AUSTRALASIAN SLEEP ASSOCIATION

NEWSLETTER OCTOBER 2007

PRESIDENT'S REPORT

This is my first report to you since assuming the President's role from Matt Naughton at our annual general meeting in Cairns in September. I would like to start by again thanking Matt for his great work on our behalves. Under his leadership we have made considerable progress on a number of fronts relating to our education and professional development and much of what follows flows directly from that effort. Matt and his executive have gone to considerable lengths to nurture the activities of all elements of our diverse group. His and his predecessors' success in this is reflected is the strength and fellowship of our association.

World Congress

The World Congress was a great success. The programme was built around a plethora of superb symposia featuring many of the world's foremost sleep scientists and clinicians. Given the format of parallel sessions it was often a case of how to choose between equally attractive prospects. The quality was sustained throughout the programme, reflected in the high attendances to the very end. Putting together and delivering such a programme was an extraordinary effort and a wonderful contribution to the exchange of ideas and our ongoing education. Ron Grunstein, John Wheatley, Naomi Rogers, Stephanie Blower and their supporting committees have done us all a great service: thanks again!

The World Congress is a centrepiece of the activities of the World Federation of Sleep Societies and its success has done much to promote the importance of this body as a forum for promotion of the science of sleep internationally. The Australian and New Zealand sleep community have much to gain from participation in this body, which is a conduit for ideas between our remote part of the globe and the rest of the world. It is very gratifying to note that Ron Grunstein has now assumed the presidency of this organisation and we look forward to working with him to ensure its ongoing success. The next World Congress is to take place in Japan in 4 years time.

Budget

On a less positive note, the number of registrations at the World Congress was a little less than hoped for and hence the event looks, at this stage, like it will break even at best, rather than yield the hoped for profit, which would have flowed to the ASA as we hosted and underwrote the event. The final figures are not yet in and are awaited with interest! Normally the society makes a profit from its annual conference and so we will have to adjust our expenditure if this proves not to be the case this year.

Regardless, our income base is narrow and not enough to support an expanded range of activities, which are arguably needed at this stage of the Association's development. For example, a full time office is a reasonable aspiration, but unaffordable under the current circumstances. A more generous array of scholarships and grants is another aspiration, but will need new sources of finance to underwrite it. These are matters the Executive will continue to address.

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Current Priorities

There are a number of issues that deserve particular attention, which we will focus on over the next year:

Sleep Study Item Numbers

Recently a joint working party of the Australasian Sleep Association and the Thoracic Society of Australia and New Zealand (D Hillman (chair), N Antic, D Barnes, D Cunnington, C Dakin, H Teichtahl, S Tolhurst) have discussed the issue of item numbers for sleep studies. They have presented the case for a new hierarchy of item numbers for overnight sleep studies to investigate primary sleep disorders to the executives of both organisations. The case is based on a burgeoning demand for investigation of these disorders, driven by greater community awareness of them and their impacts and more effective therapies for them. This has meant that diversification beyond the traditional diagnostic mainstay (and gold standard) of laboratory-based polysomnography has become necessary. These simpler methods are already in widespread use in parts of Australia and the executives agreed with the working party that it was necessary to now bring them under an appropriate regulatory and remunerative framework. A four tier approach has been suggested with level 1 encompassing laboratory polysomnography, level 2 unattended polysomnography, level 3 two or more cardiopulmonary parameters and level 4 a single cardiopulmonary parameter (eg oximetry). An outline of the proposition we intend to take to Medicare is to be circulated shortly to members for comment.

Pharmaceutical Benefits Scheme

The difficulty we have accessing drugs considered first line pharmacological therapy for restless legs syndrome/periodic limb movements in sleep and for narcolepsy/idiopathic hypersomnia requires attention. A concerted approach to the PBS authorities is required to list dopamine agonists such as Ropinirole or Pramipexole and make non-amphetamine wakefulness promoting agents such as Modafinil more accessible. It is extraordinary that such drugs are not already readily available to sleep physicians and we cannot passively accept this.

Access to Clinical Psychology services by Sleep Physicians

The recently announced support for clinical psychology consultations through Medicare is a very welcome development for our discipline. However the new arrangements do not allow for direct referrals from sleep physicians to clinical psychologists, despite their close working relationship. We need to address this issue.

