Welcome to the third edition of “PAIN PALS”, a newsletter which provides friends and supporters of PMRI with news about recent research breakthroughs, and events in support of the great work performed at the Pain Management Research Institute.

BREAKTHROUGH IN NEUROPATHIC PAIN AND ITS TREATMENTS

Over the past 18 months, PMRI has been collaborating with the biotechnology research institute called “NICTA” (National Information and Communications Technology Australia). Professor Cousins has been working with a lead NICTA scientist Dr John Parker, who was heavily involved with the development of the Cochlear implant. The research has been partly carried out in NICTA’s own laboratories, in the large animal facility in the Kolling Institute and in PMRI’s Clinical Research Unit.

There is currently a treatment for nerve damage pain (neuropathic pain) which is called spinal cord stimulation (“SCS”) which utilizes small electrodes that are implanted into the epidural space (outside the coverings of the spinal cord) and connected to a pulse generator, in a similar manner to a heart pacemaker.

This technology has been in use since the early 1970s on an entirely ‘trial and error’ basis with little fundamental research about the mechanisms of the treatment.

An important early contribution of the PMRI/NICTA research has been novel technology which has permitted the recording of neurophysiological responses from the nerve cells in the spinal cord in association with the same electrical stimulation that is currently used with SCS.

In a landmark paper recently published in the prestigious journal “Pain” (Pain 2012; 153, 593-601) PMRI/NICTA have reported for the first time that pain relief with this method is directly proportional to activation of a very specific group of nerves fibres in the spinal cord. This new work has also allowed us to gain insights into the anatomy and physiology of the spinal cord, which have not been previously available.

Currently it is necessary for patients receiving this treatment to apply an external programming device to make frequent adjustments to the stimulation. Some patients find this particularly difficult, especially those of the older age group.

A second major breakthrough has been our finding that it is possible to use the recordings from the spinal cord to provide continuous adjustments of the stimulation, with the great advantage of being able to optimise and stabilise stimulation on an automatic basis and this enable doing away with the necessity of the patient to play any role in adjusting the stimulation once the system has been implanted.

It is anticipated that these breakthroughs will allow much more effective and acceptable methods of treatment of neuropathic pain with SCS. There is a high chance of the development of a company in Australia of at least similar size and success to that enjoyed by Cochlear.
At the opening of the Inaugural Pain Symposium for undergraduates at University of Sydney, the NSW Minister for Health and Minister for Medical Research, Jillian Skinner MP explained she had established in 2011 the NSW Ministerial Pain Management Taskforce to provide advice on, and support the development of, a state-wide Pain Management Plan.

“The aims of the plan”, said Mrs Skinner, “are to ease the burden of chronic pain; improve the quality of life for people with pain; and help people with chronic pain re-enter the workforce”.

The Model of Care developed by the NSW Agency for Clinical Innovation (“ACI”) has established a Referral Guide and set of Principles, facilitating access to the 11 tertiary services and underpinning pain programs at these centres.

Mrs Skinner stated “Australia and NSW are leading the way in the recognition that management of pain needs to become a health care priority”.

“Students attending this historic symposium have a unique opportunity to become advocates for improved treatment, and to contribute to ongoing improvements to education and research in this neglected but rapidly developing field,” said Mrs Skinner.

PAIN IN THE RAIN

Against the backdrop of Marathon Cricket at the Sydney Cricket Ground, over 50 Walkers defied the constant rain at PMRI’s second “Walk Against Pain” in February.

With their raincoats on and umbrellas up, they maintained their spirit and enthusiasm, and helped raise over $14,000 to assist pain management research, as they clicked over laps of the grand arena.

Minister Jillian Skinner joined Professor Michael Cousins and the Walkers in the celebration.

Many thanks to the Walkers, their sponsors and our corporate supporters on the day - Medtronic, St Jude Medical, Reckitt Benckiser and Boston Scientific.

Minister Skinner complimented the Walkers on their courage under the conditions, thanked them for their demonstration of support and reassured the gathering that it was vital NSW strives to take the lead on delivering better pain management services. Following the Walk, supporters were invited to attend the Primary Club’s Legends of Sport Dinner in the Steve Waugh Room at the SCG.

