History of the Australian & New Zealand Society of Neuroradiology

Prepared by:
Helen Sainsbury & Sue Edwards
Executive Secretaries, ANZSNR, 1992-2011
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HISTORY OF NEURORADIOLOGY PRIOR TO 1992

Introduction
On 28 December 1895, Wilhelm Roentgen presented his classical written Preliminary Communication regarding X-rays to the President of the Physical Medical Society of Wurzburg, Germany and 9 days later his discovery was announced to the world. Despite a lack of modern communication methods, within months of Roentgen’s discovery human radiographs were being produced in Australia by individual scientists, including the first known documentation by Thomas Ranken Lyle on 4 March 1896 and others such as WL Bragg, AL Rogers, S Barbour and WT Rowe in Adelaide on 1 June 1896. Professor WL Bragg continued research in X-ray spectra and the elucidation of the structure of crystals for which he was jointly awarded the Nobel Prize in 1915.

Plain Radiographs
As elsewhere in the body, the initial application of X-rays in neurological practice was the detection and localisation of foreign bodies and fractures. Most would agree that the first individual to systematically study the radiography of the skull was Arthur Schuller, a Viennese physician. Schuller is of particular interest to Australasian Radiology as he spent his later years living and working in Melbourne.

Schuller qualified in medicine in Vienna just after Roentgen’s discovery and he soon became interested in the radiology of the skull. In two important works published in 1905 and 1912 he elucidated the radiographic anatomy of the skull and suggested the best projections to show various structures.

Many future projections and variations on projections for radiography of the skull can be traced back to Schuller. Schuller’s initial observations documented in 1912 were comprehensive. For example, he pointed out the value of observing the calcified pineal gland and noting its displacement by hemispheric tumours while he also differentiated many types of normal and pathological intracranial calcification and the difficulties of distinguishing between intrasellar and extrasellar tumours by plain radiography. Schuller’s name is linked with Hand and Christian in the condition known as Hand-Schuller-Christian disease and he is credited with the first description of osteoporosis circumscripta as a manifestation of Paget’s disease. Schuller’s more than 300 publications covered not only radiology of the skull but also various aspects of neurology, surgery and psychiatry which included the operation of antero-lateral chordotomy for the relief of intractable pain and the trans-sphenoidal approach for the treatment of pituitary tumours.

Schuller spent the later years of his life in Australia. He was at the height of his career when for political reasons he was forced to flee Vienna in 1938 at the age of 65. He moved to Melbourne where he quietly continued his interests in the interpretation of plain films at St. Vincent’s Hospital, encouraged by eminent local neurosurgeon Mr. Frank Morgan. At St. Vincent’s Hospital he had an association with the radiology, neurology and neurosurgical departments and when he died in 1957 at the age of 82, Mr. Morgan wrote “he was at once the most helpful, charming and valuable colleague that one could wish to have”.

Schuller has been called the “father of neuroradiology”. However, in summarising his accomplishments, Lindgren stated that he was more properly described as “one of its forerunners” since he expressed no interest in contrast medium studies characteristic of subsequent neuroradiology.

Pneumoencephalography
For the first 20 years after Roentgen’s discovery of X-rays, neuroradiology consisted of plain radiography of the brain and spine. Although post-traumatic air “ventriculograms” had been reported earlier, it was not until 1918 that Walter Dandy from the John Hopkins Hospital, Baltimore, described diagnostic ventriculography in his classical paper, followed several months later by a description of air encephalography.

In his comprehensive thesis, Malcolm McKeown described the introduction of pneumoencephalography into Victoria, Australia and in doing so identified two distinguished Australian pioneers of these important techniques namely John Fullarton MacKeddie and Edward Graeme Robertson.

McKeown states in his thesis that “John Fullarton MacKeddie was probably responsible for introducing many of the new investigations in Victoria, Australia, which required the use of opaque oil and air as contrast media”. MacKeddie apparently commenced his medical course while still a teacher at Caulfield Grammar School, Melbourne, and after graduation in 1902 he became the first Junior Resident Medical Officer at the Alfred Hospital, Melbourne at the age of 33. His personality was such that he ignored difficulties and pursued his objectives with energy and enthusiasm. He obviously maintained an interest in new developments and he encouraged and supported the development of a research institute at the Alfred Hospital. In 1923 he travelled overseas and in particular he spent time at the National Hospital for Nervous Diseases, Queen Square, London, and by the time he returned to Melbourne in 1924 he was skilled in cisternal puncture and descending myelography, encephalography and the injection of the Gasserian ganglion at the foramen ovale.
Following Dandy’s description of diagnostic encephalography in 1919, there were several reports in the Medical Journal of Australia which discussed the performance of ventriculography including one in 1926 reporting that “diagnostic ventriculography is carried out in Australia by one or two radiologists” and it was suggested that a paper would be forthcoming within a few weeks. However no such paper appeared and the first definite reference to encephalography was probably made at a meeting of the Victorian Branch of the British Medical Association held at the Alfred Hospital on 21 September 1927 at which John MacKeddie described pneumoencephalography performed by both lumbar and cisternal puncture and this was reported subsequently in the Medical Journal of Australia.

MacKeddie’s expertise and enthusiasm for diagnostic pneumoencephalography attracted attention and was probably at least partly responsible for the appointment of the first surgeons with an interest in neurosurgery at the Alfred Hospital and St. Vincent’s Hospital, Melbourne.

While individuals and institutions associated with enthusiasts such as MacKeddie embraced pneumography as a useful diagnostic modality, its utilisation was not uniform neither in Melbourne or elsewhere in Australia. However, after 1935, the influence of another outstanding Australian physician, E. Graeme Robertson led to the more uniform acceptance of pneumography as a practical, valuable and essential aid to diagnosis in neurology and neurosurgery.

E. Graeme Robertson graduated from the University of Melbourne in 1927 and following the influence of Sir Sidney Sewell, a physician astute in all branches of medicine but with a special interest in neurology at the Melbourne Hospital, he pursued postgraduate training in neurology in London, working at the National Hospital for Nervous Diseases, St. Bartholomews Hospital and The Children’s Hospital in 1944. He states in the foreword to one of his publications that “work on pneumoencephalography began in 1935”. In his first significant publication on encephalography in 1941 he described the intracranial movement of air during encephalography in some detail. In particular he confirmed Laruelle’s statements of 1931 and 1933 in regard to the significance of the position of the head during the injection of air. He also pointed out that the fourth ventricle and aqueduct were more easily studied while the air passed into the ventricular system than when it flowed out. He advocated the withdrawal of cerebrospinal fluid before the injection of air and he stated that 20mL of air was sufficient for an examination of the ventricular system while he used up to 100mL for demonstration of the basal cisterns and the subarachnoid space over the convexity of the brain. Although this first monograph on encephalography was published in 1941, general knowledge of his views seems to have been delayed, possibly related to the conditions which prevailed immediately after World War II and subsequent techniques described some years later did not differ essentially from that of Robertson. It is therefore reasonable to suggest that Robertson was the first to describe the fractional introduction of air and the alteration of the position of the head during as well as after the injection of air into the lumbar region to direct air to different parts of the intracranial cerebrospinal fluid (CSF) pathway. Following the initial important observations in 1941, Robertson maintained his interest in pneumoencephalography developing glass models to further investigate the movement of air within fluid and in relationship to position. His basic observations together with his extensive clinical experience of pneumoencephalography performed at the Royal Melbourne Hospital, The Royal Children’s Hospital and the Heidelberg Military Hospital led to a major publication on pneumoencephalography in 1957 and a second edition in 1967. As a result of his publications he established a world-wide reputation for his work in pneumoencephalography and his final monograph on the subject in 1967 was probably the definitive tome on this subject. Recognition of his enormous contribution in this important development in the history of neuroradiology should continue to be recognized despite the technique of pneumoencephalography being superseded by computed tomography and magnetic resonance imaging.

