the New Year starts to gain pace, may I wish you all a happy and productive 2015! By now I am sure that many anatomists have again begun their teaching and research and have plans to fill the rest of the year as well. I hope that you have kept some space in your diaries for the International Symposium on Morphological Sciences (ISMS), which will take place in Istanbul in September. The ISMS meetings bridge the gap between the four-yearly IFAA Congresses. They are a wonderful way of keeping in touch with anatomical research, collaborators and friends, and of making new friends. Speaking of anatomical friends, I have attempted to spread the word about the IFAA on the African continent. While the process has been slow, I am delighted to be able to report that I am gathering names of anatomists and anatomical societies in different parts of Africa. I would like to appeal to all of you, especially those of you on the Asian and South American continents to reach out to anatomists and anatomical societies who are not yet part of the IFAA and to introduce them to the Federation.



Plexus is a wonderful vehicle for keeping anatomists in touch. I would thus like to appeal to all of you to send information and news to the Honorary Editor of the Newsletter and to give other anatomists who may not be on the mailing list, a copy of Plexus. I would particularly like to thank Professor Helen Nicholson and Dr Nalini Pather, Editor and Co-Editor for the sterling work they do in keeping us up to date.

With warm anatomical greetings, Bev Kramer  
President of the IFAA

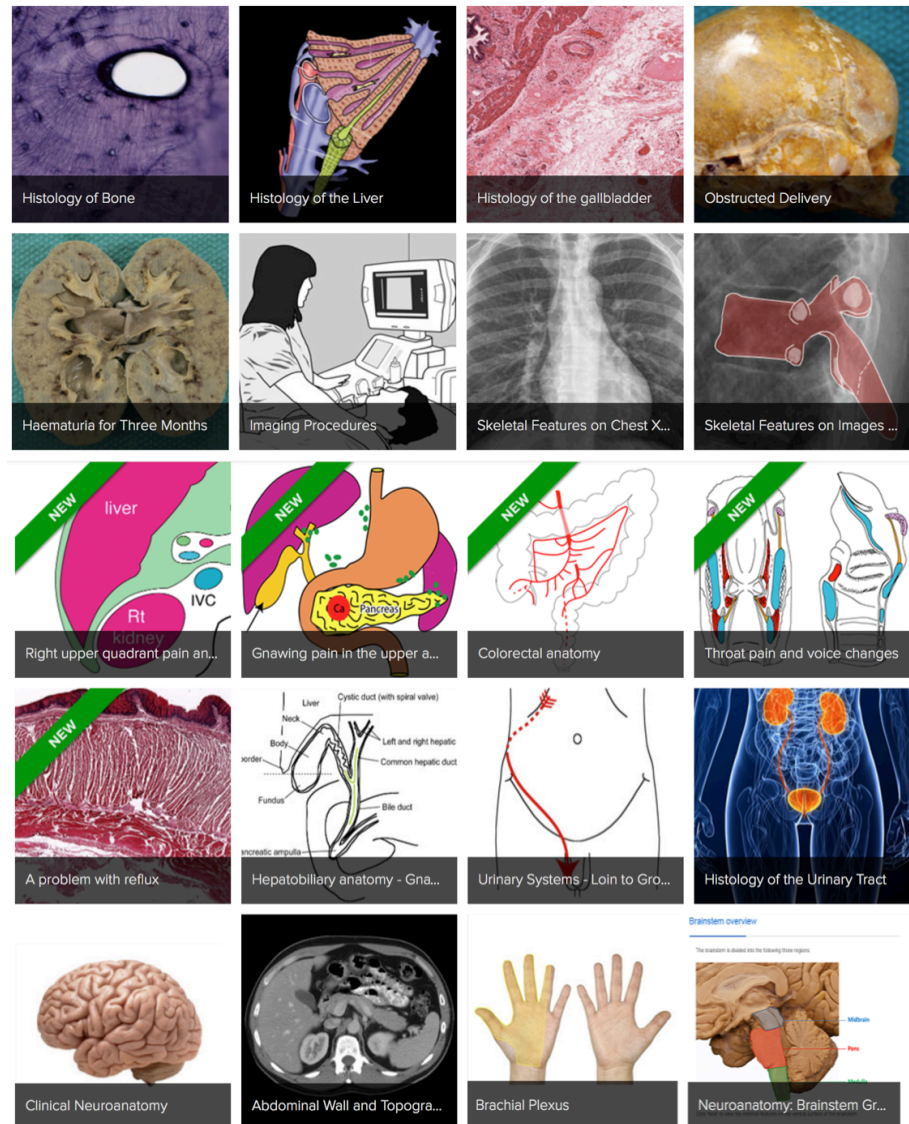


## ARTICLES

### The BEST Network

an innovative approach to creating and sharing teaching resources

