

# SMBE

Adelaide  
Mar 09



## AusBiotech Award

### **Congratulations Tony Carlisle, winner of the AusBiotech 2009 Student Excellence award.**

The AusBiotech 2009 student Excellence award was open in July 2009 to any honours, masters or PhD student studying in the biotech field in Australia. Each state held a competition to select a winner, who received an expenses paid trip to the Annual Asia Pacific AusBiotech Conference which was held in Melbourne in October 2009 at the Melbourne Convention and Exhibition Centre.

During the conference each state winner presented a poster along with a ten minute oral presentation to a national panel of judges.

*"All the students gave a superb presentation of their projects and each student should be congratulated for their achievement. It was quite a thrill to find out that i was a national winner of the AusBiotech GSK student Excellence Award which was announced during the morning opening plenary session" Tony Carlisle*



Congratulations once again Tony.



Dr Ashley Bates, Head of R&D Alliances  
Australia/NZ, GlaxoSmithKline and Tony Carlisle

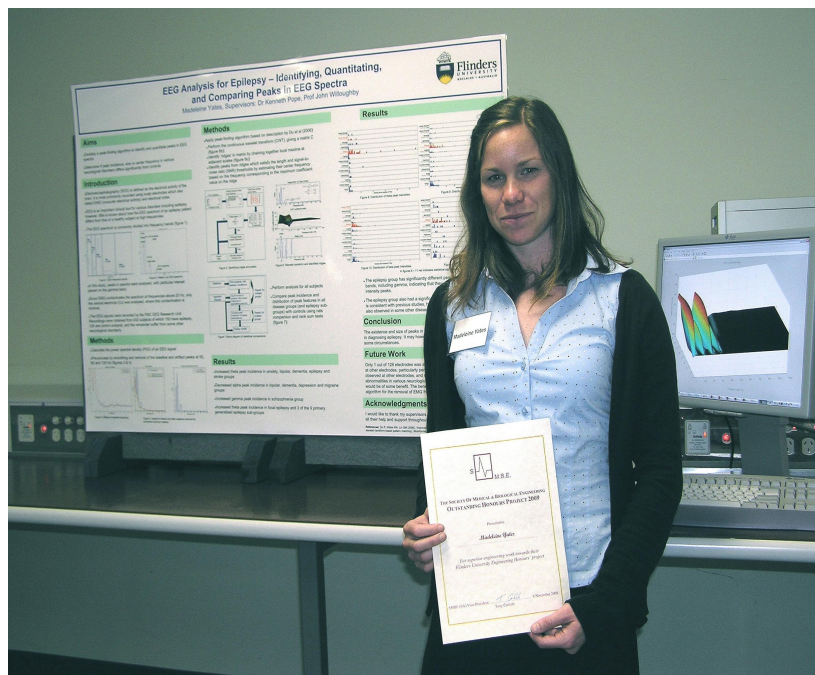
# SMBE Awards

***Biomedical Engineering Outstanding Honours Project Award***  
*'...awarded to a biomedical engineering student for their superior work towards their honours project...'*

The Biomedical Engineering Outstanding Honours Project Award 2010 was presented to Madeleine Yates for her Flinders University final year project: **EEG Analysis for Epilepsy –Identifying, Quantitating, and Comparing Peaks in EEG Spectra.**

There were several biomedical projects on show at the Flinders University Expo in 2010 and all of them were impressively presented, showing not only a high calibre of communication skills, but also a passion for their work. The judges found it difficult to shortlist them, let alone to finally choose an overall winner. Madeleine's project involved analysing EEG signals of subjects with various neurological disorders to determine whether the incidence of peaks, their size or location within each frequency band differed significantly from healthy subjects. Madeleine found that epilepsy patients have a significantly higher incidence of theta peaks, as well as more peaks with larger intensity in all bands, including gamma. These results indicate that epilepsy patients are more likely to have peaks with greater intensity in all frequency bands, which may occasionally prove to be diagnostically useful.

Tony Carlisle  
Vice President



Madeline Yates

# Country Technicians Conference Report

## Newcastle 2010

The 2010 SMBE NSW Biomedical Training seminar was held in the industrial centre of Newcastle. Famous for its extensive shipping port and proximity to the popular Hunter Valley, which produces some of Australia's best wines. Following the welcome barbecue which saw some 60 people attend Fort Scratchley on Sunday evening, the Conference proper began Monday morning at the Newcastle town Hall, a venue with excellent facilities for the 90 odd registrants, who came from all around Australia. The Conference dinner, always a favourite among the attendees, saw nearly 150 people relax and enjoy the fantastic food and wine at *Noah's*, many of whom stayed to "Network" well into the evening. Once again the support offered by the Biomedical companies both big and small was excellent with nearly 40 trade stands setup over two rooms, giving vendors a chance to display their equipment, whilst allowing attendee's the opportunity chat on a technical level.