Therapeutic Goods Association (TGA) regulation of the sale of medical devices

Currently lack of regulation of the sale of CPAP devices is allowing an uncontrolled, unaudited supply of this equipment in Australia, unlike the USA where such devices fall under FDA provisions which only allow them to be supplied on the "prescription of a physician". We believe this is the minimal level of protection that patients require from inadequate standards and potential exploitation. This is a particular issue for our discipline but, unfortunately, a generic issue for the TGA which does not appear to have any useful precedents to draw upon, having (to my understanding) never regulated supply of therapeutic devices. We will take the problem to them and attempt to resolve it.

Accreditation of Sleep Services

Timely processing of applications for accreditation is a necessity, and I intend to examine our current processes in consultation with the TSANZ. It may be that the ASA has to take a more direct role in this matter, but the issue of resourcing it adequately is not likely to be easily solved.

Education

We have a strong obligation to educate trainees in the various disciplines engaged in investigating and managing sleep disorders and to continue to educate ourselves. We have done well in these areas but further work is needed.

A curriculum for advanced trainees in sleep medicine is currently being prepared. Doug McEvoy has done a great job in framing this and providing much carefully crafted detail. John Wheatley and Harry Teichtahl have agreed to complete this work which will form an important element the revised training programme in sleep medicine being developed by the Specialist Advisory Committee in Respiratory and Sleep Medicine. Among other things it is hoped that this revised programme will give a route for trainees from streams outside respiratory medicine to take up sleep medicine. We will, of course continue to work very closely with Respiratory Medicine through our joint SAC.

Continuing professional development (CPD) is an area that needs expansion beyond our current effort. While CPD is a personal responsibility the ASA can do much to assist this process. Our annual scientific meetings are the centrepiece of this effort currently, but our efforts cannot stop there. Other areas for development include advanced courses, promotion of state-based meetings, web-based learning, provision of learning resources, and collaboration with other educational providers including our international counterparts. I recently attended a meeting of the Specialties Board of the RACP on behalf of the ASA, where this was discussed at length. Progress is expected on this issue by regulatory authorities

(such as the Australian Medical Council) and the RACP is keen to help resource this area, as part of its new Education Policy, which will roll out in 2008. It is likely that the content of continuing education programmes will be the business of the specialist societies, with the college providing resources, oversight and assessment, as well as acting as a forum for the specialist groups to share ideas as they seek best practice in this area.

We will ensure that ideas developed from this effort and from that relating to any of the Association's other craft groups will be rolled out to benefit all members. I see web-based resources as a particularly important area for future growth.

Reorganisation of the Association as a "Company Limited by Guarantee"
In the last year the executive has been advised that our future needs are best served by reorganisation as a company limited by guarantee which is the usual corporate structure for national associations such as ours. Among other things the change we envisage will allow us to gain status as a tax concession charity, allowing charitable gifts to be tax exempt, and allow us to hold trust funds, such as the Helen Bearpark scholarship fund, which is currently housed with the RACP. We are currently engaging a lawyer expert in these matters to draft the necessary papers to enact this change. We will examine our position in relationship to New Zealand corporate tax law as well to ensure we are as well positioned as possible both sides of the Tasman.

A Foundation for Healthy Sleep
The Association has supported the notion of a community based foundation to foster public education, influence public policy and support research for some time: a National Heart Foundation equivalent in sleep would do nicely. Useful early steps were taken by an ad hoc group (which included me!), and included a strategy document (drafted with pro-bono input from Boston Consulting), an economic analysis (by Access Economics), a draft constitution (with Gilbert & Tobin, lawyers), and indications of broad based industry support from all the major CPAP device manufacturers, and a major pharmaceutical group. However progress has stalled, and the executive is keen to reactivate this project. We believe that one of the problems has been that the original start-up efforts were too remote from the Association and that we would be better served to parent this organisation from within the ASA to ensure that we develop strong synergies with it from the outset and that the processes followed are transparent to our membership. We are also very cognisant of the need to have corresponding groups in both New Zealand and Australia. The notion of a generic name for the organisation which would operate in both countries is attractive, so that it could speak with one voice where convenient to do so (eg Sleep Foundation – New Zealand; Sleep Foundation – Australia). I envisage appointing a subcommittee to progress this and would be interested in your comments on the issue. It is vital that we are united around the concept if it is to progress.