In 2012, a community of academics came together to develop a solution for creating and sharing teaching resources for the biomedical sciences across the world. These academics from UNSW Australia, the University of Queensland, the University of Melbourne and James Cook University, partnered with the education technology company Smart Sparrow, to form the **Biomedical Education Skills and Training (BEST) Network**. Their aim was to facilitate the sharing of teaching and learning resources 'for academics by academics'.



*Some of the tutorials available on the BEST Network*

Three years later, the vision of the BEST Network has been realised. BEST facilitates the sharing of digital resources for use in teaching, and for the creation of educational content. These resources include:



- a large **image repository** with over 12,000 biomedical images,
- a bank of **online tutorials** created by academics and their colleagues, and
- a growing collection of **laboratory simulations** that can be used to supplement, or support practical classes.

The bank of online tutorials is accessed via the BEST Network Courseware Portal ([www.best.edu.au/courseware](http://www.best.edu.au/courseware)). This is the space where academics can search for tutorials. Once a tutorial of interest is found, it can be used 'as is' immediately, or it can be modified and adapted for specific purposes or student cohorts. Academics around the world are also contributing new tutorials to this bank regularly.

These tutorials are designed on the Smart Sparrow eLearning platform, which among other things, offers a robust learning analytics, which includes heat maps, and multiple choice trace graphs. For course leads, the ability to track an individual student's progress via these learning analytics has a number of advantages. The analytics highlight common misconceptions held by a student cohort, aids in identifying students at risk of failing, and offers ways

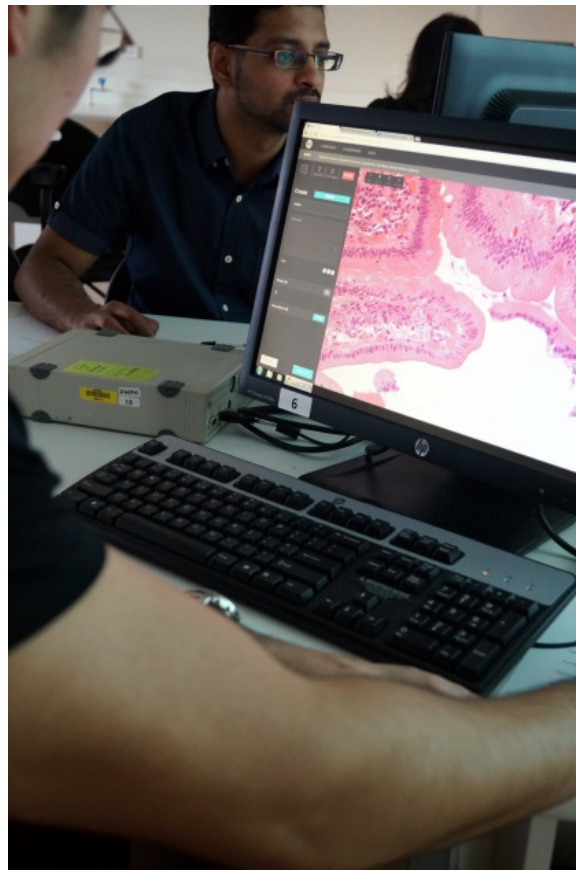
to monitor and standardise teaching and learning across multiple groups of students.