Cerebral Angiography

In 1927, a Portuguese neurologist, Egas Moniz first reported the technique of cerebral angiography. His determination and persistence in developing this important technique was described in detail by Bull in 1961. Moniz used a surgical cut down to expose the internal carotid artery and, although he described his first 90 cases in 1931, it was the introduction of direct percutaneous carotid artery puncture in 1936 by Loman and Myerson that led to the more universal acceptance of cerebral angiography as a useful technique. Loman and Myerson were already skilled in the technique of carotid puncture which they used in the treatment of neurosyphilis. Other reports soon followed but the work of the Scandinavian centres led to the wide acceptance of this technique.

John Bryant Curtis later to be a leading neurosurgeon at the Royal Melbourne Hospital, was an important figure in introducing percutaneous carotid angiography to Britain and subsequently to Australia on his return to Victoria in 1949. While Nuffield Dominion Scholar in Surgery at Oxford he visited Norway with James Bull to learn the technique from Engeset. He reported the Oxford experience of 720 cerebral angiograms performed by the direct percutaneous puncture. In 1951, his article in the British Journal of Surgery was acknowledged as the definitive article in the British literature describing the scope of percutaneous carotid angiography. This voluminous article contains a history of the development and complications of the percutaneous technique, a discussion of the development of contrast media, the radiographic technique, normal angiographic anatomy and the variety of shifts and different patterns of “stains and blushes”.

Another important contribution to neuroradiology by John Curtis was the development of a rapid serial changer using roll film.
On his return to Australia, Curtis taught William Hare to perform percutaneous carotid angiography at the Royal Melbourne Hospital. At the same time other Australians were embracing this new exciting technique. These included the first neurosurgeon, James Ainslie, and the first neuroradiologist, Arthur Merritt at the Royal Perth Hospital. Although not documented by a specific publication it has been stated that the first carotid angiogram was performed at the Royal Perth Hospital during 1946 by James Ainslie and Arthur Merritt. Merritt was certainly performing percutaneous direct puncture of the carotid artery in 1949, after gaining experience in Malmo and Stockholm. Subsequently, other Australians including John Varey and Charles Stuart of Perth, Lance Perrett of Adelaide, Peter Cahill and Stan Lamond of Sydney, Eric Gilford and Hal Luke of Melbourne and Evan Lennon of Brisbane, gained experience in this important technique in various overseas centres including The National Hospital for Nervous Diseases, Queen Square, London and also in Scandinavia.

Direct puncture vertebral angiography was described at the Symposium Neuroradiologicum in Rotterdam in 1949 and this technique was quickly embraced by those Australians who were performing percutaneous carotid angiography.

Seldinger’s ingenious but simple method for percutaneous catheter insertion of the femoral artery in 1953 was followed by the development of transfemoral cerebral angiography.

In 1959 Hare of Melbourne spent three months in Oslo with Per Amundsen learning the catheter approach to cerebral angiography and he was probably the first to use this method in Australia in 1960. Initially the vertebral system was outlined by catheter while percutaneous direct puncture of the carotids was maintained.

Being trained in percutaneous puncture, many neuroradiologists in Australia persisted with the technique during the 1960s but with the introduction of newer catheter material, Hare had switched almost entirely to catheter angiography by 1967 and he was followed by others such as Bernard Vaughan and John Vary in Perth in 1967 and those Australian radiologists returning from overseas where the technique was being introduced actively.

In particular, the morbidity associated with percutaneous cerebral angiography was reported and the advantages of transfemoral catheter angiography were recognized. The catheter technique was also more easily performed in the paediatric age group.

The general acceptance and application of transfemoral catheter angiography in the early 1970s led to the development of new exciting interventional techniques. Trevor ApSimon of Perth recognized the importance of this new aspect of neuroradiology and he performed immobilisation of external carotid malformations, spinal arterio-venous malformation (AVM) fistula and dural AV fistula in 1977 and 1978. The first intracranial interventional procedure performed by ApSimon was the closure of a traumatic carotico-cavernous fistula using the Debrun detachable balloon technique in 1979. ApSimon’s meticulous approach to interventional neuroradiology led to its rapid acceptance by his neurosurgical colleagues and in association with other colleagues a very active interventional neuroradiology service has been established at the Royal Perth Hospital. Using overseas experience and information, they introduced various interventional techniques including transarterial barylate immobilisation of brain AVM and dural fistula in 1983, and they were the first to introduce the Gugliemi detachable coil (GDC) in July 1992 for the treatment of cerebral aneurysms. A formal interventional neuroradiology unit was established at the Royal Perth Hospital in 1992. Interventional neuroradiology techniques are now also performed by other Australian neuroradiologists.

Following the initial description of cerebral angiography by Moniz, one of the factors that initially hindered wider acceptance of cerebral angiography was the lack of a suitable contrast medium. Contrast media such as Thorotrast and Diotrast had significant side effects and it was not until the introduction of the water-soluble iodinated contrast media in the 1950s that a level of toxicity was acceptable. Throughout the years research to develop a suitable contrast media has continued and following Almen’s work contrast media with minimal neurotoxic side effects are now available. Geoffrey Harrington of Sydney was one of the first workers to demonstrate experimentally the increase in permeability of the blood-brain barrier that may occur as a result of cerebral angiography. Subsequently Michael Sage, Alan Wilson and Charles Evill played a role in demonstrating that the non-ionic contrast media are less neurotoxic than the equivalent iodine concentration of ionic contrast media.

**Cranial Ultrasound**

Leskell coined the term “echoencephalography” in 1956 when reporting the use of ultrasound in brain trauma. Although Ian Donald obtained echoes from the fetal head in 1958 and Brinker and Taveras demonstrated early cross-sectional images on the brain, two Australians, William Garrett and George Kossoff played the major role in the early development of ultrasound and its applications to neuroradiology and elsewhere in the body.

Working at the Royal Hospital for Women and the National Acoustic Laboratories in Sydney, Garrett and Kossoff established a research programme in 1959 leading to their first contact “echoscope” in 1960, designed by Kossoff.

Concentrating initially on antenatal studies, they first demonstrated the cranial bones with a bistable system. In 1969, Kossoff developed film echoscopy, now known as the grey scale, leading to a detailed description of normal antenatal intracranial structures and subsequently intracranial pathology.
In early 1973, Garrett had an opportunity to perform a study on a newborn child with hydrocephalus diagnosed antenatally. Images of the lateral ventricles were obtained by placing a litre bag of saline at the side of the neonate’s head as a stand-off for the contact scanner. Air studies were also performed on the same neonate and this provided an opportunity to compare the two studies. Subsequently they described the normal ultrasound anatomy of the infant brain and their publication in 1975, correlating ultrasound and air studies of the infant brain, clearly established the clinical role for cranial ultrasound in the neonate and infant and which in most cases made invasive air studies obsolete in this age group.

A presentation by Garrett and Kossoff at the World Federation of Ultrasound in Medicine (WFUM) meeting in San Francisco in 1976 clearly established their leading role in the development of B-mode grey scale ultrasound and its application to neuroradiology of the neonate and infant.

