

Premier's Recognition for Cerebral Palsy Research



*Victorian Premier Steve Bracks presenting the award to Roslyn Boyd.
(Photo: Mark Farelly, © Department of Premier and Cabinet,
Government of Victoria. Used with permission.)*

Roslyn Boyd, a PhD student at the NCPO, has won a Commendation in the 2004 Premier's Award for Medical Research. The award is based on doctoral thesis research and was established to reward excellence in Victoria's young researchers.

Ms. Boyd's thesis examined the effects of botulinum toxin, commonly known as botox, in children with cerebral palsy. After injection into a muscle, botox causes partial paralysis and reduces the spasticity common in children with CP. Ms Boyd's research demonstrated that botox, in combination with intensive upper limb training, improved upper limb function more than training alone. Results of the study showed that botox affected more than the muscle itself. Functional magnetic resonance imaging (fMRI) suggested

that the reduced spasticity after botox injection facilitated brain reorganisation and learning. Because of this, the beneficial effects of treatment may persist well after the effect of the drug itself wears off. The research was carried out at La Trobe University, The Murdoch Children's Research Institute at Royal Children's Hospital and the Brain Imaging Research Institute at the Austin Hospital. Associate Professor Tim Bach of the NCPO and Professor Meg Morris of the School of Physiotherapy supervised the thesis. The award was made by the Premier, Mr. Steve Bracks, during a ceremony at Government House attended by Governor John Landy and many leaders of the Victorian medical research community. The award consists of a certificate and an \$8,000 cash prize. One winner and three commendees are named each year.

POSS News...

After years of students wishing we did, now we have done it... The P&O Camp is back. Students from first to third year reluctantly took the time off from diligent study to spend a weekend at Allambee Camp. Between the midnight strolls, a flying fox, plummeting towards the ground on the giant swing, many water fights regardless of the almost freezing weather, and racing around the ropes course in the dark, fun was had by all. The camp provided opportunities for the year levels to meet and interact, and despite our best efforts the first years never did complete any of the initiation challenges the third years claimed were necessary to continue on into second semester. After the success of the camp I would like to thank all those who attended and wish good luck to the organiser of next year's camp. Coming up in August is another important P&O social event, the ball. I hope to see all students in attendance and the lecturers if they don't mind getting a little dressed up and partying with the students, it promises to be great night.

NCPO International Aid Lectureship.



New International Aid lecturer Wes Pryor

Earlier this year, La Trobe University's Vice Chancellor, Professor Michael Osborne, agreed to fund an International Aid Lectureship in response to the continuing need for ongoing P&O education in non-industrialised countries. Mr. Wesley Pryor, a Ph.D. candidate and sessional Lecturer at the NCPO was seconded to the role on a fractional basis.

“The NCPO has already established itself as a leading provider of continuing education through distance-mode upgrades for diploma holders and our increasing involvement with international students” Wes said. “This lectureship allows us to consolidate and build on those skills and make them accessible to students in regions where the need for quality P&O services is very high.”

Since his appointment in April, Wes has been collaborating with the Cambodian School of Prosthetics on a project to upgrade a cohort of their graduates to BPO qualifications. The NCPO will work towards a solution that will allow graduates to assume leadership in their country and to provide quality care into the future. The scope of this lectureship is not limited to Cambodia. “Ongoing education in regions with underdeveloped P&O services has traditionally been considered less important than providing clinical services, and that's probably fair enough. We are still working on a few different

models, and we hope to reduce the financial and geographical limitations to quality P&O training. This should serve to reprioritise education and result in better services, provided by local staff, where they are needed most.”

NCPO Facility List

The NCPO maintains a list of all Australian and New Zealand P & O facilities known to us. This list, published on our website (<http://www.latrobe.edu.au/ncpo/docs/facilities.html> - See below), is used by many people, including students, practitioners, prospective clients and many other interested parties. The NCPO Website receives around 1500 unique visits (as opposed to just ‘hits’) every month. The Facility list accounts for over 300 of those visits.

NCPO staff rely on the facilities to update the information on the list. We are unable to constantly check the accuracy of the list ourselves, so if your facility's details are incorrect, please tell us as soon as possible. There is a web based form for new entries or corrections at <http://www.latrobe.edu.au/ncpo/docs/faclistform.html>, or you can contact Steve Hockey on (03) 9479 5747, fax us on (03) 9479 5036, or email to: s.hockey@latrobe.edu.au.

The NCPO Facility List Form for adding or changing the details of your facility's listing.



Nepalese Visitor to the NCPO

During May, the NCPO was pleased to host a visit from Dr. Ashok Bajracharya, Head of the Department of Orthopaedic Surgery, Bir Hospital, Kathmandu.

Dr. Bajracharya is investigating the feasibility of establishing a P&O training school in Nepal and chose to visit La Trobe University to gain an insight into the facilities and programmes which are offered by the NCPO.