Anatomists, in particular, have been involved in the BEST Network since its inception by:

- **designing and developing teaching resources:** In 2014, for example, UNSW Australia's focus on a blended learning saw the creation of suite of new anatomy tutorials in partnership with the BEST Network. These cover a wide range of topics in neuroanatomy,

histology and gross anatomy.

At least 30 of these were designed and developed by Dr Nalini Pather to support blended learning and flipped classroom approaches to her teaching. Feedback from student's who have used the tutorials have been very favourable, with many citing self-paced learning, and the ability to receive immediate individualised feedback as some of its best features.



*Students annotating images in Slice during a practical session*

Similarly, at the University of Queensland, Dr Vaughan Kipper realising the paucity of teaching and learning resources for anatomy and

imaging, created tutorials focusing on diagnostic imaging to assist students to consolidate knowledge in this area.

- **contributing resources** (images, tutorials, simulations): For example, Patrick de Permentier (UNSW Australia) contributed over 150 virtual microscope slides to **Slice**, the BEST Network image bank. These images are used in both in tutorials, and in laboratory classes. Using the BEST Slice tool, students are able to access images and annotate regions, and add notes synchronously during teaching activities. These 'marked up' images are then saved under their profile for later use – they can also be shared instantly with peers, teachers or the entire cohort.

All contributions to the Slice image bank are approved for use for educational purposes making it a convenient place to source images. The Slice image bank is also open for contributions, with contributors benefitting from the use of the Slice annotation tools that makes it easier to

run interactive classes using these images.

The BEST Network is currently running an initiative designed to support academics in finding a BEST Network tutorial and adapting it for their own courses. Dr Ian Johnson (University of Adelaide) is one such academic involved in the initiative. He's planning to use Dr Pather's upper limb adaptive tutorial 'as is' this semester and is adapting Dr Kipper's radiology



tutorial for use later in the year.

The BEST Network welcomes participation and would love to help you find resources to teach with, and to assist you in contributing teaching and learning resources.

Joining the BEST Network is free and gives you access to thousands of resources. For more information about the BEST Network, please refer to [www.best.edu.au](http://www.best.edu.au), or contact [support@best.edu.au](mailto:support@best.edu.au) to get involved.

## The Anatomy Glove Learning System – an innovative 3D approach for understanding clinical hand anatomy

The Anatomy Glove Learning System ([www.anatomysoftwear.com](http://www.anatomysoftwear.com)) was created by University of Toronto

Professors Pat McKee and Anne Agur. The Learning System was developed over a 12-year period to assist understand the complexities of hand anatomy and function.

Over the years, we observed that learners struggled to understand the extensor mechanism -

the combined effect of extrinsic finger extensors and intrinsic muscles. To assist with this concept, we initially showed learners how to draw the extensor expansion onto paper, printed with outlines of the hand bones. However, since paper is two dimensional, many learners were confused by how the volar interossei and lumbricals attached distally into the dorsal aspect of the fingers. They struggled to understand how volar structures could be part of the extensor mechanism and extend the interphalangeal joints.

In the early 2000s, we introduced a 3-D teaching concept whereby learners used written instructions to draw the

students and professionals in medicine and allied health to



Figure 1: Dorsal view of the Anatomy Softwear Glove. Left, undrawn glove showing alignment of the bones of the hand; right: fully drawn glove showing all the dorsal muscles and tendons.

metacarpal and phalangeal bones, followed by the extrinsic finger tendons and intrinsic muscles, onto an examination glove.