With the subsequent development of real-time ultrasound scanners, Garrett, Kossoff and others maintained their interest in intracranial ultrasound along with a rapid expansion in international interest in ultrasonic techniques.

**Radionuclide Studies**

George Moore’s initial report in 1948 and subsequent publications in the early 1950s led to an increasing role for radionuclides in neuroradiology. During the 1960s and early 1970s nuclear medicine played an important role in investigating diseases of the blood-brain barrier, CSF circulation and cerebral blood flow in Australia. Several original developments were pursued such as the automated cerebral radioangiogram, but, in general, overseas experience was applied in clinical studies.

**Modern Era**

Dr. Evan Lennon, who was awarded the eighth Thomas Baker Memorial Fellowship of the Royal Australian and New Zealand College of Radiologists in 1956, had a major impact on the development of neuroradiology, not only in Australia but from an international perspective. Although Dr. Lennon played a role in the establishment of neuroradiology in Queensland, his major contribution to neuroradiology was his role in the development of computed tomography. His important role in the development of computed tomography is mentioned in some detail by Dr. James Bull in the first edition of Newton and Potts.

In the early developmental stages of computed tomography, Dr. Godfrey Hounsfield approached the Department of Health in London and was referred to Dr. Evan Lennon who, at that time, was working in the Department of Health in the United Kingdom. As outlined by James Bull, it was Dr. Lennon who enabled Godfrey Hounsfield to maintain his enthusiasm and momentum, which eventually led to the development of computed tomography. It is clear from Bull’s chapter in Newton and Potts that Evan Lennon shared Hounsfield’s enthusiasm and excitement and, most importantly, recognized the importance of Hounsfield’s new development.

Evan Lennon encouraged other radiologists, such as Professor Frank Doyle, Dr. James Ambrose and Dr. Louis Kreel, to become aware of the exciting potential of computed tomography. However, although gaining increasing radiological support, Electrical Musical Instruments (EMI) representatives indicated that they were not prepared to provide further financial support without a contribution from the Department of Health. In his chapter Bull states “that at this moment, the whole project looked like it was falling apart. However, Lennon and Higson together prepared detailed recommendations for a submission to the financial section of the Department of Health. Enormous credit is due to them for convincing the financial experts of the potential of Hounsfield’s work.” This final sentence clearly indicates the important role Evan Lennon played in the development of computed tomography and its subsequent application to neuroradiology.

With the introduction of techniques relying on computer technology (computed tomography, magnetic resonance imaging, single photon emission computed tomography and positron emission tomography), the scope for a major international contribution to neuroradiology from within Australia such as those made by Schuller, Robertson, Curtis, Garrett and Kossoff in the past, has been perhaps reduced because of the lack of adequate research and development funds. This is illustrated by the major contribution a New Zealander, Graham Bydder, has made to the development of magnetic resonance imaging while working in the United Kingdom. Such a contribution would have been difficult to achieve in Australia or New Zealand.

Despite this, Australian neuroradiologists are very pro-active in adapting overseas developments to the local scene and they maintain a significant academic profile by presentations and attendance at national and international scientific meetings. An Australian and New Zealand Society of Neuroradiology has been established to promote clinical, teaching and research activities in the field of neuroradiology and the neurosciences.

Michael R Sage  
Founding President, ANZSNR
The Inaugural meeting was held at the Royal Pines Resort, Queensland on Saturday 3 October 1992 and was attended by approximately 30 Fellows and Education Affiliates of the RANZCR.

The proposal to establish the Society was explained by Professor Michael Sage and there was general agreement that it was appropriate to establish such a Society at this time. A draft constitution had been circulated prior to the meeting to several individuals.

After discussion, the following guidelines were established by the meeting:

1. For the first three years, Michael Sage would act as Chairman of the Society. A Committee consisting of one individual nominated by each Department with an accredited training programme in radiology would be established to provide guidance to the Chairman and feedback to members.

2. In order to maintain a close association with the RANZCR, membership would only be available to Fellows and Education Affiliates of the RANZCR. All Fellows and Education Affiliates of the RANZCR would be invited to become a member of the Society by paying a subscription of $5 per year.

3. Meetings of the Society may be held on the day preceding the Annual General and Scientific Meeting of the RANZCR. The scientific content of such meetings would initially be informal and would not compete with the scientific programme of the RANZCR. The Annual Dinner of the Society could be held on the evening preceding the Annual General and Scientific Meeting of the RANZCR.

4. A suggested theme for the meeting to be held in 1993 was Interventional Neuroradiology. The Chairman would write to each centre with a significant interventional neuroradiology programme and ask them to participate. In order to involve others, there was enthusiastic support for the proposal to have a case report session during which individuals would be encouraged to present brief case reports of neuroradiological interest.

5. In the future, the Society was encouraged to pursue the possibility of joint meetings with other groups such as the Neurosurgical Society of Australia.
First Annual General Meeting
Held at the Sydney Convention Centre at Darling Harbour on Thursday 21 October 1993 with 19 members in attendance.

After discussion the following was agreed:

1. It was moved that the name of the Society should be “The Australian and New Zealand Society of Neuroradiology”. However it was agreed that it would be important to indicate on the Society letterhead that the Society incorporated neuroradiology, interventional radiology and head and neck radiology.

2. A proposed Constitution had been circulated and a motion was passed that the Constitution should be accepted immediately rather than delaying for three years as initially suggested by the Chairman.

3. It was agreed that at this early stage strict guidelines for membership would be inappropriate and all individuals with an interest in neuroradiology should be encouraged to be members of the Society.

4. It was agreed that the Committee should serve for a period of three years and consist of:

   President & Chairman:    M Sage
   Secretary/Treasurer:    N Sandhu
   State Branch Representatives:
   NSW  W Sorby, J Hallinan, G Dunn, M Soo, E Tohver
   VIC  B Tress, D Boldt, C O’Donnell, N Sacharias
   QLD  P Dubois, J Earwaker
   WA  M Khangure, T ApSimon
   SA  M Sage, N Sandhu
   NZ  J Wilson, A Hope
   TAS  J representative
   RANZCR Representative: M Khangure
   MRI Representative: P Dubois
   Interventional Radiology Representative: T ApSimon
   World Federation Representative: M Sage
   Academic Convenor 1994: B Tress, Royal Melbourne Hospital
   Academic Convenor 1995: W Sorby, Royal North Shore Hospital
   Academic Convenor 1996: M Khangure, Royal Perth Hospital

5. It was agreed that the Society office would be located in the Division of Medical Imaging at Flinders Medical Centre.

6. Subscription fee was set at $A50 for full members and $A25 for student members.

7. It was agreed to hold a basic neuroscience weekend once a year and there was general support for these to be informal meetings with “interesting cases” etc. Convenors were to have flexibility with the meeting format.

8. The Chairman encouraged members to suggest the involvement of the Society with meetings being arranged by other groups e.g. University of Melbourne MRI meeting in 1995 and the Australian & New Zealand Society of Neuropathologists.

**Inaugural Scientific Meeting, 9-10 April 1994, Sheraton Towers, Melbourne, Victoria**
Brian Tress convened the inaugural meeting which was attended by 56 delegates. Sponsorship was provided by Kodak (Australasia), GE Medical Systems and Schering. The programme consisted of scheduled scientific sessions with time allocated for informal sessions to discuss cases brought along by the delegates.

Keynote speakers were Graeme Jackson from the Institute of Child Health/University of London, UK and Michael Gonzales, Neuropathologist from the Royal Melbourne Hospital, supported by a local faculty from the membership.

