



\$100m to boost oral health research

A University of Melbourne-led alliance between academia and industry will see an investment of more than \$100 million for oral health research in Australia.

Federal Minister for Science, Peter McGauran, recently visited the University of Melbourne to launch the initiative and announce a \$21.2 million boost from the Federal Government.

The grant, from the Federal Government's Cooperative Research Centre (CRC) program, brings total investment in the new Oral Health Science CRC to more than \$100 million.

CRC partners include the School of Dental Science at the University of

Melbourne, Monash University, Victorian-based companies Recaldent and CSL, and a Japan-based multinational, GC Corporation.

The Centre's nodes will be located at the University of Melbourne's new Bio21 Institute, the Royal Dental Hospital and Monash University.

Vaccination against gum disease, the commercialisation of food additives designed to rebuild unhealthy teeth and gums, and the development of 'teeth seeds' for encouraging new growth, will be core aims of the world-first research centre.

Head of the School of Dental Science and CRC Chief Executive Officer, Professor Eric Reynolds, said it was visionary of the Science Minister to invest in such innovative research to continue Australia's battle against oral disease.

"Even beyond the immediate \$3 billion Australians spend each year on treating oral disease, oral disease has now been linked to a range of illnesses from pre-term labour – and

therefore poor baby birth weights – to heart attack and stroke," Professor Reynolds said.

The CRC will focus on oral vaccination against deadly gum disease-causing bacteria, an area in which the University of Melbourne's School of Dental Science is already leading the world.

Professor Reynolds said a major research program will be aimed at developing 'chair-side' diagnostics for gum disease-causing bacteria, new pharmaceuticals, and ways to stimulate the body to stop the bacteria from causing disease.

"The partners making up this CRC already have a successful track record in developing and putting to market highly successful products for the prevention and treatment of major oral diseases such as tooth decay.

"For example, technology developed at the School of Dental Science has already been commercialised and resulted in the spin-off Victorian

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A word from the Head

PROFESSOR ERIC REYNOLDS

As I mentioned in the last newsletter, 2005 is shaping up to be a year of considerable change for the School of Dental Science. Tenders have been awarded with a contract completion date of mid June 2005 for the fitout of the School space in the new Dental Hospital building at 720 Swanston Street and it is expected that work will commence prior to the Christmas close-down this year. So, at this stage the School is on track to be relocated to our state-of-the-art new facilities by the start of semester two 2005. The School, of course, has grown enormously in the intervening years since the plans for 720 Swanston Street were first discussed and now we have a situation where we cannot fit everyone into the space at Swanston Street. As a consequence, a number of research staff involved in molecular research and some equipment, including the \$1m mass spectrometer purchased through the

State government's Science, Technology and Innovation grant this year, will be relocated to the Bio21 Parkville building in Flemington Road late in 2005. The group relocating to Bio21 have started working on the schematic design for that area. While we would have liked to have been able to relocate the whole School to one area, the opportunity to be involved in Bio21 is an exciting prospect for the School's researchers.

The Bio21 Parkville development is the first significant investment in the Victorian government's commitment to provide funding for the development of science, technology and innovation in Victoria. Bio21 Parkville's focus is on health-related research leading to commercial outcomes and involves five faculties of the University of Melbourne: Medicine, Dentistry and Health Sciences, Veterinary Science, Institute of Land and Food Resources, Science, and Engineering. Further information on the Bio21 initiative can be found on their website www.bio21.unimelb.edu.au.

On the teaching side, the so-called Nelson Reforms to higher education have seen considerable changes to the

administration of courses and student enrolments at the university and these have had a flow-down effect to the School which will continue into the new year. In the latter part of this year teams from the ADC assessed and accredited the new Doctor of Clinical Dentistry, the Bachelor of Oral Health and the new 5th year of the Bachelor of Dental Science. The BDS students who will graduate on Saturday, December 4, 2004 are the first graduates from the new curriculum, and 2005 will see our first intake of students into the Bachelor of Oral Health.

As 2005 will be the end of an era in the School's history we are planning a commemorative event and will keep you advised as I am sure many people will want to join the School in bidding farewell to the building in Elizabeth Street where we have been located for the past 40 years.

I would like to take this opportunity to wish you all the very best for the festive season and a happy and prosperous 2005.

ERIC REYNOLDS AND STAFF.