As always, there is plenty to do! We need to work steadily, systematically and cohesively to achieve progress on these matters. I look forward to working with you on them.

David Hillman

Worldsleep07 – Photos requested

We are trying to put together a collection of photographs taken at worldsleep07, for inclusion on the website and future archives of the conference. If you took any photographs of any the opening ceremony, closing ceremony, conference party, or any of the sessions, we would love to have copies of these. If you are prepared to share your photographic memories please send them to the ASA Secretariat: admin@sleep.org.au, or hard copies to ASA, GPO Box 295, Sydney 2001.

Thanks
Stephanie Blower

UPDATE ON THE RESEARCH COMMITTEE MEMBERSHIP SURVEY

The data from the Research Committee Membership Survey has been analysed, thanks to Philippa Gander and her staff at Sleep-Wake at Massey University. The findings from the Membership Survey were summarised and presented as a poster in the ASA booth at the worldsleep07 congress in Cairns. We have now put this poster onto the website and invite all members to look at the poster, and also follow the link to the full report of the Membership Survey. We are asking for members to provide some feedback, comments, suggestions or questions to us about the report.

Following receipt of comments from the membership, the findings from the Membership Survey will be incorporated along with other data into a Green Paper, summarising the current state of Sleep and Circadian Research in Australia and New Zealand.

The Aims of the Green Paper are:

1. To increase the profile of sleep research in Australasia
2. To increase the quality and fundability of sleep research in Australasia
3. To increase the funding available for sleep research in Australasia

This work in turn be formed into a White Paper, and will form part of our lobbying effort to increase the profile of Sleep and Circadian Research to Government agencies, funding agencies and other groups in Australia and New Zealand. We encourage all members to go to the website and have a look at the poster and report, and provide us with invaluable feedback.

The findings from the Membership Survey will also be submitted as a manuscript to Sleep and Biological Rhythms in the near future.

Any feedback or suggestions on this project can be emailed to:

Philippa Gander - p.h.gander@massey.ac.nz
Naomi Rogers - nrogers@med.usyd.edu.au

CLINICAL COMMITTEE

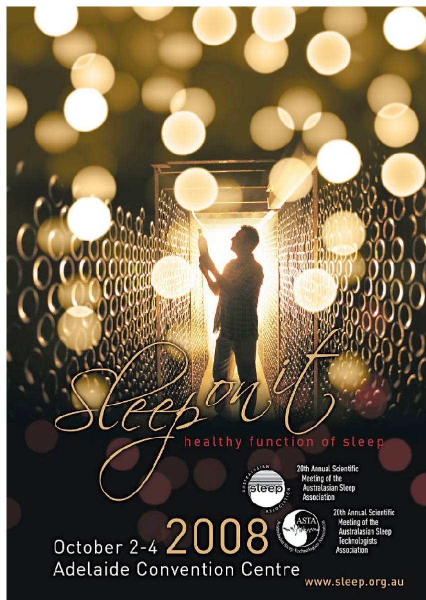
The members of the Clinical Committee for 2007/2008 are:
Harry Teichtahl (chair), Bruce Whitehead, Simon Smith, Roy Beran, Peter Rochford. Chris Pantin, Nick Antic.

The committee will continue to seek funding to launch a pilot study for the use of Clinical Indicators in Sleep Medicine. New business for the coming year will include assessing electronic formats for transferring PSG data between laboratories. We will assess whether the ASA should develop guidelines for Sleep Physicians regarding patients with sleep disorders and the obligation to report to driving authorities.

The committee would welcome suggestions/feedback or problems that members would like to raise regarding the clinical practice of Sleep Medicine in Australia.

Harry Teichtahl
Chairman

CONFERENCE COMMITTEE



The 20th ASA/ASTA Annual Scientific Meeting will be held at the Adelaide Convention Centre October 2-4 2008. The theme of the meeting is Sleep on it - Healthy Function of Sleep which will explore not only the physiological role of sleep in maintaining neurocognitive, psychological and cardiovascular health but also the patho-physiological impact of sleep disorders on these aspects of health. There will be interest for the diverse membership of our associations.