The social programme consisted of an afternoon of golf and tennis, a theatre performance at the Victorian Arts Centre and on the Saturday evening, a gala dinner at E Gusto in Southgate.

**Second Annual General Meeting**
Held at the Parkroyal Hotel in Christchurch, New Zealand on Thursday 27 October 1994 with 14 members in attendance.

The main issues were:
1. Membership consisted of 167 full members and 22 student members. It was agreed to pay $10 per member annually to the World Federation of Neuroradiological Societies.
2. Due to the large number of meetings planned for 1995, it was agreed that the Society would support the MRI meeting to be held in Melbourne in April 1995 rather than hold a separate meeting.
3. At the inaugural meeting of the World Federation of Neuroradiological Societies the ANZSNR had been confirmed as a Member Society and Michael Sage elected to be the Secretary-General of the WFNRS.
4. During the Symposium Neuroradiologicum in Kumamoto, Mark Soo had been elected as a representative of the ANZSNR on the Executive Committee of the ASONHNR.
5. Members were asked to submit possible suggested logos for the ANZSNR and these would be considered at the next AGM.

**2nd International Conference in Magnetic Resonance Imaging, 5-9 April, 1995, Regent Hotel, Melbourne, Victoria**
Following the success of the inaugural meeting in 1994 and an approach by Bill Sorby from Royal North Shore Hospital Brian Tress, it was agreed that the neuro section of the MRI meeting would be identified with the ANZSNR rather than holding a separate meeting. Members were therefore encouraged to attend this meeting.

Keynote speakers were Graeme Bydder from Hammersmith Hospital in London, William Dillon and Clyde Helms both from University of California San Francisco, USA, Burton Drayer from Barrow Neurological Institute in Arizona, USA, Robert Edelman from Harvard University in Boston, USA, Ric Harnsberger from University of Utah in Salt Lake City, USA and Geoffrey Weinreb from New York University Medical Center, USA. All members were encouraged to support and attend this meeting.

**Third Annual General Meeting**
Held at the Sheraton Hotel in Melbourne on Friday 20 October 1995 with 15 members in attendance.

The main issues were:
1. The current Committee’s term of office would finish at the 1996 AGM. Therefore nominations would be called for President and Branch Representatives. The AOSNHRN representative position would also be confirmed at this time.
2. To encourage a larger attendance, the 1996 AGM would be held at the time of the ANZSNR CME meeting.

**Scientific Meeting, 31 May - 2 June 1996, Adelaide Convention Centre, Adelaide, South Australia**
Michael Sage was convenor of this meeting which was attended by 267 delegates. Sponsorship was provided by GE Medical Systems, Schering, Medical Applications, Toshiba Australia, Picker Australia, Mallinckrodt and Agfa-Gevaert. An excellent scientific programme was organised to cover the radiologic-pathologic correlation of neuropathology which gave an overview of neuropathology as relevant to imaging with emphasis on certain areas of growing significance and importance.

The keynote speaker was Anne Osborn from the University of Utah, Salt Lake City, supported by Australasian Pathologists Colin Masters (Melbourne), Tony Tannenberg (Brisbane), Peter Blumbergs (Adelaide), Grace Scott (Adelaide), Renate Kalnins (Melbourne) and Michael Gonzales (Melbourne), and Society members.

A faculty dinner was held at the Lenzerheide Restaurant on Friday evening and wine tasting/cocktail hours were held at the end of the scientific sessions on Friday and Saturday.
Fourth Annual General Meeting
Held at the Burswood Resort Convention Centre, Perth on Sunday 6 October 1996 with 20 members in attendance.

The main issues were:

1. The following office bearers were elected for a 3 year term from 1 January 1997 to 31 December 1999:

   President: B Tress
   Immediate Past President: M Sage
   Secretary-General: R Keenan
   Councillors:
   NSW: P Pasfield, G Parker
   VIC: P Mitchell, S Goergen
   QLD: K Osborne
   WA: M Khangure
   ACT: R O’Neil
   SA: G Fon
   TAS: I Taylor
   NZ: A Hope
   RANZCR Representative: M Khangure
   IRSA: W McAuliffe
   WFNRS: M Sage
   WFTNR: M Khangure
   WFHNR: A Whyte
   AOSNHNR: M Soo (Australia), D Ross (New Zealand)

2. The International Journal of Neuroradiology was to be the official journal of the ANZSNR for a trial period of three years.

3. The logo submitted by Michael Sage received overwhelming support to become the official logo of the ANZSNR.

4. A subcommittee consisting of Mark Khangure (Chair), Brian Tress, Nina Sacharias, Will McAuliffe, Geoff Parker and Winston Chong was formed to consider training requirements in interventional neuroradiology.
Executive Meeting
A meeting of ANZSNR Executive was held at the Sofitel Hotel, Melbourne on Saturday 15 March 1997.

The main issues were:

1. Mark Khangure suggested that a Newsletter should be produced on a yearly basis to keep current members informed of the Societies activities.

2. Mark Khangure reported back from the Interventional Neuroradiology Subcommittee that results were currently being collated from a recent circular of neuro-interventional activity in Australian and New Zealand centres. It was felt appropriate that a two year training scheme would be most appropriate with the first year being in both diagnostic and interventional general neuroradiology and the second year as a formal one year Fellowship in Interventional Neuroradiology in a recognised centre.

3. Michael Sage tabled a proposal for an overall maximum budget of $10,000 to cover general expenses and clerical support. The proposal was accepted unanimously and would be reviewed annually.

4. Michael Sage has been appointed Honorary Editor of the IJNR for a period of three years. The ANZSNR has guaranteed a total of 50 subscriptions in the second and third years of affiliation.

Fifth Annual General Meeting
Held at the Adelaide Convention Centre on Sunday 14 September 1997 with 17 members in attendance.

The main issues were:

1. In 1999 the 3rd AOCNHNR would be held in Adelaide under the auspices of the ANZSNR with the format being similar to the very successful CME meeting held in Adelaide in 1996.

2. Brian Tress asked the Society to support the nomination of Michael Sage to the Symposium Nominating Committee to organise the Symposium Neuroradiologicum in 2006 under the auspices of the ANZSNR. This nomination was supported by those present.

3. Michael Sage expressed concern about affiliation with the IJNR as the format of the Journal did not appear to be attracting any contributions from members of the ANZSNR. Ongoing affiliation would be reviewed at the next AGM.

Sixth Annual Meeting
Held at the Brisbane Convention & Exhibition Centre on Sunday 18 October 1998.

The main issues were:

1. Currently 130 financial and 35 unfinancial members.

2. Very little support had been received for the IJNR from Society members. It was decided that Michael Sage would approach the IJNR to negotiate a continuing discount without a need for a minimum level of subscriptions.

3. The 3rd AOCNHNR will be held from 18-21 June 1999 at the Adelaide Convention Centre. The meeting would be pitched at those with a more general interest in neuroradiology with “How I do it” sessions and poster presentations.

4. Michael Sage has been elected to the position of Secretary-General of the World Federation of Neuroradiological Societies (WFNRS) and nominated for the position as President of the Symposium Neuroradiologicum 2006 to be held under the auspices of the ANZSNR.