Guests at the Dinner were inspired by an amazing interview ABC commentator Jim Maxwell conducted with Ame Barnbrook, a disabled sailor, who had been anointed as the Sir Roden Cutler Awardee for 2011. Other guest speakers included Richie Benaud OBE, SCG Chairman Rodney Cavalier AO and former representative Rugby League player Matt Adamson, who shared stories about famous experiences at the SCG.

Two of PMRI’s corporate supporters entered cricket teams in the Marathon Cricket tournament. They were lucky enough to have some game time in between rain showers, with the Medtronic Maulers scoring 5/57 off their 12 overs from the Reckitt Ramblers under modified scoring rules for Twelve/12 cricket.
NEW EDUCATION INITIATIVES

Recognising the overwhelming importance of pain education for undergraduates, the University of Sydney has formed a new Discipline of Pain Medicine to provide pain management education for medical and health sciences under-graduates, commencing in 2012.

In March 2012, the University presented the inaugural Multi-disciplinary Pain Symposium for over 300 medical and health sciences students run over one evening and following day, the first program of its kind for under-graduates studying in this field.

Topics at the Symposium, opened by Minister Jillian Skinner, included:

- The impact of pain
- denial of pain relief
- pain epidemiology
- neurobiology

- biophysical model
- cancer pain
- paediatric pain

Face to face teaching was complemented with screening of shorts from the multi-award winning documentary series “Life Before Death”. Through the eyes of patients and their families the documentary explores the inherent humanity that empowers the best of us to care for those beyond cure. For information about the series, and to view short screenings, you can visit www.lifebeforedeath.com.

The next symposium in the University series is a one-day event titled “Pain Management in the Older Person” on 26th May from 9:00am. For all healthcare professionals, the seminar is subtitled “Optimising the Application of Latest Thinking and Evidence Based Methods”. Details are available on the PMRI website, or call Ros on (02) 9926 7386.

MEMBERSHIP OF “FRIENDS OF PMRI”

Membership is open to all people who care about finding new and improved ways of helping over 3 million Australians who suffer from chronic or persistent pain. In 2012 we need to find $1m from private sources to help grow the Institute with a critical mass of highly qualified researchers and clinicians. That is $1m beyond what we hope to receive in grants from Federal and State Government organisations.

These funds will allow projects to continue, like the Spinal Cord Injury Clinical Research, the aforementioned NICTA projects, the Disease Specific Pharmacology of Chronic Pain and the New Mechanisms and Treatments of Pain in Children projects.

To become, and to continue as, a Member of “Friends of PMRI”, simply make a donation each year of $50. The option exists for Members to donate more if they are so moved and are able. Please use the form included with this mailing, sign up online at www.trybooking.com/8719 using your Visa or Mastercard, or mail a cheque to ‘PMRI’.

Remember “membership” is not a one-time only action; it needs constant renewal of commitment to ensure the results are achieved.

CHAIRMAN TIM HOLDEN’S MESSAGE: BUSINESS CHALLENGES FOR PMRI

Securing the long term future of Australia’s premier pain management research institute is never easy. But that is the challenge the Board seeks to address every time we meet.

Competitive Environment

We live in an increasingly more competitive environment, whether seeking research monies from Government and Research Foundations, donations from business, foundations and trusts or the community, sponsorships or strategic partners. We bid competitively for funding for virtually all our research projects. The available pool of monies for research is limited and sought by a seemingly increasing number of medical researchers.

Despite these challenges, PMRI is comparatively successful in winning funding for 3-5 year projects.
This is largely attributable to the reputation of our researchers and PMRI as a whole. But, we don’t win every bid and, as such, we often face gaps in the flow of funding needed to keep our researchers fully funded. These gaps can last for up to 12 months, with the result that either highly skilled research salaries are unfunded or PMRI loses skilled research capabilities. In these circumstances the Board is called upon to fund these salaries out of reserves.

Fundraising
Our fundraising activities are aimed at maintaining, as a minimum, our research and education activities and funding specific 3-5 year projects that some of our key financial supporters (private benefactors, trusts, foundations or corporates) are keen to be associated with. We also need to raise funds for retaining key researchers who are unfunded for a period of time, topping up salaries for projects that are not fully funded, and providing monies for support resources typically underfunded for most projects.