The Conference Organising Committee are currently developing the programme, with representation from ASTA, the Special Interest Groups of the ASA and both the Education and Research Subcommittees of the ASA. Associate Professor Robert Stickgold has accepted the invitation as one of the Keynote Speakers for the meeting. Robert is Associate Professor of Psychiatry at Harvard Medical School and Department of Psychiatry, Beth Israel Deaconess Medical Centre, Boston, USA. His current research seeks to describe the nature of cognition during sleep, and to explain the role of sleep in memory and emotional processing. His studies of sleep and memory have provided definitive evidence demonstrating the importance of sleep in learning and memory consolidation. Further Keynote speakers will be announced in the near future.

There will also be other associated meetings including Post-graduate courses, Trainee focussed sessions and education sessions for clinicians outside the field of sleep medicine. Details will be made available in the near future.

Members are invited to submit suggestions for speakers, symposia or future meeting themes to admin@sleep.org.au .

The meeting again promises depth in the science of sleep medicine research but the local attractions of the region will not be forgotten. South Australia's love of wine and great food will feature in the meeting, including wine tasting to accompany the poster viewing sessions. There is magnificent natural beauty and scenery on the doorstep of Adelaide (yes, including wineries and vineyards). The Programme Registration Brochure will include some suggestions for local tourism just to wet the appetite for this beautiful region.

Important Dates
Registration available by March 2008 (on-line or Registration Brochure).
Closing date for abstracts is 30 June 2008.

The Organising Committee extends an invitation to join us in Adelaide in October 2008 to explore the science and enjoy the beauty of the region. Did we mention the wine and food?

Craig Hukins (Chair)

SPECIAL INTEREST GROUP REPORTS

INSOMNIA & SLEEP HEALTH SIG

worldsleep07 in Cairns was a great success and there was a huge amount of interesting, high calibre and relevant information in terms of insomnia and all other aspects of sleep health. Much of the content was presented by the international and local leaders in our field. We can now look forward to planning next year's ASA Conference- Adelaide Oct 2008. Suggestions and input from all members are most welcome.

FYI November 5-11 is drowsy driving prevention week in the USA,
www.drowsydriving.org has some useful resource material.

A recent article of interest for the group is from a Japanese group Kaneita et al (2007). They investigated the association between mental health status (a short version of the General Health Questionnaire) and sleep status (sleep duration, subjective sleep assessment, bedtime and insomnia symptoms) amongst almost 100,000 adolescents in Japan (impressive sample size!). A U-shaped association was observed between mental health status and sleep duration. They concluded that mental health status was inversely proportional to the frequency of insomnia symptoms. The worse the subjective sleep assessment, the poorer the mental health status. Sleep duration and subjective sleep assessment showed different patterns of association with mental health status indicating that these 2 sleep parameters have independent significance. The study highlighted the importance of promoting mental health care and sleep hygiene education for adolescents. The study provides good justification for continuing to try to sell the message of the importance of good sleep to adolescents.

Kaneita Y, Ohida T, Osaki Y, Tanihata T, Minowa M, Suzuki K, Wada K, Kanda H, Hayashi K. Association between mental health status and sleep status among adolescents in Japan: a nationwide cross-sectional survey. J Clin Psychiatry. 2007 Sep;68(9):1426-35

Moira Junge
moirajunge@optusnet.com.au

OROFACIAL SIG NEWS

The orofacial SIG met in Cairns on Wednesday, September 5. The meeting was well attended by both dental and medical members. Chris Pantin and Andrew Ng discussed their activities as co-chairs for the previous 12 months, including contributing to the ASA website, answering queries from the public and participating in the organisation of worldsleep 07 and the very successful Orofacial Symposium. On the afternoon of Monday, September 3, a full lecture theatre heard from Andrew Ng on the efficacy of oral appliances and a comparison with other OSA treatments, Peter Cistulli discussed the predictors of oral appliance successes and Marie Marklund looked at long term outcomes of oral appliance therapy.
Chris and Andrew announced their resignations as co-chairs of the Orofacial SIG, and the meeting expressed their thanks and appreciation for all the hard work that has been put in over the past 3 years. Nominations were called for, and Mina Borromeo and Maree Barnes were elected co-chairs of the orofacial SIG.
An ongoing concern of this group is the paucity of knowledge among general and specialist dentists about sleep medicine and the important role that dentists have to play in identifying and treating sleep disordered breathing. It was decided to try to liaise more closely and to build a co-operative relationship with the Australian Dental Association, and also to involve more of the dentists who are currently part of the orofacial SIG and ASA membership. Further to this, a dental sleep medicine course is planned for October 2008, to be run immediately prior to the ASA meeting in Adelaide.
Additionally, we will seek to promote and foster research into the use of oral appliances to treat obstructive sleep apnoea, utilizing the support and resources of the Australian Sleep Trials Network.
It is hoped that the Orofacial SIG will continue to make a significant contribution to the understanding and practice of dental sleep medicine in Australia and New Zealand.