5. Even though the relatively larger meetings have been infrequent but successful, Michael Sage felt that in future the Society should look at more regular smaller meetings aimed particularly at the active membership. Consensus was positive and it was felt that this may encourage a more active and cohesive Society.
3rd AOCNHNR, 18-21 June 1999, Adelaide Convention Centre, Adelaide

Michael Sage convened the 3rd Asian and Oceanian Congress of Neuroradiology and Head and Neck Radiology which was hosted by the ANZSNR and attended by 350 delegates from Asia and Australasia. Sponsorship was provided by Bracco International, Boston Scientific, Schering, GE Medical Systems, Kodak (Australasia), Medical Applications, Toshiba Australia, Nycomed Amersham, Shimadzu and Picker Australia who also set up 3mx3m booths in the technical exhibition area. Bernard Vaughan, a local radiologist, provided a display of his photography taken within Australia and in particular South Australia. A number of Prizes and Fellowships were made available to encourage presentation of scientific posters and attendance at the meeting.

Keynote speakers were Thomas Naidich from Baptist Hospital in Florida, USA and Richard Harnsberger from University of Utah Medical Center in Salt Lake City, USA who were supported by national and international experts from within the Asian-Oceanian region. The scientific programme was organised taking into account the varying academic needs of radiologists with an emphasis on further strengthening the ties within the region.

Social activities included regional wine tastings each evening and day tours of the Adelaide Hills and Barossa Valley.

Seventh Annual General Meeting

Held at the Sydney Convention Centre on Saturday 23 October 1999.

The main issues were:

1. 164 members with 35 being unfinancial.


3. The 3rd AOCNHNR meeting held at the Adelaide Convention Centre was a resounding success. ANZSNR members nominated Beijing to hold the 2003 AOCNHNR.

4. Michael Sage noted that all ANZSNR members were now officially members of the AOSNHNR by virtue of a $A5.00 subscription fee per member paid by the ANZSNR.

5. It was agreed that the 2006 Symposium Neuroradiologicum would be held at the Adelaide Convention Centre.

6. Brian Tress expressed concern that the number of training positions for Interventional Neuroradiology Fellows is currently limited to the Royal Perth Hospital and Royal Melbourne Hospital. Monash Medical Centre was in the process of putting together an MR/Interventional Neuroradiology Fellowship. The availability of Fellowships of this kind could be publicised through the ANZSNR.

7. It was suggested that New South Wales host the 2001 Annual Scientific Meeting. If no volunteers were forthcoming, Michael Sage indicated he would be happy to hold a small meeting in the Barossa Valley.
Eighth Annual General Meeting
Held at the Aotea Centre in Auckland on Saturday 28 October 2000.

The main issues were:

1. 164 members with 64 being unfinancial.

2. The following office bearers were elected from 1 January 2000 to 30 June 2003

   President: M Khangure
   Immediate Past President: B Tress
   Secretary-General: R Keenan
   Councillors: NSW P Pasfield, G Parker
                VIC P Mitchell, S Goergen
                QLD D Osborne
                WA C Phatouros
                ACT R O’Neil
                SA G Fon
                TAS I Taylor
                NZ K Lee
   RANZCR Representative: M Khangure
   IRSA: W McAuliffe
   WFNRS: M Sage
   WFTNR: M Khangure
   WFHNRR: A Whyte
   AOSNHNR: M Soo

3. It was generally agreed that annual smaller meetings should be held in order to foster a collegiate spirit. These could be supplemented by larger meetings as opportunities arose. Brian Tress was in the process of organising the next meeting which would be held in Lorne, Victoria. Chris Pozza and Ross Keenan will hold a small meeting in the Barossa Valley in March 2002 and Mark Khangure offered to hold a meeting in the Margaret River Region, WA in 2003.

4. The WA papers prepared on training and procedure guidelines were distributed to the entire ANZSNR membership for consideration and future discussion.

5. Michael Sage advised that the WFNRS subscription structure had been changed to a $US50 annual fee per member society.
Scientific Meeting, 2-4 March 2001 at Cumberland Conference & Leisure Centre, Lorne, Victoria
Brian Tress convened this meeting which was attended by 34 delegates. Sponsorship was provided by Schering and GE Medical. The scientific programme consisted of two half day sessions. The keynote speaker, Ivan Moseley from the UK, was supported by local faculty.

Social activities included a gala dinner on the Saturday evening with an afternoon of golf and tennis.

Ninth Annual General Meeting
This meeting scheduled to be held at the Melbourne Exhibition Centre on Saturday 20 October 2001 did not take place.

Scientific Meeting, 15-17 March 2002 at Novotel Resort, Barossa Valley, South Australia
Chris Pozza and Ross Keenan convened the meeting which was attended by 37 delegates. Sponsorship was provided by GE Medical and Schering. The scientific programme consisted of special focus sessions devoted to the diagnosis and management of stroke, carotid disease and spine imaging and therapeutic intervention. For the first time invited speakers will give their tips and practical advice on performing a variety of interventional neuroradiological procedures. Presentations were made by local faculty.

Social programme commenced with lunch at Magill Estate en route to the Barossa Valley. Some members enjoyed hot air ballooning, while others enjoyed wine tasting or a round of golf. Poolside cocktails and welcome dinner were held on Friday evening and the gala dinner at Saltram’s Restaurant in Angaston.

Tenth Annual General Meeting
Held at the Novotel Resort, Barossa Valley, South Australia on Sunday 17 March 2002.

The main issues were:
1. 152 members with 22 being unfinancial.
2. Mark Khangure confirmed that the next annual scientific meeting would be combined with the RANZCR WA Branch meeting and be held from 14-16 March 2003 at the Novotel Vines Resort, Swan Valley.
3. Philip Pasfield and Graham Dunn agreed to host the 2004 annual scientific meeting in New South Wales.
4. It was confirmed that the ANZSNR AGM should be conducted at the time of the annual scientific meeting.
5. The following papers were ratified and adopted as ANZSNR position statements and would be forwarded to the RANZCR Accreditation Guidelines & Quality Assurance Committee for incorporation into the accreditation programme.
   [1] Guidelines for training in neuroradiology
   [2] Credentialing for diagnostic and interventional vascular procedures
   [3] Requirements for training in neuro-endovascular procedures
6. Michael Sage received support for his request of $20,000 to assist in the running of the Symposium Neuroradiologicum in 2006. It was also agreed that the ANZSNR logo could be incorporated into the Symposium Neuroradiologicum logo.
7. Michael Sage proposed that the founding history of the Society should be documented and it was agreed that the secretariat based at Flinders Medical Centre would be in the best position to undertake this.

Joint ANZSNR/RANZCR WA Branch Meeting, 14-16 March 2003 Hyatt Hotel, Perth, Western Australia
Mark Khangure convened this joint meeting entitled “Neuroradiology and Head and Neck Imaging” which was attended by 158 delegates. Sponsorship was provided by Cook Australia, Johnson & Johnson Medical, Schering, Amersham Health, Siemens, Philips, GE and Boston.

Keynote speakers were Howard Rowley from University of Wisconsin Medical School, USA and Jan Casselman, AZ St-Jan Brugge Hospital, Belgium who were supported by local faculty.

Social events included golf and tennis, ANZSNR gala dinner at the Maritime Museum in Fremantle and the RANZCR dinner at the Grand Ballroom Hyatt Regency.
Eleventh Annual General Meeting
Held at the Hyatt Regency Hotel, Perth on Friday 14 March 2003.

The main issues were:

1. 130 members with 2 being unfinancial.

2. The following office bearers were elected for a 3 year term from 1 July 2003 - 30 June 2006

   President: M Khangure
   Immediate Past President: B Tress
   Secretary-General: G Fon
   RANZCR Representative: M Khangure
   IRSA: W McAuliffe
   WFNRS: M Sage
   WFTNR: M Khangure
   WFHNR: J Earwaker
   AOSNHRN: M Soo

3. Graham Dunn agreed to convene the next annual scientific meeting to be held from 19-21 March 2004 at Fairmont Resort, Blue Mountains, New South Wales.