While the 3-D glove-drawing approach proved superior to our previous 2-D paper-drawing approach, it had its limitations. The learner-drawn bones lacked precision, which in turn adversely affected the accuracy of the drawn muscles. In addition, the examination gloves quickly deteriorated and the colored lines, even when drawn with permanent markers, bled into the glove material. Consequently, the drawn examination glove did not serve well as a long-lasting, useful reference tool.



Over the next several years, the learning experience evolved to the point where we now have a learning system consisting of (1) instructional videos and (2) a fabric glove. This led to the name *Anatomy Softwear* because the glove material is *soft* and the glove is *wearable*. The stretchy glove fits adult hands from small to large and is printed on palmar and dorsal surfaces with anatomically-correct bones that align with the joints of the person wearing the glove. The glove now serves as an accurate "canvas" on which to draw the muscles

of the anatomical pathology of common clinical conditions.

Learners watch each video segment, then draw the extrinsic tendons and intrinsic muscles, from deep to superficial, onto the glove, which is worn on the non-drawing hand (Figure 2). Learners told us that the glove-drawing experience helped them to better understand the complexities of hand anatomy and function. They also appreciated that they were able to re-watch the videos to review and consolidate their comprehension of

the structure and function of hand muscles.



*Figure 2. Workshop participant drawing tendons onto the Anatomy Softwear Glove, following video instruction.*

(Figure 1).

The learner-controlled online videos show (a) hand anatomy on dissected human specimens and (b) how to draw extrinsic and intrinsic muscles and tendons onto the glove. An additional feature of the videos is demonstration

well as classroom and workshop settings (Figure 3). It is also used for patient education to explain injury, arthritis and surgical procedures.

An article published April 2014 in Anatomical Sciences Education, titled "Student Perceptions and Effectiveness of an Innovative Learning Tool: Anatomy Glove Learning System" reported that the majority of allied health students in the study strongly preferred the system to traditional 2-D

The Anatomy Glove Learning System has been shown internationally at conferences and used in hand surgery and hand therapy continuing education courses in numerous countries. As of September 2014, instructors in 10 countries, on six continents, use the Anatomy Glove



*Figure 3. Students reviewing hand anatomy using their completed Anatomy Softwear glove*

drawing methods. Students found the learning system to be an enjoyable, interactive and useful tool to grasp 3D concepts of functional hand anatomy.

Learning System with their students. For more information about the learning system, please refer to [www.anatomysoftwear.com](http://www.anatomysoftwear.com).

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## NEWS FROM MEMBER SOCIETIES

### INTERNATIONAL ANATOMICAL SCIENCES & CELL BIOLOGY CONFERENCE (IASCBC)

#### **“Anatomy with Humanity” 11-13 December 2014**

The 3<sup>rd</sup> IASCB conference was held in December at Tzu Chi University, Hualien, Taiwan. The meeting covered the breadth of anatomy and cell biology from gross anatomy to molecular biology and also included sessions on medical education. The meeting attracted delegates from across the world and plenary speakers from Asia, Switzerland and the USA. The conference was organised by Professor Tseng Guo-Fang and his colleagues at Tzu Chi and we all enjoyed their gracious hospitality as



*Professor Tseng Guo-Fang, Conference Organiser*

well as the opportunities to meet old friends and make new friendships.

The conference was scheduled to coincide with a silent mentor

clinical/surgical skills training program at Tzu Chi University. This gave delegates the opportunity to witness the interactions of the students with the donors' families and also attend the ceremony that precedes the

training program. This was a very special occasion and we were privileged to be part of the Buddhist ceremony which culminated with the families entering the dissecting room and saying goodbye to their loved ones before “giving” them to the students. For many of us this was very different to the way our students are introduced to the dissecting room but it



*Buddhist commemoration ceremony: families farewell their loved ones in the dissecting room, before 'giving' them to the students for study*

provided much food for thought as we considered what we do and why. One could not but be impressed by the care and humanity that was expressed by the staff, students and volunteers

at Tzu Chi and the ceremony echoed the title of the conference “Anatomy with Humanity”.