As always the calibre of the presentations was exceptional. Of particular interest to those currently working within the industry was Stuart Clifton's "AS-3551 & AS-3003 – Where are they up to?", which highlighted the key changes, currently under review. On an important note AS-3003 is out for public comment and AS3551 will be in the coming weeks. As BME's we should all take the opportunity to read, review and pass comment while we can. Due to changes in the process it's expected to cost in excess of \$20,000 to modify standards in the future, so it's best we get it right now.

Infection control and prevention is a serious topic for all BME's and was highlighted by our own Anne-Louise Smith with her presentation "Medical devices: A review of infection risk to biomedical service staff", in addition Sandy Berenger painted an overly grim picture of the risk associated with servicing medical devices. Key points to take from these to minimise your risk were; keep your hands clean, wipe down devices and clean your tools regularly.

With more and more medical devices involving PC's and medical networks there was an emphasis on the challenges faced by Biomed's with respect to clinical IT, networking and connectivity. Simon Cowley from RMH, showed how well engineered installations, reduced systems downtime and service intervals. Likewise Simon's colleague David Lierkamp, showed first hand how proper Central Station installation including "Positive Pressure ventilated Cabinets" eliminated the adverse affects dust has on PC performance, a problem which many of us would have encountered before, a presentation well worth looking at.

As always the conference finished with an enlightening look a BME activity from around the globe, this year was no exception with an eye opening report coming from Graham Carter of the Mater Hospital in Brisbane who over the last few years has filled shipping containers with surplus equipment and shipped them to hospitals in Africa. Andy Lyons who provides Biomedical services in Samoa, Tonga and the Cook Islands and similarly Trevor Hezake in Vanuatu and the Solomon Islands, gave us a fantastic insight into their experiences abroad. As we all know medical equipment is expensive and experience is hard to come by, so if you feel you can help out in any way, be it with your own hands or equipment donations, Andy needs Anaesthetic Machines and PB7200 Vents while Trevor needs ECG machines. BUT remember "If its scrap to us its scrap to them", so working units only please. If you think you can help out in any way please contact Bruce Morrison ([bruce.morrison@mysoul.com.au](mailto:bruce.morrison@mysoul.com.au)), for more information.

A note to all; next years conference will be held in Albury in late March. For those who have not previously attended one of these conferences, its and excellent opportunity to network and discuss the challenges, solutions and triumphs with Biomedical Engineers and technicians from all round Australia. I would strongly encourage those interested to attend the SMBE (NSW) conference as a valuable addition to ones knowledge base and network contacts.

For more information about the SMBE (NSW) "Country technician's conference" and access to the presenter's material, please visit the website at [www.smbensw.org.au](http://www.smbensw.org.au)

Richard Denton, Flinders Biomedical Engineering

*Do you know someone who would benefit from going to the next Annual SMBE ,  
Country Biomedical Engineering Training Seminar & Conference?*

No nominations were received this year for this great award. Get in early and for the next round. The seminar is aimed at improving the skills and knowledge of Biomedical Technicians. The SMBE (SA) will fund airfares, accommodation and registration for a selected nominee. You can find a nomination form on the SMBE website

[http://www.smbe.asn.au/SMBE\\_SA/SA\\_Awards/SA\\_Encouragement/  
SA\\_Encouragement.htm](http://www.smbe.asn.au/SMBE_SA/SA_Awards/SA_Encouragement/SA_Encouragement.htm)

## **SMBE (SA) Biomedical Engineering Scholarship**

A scholarship is provided to advance knowledge amongst Biomedical Engineering practitioners in South Australia and Northern Territory. The scholarship is financial support (up to \$1000) to attend or present at a biomedical engineering conference or institution.

The Biomedical Engineering scholarship is open to all SMBE members from within SA and the NT who have been members of the SMBE (SA) for at least three years. Find details in the Awards page on the SMBE (SA) website

[http://www.smbe.asn.au/SMBE\\_SA/SA\\_Awards/SA\\_Scholarship/SA\\_Scholarship.htm](http://www.smbe.asn.au/SMBE_SA/SA_Awards/SA_Scholarship/SA_Scholarship.htm)

**The SMBE committee would like to thank all our 2009 Christmas dinner sponsors:**



**Anaequip  
Battery Specialties  
GE  
Helicon  
Imaging and Diagnostic Products  
Philips**



## EPSM-ABEC 2010 : 5 - 9 Melbourne

### 'Its all about the coffee'

The Engineering and Physical Sciences in Medicine and the Australian Biomedical Engineering Conference for 2010 will bring together physical scientists and biomedical engineers, providing an excellent opportunity for us to share ideas, innovations and solutions. Together we can reinforce successful associations in teaching, research and the clinical application of physical sciences and engineering in medicine.