Pictured above: mass spectrometer

Research News

REPORT FROM DR STUART DASHPER
HEAD OF THE ORAL BIOLOGY SECTION
AND DIRECTOR OF RESEARCH

The newly created Section of Oral Biology within The School has a broad range of research interests and expertise. Over the coming issues of Dent-*al* we will highlight some of the research that is being conducted in the Section to develop new ways of combating oral disease. One of the exciting new projects that we are involved in is the discovery of bioactive peptides derived from cow's milk. The School has had a long and fruitful collaboration with the Dairy Industry in Victoria mainly involving the research and development of casein phosphopeptides as anticariogenic agents. This technology has now been commercialized as Recaldent and provides revenue back to the dairy industry. In conjunction with Dairy Australia we have been also been investigating the characteristics of a novel antimicrobial peptide called Kappacin that we have isolated from milk protein. Antimicrobial peptides derived from a wide variety of sources including frog skins, mammalian mucous membranes and secretions and even the haemolymph of moths are currently being developed worldwide as replacements for more conventional antibiotics. In order to test the efficacy of our antimicrobial peptide as antiplaque agent we have developed laboratory techniques for the growth of oral bacteria as biofilms. In these systems the bacteria are grown attached to hard surfaces rather than the more common method of growing these bacteria in broth. In the oral cavity bacteria grow attached to the surface of the tooth as dental plaque, a multispecies biofilm, unattached bacteria are quickly swallowed and killed in the acidic environment of the stomach.



Recent research has shown that bacteria grown as biofilms are significantly different to those grown as 'planktonic' or broth cultures. These biofilm bacteria can also be up to 500 times more resistant to some antimicrobial agents than planktonic bacteria. Most antimicrobial testing has been conducted using planktonically grown bacteria, however susceptibility to antimicrobial agents determined using these systems has been shown to be a poor predictor of efficacy in the oral cavity against plaque bacteria. The results we are obtaining by testing antimicrobial agents against bacteria grown as biofilms in specialist equipment such as our constant depth film fermenter (see below) are much more predictive of the effect the agent will have in the oral cavity. Our studies are showing that Kappacin does have efficacy against one of the major aetiological agents of dental caries, *Streptococcus mutans*, when it is grown as a biofilm.

Pictured above: Oral Biology Research Assistant Ms Sze Wei Liu working on the constant depth film fermenter in which the oral pathogen *Streptococcus mutans* is growing as a biofilm.

Twins Study

Longitudinal Study of Faces of Australian Twins

PROFESSOR LOUISE BREARLEY MESSER

The twins study started approximately 12 years ago with an NH&MRC grant and is currently in the third cycle of funding from NH&MRC. There are currently over 600 pairs of twins and around 150 family members enrolled in this on-going study. Professor Brearley-Messer in Melbourne and Professor Grant Townsend from Adelaide have been looking at the twins from the ages of 4-5 years. These twins are now aged 15-16. The twins provided study models, primary teeth were collected, photos taken and each twin was examined for symmetry of right and left hands and on their ability to be able to negotiate through mazes. The twins come in at regular intervals. Mr David Thomas from the School of Dental Science assists with the Elliptical Fourier Analysis of

facial forms. So far the study has shown that genetic patterns have the greatest influence on the upper half of the face and the environment has the greater role in the lower half of the face. Measurements from EFA have been very effective in determining zygoty of twins. The study will come to completion in two years when the twins involved have completed their adolescence. The photographs are taken with standardised procedures using the orthogonal photographs equipment in the OAMS Section.

The families of twins are registered with the Twins Registry of Australia and all families involved in the twins study receive a book of publications.

Further information on the publications from the twin study research can be obtained from Professor Louise Brearley-Messer (03) 9341 0292 or email ljbm@unimelb.edu.au.



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company Recaldent, which makes products that repair the early stages of tooth decay.

"This additive is now in products being sold to dentists around the world and one of our major aims is to significantly expand the application of this new technology to develop toothpastes and mouth rinses for use by the general public," he said.

"We will also be researching how to replace lost or damaged teeth or tooth tissue with real tooth enamel. This will involve the development of biocompatible dental materials and ultimately the replacement of lost teeth by planting 'teeth seeds' in the gums.

"The global dental scientific community is working towards

developing these teethseeds, obtained from cells from the patient's own teeth, so that they can be implanted into the gum and grow into new teeth. We believe this funding will mean we can make a major go of being the first to achieve that," said Professor Reynolds.