Maree Barnes & Mina Borromeo
maree.barnes@austin.org.au borromeo@unimelb.edu.au

PAEDIATRIC SIG NEWS

Thanks to all who participated in the WorldSleep07meeting. I think you will agree that the content was fantastic, with lots of interest to paediatric people.

A number of Paediatric SIG members have been involved in working with the Australasian Paediatric Endocrinology group on a joint assessment of the current management of Prader Willi Syndrome (PWS). The first part of this project is a questionaire of all members of both societies together with fellows of the RACP. This questionnaire will soon be available on the APEG website: http://www.apeg.org.au/Subcommittees/PraderWilliSyndromePWS/tabid/125/Default.aspx . To ensure that the results truly represent current practice we request that all paediatricians participate in this process by completing the questionnaire.

At the SIG meeting in Cairns it was discussed that a working party be set up to revise the 1994 TSANZ Guidelines for Respiratory Sleep Studies in children. It would be great to have a representative from all paediatric labs on the working party. If you are interested in being on the working party, please contact Margot Davey (margot.davey@southernhealth.org.au).

Thanks again to everyone who took part in the inter-lab PSG concordance study. We will soon be sending out another study- this time a "fragment" of about 4 hours as agreed to at the SIG meeting in Cairns. Once again, we would be really grateful if as many labs as possible took part. This is a really important process in working towards improved concordance that will be crucial for any future inter-lab research studies.

Karen Waters (Westmead) and Declan Kennedy (Adelaide) are putting together the paediatric programme for the 2008 ASA meeting in Adelaide, and would welcome any suggestions for symposia or invited speakers.

Article of interest:

Mitchell RB. Adenotonsillectomy for obstructive sleep apnea in children: outcome evaluated by pre- and postoperative polysomnography. Laryngoscope. 2007 Oct;117(10):1844-54.

Gillian Nixon
Gillian.Nixon@southernhealth.org.au

RESPIRATORY SIG REPORT

A meeting of the ASA Respiratory SIG was held at worldsleep07. It was agreed that although respiratory issues are generally well represented in the ASA, the existence of a SIG was appropriate. As a result of the meeting, Andrew Thornton agreed to take some topic suggestions to the ASA 2008 Scientific Meeting organising committee. It was also agreed that the SIG would prepare a document about the supply of CPAP, setting out some minimum standards that a supplier should be expected to meet.

CPAP treatment adherence remains the biggest single factor in achieving good health outcomes for patients with OSAS. All the available evidence suggests that the processes involved in treatment initiation, education and follow-up are critical to ongoing adherence. Increasingly, these tasks are delegated to a third party CPAP provider who may have different priorities to those of the treating physician. Because of the critical role these providers play, the SIG feels that it is important that the ASA establish some minimum standards, recommendations or guidelines for this service. Inevitably this could become controversial as there are many models of CPAP provision in use in the community. A draft document is in preparation and we would welcome input if any member has strong views about issues that should be addressed. The more comprehensive the input to the document at this stage, the more representative it is likely to be in the longer term. I am aware that a number of centres have written tender documents which attempt to address some of these issues and input of this sort would be particularly welcome. Please address correspondence to: Andrew.thornton@health.sa.gov.au

Andrew Thornton & Chris Worsnop

OBITUARY – Michael Lazaris 30/6/1969 – 8/4/2007

Michael Lazaris, who has died aged 37, will be remembered by colleagues and patients over a 15-year career in Sleep as a gentle, kindly-spoken intelligent man. He was unstinting in his care for patients at St George hospital over 10 years and, more recently, at Westmead hospital where he managed the sleep unit. His patients all loved him: no-one who knew Michael could be anything but charmed by him. He was a man without enemies.