EPSM - ABEC 2010 will take place at the prestigious Melbourne Cricket Ground in Victoria, from 5 - 9 December 2010.

We look forward to seeing you in Melbourne - *it's all about the coffee!*

**Hosted by: Engineers Australia, ACPSEM and SMBE**

ALSO:

Get your Safari suits dry cleaned for EPSM/ABEC 2011, in Darwin, 14-18 August.

## AS3003 & AS3551 Standards

At the SMBE NSW technicians' training seminar Stuart Clifton delivered an overview of the draft AS3003 and AS3551 standards. The standards committees are keen to get feedback on these 2 standards. AS3003 is open for comment currently (closing 19th May 2010) and AS3551 will be available for comment soon (probably closing June 2010). The draft of AS3003 (DR10009) is available at the following link

<https://infostore.saiglobal.com/store/Details.aspx?ProductID=1391359>

There are many changes in the draft standards including the requirement for annual inspection of electrical areas, changes to the boundaries of areas and the requirement that all home care areas using class I equipment or type B applied parts will be protected. There are many other significant changes, provide feedback to the committee per the instructions on page 2 of the document.



# News from our members

## Congratulations Briony



At the last AGM Briony Williams stood down from her secretary position with the SMBE due to the arrival of her first child.

On the 9th September 2009, Hayden William Gill was born weighing 7lb 10oz.

On behalf of the SMBE committee congratulations Briony.

## Congratulations Julie Woerner

Julie Woerner, one of our NT members, has been selected for the Australian Women's Cricket Team, 18 player Australian Institute of Sport (AIS) - Commonwealth Bank Southern Stars squad for 2009-2010 (11 March 2010).

**Batting style:** Right-hand bat

**Bowling style :** Right-arm medium

Congratulations Julie



# SMBE 2009 AGM

By Olivia Lockwood

The Society's AGM was held on Wednesday 9th September 2009 at The Einsten Cafe, Thebarton.

The evening commenced with our guest speaker Jeremy Austin who gave a very interesting presentation entitled "Reconstructing the past to inform the present: ancient DNA analysis of extinct and threatened species". All that attended were educated in DNA and in particular ancient DNA. Jeremy highlighted the importance of ancient DNA and how it can assist our understanding of evolution, past environmental conditions and biological responses to environmental change.

*"Ancient DNA allows one to travel back in time and see the past as it really was rather than inferring it from modern genetic data alone"*  
Jeremy Austin

Thanks must go to Adrian for suggesting and arranging the guest speaker.

## Council Elections

Following the presentation the council meeting began. The positions of Vice President (Robin Woolford), Treasurer (Dan Fletcher) and 2 Councilor positions became vacant. In addition the secretary position was vacant as Briony Williams resigned and is on maternity leave.

Nominations were received as follows: Vice President - Tony Carlisle, Treasurer - Dan Fletcher, Councilors - Greg Smith and Lachlan Eberhard. Anne-Lousie Smith was happy to temporarily take on the secretary role until a suitable replacement is found. All were elected unopposed.

The President report that follows summarises the year's activities.

# President's Report 2009

1. **Membership.**  
Membership levels were maintained this year and the treasurer's report has details of member numbers.
2. **2008/2009 meetings included:**  
**NOV 2008:** AGM  
Todd Cooper – IHE Patient Care Devices: What is REAL verses What is a DREAM.  
**DEC 2008:** Xmas Dinner  
The Historian Hotel  
**APRIL 2009:** Technical talk  
Fulbright Scholarship: Investigating the use of FES to improve function and movement in children with Cerebral Palsy. David Hobbs  
**MAY 2009:** Technical talk  
T-rays for Biosensors. Prof Derek Abbot  
**MAY 2009:** Site Visit  
Signostics  
**JULY 2009:** Site visit  
Key Industries
3. **SMBE Australia website**  
The website continues to be the main source of information for SMBE members across Australia with most state SMBEs represented. Thanks must go to Anne-Louise for the tremendous work she has done in maintaining this site.
4. **Awards**  
The SMBE Biomedical Engineering Encouragement Award for 2009 was not awarded.  
  
The SMBE (SA) Outstanding Honours Project Award is awarded to a biomedical engineering student for their superior work towards their honours project. The award is based on practicality of the design, project development and outcomes and explanation of work at the Expo Day. The award is in the form of a \$200 cash prize, a certificate and 12 months free membership to the SMBE (SA). The 2008 award was won by Tony Carlisle for his project "A Nasogastric Tube Insertion Simulator". 2009 award winner will be determined at the Flinders Uni Expo day in November this year.
5. Finally I would like to thank all the committee for their work during the year and thank you also to our sponsors throughout the year. A special thank you must also go to those committee members who will be standing down this year for their efforts during their term in office.

Olivia Lockwood  
President 2009