Commenting on the new oral health research initiative, Professor Reynolds thanked the State Government and Innovation Minister John Brumby for a grant of more than \$3 million which had put in place many of the core activities and the infrastructure required for the CRC's work.

Mr Brumby described innovation as the key to global competitiveness and pointed to "very clear benefits to investing in science and innovation".

"Victoria is recognised as one of the leading centres for oral health research in Australia and it is no surprise that the CRC Oral Health Science has been awarded this funding," he said.

FOOTNOTE:

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Cover image: From left, Head of the School of Dental Science and CRC Director, Professor Eric Reynolds, Federal Minister for Science, Mr Peter McGauran, Victorian Innovation Minister, Mr John Brumby, Federal Minister for Health, Dr Michael Wooldridge, and University of Melbourne Vice-Chancellor, Professor Kwong Lee Dow, show some products of new oral health science technology. Photo: Peter Casamento



The International Association for Dental Research

FROM JUNE 28 – JULY 1 2006, OVER THREE THOUSAND DENTAL RESEARCHERS FROM AROUND THE GLOBE WILL CONGREGATE IN BRISBANE AT THE CONVENTION CENTRE FOR WHAT IS SHAPING UP TO BE A VERY SUCCESSFUL RESEARCH GATHERING.

For only the second time in the 84 year history of this research organisation, the International IADR scientific meeting will be hosted by the ANZ Division in Australia.

This meeting will provide a major show-casing opportunity for dental research in the ANZ region. Once again, the School of Dental Science at the University of Melbourne will be well represented by staff and students. Put this date in your diaries now.

For further information go to: <http://www.dentalresearch.org/about/iadr/index.html>

or the ANZ Division: <http://www.uq.net.au/~zziadr/>

Secretary of the ANZ Division, Ivan Darby idarby@unimelb.edu.au

Councillor for the Victorian Section, Matthew Hopcraft m.hopcraft@unimelb.edu.au

The International Association for Dental Research (IADR) which is considered one of the premier dental research groups, was established in 1920 and is a world-wide organisation with over 11,000 active individual members. The objectives of the IADR are to:

- To advance research and increase knowledge for the improvement of oral health worldwide.
- To support and represent the oral health research community.
- To facilitate the communication and application of research findings.

The larger IADR International body comprises 22 Divisions from around the world. The Australia and New Zealand Division includes a Section from each of the Australian States, New Zealand and Oceania. The ANZ Division of the IADR meets annually on a rotation through each of the sections. This year, from 26th – 29th September, the Division's 44th annual scientific meeting was held in Nadi, Fiji to mark the recent establishment of that section. While certainly not the largest meeting held in recent years, it was an important milestone for the Division in recognising the importance and quality of dental research being undertaken in the Oceania region. The meeting was opened by the Fiji Minister for Health, Hon. Mr Solomoni Naivalu, and was attended by over 120 dental researchers from around the ANZ region, Japan, the US and Britain. Around 60 scientific papers were presented with a topic range from basic through to the behavioural sciences. Among the many cultural highlights from the Nadi meeting were firewalking demonstrations, choral presentations, and modest participatory kava drinking.

As its charter indicates, the IADR recognises and encourages high quality dental research. The ANZ Division has a number of awards which are presented to dental scientists who, in the judgement of their peers, have made outstanding contributions to dental research. Researchers at the School of Dental

Science have always been well represented in these awards. At the 2003 meeting held in Melbourne for example, Harold Messer and Neil O'Brien-Simpson from this school were awarded the Alan Docking Award (for distinguished research in dentistry) and the Oral Biology Award respectively. In recent years, Eric Reynolds and Clive Wright have also been recipients of the Alan Docking Award.

The IADR also encourages researchers at an early stage in their career. Every year, each section provides two Colgate Travel Awards for an undergraduate and a post-graduate student to attend the Divisional meeting as



entrants for best scientific paper. Two winners from this larger competition are then selected as entrants to go forward to the International IADR meeting also held every 12 months. This year the Victorian Colgate Travel Awardees were Lee Kiang (fourth year BDS student) and Roselind Lam (post-graduate student). Rosalind was runner up in the Senior competition and will therefore present her paper at the 2005 IADR meeting to be held in Baltimore. The ANZ Division, and the Victorian Section in particular, has a long tradition of success at the Hatton Competition. At the 2004 Hawaii IADR meeting, for example, Adrian De Angelis, currently a fourth year BDS student from this School won second prize in the Junior subdivision. Melbourne winners from previous years have included Neil O'Brien-Simpson, Laila Huq, Nada Slakeski and Christine Seers. In addition, Stuart Dashper and Eric

Reynolds won the William J Gies award in 1992 for the best paper in the IADR scientific journal, the Journal of Dental Research.