Sources of Donations
Trusts, Foundations and a small number of supporters have been excellent donors for specific areas of research for many years. A small number of corporate entities or their Foundations who regard medical research and education as consistent with their own goals and culture have also been valuable donors for specific projects. Private individuals and the “Friends of PMRI” who value the work we do and what can be achieved for persistent pain sufferers have become an increasingly important group of financial supporters. Bequests, usually associated with past pain patients, are extremely welcome.

The Benefits
PMRI is world-renowned and one of the few pain management organisations in the world that have 3 interlocking units, namely basic research, post graduate education and clinical service and research. Thus, breakthrough research is tested in a clinical setting and future pain specialists educated for the benefit of patients in Australia and around the world.

Our Challenge
We need to continue to grow to ensure that we remain relevant, attract highly skilled researchers and go on making a difference to the lives of a large number of people with persistent pain. We rely heavily on our volunteers to promote PMRI in the community and with corporates, and to put our case for funding support. The competition for donations and strategic partnerships is a massive challenge for an organisation of our size. We have been a well-kept secret but over the last few years we have sought to grow our “Friends” network to spread the word of our value and the difference we can make to many people’s lives. I thank you for your great support and look forward to your continued financial and other support.

MUSIC TO EASE THE PAIN
Over 170 supporters enjoyed the final of our three “Windows on Pain” Concerts in 2011 at Kambala School, Rose Bay, raising further funds for pain research, with help from Medtronic and Turner’s Crossing Vineyard. The concert was followed by a fine food and wine Soiree, where patrons were able to mingle with the Artistic Director, the soloists and orchestra musicians.

Metropolitan Chamber Orchestra, now known as The Metropolitan Orchestra, and conductor Sarah-Grace Williams delivered three fantastic events for PMRI through 2011 at different school venues around Sydney.

At each concert, we’ve had the pleasure of a well-known personality helping out as compere: the October concert was compered by the ABC Classic FM breakfast announcer Emma Ayres with her engaging, cultured speaking voice and intrinsic music knowledge. The program included two delightful solo concerto performances – Svetlana Yaroslavskaya (Mozart flute) and Manu Berkeljon (Vivaldi violin).

During the Kambala concert, Professor Cousins from PMRI interviewed Wendy Douglas, a pain patient, who suffered a fractured wrist from a simple household accident. Complications set in following the surgery to repair her wrist, and additional surgery was required to re-set the wrist. However, Wendy’s circumstances were complicated by the onset of “Complex Regional Pain Syndrome”, which meant she continued to suffer excruciating pain in her arm and wrist, so much so that any movement from the

Pain Management Research Institute - A joint initiative of the University of Sydney and Royal North Shore Hospital Level 4, Main Block, Royal North Shore Hospital, St Leonards NSW 2065
shoulder down proved painful. At the RNSH Clinic, Professor Cousins prescribed the insert of a spinal stimulant, so that Wendy became able to control her pain, and re-commence much-needed physiotherapy on her withering limb.

“Wendy’s not out of the woods yet,” explained Prof Cousins. “She needs further surgery on her wrist, but at least she is able to exercise and is not suffering the extreme pain she had before.”

Each of these concerts, apart from providing a thoroughly delightful program of light classical music, reaches out to a new community who is hearing about the mission of PMRI for the first time.

What’s in store for 2012?
With help from Sarah-Grace, we are excited to announce that PMRI has engaged internationally-famous jazz maestro James Morrison and his ‘combo’ to perform a gala charity concert with The Metropolitan Orchestra on Saturday 3rd November from 7:30pm at the recently-opened Concourse Concert Hall at Chatswood.

This will be PMRI’s only large cultural fund-raising event for 2012, so please put the date in your diary now. Tickets will be available for sale at Ticketek, including Premium tickets for both the concert and the Post-Concert Reception with James and Sarah-Grace.

AN ETHICAL VIEW OF CHRONIC PAIN
At Painaustralia’s Annual General Meeting at the Kolling Building on Tuesday 17th April, the guest speaker was Dr Simon Longstaff, Executive Director, St James Ethics Centre.