The next IASCBC will be held in Hong Kong in 2016.





### Ibero-American Symposium of Terminology (SILAT) X and XI

The Ibero-American Symposium of Terminology (SILAT) X and XI focusing on anatomical, histological and embryological terminologies was held on 16-18 July in Managua (Nicaragua) and on 20-21 November in Temuco (Chile) respectively, with representatives from 15 countries.

Prof. Dr. Sergey Fedoroff from Canada by Prof. Dr. Ricardo Jorge Losardo, who highlighted his career as a pioneer in neural regeneration and a distinguished neuroanatomist.



*Opening ceremony, 10th SILAT. Profs. Drs. Rolando Cruz, Reyna Martínez, Jamnyce Altamirano, Freddy Meynard, Manuel Arteaga, Fabio Salamanca and Ricardo Losardo.*

The 10<sup>th</sup> Iberian Latin American Symposium of Terminology (SILAT X) had the biggest number of attendants. It was held at the National Autonomous University of Nicaragua (UNAN) and was chaired by Prof. Dr. Jamnyce Altamirano and Prof. Dr. Reinaldo Roque. As part of this conference, tribute was paid to the Honorary President of the Pan American Association of Anatomy,

Prof. Dr. Sergey Fedoroff from Canada by Prof. Dr. Ricardo Jorge Losardo, who highlighted his career as a pioneer in neural regeneration and a distinguished neuroanatomist. A total of 46 terminology works were presented, four of which were from the Pan American Academy of Anatomy. Furthermore, the SILAT logo was presented to the members. Finally, the Centro American & Caribbean Association of Anatomy (ACyCA) was formed, and Prof. Dr. Jamnyce Altamirano was named its president.

In Temuco (Chile), under the presidency of Prof. Dr. Mariano del Sol Calderón, SILAT XI was held, together with the Chilean Meeting of Anatomy,



at the University of La Frontera (UFRO). As part of this conference, tribute was paid to Prof. Dr. Mauricio Moscovici from Brazil by Prof. Dr. José Carlos Prates, who remembered that he was president of both Pan American Association of Anatomy and IFAA.



*Alberto Rodríguez Torres (Chile), José Carlos Prates (Brazil), Rolando Cruz Gutiérrez (Costa Rica) y Nadir E. Valverde Barbato de Prates (Brazil), distinguished for their constant work on the International Anatomical Terminology by University, PAAA and SILAT authorities.*

The next SILAT will be held in Costa Rica in August 2015.

The meetings concluded by congratulating all the organizers for the excellent proceedings.

At this time, we also send our best wishes for 2015 to all our colleagues from all anatomical societies around the world and their families.

Prof. Drs. Rolando Cruz Gutierrez (Costa Rica) & Ricardo Jorge Losardo (Argentina)

Honorary Presidents of Pan-American Association of Anatomy  
Co-chairs of the Pan- American Academy of Anatomy