With funds raised from previous meetings held in Melbourne, the IADR ANZ Division also sponsors local presentation of research activities such as the annual School of Dental Science Research Day and the increasingly popular School of Dental Science Post-graduate Research Presentations. A number of previous IADR award winners have begun their climb to international recognition at these local presentations.

The 2005 ANZ Divisional meeting is to be held in Queenstown, New Zealand.

While not expected to be as climatically warm as the Nadi meeting this year, a number of dental researchers hope to undertake a close study of the nearby ski fields.

The ANZ Division of the IADR acknowledges the ongoing generous support from Colgate Oral Care and for the interest and assistance provided by Dr Jackie Robinson in particular.

MIKE MORGAN
PRESIDENT
IADR ANZ DIVISION.
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(Pictured above) Left to Right: Ashraf Shaweesh, Roselind Lam and Narisha Chawla

Pictured Top: Brisbane Cityscape –photo courtesy Brisbane Marketing Pty Ltd

New Curricula and New Courses

Undergraduate Programmes

Bachelor of Dental Science

During the past five years, the School has been steadily introducing its new undergraduate curriculum in Dental Science. This has involved a tremendous amount of work for all the staff and culminated with the introduction of the new final year at the beginning of this year.

Unlike a number of other Dental Schools in Australia, it was decided early on to maintain entry at the School leaver level and not move to a solely problem-based curriculum. The emphasis in the new curriculum has been to introduce students to the clinic and patient treatment as early as possible. In fact students attend clinics as observers from fourth week in the first year. Students now see their first patient at the beginning of the second semester of the second year of the course. All teaching related to the basic sciences and body systems is completed by the end of the third year. By the time the students have finished their fourth year, they have completed all specialty training in paediatric dentistry, orthodontics, prosthodontics, endodontics etc. This allows them to move to semi-independent practice in the new fifth year.

The new fifth year is a 36-week year centred around the treatment of patients for half of the year in the Royal Dental Hospital of Melbourne. The remaining half of the year sees the students attending local community clinics to treat patients, a 3 week rotation at various hospitals to expose them to the various aspects of dental patient care for 'sick' patients, and a 3 or 4 week elective period for students to engage in personal study or visit a dental facility interstate or overseas. Students have expressed a

desire to visit such places as Japan, Hong Kong, Singapore, the UK, Canada and several other countries. It is planned by the end of next year that groups of students will be sent to Shepparton to participate in a country rotation in association with the Faculty's School of Rural Health. The University, School, Goulburn Valley Health and Department of Human Services are working together to bring this new and exciting initiative to fruition.

The response of the students to the new curriculum has been extremely positive and we are looking forward to receiving feedback on the success of the new fifth year.

Bachelor of Oral Health

The Bachelor of Oral Health Degree will be implemented at the School in March 2005. This three-year degree will replace the current 2-year Diploma in Oral Health Therapy, which will be phased out over the next two years.

The Diploma in Oral Health Therapy was introduced by the School of Dental Science in 1996 to provide training for dental therapists and dental hygienists in Victoria. Prior to that time there was no training available in Victoria for dental hygienists and the training of dental therapists in Victoria was undertaken by the Dental Therapy School, Department of Health and Community Services, Victoria. The first Diploma in Oral Health Therapy (DipOHT) was conferred at the University of Melbourne in February 1998. In 2004, the School of Dental Science received approval to upgrade the 2-year DipOHT to a 3-year Bachelor of Oral Health (Dental Hygiene or Dental Therapy) Degree (BOH).

BOH aims are:

- to facilitate the education of dental therapists and dental hygienists who are able to work within a dental team, adapt to change and educate themselves throughout their professional careers;
- to impart knowledge, attitudes and skills in health promotion and health education, oral examination, diagnosis, treatment planning, operative and/or other clinical therapeutic skills that will enable graduates to practise those aspects of dental hygiene or dental therapy permitted by legislation governing the practice of dentistry in Australia.