4. Tasmanian members to be approached to host the 2005 meeting.

5. The guidelines for Training in Diagnosis and Treatment in Neuroradiology have been ratified by the RANZCR Council for training and credentialing in neuroradiology.

6. Turab Chakera indicated that RANZCR members should be encouraged to become members of the Society.
**Annual Scientific Meeting, 19-21 March 2004, Peppers Fairmont Resort, Blue Mountains, New South Wales**

Graham Dunn convened the meeting which was attended by 61 delegates and 15 partners. Sponsorship was provided by Schering, GE and Boston.

The scientific programme provided an excellent range of topics from local speakers enabling us to continue the principle on which early Society meetings were based.

The social programme consisted of a welcome dinner on the Friday evening and on Saturday evening the Three Waiters provided entertainment at the gala dinner. Afternoon activities included a guided bushwalk and a bus tour of the local area.

**Twelfth Annual General Meeting**

Held at Peppers Fairmont Resort, Blue Mountains on Saturday 20 March 2004.

The main issues were:

1. It was agreed that those attending the 2004 meeting and not ANZSNR members be given one year’s subscription to the Society to increase membership.

2. Mike Wilkinson and Winston Chong to convene the 2005 annual scientific meeting to be held at Cradle Mountain Lodge, Tasmania from 11-13 March.

3. Michael Sage proposed that the ANZSNR Secretariat organise the logistics of the 2005 meeting with Mike Wilkinson and Winston Chong organising the scientific programme. Michael Sage raised the possibility of hospital department trust funds being used to encourage registrars to present at the meeting as the ANZSNR cannot directly financially support registrar attendance at future meetings.

4. Michael Sage requested assistance from the membership to form a small Organising Committee for the 2006 Symposium Neuroradiologicum and advised that there would be no concurrent sessions.

5. Alan Coulthard proposed that the 2007 annual scientific meeting be held in Queensland.

6. Winston Chong stated that the American Society of Neurosurgery and ASTON agreement (AJNR) had been discussed and ratified by the RANZCR Council as accepted guidelines for training in interventional neuroradiology.

**Annual Scientific Meeting, 11-13 March 2005, Cradle Mountain Lodge, Tasmania**

Winston Chong and Mike Wilkinson convened the meeting which was attended by 68 delegates and 24 partners. Sponsorship was provided by Schering, Device, Philips, Boston and EV3. Jacques Moret from France mentored the INR workshop in addition to presenting one of the keynote lectures. Andrew Kaye from Royal Melbourne Hospital and Andrew Danks from Monash Medical Centre gave presentations on the recent advances in CNS primary tumours and movement disorders. Short case presentations encouraged many members to actively participate in the programme.

Social activities included a guided bushwalk around Dove Lake on Saturday afternoon which was followed by the gala dinner with entertainment by the Richie Benaud Allstars.

**Thirteenth Annual General Meeting**

Held at Cradle Mountain Lodge, Tasmania on Friday 11 March 2005.

The main issues were:

1. 160 members with 24 being unfinancial.

2. Michael Sage provided an update for the forthcoming XVIII Symposium Neuroradiologicum. ANZSNR members were assisting with promotion of the meeting internationally. The ANZSNR agreed to donate $A10,000 to be utilised for prizes and travel grants to encourage young neuroradiologists from Asia and Australasia to attend.

3. Winston Chong indicated that the ANZSNR recommendations for accreditation of neuro-interventionalists had been accepted by the RANZCR and were now in the appropriate channels. He also re-affirmed that it is up to the individual hospital to accept the guidelines and that there is a “Grandfather” clause as a further cover. The Australian Association of Neurologists has adopted the ANZSNR guidelines.
XVIII Symposium Neuroradiologicum, 19-24 March 2006, Adelaide Convention Centre, South Australia

Michael Sage convened the Symposium under the auspices of the ANZSNR and designed the logo above for this event. The meeting was attended by 743 delegates and 81 partners from around the world. Sponsorship was provided by Agfa, Boston, Cook Australia, Cordis, Device/EV3, GE Medical, Kodak Australasia, Medtel, Microvention, Philips, Schering, Siemens, N. Stenning & Co., Toshiba and Tyco.

Keynote speakers included James Barkovich, William Bradley, In Sup Choi, Anton Hasso, Victor Haughton, Michael Huckman, Ted Larson, Suresh Mukherji, Kieran Murphy, Anne Osborn, Deborah Shatzkes, Wendy Smoker and David Wiebers from USA, Walter Kucharczyk and Charles Raybaud from Canada, Jacques Chiras and Pierre Lasjaunias from France, Olof Flodmark and Dan Greitz from Sweden, Wan-Yuo Guo and Michael Teng from Taiwan, Robert Hermans from Belgium, Andrew Molyneux from UK, Daniel Rufenacht from Switzerland and Armin Thron from Germany.

An excellent scientific programme was presented by a large national and international faculty of experts and consisted of a number of symposia encompassing cerebrovascular disease, subarachnoid haemorrhage, cerebral arterio-venous malformations, epilepsy, dementia, brain tumours, brain and cerebrospinal fluid, spine and spinal cord, the skull base, paediatric dilemmas for the neuroradiologists, paranasal sinuses, head and neck tumours. To encourage attendance by young neuroradiologists a number of prizes and fellowships were made available and awarded on the basis of their poster exhibits. A large trade display and poster exhibition was a feature of this meeting.

The social programme commenced with the President’s Reception Monday evening as well as regional wine tasting/cocktail hours on Tuesday and Thursday evenings. The Symposium dinner on Wednesday evening showcased authentic Australian produce and featured a performance by the Descendance, an indigenous dance group. Delegates and partners also took advantage of the scheduled half day and day tours highlighting Adelaide and its environs.
Fourteenth Annual General Meeting
Held at Adelaide Convention Centre on Tuesday 21 March 2006.

The main issues were:

1. 134 financial members.

2. The following office bearers were elected for a 3 year term from 1 July 2006 - 30 June 2009

   President: W Chong
   Immediate Past President: M Khangure
   Secretary-General: P Desmond
   Councillors: NSW P Pasfield, G Parker
               VIC P Mitchell, S Goergen
               QLD A Coulthard
               WA C Phatouros
               ACT R O’Neil
               SA C Pozza
               TAS G McInerney
               NZ J Wilson
   RANZCR Representative: M Khangure
   IRSA: W McAuliffe
   WFNRS: M Sage
   WFTNR: M Khangure
   WFHNR: J Earwaker
   AOSNHR: M Soo

3. Alan Coulthard was exploring the possibility of the 2007 meeting being combined with the Head & Neck Conference.

4. Accreditation and implementation of neurointerventional standards was discussed with general consensus being that the ANZSNR should not be separate from the RANZCR but that it sets the standards for the College who are responsible for accreditation and credentialing. It is up to the individual hospitals to implement and audit the outcomes of the neurointerventionalists according to the acceptable guidelines set by the RANZCR.
**Annual Scientific Meeting, 27-29 July 2007, Hamilton Island, Queensland**

Alan Coulthard and Hal Rice convened the meeting which was attended by 56 delegates and 17 partners. Sponsorship was provided by EV3, Cordis, Boston, Medtel/Micrus, GE, Philips, Siemens, Toshiba, Schering Bayer and N. Stenning & Co.

