



International College of Dentists Australasian Section

Newsletter

Issue Number 28, March 2008

PRESIDENT'S REPORT



Now that we are well into the new year of 2008, retrospection since the new Board took over in March of last year, shows that we have a keen and motivated executive who are maintaining our Australasian

section in excellent shape. The engine room of Jackie Robinson as Registrar, Peter Noblet as Treasurer, Dick Cook as Editor and Clive Ross as International Representative are doing great things.

The International Council of the College is properly represented by delegates from regional sections in all areas of the world – giving substance to the College as an International institution. The Council is the driving force of the College, and as Clive Ross reports, they are undergoing a process of review and modernisation of the Secretariat based in Maryland USA. The last International President, Don Johnson, who attended and played such an impressive role in our Convocation in Sydney in March 2007, is a visionary and reformer. He has had major impact on streamlining and effectiveness of the International Council.

As a regional Board, our priority is the interests of Fellows of the College. As detailed elsewhere in this Newsletter, we have two meetings this year, in Melbourne in August and New Zealand in September. The Convocation in New Zealand will be held in Rotorua in association with the Biennial meeting of the NZDA. For any Fellows who have not visited that area, it is a fascinating region of NZ, and I would recommend the Convocation for its own sake and as a chance to tour and enjoy the area.

Of course the ICD is dedicated to support and tangible assistance to regions of the world less affluent and dentally prolific than our own. The Board has ongoing dialogue with representatives of aid programs in the immediate regions of Central Australia and South East Asia. In particular, Sandra Meihubers and David Sheen provide us with a link in our aim to support dental health and therapists in those areas.

On behalf of the Board of Regents, I wish all Fellows a productive and fulfilling 2008, and hope to see you at our meetings.

Braham Pearlman
President – Australasian Section

President: Braham Pearlman
Treasurer: Peter Noblet AM
Registrar: Jackie Robinson

Past President: Clive Ross CNZM
International Councillor: Clive Ross CNZM
Regents: David Thomson, Jennifer Smyth AM

Vice President: Gerald R Dickinson
Editor: Dick Cook AM

2008/2009 INDUCTIONS

The next International College of Dentists Induction Ceremony and Dinner will be held in Melbourne the evening of Friday, August 22. See the invitation in this newsletter for details.

An induction ceremony will be held in Rotorua, New Zealand at the time of the New Zealand Dental Association Biennial Congress, September 10 – 13. Details will be advised.

In 2009 an induction ceremony will be held in Perth at the time of the 33rd Australian Dental Association Congress, March 5 – 10. Details will be advised.

2008/2009 BOARD MEETINGS

The Board will meet in August 2008 in Melbourne and in March 2009 in Perth

GORDON ROWELL AO CBE

Brigadier Alfred Gordon Rowell, AO, CBE passed away on 25 September 2007 at the age of 94. Amongst his many significant contributions to dentistry he was Director of Dental Services in for the Army in the 1960's-a position which made him the senior Dental Officer in the Armed Forces.

Gordon chaired the ADA Committee that established the Royal Australian College of Dental Surgeons. He served two terms as the first President of the College and is listed amongst the six subscribers of the initial constitution of the RACDS.

Gordon was not only a past President of the Australasian Section of the International College of Dentists, but also President of the International Council. Gordon's contribution to the College was recognised when he was awarded Master status, a rare honour within the ICD.

Cambodian Pediatric Dentistry Project

ICD (Australia/NZ Branch) supported me to visit Cambodia for two weeks in November to teach at the Faculty of Dentistry. A group of five Cambodian dentists are presently engaged in a postgraduate diploma of pediatric dentistry taught by overseas volunteer dentists, mainly from Australia and NZ. This was my third visit in

2006, and marks the half-way point of the course. The five dentists attend seminars, have journal articles to read, carry out supervised clinical practice, have a study tour to Thailand, and undertake research projects. This postgraduate diploma has been a priority for the Faculty because of the rampant caries among Cambodian children, and the lack of dentists with good skills in this area.

There is only one Cambodian dentist at the dental school with an overseas postgraduate qualification, hence the need to help upgrade the teaching staff through courses taught locally. In recent years, other diploma courses have been conducted by overseas dentist groups (mainly volunteers) in orthodontics, periodontics, endodontics and dental public health. A course in oral surgery is expected to start soon.