The BOH will be a fixed course of three years duration. Students will select their clinical training stream (therapy or hygiene) on admission, but will not enter their chosen stream until the second year of the program. The third year of the program will be comprised mostly of a clinical component with the students out-placed into community dental clinics throughout urban and rural Victoria; and a research project component. The Bachelor program will be full time for both semesters of the University's academic year; however, clinical work may extend beyond the University's semester period.

For further information on eligibility, entry requirements and the selection process, Tel: (03) 9341 0275 or email: enquiries@dent.unimelb.edu.au

Dental Hygiene and Dental Therapy students attended private orthodontic practices this year from September 20 to October 29 for three to five sessions. The number of sessions allocated to each student varied depending on the availability of the orthodontist at different practices.

Upon receiving the endorsement of Dr. Chris Theodosi, President of the Australian Society of Orthodontists

(Victorian Branch) for this initiative, we proceeded to contact orthodontists in the metropolitan district and some in the country region who responded positively to our request, with about 15 orthodontists agreeing to take students. The supervising orthodontist was required to complete an assessment form for each student at the end of their visit. Generally, students received a positive appraisal from their supervisors.

We intend to continue with this program in 2005 and anyone interested in participating should contact the Undergraduate Programs Officer, Ms Antonietta Anello, telephone 9341 – 0274, email: aanello@unimelb.edu.au

Postgraduate Programmes

Doctor of Clinical Dentistry

In November 2003, the Academic Board approved the new Doctor of Clinical Dentistry and the first intake of students into this new postgraduate degree occurred in February 2004. Most of the postgraduate students currently enrolled in the two-tiered Postgraduate Diploma in Clinical Dentistry/Master of Dental Science by Coursework programme chose to convert to the new doctoral degree. Consequently, the first class of students to graduate with the new degree will do so in December 2004. The School of Dental Science wishes the new graduands every success in the future.*

Postgraduate Diploma in Clinical Dentistry (Implant Dentistry)

In 2005, we will see the first intake of part-time students undertaking the Implant Dentistry option offered within the Postgraduate Diploma in Clinical Dentistry. With reduced contact hours, this allows students to remain in private practice while acquiring new skills.

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Staff news

FDI-WDF Science Commission

At the recent Annual Word Congress of the FDI World Dental Federation in New Delhi, Professor Martin Tyas was re-elected to the Science Commission for a further 3 years. Martin is also the Vice-Chairman of the Commission.

Chair of Orthodontics

The School of Dental Science is pleased to announce that, after nine years as Associate Professor and Head of Orthodontics, Michael Woods has been appointed to the newly-created Chair in Orthodontics at The University of Melbourne. Professor Woods holds Bachelor's, Master's and Doctorate Degrees from The University of Melbourne. He is a Fellow of the Royal Australasian College of Dental Surgeons in the special field of Orthodontics, and holds a Diploma in Orthodontics from the Royal College of Surgeons of England and a Certificate of Speciality in Orthodontics from The University of Oklahoma. He is also a Diplomat of the American Board of Orthodontics and a full member of the Edward H. Angle Society.

Professor Woods combines specialist private practice in orthodontics with his academic career and his special research interests include the modification of facial growth and dental arch development, soft-tissue facial effects of orthodontic treatment, and the clinical, anatomical and physiological aspects of different underlying mandibular muscle patterns.

He is a member of the reviewing panels for the American Journal of Orthodontics and Dentofacial Orthopedics and the Angle Orthodontist, and has now made more than sixty contributions to the international literature and over 100 invited clinical and research presentations, worldwide.

Farewell to Hanny Calache

After nine years as Co-ordinator of the Diploma in Oral Health Therapy, Dr Hanny Calache is leaving the School to take up the positions of Clinical Director (0.5 EFT) and Paediatric Dentistry Specialist (0.5 EFT) at DHSV. Whilst working at the School Dr Calache has also managed to find the time to complete a Doctor of Public Health Degree at the School of Population Health. Dr Calache has contributed a great deal to the School and he will be missed by all his students and the staff, most particularly the staff in the Oral Health Unit. However, the position which Dr Calache will take up at DHSV is one which will keep him in contact with both the School and the students and we wish him every success for his future career.