A dynamic interventional neuroradiology programme was organised for Friday which also included an M&M session with the Saturday and Sunday sessions being focussed on neuroradiology and head and neck imaging.

Keynote speakers were Thomas Liebig from Essen, Germany and Anil Gholkar from Newcastle General Hospital, UK who were supported by local faculty.

A welcome beach party themed dinner was held on Friday with a Watersedge Extravaganza gala dinner on Saturday. Whilst the resort offered numerous activities, programmed Saturday afternoon activities included snorkelling at White Haven and Chalkies Beach and High Tea on the Sea.

**Fifteenth Annual General Meeting**

Held at Hamilton Island, Queensland on Sunday 29 July 2007.

The main issues were:

1. 129 financial members.
2. Jamie Taylor to convene the next annual scientific meeting at Ayers Rock Resort, Northern Territory from 27-29 June 2008.
3. It was agreed that the 2009 annual scientific meeting be held in Western Australia. New Zealand members to be approached for 2010.
4. Australasian Radiology was to become the official journal for the Society.
5. It was agreed that the format of scientific meetings was to remain unchanged with the exception of extending the interventional component to a full day. Occasional one-off joint meetings could be considered.
6. The interventional arm of the Society to remain affiliated with the ANZSNR rather than IRSA.
7. Geoff Parker to approach American Society of Therapeutics and Interventional Neuroradiology (ASTIN) to seek affiliation with them.
8. Accredited departments to be circulated to obtain details of diagnostic and interventional radiology fellows to encourage membership of the Society.
9. Michael Sage advised that due to the low level of sponsorship and extremely high costs of international faculty, the 2006 Symposium Neuroradiologicum did not have sufficient surplus funds to allow reimbursement to the Society.

**Annual Scientific Meeting, 27-29 June 2008, Ayers Rock Resort, Northern Territory**

Jamie Taylor and Rebecca Scoop convened the meeting which was attended by 28 delegates and 8 partners. Sponsorship was provided by Boston, Cordis, GE, Philips, Toshiba, Schering, Lifehealthcare/EV3, Medtel and N. Stenning & Co.

An excellent scientific programme was organised with the Friday being devoted to interventional neuroradiology.

The keynote speaker, Andy Molyneux from Nuffield in the UK, was supported by local faculty. Social activities commenced with a welcome BBQ on Thursday and an Asian Market Place Dinner on Friday.

The Sounds of Silence gala dinner was a unique dining experience commencing with a didgeridoo performance and sunset over Uluru.
**Sixteenth Annual General Meeting**  
Held at Ayers Rock Resort, Northern Territory on Saturday 28 June 2008.

The main issues were:

1. 129 financial members.

2. Con Phatouros to convene the 2009 meeting at Quay West Resort Bunker Bay, Western Australia from 27-29 March.

3. Winston Chong to convene a joint meeting of the ANZSNR with AAFITN (Asian-Australasian Federation of Interventional Therapeutic Neuroradiology) in 2010.

4. New Zealand to be approached to host the 2011 annual scientific meeting.

5. Results of the previous survey of neuroradiology fellowships indicated there were ten Fellows. These were invited to become members of the Society with only one accepting the invitation. From the survey it was noted that some neuroradiology fellowships are actually MRI fellowships and a follow-up survey was to be undertaken to further clarify the situation.

6. **Future Directions of the ANZSNR**
   
   **Historical**
   - When formed the aims of the Society included:
   - Promotion of neuroradiology
   - To hold small informal meetings limited to members only and to encourage education
   - and exchange of knowledge
   - Membership open to formally trained neuroradiologists and general radiologists
   - with an interest in neuroradiology.

   **Current Status**
   - The ANZSNR is officially recognised by the RANZCR as the representative group for diagnostic and interventional neuroradiology. As such the group has provided assistance to other organisations including the Australian and New Zealand Intensive Care Society in formulating the imaging section of the “Guidelines for Diagnosis of Brain Death”, answered queries regarding credentialing of interventional neuroradiology proceduralists, answered queries regarding cervical nerve root injections and provided major input into “Diagnostic and Interventional Radiology Standards V9.0” on accreditation of facilitating and credentialing of practitioners providing interventional neuroradiology.

   **Future Directions**
   - Aims of the Society to remain unchanged
   - Continue to hold members only meetings with the occasional joint regional/international meeting
   - Survey fellowship training positions and support fellows.
   - Results and Action in Future Directions
   - To be more active in promoting the aims and benefits of membership
   - To facilitate education through meetings and the proposed website; to be an educational
   - resource to the RANZCR.

   **Website**
   - Functions of the website to include:
   - Linking to other educational and supporting organisations
   - Uploading of images of difficult/interesting cases for discussion
   - Assisting members and non-members in diagnosing such cases
   - Advertising ANZSNR meetings etc.
   - Alan Coulthard to research and develop a plan to implement this website.

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**Annual Scientific Meeting, 27-29 March 2009, Quay West Resort Bunker Bay, Western Australia**

Con Phatouros convened the meeting which was attended by 69 delegates and 23 partners. Sponsorship was provided by Abbott, Boston, Concentric, Cordis, GE, Lifehealthcare/EV3, Medtel/Micrus, Penumbra, Philips, Bayer Schering, Siemens, N. Stenning & Co., Terumo and Toshiba.

The scientific programme provided a rewarding mix of diagnostic and interventional neuroradiological topics as well as the usual case-based interactive interventional discussion. The overseas interventionist faculty were Randall Higashida from UCSF Medical Center, USA, Jacques Dion from Emory University, Georgia, USA and Perry Ng who were supported by a strong local faculty.

The social programme comprised a welcome buffet dinner Thursday evening, gala dinner at Wise Vineyard Restaurant Friday evening and dinner at Driftwood Estate Restaurant Saturday evening. Saturday afternoon activities included a tour of Jewel caves, a winery/cheese/chocolate factory tour and the premium wine tasting tour of Vasse Felix, Howard Park, Lenton Brae and Voyager Estate.
Seventeenth Annual General Meeting
Held at Quay West Resort Bunker Bay, Western Australia on Sunday 29 March 2009.

The main issues were:

1. 121 financial members. Annual subscription for 2009/2010 to be increased to $A110 for full members and $A55 for student members.

2. The following office bearers were elected for a 3 year term from 1 July 2009 - 30 June 2012

   President: W Chong
   Immediate Past President: M Khangure
   Secretary-General: P Mitchell
   Councillors: NSW J Wenderoth, G Parker
               VIC P Phal, C Mandel
               QLD A Coulthard
               WA C Phatouros
               ACT R O’Neil
               SA S Chryssidis
               TAS G McInerney
               NZ J Wilson
   RANZCR Representative: P Phal
   IRSA: W McAuliffe
   WFNRS: P Desmond
   WFTNR: P Mitchell
   AOSNHNR: M Soo

3. Winston Chong advised that the 2010 joint ANZSNR/AAFITN meeting would be held at the Crown Promenade in Melbourne from 22-25 April and provided a brief update on the progress.

4. Geoff Parker and Jason Wenderoth agreed to convene the 2011 annual scientific meeting in New South Wales.

5. Winston Chong to approach New Zealand regarding 2012 meeting.

6. The ANZSNR had been approached re co-hosting a joint meeting of the AOSNHNR in 2013. It was decided that a decision would be made following the 2010 meeting.

7. Alan Coulthard requested assistance from the membership with the website content and received offers from Hal Rice, Peter Mitchell and Catherine Mandel.

8. Mark Khangure suggested that keynote speakers for annual scientific meetings be limited to one interventional and one diagnostic to maintain balance. It was essential to maintain case discussion as part of the programme. M&M to be re-introduced for the interventional day sessions.