## ASIA PACIFIC INTERNATIONAL CONGRESS OF ANATOMISTS

Dear Colleagues,

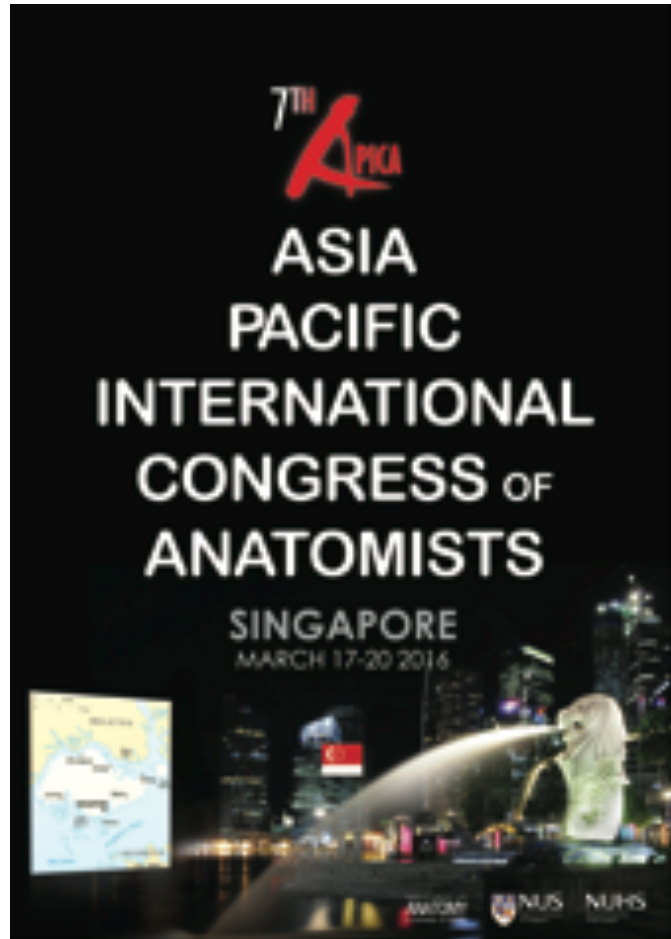
This is the preliminary announcement of the forthcoming meeting of APICA in Singapore. The main theme may be *“Teaching and learning anatomy in the age of digital tsunami”*.

At present the website is under construction and I invite members to send me a note of interest via email indicating about their participation, and interest in organising workshops before or after the congress.

Regards,

Prof.P.Gopalakrishnakone

Organising Chairman



# ANZACA: AUSTRALIAN AND NEW ZEALAND ASSOCIATION OF CLINICAL ANATOMISTS

## ANZACA 2014: 'Anatomy in Work and Play'

The 11th annual conference of the Australian and New Zealand Association of Clinical Anatomists (ANZACA) was held in picturesque Queenstown, in the deep south of New Zealand, December 3-5, 2014. The meeting was opened with a traditional Māori welcome including rousing kapa



haka and an informal gathering of delegates, setting the scene for an exciting conference. Approximately 80 delegates attended, most of whom were from Australasia, but it was gratifying to welcome colleagues from further afield such as South Africa and Japan.

As evidenced by the array of topics, quality of presentations, and enthusiasm of delegates there is no doubt that clinical anatomy is thriving in Australasia! Over the 2½ day meeting, 30 oral and 37 poster presentations were given on topics

ranging from, the flipped classroom, evaluation of student engagement with online anatomy resources and 3D-printed anatomical teaching resources, through to clinical anatomy of the lumbar paraspinal, hamstring, facial and rotator cuff muscles. The two pre-conference workshops, 'Publishing for Postgrads' and 'Ultrasound in Teaching and Learning' were well-attended and generated much discussion and interaction amongst delegates.



We were fortunate to have four highly respected and internationally recognised anatomists and educators taking part in this conference: Professor David Porta (Bellarmine University, USA), Associate Professor David Morton (University of Utah, USA), Professor Helen Nicholson (University of Otago, New Zealand) and Professor Rachel Spronken-Smith (University of Otago, New Zealand). In addition to their keynote address,

Professor Porta and Associate Professor Morton each presented interesting and engaging workshop sessions embedded within the conference programme entitled 'Becoming the "Riddler" – 5 steps to writing effective MCQ questions' and 'Trauma-based anatomy – an interesting method of injecting clinical correlations', respectively.

In addition to the action-packed programme, delegates were able to soak up the breath-taking scenery and enjoy some 'play time' in the adventure capital of New Zealand. We boarded the historical TSS Earnslaw for a 45-minute cruise across Lake Wakatipu (which was a little choppy!), disembarking at Walter Peak High Country Farm. Here we enjoyed our conference dinner with an array of New Zealand produce (and a farm show thrown in for good measure!).

Following the conclusion of the conference many delegates joined in the fun at the Skyline Gondola and Luge, and despite a few minor lugging accidents, no serious injuries were sustained!