The pediatric clinic at the Faculty has only five chairs, but is busy from morning till night. It mainly caters for children from poor families, as well as Phnom Penh's orphanages. The equipment is modern and donations from overseas dental companies help to keep the clinic running. Two Cambodian dentists (Dr Nhoung Poumsen and Dr Sok Kunthy) work long hours teaching in the clinic for a salary of only about \$100 per month. Undergraduate students say they get their best clinical teaching in this clinic.

To its credit, the Ministry of Health is engaged in several oral health promotion projects including school preventive programs, investigating salt fluoridation, and promoting affordable fluoride toothpastes. However the unmet treatment needs of most Cambodian children is of great concern, and the pediatric dentistry training will go some way towards addressing this problem.

The Dean of the Faculty, Professor Suorn Phany, is currently seeking volunteers to help run a new diploma course in restorative dentistry and prosthodontics. If any members of ICD feel they could contribute in these areas (or pediatric dentistry) we would be glad to hear from them.

Callum Durward
Pediatric Dentist
New Zealand
callum_durward@hotmail.com

Book review

The Dental Caries Research Series. Bernard Lilienthal

- Book 1 The fluoride story
- Book 2 The caries process
- Book 3 The bacteriology of dental caries
- Book 4 Diet and dental caries

I don't believe that I have ever met Lilienthal, but the impression gained from these four books is of a gentleman, a scholar and clinician. There are all too few such individuals in dentistry today.

The autobiographic material on the cover of these books indicates that Lilienthal retired in 1993. A PubMed search identifies his last scientific paper as being published in 1991 in the Australian Dental Journal. A quick perusal of his publications revealed two notable issues: first Lilienthal published with some of the leading researchers and clinicians of his time eg Goldsworthy and Amerena: and, second that the topics of the papers have a surprising resonance today eg saliva- based testing for caries risk, salivary buffering capacity, the epidemiologic measurement of periodontal disease, and caries and fluorosis in children. It is always salutary to recognise that as we build an ever greater-scientific base for the practice of dentistry that the underlying issues change little and many of the challenges still the same.

This brings us to this series of books. Lilienthal states that the purpose of these books is to document the major lines of research which led to an understanding of the chemistry, histology and bacteriology of the carious process, the role of diet and research into the prevention of the disease. The particular emphasis Lilienthal has given to these books is providing ready access to material published in the earlier part of the 20th Century. Lilienthal has accurately identified the tendency for researchers of today to be able and willing to read the scientific literature published in recent times. What is far less common is the availability and willingness to follow across time the trail of key research questions in the early scientific literature. This is what Lilienthal has

made easy for today's oral health researchers and dentists.

Lilienthal has presented four books. While they are presented as a series and the focus is certainly different for each book, there is a level of repetition such as "Chapter 1 The dawn of the scientific studies into dental caries" that indicates that Lilienthal considered that they would most likely be read as stand alone works.

'The Fluoride Story' is Book 1 in the "Dental Caries Research Series". It is possible that the book has been purposively chosen to start the Series because of the importance of fluoride in dental caries research as rated by the author and by the dental scientific community. Through 125 pages, which contain 54 tables and 45 illustrations, an in-depth insight into the history of the remarkable discovery of fluoride and its journey in dental research are presented.

Book 1 starts with a summary of the early theories in the aetiology and pathogenesis of dental caries. This summary does well to remind us about how dental research was unfolding in the early 20th Century when the era of fluoride research started. The bibliographies of the pioneers' in fluoride research sets up the theme of the book.

Lilienthal presents the historical facts of the fluoride discovery. Dental fluorosis (then termed "mottled enamel") is well described. Scientific data on the relationship between fluoride and mottled enamel, and mottled enamel and caries led to the finding of an effect of fluoride on dental caries. The research carried-out by Drs McKay and Dean and others is described in detail. Book 1 then goes on to present the first series of scientific trials of the effectiveness of fluoridation. Those studies were and still remain important evidence of the effect of fluoridation on dental caries. A scientific comparison of caries data collected in difference countries with varied fluoride levels in water, different climatic conditions and dietary patterns adds further detail.

Lilienthal also discusses the effect of other fluoride vehicles on dental caries. Again, this covers diverse populations. The safety and toxicology and the mode of action of fluoride have also been detailed with mainly historical, but also some contemporary, scientific evidence.