Karl Rahaus is Retiring

"With my credentials, I guess I qualify as the Dinosaur of the Dental School. I have certainly been around long enough to witness plenty of evolutionary changes since joining the general staff towards the end of 1962. At that time, the School of Dental Science was still located in an old building in Spring Street. The grant of the old Haymarket Site had been made in 1935 but the foundation stone for the new building was not laid until 1956. Jointly owned by the University of Melbourne and the (Royal) Dental Hospital of Melbourne, the Dental Hospital (Finance) Act of 1957 empowered the University to issue debentures for £1.5 million to help finance the construction, including £200,000 for new equipment.

The new building was officially opened on Thursday 23rd May, 1963 at 2.30 PM by the Honourable H.E. Bolte, M.L.A. Premier of Victoria. There was such an abundance of space that a whole wing, later to be occupied by the Orthodontic Department, and part of the research area, remained vacant for years – except for the fiercely contested lunch time table-tennis matches between

staff members. At one stage we had a monthly film night in the Auditorium, which usually attracted a full house. There was also a very comprehensive maintenance staff including the engineer (who had overseen construction), a carpenter, a painter, two plumbers, instrument makers, and an electrician.

Deans and Heads of School since that time, have included Professor Sir Arthur Amies, Professor Henry Atkinson, Professor Elsdon Storey, Professor Peter Reade, Professor John Waterson, and our last Dean and first Head of School, Professor Clive Wright, followed by Professor Harold Messer and Professor Eric Reynolds -who will probably be my last "Head".

Compared with Spring Street, our new building was paradise. Each one of three Pre-clinical Removable labs on the first floor, a "Histo-path. lab." on the third floor and a fully equipped "Op. Tech." Fixed lab. on the second floor, could seat well over 50 students. Also, there were 72 chairs in the clinical areas on the first and second floors. Standards set for the students by Drs. Mal Campbell, Alan Malcolm and Harry McIntosh were very high, both in the pre-clinical requirements in crown and bridge work, and personal appearance when treating patients. Those falling short were required to rectify matters during lunch-time, or not continue treating patients in the afternoon.

When the Orthodontic Wing was fitted out and the "Op.Tech." area on the second floor was converted into the current research section the building at last seemed complete. The Dental Hospital's laboratories comprised a 39 person Prosthetic Lab., a 4 person Orthodontic Lab., a 5 person Crown & Bridge Lab. and an in-house Chrome Lab. so our undergraduate students were well catered for. However, the occasional student still managed to lose a finished set of dentures down the lift well through the crack at the bottom of the door. I wonder why? In the early days those lifts could be very temperamental, resulting in people

sitting on the floor in the dark without a fan when stuck between floors for up to an hour and a half at a time. Running up the stairs was a much safer option!

Now, after more than forty years, time is running out for this old building, and maintaining services and equipment until the new one is completed is a constant challenge. I look forward to seeing the results of all the planning and re-planning that has gone into the new School in Swanston Street.

Ironically, as I complete my forty-first year, I recall that I almost didn't get the job back in 1962 when one of the interviewers considered that my previous employment record in Germany showed too many moves. He thought that I might not stay!"

KARL RAHAUS

Pictured above left to right: Martin Tyas, Michael Woods, Hanny Calache, Karl Rahaus

Profiles

Mike Hubbard

Mike holds the Professorial Fellowship in Oral and Facial Sciences, hosted by Melbourne University's Department of Paediatrics and School of Dental Science. This new position was made possible by a generous private donation to establish the Melbourne Research Unit for Facial Disorders, in association with craniofacially-oriented clinicians at the Royal Children's Hospital. Central goals of Mike's position are to help bridge the gap between fundamental science and clinical practice, and to foster the craniofacial and orodental research being undertaken in the Parkville area.

After gaining a dental degree from the University of Otago in NZ, Mike completed his PhD in Biochemistry investigating a yeast well known to dentists, Candida albicans. A year in private practice followed before he headed overseas for five-years postdoctoral study at the National Cancer Institute (Bethesda, USA) and Medical Sciences Institute (Dundee, Scotland). Armed with new ideas about the inner workings of cells and the critical roles that calcium has to play in diseases like cancer and neurodegeneration, Mike returned to Otago University to set up his independent research career. The next 12 years saw his group establish a world-first molecular investigation of enamel-forming cells (ameloblasts), probing how they handle calcium safely. Discoveries from this work are proving significant not just for dental biology but also more generally in biomedicine.