Michael was a man of many parts, which he would keep hidden if he chose. Never boastful, Michael could surprise you in conversation with a casual reference to -- for example -- his practice of kung fu. Even then, you wouldn't find out till much later that in fact he held a black belt and many trophies – and you would probably find that out from someone else. Michael also kept to himself the lifelong condition that, sadly, claimed his life too young. He never complained.

Dressed in black with a swaggering walk, Michael was impossible not to notice. Health issues took their toll on his looks in later years, which many of us enviously put down to a life lived on the edge. It was a suggestion Michael cheerfully encouraged, because it concealed the truth that he indeed spent his whole life on an altogether different kind of edge. Even in his last weeks, when he was very unwell, he refused to give in.

Michael was always just Michael. He was genuine, easy-going and tolerant; never judgemental, but never bland or unchallenging either. He was always good fun to be with, whether at work or dragging a colleague around an impromptu tour of the Coca-Cola factory in Atlanta Georgia when they were supposed to be attending a conference. He was rarely seen without a can of Coke; and at St. George he ran the only sleep unit in town to have a carton of Marlboro reds in the stock cabinet.

His workplaces were happy workplaces, which more than made up for the occasional laissez-faire qualities of his management style. He had that rare quality of being a good listener, very observant, and anxious to accommodate everyone. With his sad dark eyes and crinkle-eyed smile, his humour, his charm and calm civility to all comers, Michael was a wonderful man who will be missed. He packed a lot of good things into his short life. Condolences go to his family; his many friends; and, especially, to the love of his life, Susan.

David Bolton

CHANGES TO PSG SCORING RULES PROPOSED BY AASM. WHAT SHOULD ASA'S POSITION BE?

In 2007 the American Academy of Sleep Medicine (AASM) published new guidelines for the scoring of sleep and related events[1]. The guidelines followed from a comprehensive review of the literature representing a substantial undertaking by many experts in the field for which the AASM and the individuals involved deserve high praise.

Unfortunately, one consequence of the new rules for scoring respiratory events is a likely worsening rather than improvement in the current poor levels of PSG scoring agreement between laboratories[2].

This follows from a decision by the authors not to draft a single, standardised set of criteria, but to provide two separate sets of criteria, one that is "recommended" and another "alternative" definition. The two are markedly different with the "recommended" approximating a 4% desaturation index and the "alternative" requiring a 3% desaturation or arousal, similar to one of the current "Chicago" criteria. According to the guidelines, either definition may be used, "at the discretion of the clinician or investigator".

We have recently shown[3] that the new AASM "recommended" rules result in a mean reduction of about 50% in the apnoea-hypopnoea index (AHI) and a reduction of about 25% if the "alternative" definition is followed. Furthermore, we found these changes to be greatest in the problematic area of mild to moderate sleep disordered breathing where AHI was less than 40 per hour. The potential impact on consistency of measurement, diagnosis and treatment decisions is obvious.

In 2005 the TSANZ and ASA working party developed guidelines for respiratory sleep studies[4], which endorsed the use of the AASM "Chicago" criteria in Australasian sleep laboratories. The advent of the new AASM rules and the lack of a single standard for scoring respiratory events means that the ASA must review its position and make recommendations about their adoption into PSG practice. Failure to do this will result in laboratories using different scoring standards and subsequently inconsistent practices in the management of patients with OSA. The situation that arose when nasal cannula measurement of airflow was adopted into practice in a haphazard way must be avoided. The impact of the new AASM rules will be at least as profound as this and we need to ensure we accept (with clarification) or decline the proposed standard in a systematic way throughout the Australasian sleep community.

We are aware that a number of laboratories around Australia are in the process of reviewing these rules for adoption and urge ASA to act on this matter urgently.

Andrew Thornton, Pam Singh
Royal Adelaide Hospital

Peter Rochford, Warren Ruehland, Rob Pierce
Austin Health

1. Iber C, Ancoli-Israel S, Chesson A, and Quan SF. The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology and Technical Specifications, 1st ed.: Westchester, Illinois: American Academy of Sleep Medicine, 2007.
2. Rochford P, Ruehland W, Pierce R, Singh P, Thornton A. Inter-observer Variability in PSG Scoring in a Large Australasian Dataset (Abstract). Sleep and Biological Rhythms. 2007; 5(s1):A44.
3. Ruehland W, Rochford P, Singh P, Thornton A. The New AASM Rules for Scoring Hypopnoeas: Impact on the Apnoea Hypopnoea Index (Abstract). Sleep and Biological Rhythms. 2007; 5(s1):A195.
4. Hensley MJ, Hillman DR, McEvoy RD, Neill AM, Solin P, Teichtahl H, Thompson BR, Tolhurst S, Thornton AT, Worsnop CJ. Guidelines for Sleep Studies in Adults. Australian Sleep Association and Thoracic Society of Australia and New Zealand. Oct 2005.