Book 1, *The Fluoride Story* is a valuable summary of almost a century of scientific effort in studying fluoride. The historical aspect of the book is both its strength and limitation. Although much of the scientific evidence has been updated, the information presented still “stands on its merit”.

Book 2 “The Caries Process” again sweeps through the early scientific theories of the carious process to then pursue a more detailed discourse on the chemistry, microscopy, microradiography, and electronmicroscopy of chemico-parasitic theory for caries, the emergence of the demineralization-remineralization dynamic and impact of casein phosphopeptides. These topics are covered in 87 pages with 13 tables and 57 illustrations. There is a detailed description of the developing understanding of zones in the carious lesion, which underpins the modern view of the non-cavitated lesion and the possibilities of remineralization or repair. It is in the area of phosphopeptides that the scientific work breaks into the 21st century. Book 2 ends with an interesting challenge – the study of natural mineralization processes as a way to enhance our understanding of how to bring about remineralization of enamel.

Book 3 the “Bacteriology of Dental Caries” again sweeps through the early scientific theories of the dental caries process to then pursue a more detailed history of the bacteriology of dental caries. Book 3 is some 94 pages in length with 31 tables and 51 figures. Its main focus is on dental plaque. The evolution in understanding of how plaque forms, what its composition is and its changes in the presence of sugars and how this is modified by fluoride and phosphate are all covered. On a day when a new text edited by an Australian oral microbiologist Professor Tony Rogers reached my desk I wondered how

indebted they are to the pioneers in the area of oral bacteriology described by Lilienthal.

“Diet and Dental Caries” is Book 4 of the Dental Caries Research Series. Running to 106 pages including references and index, the book contains 48 tables and 29 illustrations. While most of these illustrations are of a technical nature there are some colour landscape shots of Swiss mountains, Taiwan lakes and the New Zealand countryside, not to mention a statue of King Alfred saviour of the English from the Vikings which lend some additional interest to the scientific tale. These are in keeping with the theme of the book which begins by looking at the dawn of scientific studies into dental caries, followed by at examples of dental caries in various parts of the world and at various points in time. For just one example, the picture of the Swiss mountains is not simply added for aesthetic reasons. It illustrates a case study where people living in a ‘hidden valley’ cut off from much of everyday Swiss life had virtually no dental caries. After being joined to civilisation, and a diet of refined flour and sugar, by the construction of a tunnel through the mountains, people’s dental health deteriorated.

Lilienthal goes on to consider the topic of nutrition and dental caries, and presents the historical case study of dental caries during and after the Second World War, including decreased caries among prisoners of war under dietary conditions deficient in vitamins and extremely poor general nutrition. From here Lilienthal presents findings from two classic studies of diet and caries; the Hopewood House Study and the Vipeholm Study. He notes that these longitudinal studies “were milestones because of the information they provided on the role of sucrose and eating patterns upon dental caries activity”. After this, Lilienthal presents findings on the anticariogenic role of dietary fluoride, such as through ingestion of a diet with a high fish component in Taiwan. He then goes on to consider the role of trace elements and dental caries before concluding the book with a section on dietary changes and anticariogenic food additives.

While researchers today would not consider attempting studies such as the Vipeholm Study due to the associated ethical dilemmas, the environment for caries has also changed and new challenges are present. Associations of diet and caries are considered to be more difficult to establish in an era where population exposure to fluoride through routes such as toothpaste and water is now much higher than previously. Lilienthal's book is valuable for the historical perspective that it presents.

Overall there is a tremendously rich history of dental research covered in these four books. They will not satisfy the contemporary researcher attempting to formulate hypotheses on ever narrower research questions or looking for guidance on methodology. They simply don't reach the later part of the 20th Century in any depth. However, they are very readable description of the journey. They set a historical context, without which contemporary science is insufficiently grounded. They should be preliminary reading for many of the researchers-in-training in our dental schools. They might also serve as a refresher for those who thought they had left these topics behind in their dental education, but now realise the importance of the scientific story surrounding dental caries.

Professor John Spencer with Drs Loc Do and David Brennan.

Publication Details:-Garran, A.C.T. : Bernard Lilienthal, 2005

All books are AUD49.50 inc. GST each

Email Addresses

The Australasian Section of the ICD foresees cost savings and increased convenience to fellows by electronic distribution of the Newsletter.