Dr. Bajracharya was taken on a tour of the NCPO clinical teaching area and spent time observing NCPO classes. Discussions were held between Dr. Bajracharya and NCPO Head, Mr. Rod Cooper regarding the need for training in Nepal and the potential for collaboration between La Trobe and Nepalese educators. Both parties agreed to give further consideration to the matter and further discussions have been scheduled during the coming months.



Rod Cooper, head of the NCPO, greets Dr. Ashok Bajracharya, Head of the Department of Orthopaedic Surgery, Bir Hospital, Kathmandu.

Curriculum Corner: ISP Clinical Challenges

Most graduates of the prosthetics and orthotics course at La Trobe University have fond memories of the third year *Independent Study Project* subject. The aims of the subject are to develop knowledge at an advanced level in an area related to prosthetics and orthotics, to develop skills in searching and critically evaluating professional literature, to develop problem solving abilities, to develop the ability of students to work independently and as a member of a team and to develop professional skills in formal oral and written communication.

Recently, the NCPO adopted a new model for the ISP project in which students can elect to do a series of clinical challenges rather than the more traditional research or development project. This “Clinical Challenges” stream will run in parallel with the “Research and Development” stream. The “Clinical Challenges” stream has been designed to ensure development of similar competencies to those expected of students in the “R & D” stream.

This change closely reflects the increased emphasis on evidence based practice in prosthetics and orthotics work. Clinicians are increasingly required to integrate principles of research and development into their daily decision-making, but may not have a particular interest in doing empirical work. Using web-based technologies, this subject should provide students with up-to date and stimulating challenges in important, contemporary clinical issues. For more information, contact the subject co-ordinator, A/Prof Tim Bach at T.Bach@latrobe.edu.au



A screenshot of the web based interface for the ISP Clinical Challenges

Clinical Education

1st year

First year students will complete their one week placements between July 5-9 or July 12-16. Students will travel to facilities in Melbourne, Geelong, Ballarat, Launceston, South Australia and Sydney. Look out for the new NCPO clinical uniform.

4th year

Fourth year students will complete their second eight week placement on June 25. Students are located at facilities in Melbourne, Geelong, Ballarat, Albury, Sydney, Adelaide, Perth, Brisbane, Tasmania, Leeds (U.K.) and Houston (U.S.A). By all reports every student is enjoying their placement, seeing lots of different prosthetic and orthotic patients, learning about P & O management and improving their skills as Prosthetists/Orthotists.

Students returned to the NCPO for a mid-placement Symposium Day, at which the Honours students presented their Literature Reviews for their projects. The students also participated in a discussion/debrief regarding their placements, hopefully learning about how to maximise their learning in their next placement.

Fourth year clinical exams are scheduled for June 29, 30 and July 1 with a final Symposium Day July 2. As well as receiving their exam results, the students will hear from the ISPO and the AOPA, find out about how to look for work and have lunch with the staff.

Placement availability survey

All facilities should have received paperwork regarding the coming Clinical Placement year July 2004 – June 2005. This includes a Letter of Exchange (agreement), Survey of Placement Availability and a request to update the information the NCPO has on file. Please return this information as soon as possible. If you have not received this information please contact Kaisha Gurry on (03) 9479 5864.

Hong Kong students

We had a request from the Clinical Education Coordinator at the Hong Kong Polytechnic University to help place six B.Sc (Hons) program students in Australian facilities between July and August. A number of facilities expressed an interest but were unable to assist this year. Two students have been offered placements – one at Royal Children's Hospital and one at Caulfield General Medical Centre. If you are interested in offering a placement to these students next year, please contact Kaisha.

Well-earned rest

The mid-July to end-October is a quieter time for Clinical Education and we hope that facilities enjoy a well-earned break from students.

Further information about P&O Clinical Education can be obtained from the Coordinator, Kaisha Gurry, phone: (03) 9479 5864 or e-mail: K.Gurry@latrobe.edu.au

Continuing Education Course Cancelled

The Marlo Anatomical Socket design course, advertised in the previous newsletter, has been cancelled due to a lack of interest. Enquiries made of various clinical facilities indicated that many were simply not interested, or that they found the cost of the course too high. The NCPO worked hard to keep the cost to a minimum, but this required that at least 15 people enrolled in the course. There was also some confusion about what the course was about. Those who are interested in Snr Ortiz's concepts should read the two articles from O and P Business World:

http://www.oandp.com/edge/issues/articles/2004-06_03.asp

http://www.oandp.com/edge/issues/articles/2002-11_01.asp

It may be possible to run the course some time in the future, but Snr Ortiz is kept busy with high demand from practitioners in America, Europe and Japan for his seminars and courses.