Congratulations to those delegates who were awarded prizes: Jamie Chapman (University of Tasmania) - Best Oral Presentation; Tom Ranger (Monash University) - Best Student Oral Presentation; Josephine Smith (University of Newcastle) - Best Poster (Education); Navneet Lal (University of Otago) - Best Poster (Research).

We look forward to the next ANZACA meeting in Adelaide, 2015.

Dr Stephanie Woodley  
University of Otago





## ASSA: ANATOMICAL SOCIETY OF SOUTHERN AFRICA

### 43rd Annual Conference of the Anatomical Society of Southern Africa (ASSA)

We are excited to invite you to join us at Khaya iBhubesi Conference Venue, at Parys, Free State from Saturday 9<sup>th</sup> of May until Wednesday the 13<sup>th</sup> of May 2015. The 43<sup>rd</sup> Annual Conference of the Anatomical Society of Southern Africa (ASSA) is hosted by the Department of Anatomy, University of Limpopo (Medunsa Campus). A



stimulating educational program, in an awe-inspiring setting, combined with a fun-filled team-building adventure session will ensure an exhilarating experience amongst friends and colleagues.

From a welcome cocktail where you can interact with your colleagues, to the Thomson-Stibbe lecture presented by the formidable Prof Shingai Mutambirwa, an exciting day awaits. The program includes clinical symposia, research presentations and discussions in all relevant fields of anatomy. The gala dinner and prize giving ceremony on Tuesday evening

will be followed by the wrap-up comments and AGM meeting the next morning. A first ever separate two-day technical workshop is planned for the rest of the week. This will include discussions and training sessions on preservation methods amongst others.

Some important dates to note are:

- Abstract submission – Closes 15 February 2015
- Early-bird registration – Closes 13 March 2015
- Final registration – Closes 17 April 2015

For further information, please visit



the conference website:

[www.assa2015.co.za](http://www.assa2015.co.za)

We have an exciting programme scheduled filled with fascinating research presentations, so submit your abstracts timeously, and we will see you in the magnificent local Parys in May!

**Henry Human**

ASSA 2015 Conference Chairman  
University of Limpopo (Medunsa)



## CALENDAR OF MEETINGS

### 2015

28 March -1 April 2015

**AAA: American Association of Anatomists**

at Experimental Biology 2015  
Boston, USA

2-6 September 2015

**ISMS: International Symposium of Morphological Sciences**

Istanbul, Turkey



9-13 May 2015

**ASSA: Anatomical Association of Southern Africa**

Parys, South Africa

December 2015

**ANZACA: Australian and New Zealand Association of Clinical Anatomists**

Adelaide, Australia

### 2016

17-20 March 2016

**APICA**

Singapore



### 2019

September 2019

**XIX Congress of the IFAA**

Istanbul, Turkey

Please send in details of congresses related to the anatomical Sciences  
for inclusion in the calendar

## ANATOMY JOURNALS URL

*If you are the editor of a journal that does not appear in the list below, please emails us the journal details for inclusion in subsequent issues*

- Anatomical Record:

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291932-8494>

- Anatomical Sciences Education:

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291935-9780>

- Annals of Anatomy:

<http://www.journals.elsevier.com/annals-of-anatomy/>

- Clinical Anatomy:

<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291098-2353>

- European Journal of Anatomy:

<http://www.eurjanat.com/web/>

- Journal of Anatomy:

<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291469-7580>

- Surgical and Radiological Anatomy:

<http://www.springer.com/medicine/radiology/journal/276>

## CONTRIBUTIONS TO PLEXUS

**Plexus is intended for staff and student of all member Societies of the IFAA.**

*Should you receive a copy, please distribute as widely as possible in order to inform all members of the events and issues covered by the IFAA and its member Societies.*

**Contributions will be gratefully accepted. Please submit all information by email to the Editors:**

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