This is not imminent but it is planned to add emails of fellows to the address database.

To this end fellows are asked to forward their email addresses to the Registrar jackie_robinson@iinet.net.au to start this process.

DENTISTRY IN BALI

Dr. Barry Walsh, edited by Andrew Charles

My family, and I, have enjoyed several holidays in Bali. Last year my wife and I explored the possibility of volunteering our services to any of the organisations providing dental services to disadvantaged people in Bali.

Through internet searches and personal contact with Steve Knott who has had several years of involvement in Bali as a Forensic Dental Specialist we made contact with a number of organisations. We were also most fortunate to meet and get to know Andrew Charles a well known and highly respected writer who has lived in Bali for many years.

It became obvious to us that it would be of far greater benefit if we devoted our efforts to supporting those organisations already involved in providing services than in just doing an occasional few days here and there; beneficial though that might be.

We contacted, with the help of Andrew Charles, an organisation of Bali business women called BIWA (Bali International Women's Association) and also The East Bali Poverty Project (EBPP). Both organisations make use of a mobile dental unit, which is based at the Dental School of Denpasar. This unit was set up with financial support from the governments of Switzerland and South Australia, with some input from Rotary International and with the support of BIWA. The unit is used several times a week on a schedule co-ordinated by BIWA to provide free dental services to children in orphanages and to the poorer people of Bali, EBPP also utilises the clinic on a weekly basis and for the same purpose. In our discussions with Mayke Boestami Anderson the dynamic past president of BIWA and the equally motivated Joyce Nelwan, the current President, we received a wish list of equipment and materials that were needed if the mobile dental unit was to continue to function effectively. Armed with that information, we approached several of the dental supply companies operating in WA, the Oral Health Centre, the Dental Health services and the Australian Dental Association both state and federal.

In an endeavour such as this, I would not have expected support from all of those we approached as each of those we had contacted already provide support to other members of the Dental profession who are engaged in providing services to disadvantaged people all over the Asia Pacific region. To receive, as we did, a 100% positive response far exceeded our most optimistic expectations; when I reflect on the generosity of the support we have received for this project I am humbled to be a member of this profession.. Over the past three months we have received donations of several hand pieces, hand instruments of every sort, surgical equipment, restorative materials, syringes, local anaesthetics and other consumables: two curing lights and a mixer (current models), together with a comprehensive collection of dental health education material; several copies of the ADA publication 'Dental Therapeutics' completed the collection. Transportation of the donated materials and equipment was made possible by the generosity of Qantas, for which many thanks to Mr Ian Gay and his incredibly efficient assistant Ms. Sandy Morris. A letter from the Indonesian Consul in Perth, kindly supplied by Mr. R. Suhendar, together with another letter, from the Past President of BIWA, ensured customs clearance at Denpasar Airport without any problems.

Thanks to the efficient organisation of the women of BIWA, the goods were transported from the airport to BIWA headquarters, sorted, catalogued and will be distributed according to the needs of the staff working in the mobile dental unit. The quantity of material was such that the clinic will be able to operate for several months without further supply and the hand instruments will ensure continuity of service for a number of years. There will of course be an ongoing need for re-supply, particularly of local anaesthetic materials, restorative materials, burs and other consumables.

Having had an opportunity to view the mobile dental unit there are a number of specific requirements which we would dearly like to satisfy as soon as possible, specifically a bench

top autoclave of a basic type (Siltex or similar), ultrasonic scalers, and an x-ray unit suitable for intra-oral radiography.

To the best of my knowledge, the dental treatment needs of the people of Bali have not been researched. However, there are a number of statistics which might help to give an understanding of the needs that exist there.

In The Republic of Indonesia as a whole there is a population of some 219 million people (all figures are 2005) there are 10,516 dentists; a population ratio of 4.64 dentists per 100,000 population. There is a dental school in Denpasar with 550 undergraduates who follow a five year undergraduate program, all students are full fee paying, the school was established by private donation but I was unable to ascertain the extent of government support for the school and University.

In Bali itself, there are some 82 registered orphanages, which receive minimal government support and an unknown number of unofficial orphanages which receive no government support at all.