Since moving with his family to Melbourne in 2003, Mike has identified a range of research topics that can profitably draw on the local skill base in molecular and cellular biology, protein science and orodental biology, and be directed towards key areas of clinical interest including bone and tooth regeneration, prevention of enamel defects, and understanding of craniofacial birth

defects. Consequently, exciting opportunities now exist for research programmes at the graduate and postgraduate levels. To chat with Mike, please email him at: mike.hubbard@unimelb.edu.au.

Further information available at: www.dent.unimelb.edu.au (see Hubbard, under Staff A-Z).

John Harcourt

Associate Professor Harcourt graduated from Melbourne in 1953 at the top of his class, taking out prizes in all years. He remembers that there were only 5 or 6 women out of the 45 in his 1st year class. He started his career at the Australian College of Dentistry in 1954 as a senior demonstrator and tutor in dental prosthetics and remembers that there were only 5-6 women out of the 45 in his 1st year class. He was appointed as a lecturer at The University of Melbourne in 1957, senior lecturer in 1964 and Reader in 1974. During that period, he was Associate Dean and later Deputy Dean of the Faculty and was Director of Continuing Education from 1991-1995. John was awarded the Medal of the Order of Australia (OAM) on January 26th, 1995 and an Honorary Fellowship in Dental Surgery of the Royal College of Surgeons of Edinburgh in 1998. He spent three years at Northwestern University Dental School (1967-69, and 1979-80) as a Visiting Associate Professor and six months at Hong Kong Dental School from September 1990 to March 1991 as an Honorary Reader in Dental Materials.

Although he retired from the School at the end of 1996, he continues to teach 3rd year students in removable prosthodontics and describes himself as "a teacher with a dental qualification".

Until 2000, John was a member of the Dental Board of Victoria, was its President from 1994 to 1996 where he also held the position of Assistant to the Registrar. He was the Editor of the Australian Dental Journal from 1985 until 1998 and continues to be the Editor of the Annals of the Royal Australasian College of Dental Surgeons.

He remains a member of the Probus Club of Melbourne continuing to produce their newsletter and, as you will have seen in our previous edition, he is still organising the reunions for his class of 1953.

John was President of the ADAVB in 1975 and of the Royal Australasian College of Dental Surgeons from 1994 to 1996. He served on several ADAVB Committees and was a member of the Graduate Education Committee for over 30 years. He has also been a member of the ADA Inc. Therapeutics, Instruments, Materials and Equipment Committee since 1976.

John is still very active in a number of other areas as well. He continues to travel and play tennis and recently attended the IADR Meeting in Fiji. As well as all this, John is also responsible for coming up with the name for our newsletter -Dent-ai! Thank you, John.

Rob de Poi - Clinical Demonstrator

Robert graduated from Melbourne in 1984 with an overall ranking of first. He was awarded a FRACDS in 1989 and undertook a Master of Science in Dentistry at Indiana. His Master's thesis was entitled "The in-vitro oxidative response of human monocytes to surface modified commercially pure titanium". Rob is a clinical instructor and is in private practice in Moonee Ponds. Robert was awarded the prestigious American Academy of Periodontology Foundation Dr & Mrs. Gerald M Kramer Scholarship for Excellence in 2002. Throughout his undergraduate and postgraduate training, Robert was awarded numerous prizes in dentistry including the John Illiffe Scholarship in each year from 1981 to 1984; the Kenneth J.G. Sutherland Prize 1989 for ranking first overall in Part II of the FRACDS examinations for Australasia; and the Dr. Henry M. Swenson Award for Clinical and Didactic Excellence in Graduate Periodontology 2001 and 2002.

Lee Kaing - 4th year undergraduate student

I still remember at the start of first year wondering if I was in a dental course, since drawing pictures of teeth seemed the only ambiguous relation. Four years down the track, the vague pieces of jigsaw given to us throughout the course are starting to form a picture. I may have an idea of what I had gotten myself into when I added 'Bachelor of Dental Science' somewhere on my list of preference at the end of year 12 on the last day for change of preferences. To me dentistry is about treating patients but also treating people and applying what I've learnt (or should have learnt) to help them and improve quality of life for them (in the dental respect). The course has demanded thought and dexterity, time and patience, and with it came stress, stress and more stress (actually I think I just stress too much) – there's challenges and rewards! As I draw closer to the end of the course, I might finally see the light at the tunnel, though the end of one tunnel may just be the beginning of another after all life is a continuous journey.