Established in 1989, St James Ethics Centre is an independent, not-for-profit organisation providing a non-judgmental forum for the promotion and exploration of ethics. Operating both in Australia and abroad, the Ethics Centre is unique in the world for its support to the general community on ethical issues, creation and management of public debates and application of ethical principles to specific issues in public institutions, not-for-profits and companies. The relief of suffering and distress is the cornerstone of St James Ethics Centre’s activities.

Dr Longstaff began his talk reading a poem by William Blake written in 1797:

The Price of Experience
And the captive in chains, and the poor in the prison, and the soldier in the field
When the shatter’d bone hath laid him groaning among the happier dead.
It is an easy thing to rejoice in the tents of prosperity:
Thus could I sing and thus rejoice: but it is not so with me.

Dr Longstaff’s message was for all human beings in every culture: that with pain left untreated, one feels abandoned (even the dead are happier); that it is an intrinsic dignity for all persons to alleviate pain.

These were some of the principles espoused in the Declaration of Montreal (2010).

“What we owe each other is freedom from suffering.”
In thanking Dr Longstaff, Professor Cousins alluded to the initiatives of the International Federation of Health and Human Rights Organisations (“IFHHRO”) in January 2011, taking their resolution that pain treatment is a basic human right to the World Medical Association to encourage national associations to adopt the same. “Under-treatment of pain is unacceptable in all forms,” confirmed Professor Cousins.

At the IFHHRO conference, pain and palliative care experts learned about the right to health and how to apply the human rights framework to the denial of pain treatment, and human rights experts explored the barriers that exist for access to pain treatment.

**FRONTIERS IN PAIN NEUROPHYSIOLOGY**

In preparation for 2012 the Sensory Neurophysiology Research Team has successfully obtained further grant funding to examine spinal cord function in people with nerve pain following spinal cord injury (“SCI”). This study will examine the ability of a nerve test called “CHEPs” (contact heat evoked potentials) to detect surviving pain and temperature nerves in the spine following SCI.

Trauma to the spinal cord rarely results in complete division of the cord with surviving nerves sometimes remaining silent or failing to carry out their normal function. These silent nerves exist despite complete paralysis and numbness in the area being tested. While preserved fibres may be beneficial (e.g. may assist with motor control) they may also be harmful and contribute to the development of pain. No tools are available in clinical practice to detect silent or preserved pain fibres.

The study will use a test which measures brain activation (electroencephalographic recording or “EEG”) following a computer driven heat pulse to the skin. The presence of a brain wave indicates communication between the skin and brain and intact temperature and pain pathways. This test is likely to be more sensitive and objective than the current approach of asking whether cold or heat is felt.

The grant application was recognised as the leading proposal in its field and was awarded the St Jude Medical ANZCA Research Fellowship Award for 2012. The award will be formally received at the Perth annual scientific meeting of the Faculty of Pain Medicine, Australian New Zealand College of Anaesthetists in May 2012.

The Sensory Neurophysiology Research Team is headed by Dr Paul Wrigley and is working to improve the way changes in the nervous system are measured in people who develop persistent pain. In 2012 the team has been joined by Leigh McIndoe and Rosemary Chakiath. Leigh has a background in neuroscience and epidemiology. She brings extensive experience in neurophysiology testing and is a welcomed member to the team. Rosemary joined the team in April having recently received First Class Honours in her neuroscience Masters. She is currently considering undertaking a PhD at PMRI in pain neurophysiology in 2013.

In April 2012 Dr Wrigley spoke at the annual Australian Pain Society meeting in Melbourne. His talk entitled Frontiers of Pain Neurophysiology discussed the challenge that patients face in obtaining a diagnosis for their pain. The distress of adjusting to persistent pain is more difficult for many people due to the lack of medical tests that specifically examine pain.

Health professionals continue to struggle with the conundrum of developing more objective tests for what is essentially a subjective experience. It is encouraging however that several potentially useful semi-objective tools are becoming available and these are the subject of this team’s research.

**NEW FUND-RAISING OPPORTUNITY**

Last year, PMRI was selected by the ASX Thomson Reuters Foundation, representing many of Australia’s top corporate organisations, as a ‘partner charity’ for that Foundation’s 2011/12 fund-raising drive.

PMRI is sharing with another 21 registered charities like Leukemia Foundation and Wheelchair Sports in a ‘pot’ of $1.1m, resulting from our active participation in their Art Union, Yachting Regatta, Golf Day and Dinner.
As Friends of PMRI, your assistance and participation was greatly appreciated.