HELEN BEARPARK TRAVELLING SCHOLARSHIP 2006

Report from 2006 recipient – David Berlowitz

I was fortunate enough to win the 2006 Helen Bearpark travelling fellowship to support a visit to the laboratories of Professor David Gozal in Louisville, Kentucky. The visit enabled me to finalize a series of experimental protocols examining sleep in a mouse model of Motor Neurone Disease (MND) and to develop an ongoing research collaboration between Melbourne and Louisville. The visit was very successful; three grant applications were written, pilot data is being collected, an ongoing collaboration has been developed and a potential post-doctoral position has been established.

A number of case control series and now one randomised controlled trial have demonstrated that non invasive positive pressure ventilation (NPPV) reduces sleep hypoxia and fragmentation, improves survival, sleep quality and quality of life in people with MND able to tolerate the therapy. The survival benefit with NPPV is greater than that observed with the only drug licensed for treatment of MND, Riluzole. NPPV also appears to slow the rate of decline in pulmonary function, perhaps by direct modification of pathogenic mechanism(s).

Oxidative stress (OS) appears to be a central, common mechanism in MND neurodegeneration as OS acts both as a pathophysiological agent in its own right and is a consequence of other pathophysiology. Sleep disordered breathing (SDB) in MND is characterised by intermittent hypoxia (IH) and sleep fragmentation (SF) and recent studies in murine models of sleep apnoea have clearly demonstrated that cellular OS results from IH in a pattern which mimics SDB. People with MND are subjected to both SF and IH due to the SDB which develops during the disease and are thus likely to be exposed to increased OS at a motor cellular level. The Louisville group have extensive experience in these areas of research and the experiments we designed will examine these mechanisms in the mouse model of MND.

The visit was enormously beneficial to me personally. The opportunity to work with Professor Gozal provided unique opportunities and has begun to extend my skills into animal and cellular research. I plan to return to Kentucky annually to continue these experiments and we have established a post-doctoral research opportunity for another Australian or New Zealand researcher in Louisville. Anyone interested in this opportunity should contact me at david.berlowitz@austin.org.au.

Motor Neurone Disease is a terrible disease, but one where the sleep community is integral to management and where insights born of clinical care could assist in understanding its pathogenesis and may give rise to new therapeutics. I would like to again thank the ASA and ASTA for supporting my application. I would also particularly like to thank Associate Professor Ramesh Vijay, Professor David Gozal and all the Louisville laboratory and administrative staff who were so generous with their time and knowledge.

David Berlowitz
Research Fellow; Institute for breathing and sleep
Respiratory Physiotherapist; Victorian Respiratory Support Service
Austin Health, Melbourne Australia

UPCOMING DATES

Asian Pacific Society of Respirology: 30 Nov – 4 Dec 2007, Gold Coast
http://www.apsr2007.org/

Australasian Society for Psychophysiology (ASP'07): 7-9 December 2007, St Leo's College, University of Queensland.
www.psy.uq.edu.au/conferences/asp07

Thoracic Society of Australia & New Zealand Annual Scientific Meeting, 30 March – 2 April 2008, Melbourne.
http://www.thoracic.org.au/asm2008.html

American Thoracic Society International Conference, 16-21 May 2008, Toronto, Canada
http://www.thoracic.org/sections/meetings-and-courses/international-conference/2008/index.html

Sleep on it – healthy function of sleep – 20th ASM of the Australasian Sleep Association and the Australasian Sleep Technologists Association – Oct 2 – 4 2008, Adelaide Convention Centre, Adelaide, SA
http://www.sleep.org.au/meetings.html

Controversies in Diabetes, Obesity & Hypertension (CODHy): Oct 30 – Nov 2 2008, Barcelona, Spain
www.codhy.com

Asian Sleep Research Society: 24-28 October 2009, Osaka, Japan
http://www/asrs2009.org