Pictured above left to right: Mike Hubbard, John Harcourt, Rob de Poi, Lee Kaing

Comments from the Editors

It was really wonderful to receive so many positive responses to our first issue of Dent-al but unfortunately, we found many were returned to us because our mailing list is very out of date. If you know of anybody who has lost contact with the School, please ask them to get in touch with us as we would very much like to have them back on our mailing list.

LETTER FROM DR JAMES REID LANE – CLASS OF 1951
(REPRINTED WITH PERMISSION FROM DR LANE)

"Dear Editors,

Just a note to tell you how pleased I was to receive your Alumni Newsletter.

I graduated in 1951 as a CRTS student after war service, and ceased practice in 1975, when I became a farmer. It was a pleasure to see the smile of Henry Atkinson on the front cover. I have recently been reading a book by John Jakes which includes a description of the method used by Paul Revere, the American revolutionary war hero, to restore a fractured incisor. Revere was a silversmith and a dentist, amongst other things.

"He crouched beside the chair, peered upward at the damaged canine tooth, broke off a bit of the red wax, balled it between thumb and forefingers, and pressed the wax carefully up against the tooth's broken surface. A moment later he pried the wax out. He carried it to the counter, deposited it in a clay pestle and used a quill pen to scratch some figures on a piece of paper. The paper too was put in the pestle, which was pushed aside to a place near half a dozen silver pepper pots. 'I'll have the tooth in a week, so drop back then'.

The missing portion of tooth was carved from the tusk of a hippopotamus. Elephant tusks yellowed too fast, and sheep's teeth were all snagged and crooked – difficult to work. It was cemented into place and reinforced with gold wire".

Dentistry hadn't changed all that much by the time I gave up!

With every good wish, James R Lane".

LETTER FROM PROFESSOR HENRY ATKINSON

"Dear Editors,

Congratulations on your first issue of the Dent-al and thank you for the publicity which you gave to the Museum.

I am more than happy to report that the Ladies Auxiliary has made a donation of \$10,000 to the Museum for the supply of a special display case which will be in the form of a 2m clear glass cube that will be large enough to house a dental chair with bracket table, spittoon and instruments (appropriate to the treatment being carried out) together with mannequins of dentist and patient in period dress. The display will be changed on occasion from fitting room or surgery to work room or laboratory and the procedure varied accordingly. There are many advantages of this type of exhibition which include that the contents are perfectly secure and may be viewed relatively close up and from any angle. This very generous donation from the Ladies will enable the Museum to put on displays that will compare favourably with others world wide and for this they are thanked most sincerely".

HF Atkinson, Hon. Curator.

New Curricula and New Courses

...CONTINUED FROM PAGE 5

The post graduate diploma in clinical dentistry (Implant Dentistry) is a modification of the existing post graduate diploma in Clinical Dentistry (Restorative Dentistry). It has been developed to meet the increasing demand for graduate implant teaching. The Implant stream offers the participants the ability to treatment plan, surgically place and restore dental implants; to a level of difficulty suitable to general dental practice.

Four students will undertake a part time two year course. The course will commence with a 5-6 week intensive pre-clinical teaching period. During this time the focus will be on both surgical and implant restorative skills, allowing candidates to commence clinical practice during the second part of first semester. Students will be supervised by academic staff and visiting specialists.

Students will be expected to manage the general restorative and implant needs of allocated patients during the two year course. They will also be expected to complete a research project conducted in pairs. The ability to offer this stream of the graduate diploma is due in part to the cooperation of DHSV and the availability of an appropriate patient pool at the Royal Dental Hospital.

We are all looking forward to the course commencing in early 2005.

Further information visit our website, or contact;

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Corrections: Issue No. 1.

On the back page, the asterisk should have been against John Godfrey's name, as it was he who was at Mildura.

In the article on the school moving, RMIT teach dental prosthetics, not prosthodontists.

Our apologies!

We hope you enjoyed reading this second edition of Dent-al, the School of Dental Science's newsletter for alumni. We would be very pleased to have your feedback on this issue and if you would like to contribute in any way, or have any suggestions for future issues, we would be very pleased to hear from you.

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