9. The latest survey of neuroradiology fellows reported one at the Royal Prince Alfred Hospital and one at the Royal Melbourne Hospital. Complimentary membership to 30/6/11 for Neuroradiology fellows attending the 2010 meeting.

10. Jason Wenderoth stated that he believed a standardised on-line national database for aneurysms was required. The cost to establish such a data-base would be $50,000. Alan Coulthard indicated monthly teleconferences to establish a research network would be required with collaboration between neurosurgeons and neuroradiologists with support of the RANZCR.
AAFITN/ANZSNR Meeting, 22-25 April 2010, Crown Promenade Hotel, Melbourne, Victoria

Winston Chong and Nick Trost convened the joint 19th ANZSNR and 9th AAFITN meeting. It was the first time that the AAFITN meeting had been held in Australasia. Sponsorship was provided by Abbott, BALT, Bayer, Boston, ev3, GE, Codman (J&J), Medtel, Microvention, Penumbra, Philips, Siemens and Toshiba. The meeting was attended by 620 delegates including more than 40 invited speakers for both meetings from 15 neighbouring countries in the Asia Pacific region together with 20 partners.

The keynote speakers were Jan Casselman from Belgium, In Sup Choi from USA, Jiraporn Laathamatas from Thailand, Pedro Lylyk from Argentina, Georges Rodesch and Laurent Spelle from France and Karel TerBrugge from Canada who were supported by ANZSNR members, National Delegates and local neurosurgical faculty. Although the ANZSNR presentations were predominantly diagnostic the joint meeting with AAFITN was a good opportunity for non-interventionalists to obtain a greater understanding of neurovascular disease processes and management.

This combined meeting promoted awareness of and highlighted the practice and world class scientific achievements of our neighbours in the field of Interventional Neuroradiology. To encourage attendance by young neuroradiologists a number of prizes and fellowships were made available and awarded on the basis of their poster exhibits. The social programme comprised a welcome wine tasting on Thursday evening and gala dinner at the Crown Towers on Friday evening.

Eighteenth Annual General Meeting

The main issues were:
1. 124 financial members. Subscription rate to be reviewed in 2011.
2. That the statement “It was confirmed that the Society and not the individual scientific convenors or secretariat be responsible for all financial risks associated with scientific meetings organised by, or held under the auspices of, the ANZSNR” be included in the Constitution.
3. Geoff Parker and Jason Wenderoth gave a short presentation of the 2011 meeting in Canberra on 16-20 March which will be themed on Head and Neck. The key feature of this meeting will be two days of didactic lectures by Ric Harnsberger from the USA.
4. John Wilson from New Zealand to be contacted again re hosting the 2012 ASM. Tasmania to be approached if a negative response is received.
5. Format of Future Meetings
   [1] The mix of local and international speakers be left up to the meeting convenors. However as it is the Society’s role to encourage members, registrars and fellows to present at the ASM, local speakers should continue to be the backbone of these meetings.
   [2] Case discussions and M&M are essential components of the interventional programme and should continue to be a significant aspect.
   [3] The format of two and a half days for scientific meetings should continue.
   [4] There will be no waiver of registration fees for ANZSNR member speakers at annual meetings. This statement to be incorporated into letters of invitation and added to the Constitution.
   [5] Convenors can have tiered registration fees where appropriate.
6. Affiliation with Member Societies
   ANZAN
   Peter Mitchell has agreed to be the ANZSNR representative.
   SNIS
   Geoff Parker has agreed to be the ANZSNR representative.
   Associate Membership has been offered to interventional members of the ANZSNR at a bulk rate of $US200 subject to a minimum of 24 members taking up this offer.
   AAFITN
   Winston Chong will become President at the 2012 meeting in Nagoya, Japan.
   Interventional members agreed to pay an additional fee to enable the ANZSNR to be a member society of AAFITN and this fee will be included on the 2010/2011 subscription form.
7. Collaborative Research
   Alan Coulthard proposed a collaborative research network using the ANZSNR framework to improve neuroradiological practice and research throughout Australasia. Financial support of $25,000 was approved to commence the pilot project. Equivalent financial support to be sought from the RANZCR.
8. RANZCR Credentialing Process
   The RANZCR credentialing process for all interventional radiology procedures including INR was endorsed.
ANZSNR Meeting, 16-20 March 2011, Hyatt Hotel, Canberra, ACT

Geoff Parker, Jason Wenderoth and Lavier Gomes convened the 20th ANZSNR meeting which was held for the first time in the Australian Capital Territory at The Hyatt Hotel Canberra. Sponsorship was provided by Abbott, Device, ev3, Medtel, Microvention, Penumbra, Philips, Siemens, N Stenning & Co, St Jude Medical, Stryker and Toshiba with Wolters Kluwer providing an excellent book display. 354 delegates attended the meeting which well exceeded expectations.

The meeting commenced with emphasis on Interventional Neuroradiology, with didactic and case presentation sessions, and then turned to a Stroke focus session and topics in Diagnostic Neuroradiology. The final two days was a didactic course in Head and Neck Radiology presented by H Ric Harnsberger from University of Utah, the author of many original articles and several textbooks on this subject.

Attendees and their families were able to enjoy many of the attractions available in Canberra, including dinner at the Australian War Memorial, a Cocktail Reception at the Museum of Australian Democracy at Old Parliament House, and a Gala dinner at the Museum of Australia.

Nineteenth Annual General Meeting

Held at the Hyatt Hotel in Canberra on Friday 18 March 2011.

The main issues were:

1. 130 financial members. The subscription rate was reviewed and will remain unchanged for 2011/2012 financial year.

2. The tax liability of the Society is currently being reviewed in view of the significant profits being made from annual scientific meetings.

3. Winston Chong advised the current status of the credentialing of Interventional Neuroradiologists. A team of Interventional Neuroradiologists will be reviewing and updating the current credentialing and training guidelines.

4. Collaborative Research
   Alan Coulthard reported on the progress of ANZINC (Australian & New Zealand Interventional Neuroradiology Collaborative). He also provided a workable model of how ANZINC can interact and integrate with ANZSNR in provision of research activities.

5. Winston Chong advised that following the AAFITN/ANZSNR meeting in 2010, the Asian members of AAFITN were keen to participate in international collaborative projects with the ANZSNR.

6. Annual Scientific Meetings
   2012
   Ayton Hope and Ben McGuinness have agreed to convene this meeting in Auckland, New Zealand.
   2013 & 2014
   Winston Chong and Peter Mitchell to decide who should be approached to host these meetings.
   2015
   Hal Rice and Laetitia deVilliers to make a bid at the WFITN meeting in Cape Town to hold a joint meeting with the ANZSNR in 2015.

7. Winston Chong, Peter Mitchell, Alan Coulthard, Mark Khangure and Brian Tress will undertake a review of the ANZSNR Constitution.

8. Winston Chong, on behalf of the ANZSNR, submitted a report on the clinical role of diagnostic and interventional neuroradiologists in the management of patients with neurological/neurosurgical conditions to the Lead Clinicians Group. This group is organised by the Federal Government to seek advice from lead clinicians for management of the health system.

9. Significant development of the ANZSNR website has been undertaken by Alan Coulthard and further funding will be required for this to continue.

10. Society Office
    As of 30 June 2011, Helen Sainsbury & Sue Edwards will step down from their role of ANZSNR Secretariat. Peter Mitchell will assume responsibility for the Society Office in the short term.

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