There are a number of organisations currently operating in Bali providing various levels of service, The Smile Foundation (Yayasan Senyum), which was established by Mary Northmore in Ubud, Bali, at the suggestion of Professor David David of Adelaide, which is complemented by Western Australian Maxillo Facial Surgeons who work through the John Fawcett Foundation. These groups have trained Surgeons in Bali to treat patients with cranio-facial defects; in particular cleft lip and palate.

The International College of Dentists has assisted with the provision of facilities to screen and treat patients on Bali who require surgery. Patients who require treatment not available in Bali are aided through the Smile Foundation, the John Fawcett Foundation, through an Australian Government program and also through Rotary International with transport to Australia, treatment and accommodation for patients and their immediate families while they undergo what is often prolonged surgical treatment in Australia.

There are a number of other groups who provide Dental care to disadvantaged people in Bali at no cost to the recipients. The mobile dental unit operated by BIWA provides dental care to several thousand patients annually thanks to the dentists and students who volunteer their services. Another organisation, Anak Anak Bali, is also providing dental treatment to children from orphanages, brought to the centre for care from their place of residence. Anak Anak Bali is an umbrella organisation which provides basic dental and medical care to the residents of a large number of orphanages. The dental care facilities have been put in place by an incredibly energetic and effective dental colleague from Broken Hill, Dr. Greg Cocks. Greg has done an amazing job of getting the facilities for dental care set up. Working through the Smile Foundation (Yayasan Senyum) Greg has put together a fully funded plan to build, equip and staff a small independent dental clinic at which free dental care will be provided to the children from the orphanages that come under the Anak Anak Bali umbrella.

There are a number of avenues whereby dentists in Australia can help the people of Bali: by volunteering their services through BIWA or Anak Anak Bali, by donations of equipment and materials, by donations of money to any of the organisations providing care on the Island, by volunteering to give clinical presentations or lectures to the students at the Dental School in Denpasar while on holiday in Bali. Anything would be welcomed and appreciated.

I must make specific mention of those who have been so supportive of our efforts, Dr. Peter Jarman and the staff of the Dental Health Services in Perth, Dr. Lena Lejmanoski and Lina Bulini of the Oral Health Centre of Western Australia, Dr. Stuart Gairns and the staff of ADAWA House in Perth, Rob Boyd -Boland CEO Federal ADA, John Wyatt and Gillian Opie of

Halas, John Bick of Dentsply, Michelle Barry of GC, Wendy Walker of 3M, Helen Kesby of Ivoclar, Colgate Palmolive and finally Denise Brockwell of the WA Dental Health Education Unit .We should also like to take this opportunity to thank the

women of BIWA for allowing us to become associated with the work they are doing in Bali.

The contact details for the organisations have mentioned in the article are;

- BIWA; Joyce Nelwan (President),
president@biwa-bali.org
- Dean Faculty of Dentistry Mahasaraswati University: - Drg P.A. Mahendry :
pa_mahendri@yahoo.co.id
- Anak Anak Bali,contact person; Yayuk Kanti,
y_kanti@hotmail.com
- Smile Foundation of Bali (Yayasan Senyum) Contact; Mary Northmore,
yayasansenyum@yahoo.co.id
- Greg Cocks gcocks@thedentalcentre.com.au

Barry Walsh
Kojonup WA

Editorial Notice

The Newsletter editor welcomes contributions from fellows which can be sent to:-

8th Floor 68 St Georges Tce
PERTH WA 6000 (Hard copy)

OR

dick@orthodonticclinic.com.au

(emailed copy – photographs acceptable)

INDUCTION CEREMONY AND DINNER

**Athenaeum Club
87 Collins Street
Melbourne, VIC**

**FRIDAY, 22nd August 2008
6:30 for 7:00 pm
\$100 per person**

**Please join us in welcoming our new members.
Your attendance is greatly appreciated.**

Dress: Lounge suit

I will attend the 2008 Induction Ceremony and Dinner in Melbourne.

Name: _____

I will be accompanied by: _____
(preferred name)

Additional guest(s): _____

Cheques to be made payable to "International College of Dentists".
(\$100 per person)

Please return by 1 August 2008 to the Registrar: Dr Jackie Robinson
10 Bendtree Way
Castle Hill, NSW 2154

Enquiries: Jackie Robinson
0434 308 422 or email:jackie_robinson@iinet.net.au