The winning tickets in the Art Union were sold by the Australian Lung Foundation, the Children’s Cancer Institute and the Heart Research Institute. So, it must be PMRI’s turn in 2012/13!

With continued and increased participation by the “Friends of PMRI” and other supporters, we have the opportunity to increase our share of next year’s results.

On that point, applications are now open for yachts and crews to compete in the next Sydney Harbour Regatta on Friday 26th October. If you have a good friend who’s a “yachtee” or you are one yourself, please contact the PMRI office for entry details.

Last October, PMRI Board Member Graham Nock graciously made available his classic timber cruiser Papeete as a ‘spectator boat’. The weather was absolutely gorgeous, and Friends of PMRI enjoyed a wonderful day out on Sydney Harbour watching the Regatta.

MEET ELOISE LIVINGSTON

April 2011 Luncheon guests will fondly remember pain patient and long-distance swimmer Emma Livingston and her amazing story about living with “Bilateral Multi-directional Glenohumeral Instability” and her six-hours-a-day therapy program.

We were all thrilled to learn that on 1st March, Emma gave birth to Eloise Grace, weighing 3.29 kg, and stretching to 52 cm. The happy family are all doing well, not least of whom are father Clyde and his parents currently visiting from Ireland. Truly a miracle baby!

WMA CALLS FOR AN END TO UNNECESSARY PAIN

At its General Assembly in Montevideo in 2011, the World Medical Association (WMA) adopted a resolution urging for an end to unnecessary pain for millions of people.

The resolution states:

“People facing pain have a right to appropriate pain management, including effective medications such as morphine. Denial of pain treatment violates the right to health and might be medically unethical.”

In a very significant call to action, the WMA urges all countries to provide resources for the development and implementation of a national pain treatments plan.

The WMA has also acknowledged the work being done in Australia which was a world leader in developing a National Pain Strategy. One by one, other nations are following suit. In May 2012, Professor Michael Cousins was be a keynote speaker at the Canadian National Pain Summit, reporting on the progress being made here.
For more information about the Friends of PMRI, or if you would like to volunteer at any one of these various functions, please contact Shaan Verco on (02) 9929 5566, or visit our website www.sydney.edu.au/medicine/pmri.

**BOOST FOR SELF HELP GROUPS IN VICTORIA**

Self help groups across Victoria are being invited to apply for a share in a $4 million funding boost from the Victorian Coalition Government.

Minister for Health David Davis on 1st April officially opened the annual Arthritis Victoria Consumer Conference, “Much Ado About Pain”, which is a partnership event with The Australian Pain Society.

“The Victorian Coalition Government has delivered on its election promise of $4 million over four years for health condition or disease-specific support groups in Victoria,” Mr Davis said.

“Today I invite self help groups, including those supporting Victorians with arthritis, to apply for funding from the Health Condition Support Grants Program.” Mr Davis said the program would strengthen the work of self help groups and the invaluable support they provided for people with a chronic health condition.

“The program will provide a range of grants across three separate bands up to a maximum of $100,000 per year to state-wide, regional and local groups.” Mr Davis said. “Self help groups increase the capacity of people to effectively manage their chronic health condition in order to live independently in the community.

“Chronic and complex conditions also account for more than two thirds of all health expenditure. In Victoria, almost one third of the population is living with arthritis or a related musculoskeletal condition,” Mr Davis said.

**PAINAUSTRALIA LAUNCHES NEW WEBSITE**

National advocacy body, Painaustralia has a new website www.painaustralia.org.au which has been developed as a resource centre, providing information and access to educational resources for consumers and healthcare professionals, and useful links to Painaustralia member organisations and international pain bodies.

The site also provides information about pain management services and programs nationally, the latest pain research findings, and up-to-date progress on the National Pain Strategy.

**DONATIONS 2011/12**

Should you be interested in assisting the work of PMRI, donations can be made to PMRI, Level 4, Main Block, Royal North Shore Hospital, St Leonards 2065. Or you can pay online via the website: www.sydney.edu.au/medicine/pmri. Donations over $2 are tax-deductible; PMRI is a registered charity, a joint initiative of the Hospital and University of Sydney.