More Than 30 Years as a Volunteer Patient



Volunteer Barbara Best with NCPO head Rod Cooper

The NCPO relies on Volunteer Patients who participate in practical classes for students. One of our most experienced VPs is Mrs Barbara Best, who has weakened legs as result of poliomyelitis and is now 85 years old. She has volunteered for orthotic student classes since 1972 when instruction was provided at the Central Development Unit. The NCPO program began at Lincoln Institute in 1976. Mrs Best remembered wearing a 'full length old black iron KAFO and a short iron' in those days.

Mrs Best chooses to be a VP because, over the years, she has met a great many interesting people through the VP program, including students, staff and other volunteers. She said her regular attendances as a VP have allowed her to learn about 'new revelations, new materials, new inventions that are absolutely wonderful for the patient'. Mrs Best described the introduction of polypropylene orthoses that went inside the shoe rather than attaching to the heel, as an example of such

advancement. She said that, in the early days, students only had the pliers cast cutters to get plaster casts off, and the large, scissor-like cutters used to dig in to her leg sometimes. 'Now, things are so advanced compared to when I first started'.

Mrs Best easily recalled her first visit as a Volunteer Patient (VP) to the Lincoln Institute P&O Department, on Swanston Street in Carlton. The building was old and she was a little dismayed by the stairs immediately inside the front door. Her taxi driver, an amputee who did not wear a prosthesis, preceded her up the stairs and was initially mistaken for the VP! She is very complementary of the modern NCPO facilities at La Trobe University, observing that they contain equipment necessary for students to gain their degrees, and are also very comfortable for VPs.

Since the 1970s, Mrs Best has observed an increasing proportion of girls in P&O classes. Early intakes were predominantly male, now the typical NCPO intake has more female than male students. Mrs Best remembered having orthoses provided through a department staffed by a doctor and 'three elderly gentlemen who were his engineers'. She thinks that, provided they pass their degree, female P&Os should be just as good as male P&Os. Over the last five years, Mrs Best has noticed a lot more overseas students in the NCPO classes she attends. She thinks that is good, 'something the University can be proud of. It is good for the countries they come from and it is good for Australia to be able to offer them an education in P&O'.

In addition to volunteering for NCPO practical classes, Mrs Best spends one and a half days per week doing voluntary work in the Knox Community Opportunity Shop. She previously was a 'Meals on Wheels' volunteer for nineteen years. Mrs Best said that volunteering "keeps you busy, that's better than being bored. Volunteering is very rewarding; it has been for me. I'd like to still be going to La Trobe at 90."

The NCPO is very grateful to Mrs Best, and to all the wonderful people who volunteer their time as VPs, so that our students gain valuable experience working with 'real' patients.

Tech Tips: A Customised Sandal With Orthotic Support

In their 2003 Independent Study Project, NCPO Students Sarah Leong and Felicity Williams developed a method of making a sandal with a customised sole. Conventional shoes with foot orthoses (FO's) become sweaty and uncomfortable when worn in warm weather. The aim of this project was to develop a sandal with customised orthotic support that was quick and inexpensive to manufacture, relatively cosmetic and lightweight.

A crush box cast was taken and filled. A 5mm pelite band was run around the cast about the level of the needed trimline and stapled. A 2mm EVA sheet was then vacuum formed over the cast. Once moulded, the top cover was cut back to the trimlines. Acetate film was stapled to the pelite and taped off with electrical tape, this formed containment for some duplicating plastic. A sole stiffener was cut to shape, slightly smaller than the anticipated sandal base.

The first batch of 2-part duplicating plastic was then mixed and poured over the 2mm EVA and the cast, left to go tacky and the sole stiffener was then pressed into it. Once fully cured, the acetate film was removed and the straps were positioned and glued into place. The acetate film was reapplied around the cast, but only held in place with electrical tape so the straps were not damaged. The cast was then set up at the correct angle and the final layer of duplicating plastic was mixed and poured over the straps. When fully cured, the bottom of the sandal was ground flat and Topy soling material was adhered with Selleys urethane bond. One final grind was required to ensure that the sandal was finished neatly. (See Photo)

Two pairs of sandals have been trialled on patients with high risk feet in the NCPO Clinic. The patients were unable to wear conventional footwear due to hypersensitivity or excessive oedema. Both patients have found the sandals comfortable and have had up to 3 months wear without delamination.

Fabrication of the straps took a substantial amount of time. The use of prefabricated straps would decrease the manufacturing times. Clinically, it may be necessary to wedge the sandal for orthotic corrections. This is possible intrinsically with the duplicating plastic. Although heavier and less durable than custom made EVA insoles or prefabricated sandals, this method allowed a custom sandal to be quickly and cheaply manufactured.

For more information about this technique, please contact Michael Gurry on (03) 9479 5037 or email: m.gurry@latrobe.edu.au.



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