

2006 APERF research grants awarded

An impressive array of researchers, and affiliated institutions, has been successful in the 2006 round of Australian Podiatry Education and Research Fund (APERF) research grants.

The collaborative and multidisciplinary nature of the research projects funded demonstrates the continuing growth in sophistication of foot and ankle research conducted by podiatrists.

The projects funded this year were particularly strong in the use of high quality research design, with randomised controlled trials a feature of two of the studies funded. Furthermore, during selection, it was of high priority that the research funded would generate outcomes of immediate and direct relevance to patients.

The affiliated institutions successful in this round of grants include: La Trobe University (The Department of Podiatry and The Musculoskeletal Research Centre), The University of Wollongong (Biomechanics Research Laboratory), The University of Western Sydney and Monash University. This round of grants supports both novice researchers and experienced researchers at a doctoral and professorial level.

One of the studies to receive a 2006 APERF research grant is an investigation into the potential relationship between foot structure and function and falls in older people. The study by Karen Mickle of the Biomechanics Research Laboratory, University of Wollongong, is likely to contribute significantly to the area of falls, which is a great health concern to society.

This 12 month prospective study, to be conducted in NSW with co-investigators Julie Steele, Dr Bridget Munro and Dr Hylton Menz, aims to determine whether foot structure and function or shoe wearing habits influence the incidence of falls in older adults who live independently in the community.

A random selection of 650 independently living individuals, over the age of 60 years, will participate in the study. An initial assessment session evaluating foot structure, foot function, and falls risk will be conducted. Participants will then be asked to keep a record of falls and footwear over the following 12 months. The primary study outcome is to determine whether foot structure and



Joel Radford



Karen Mickle

function or shoe wearing habits influence the incidence of falls in older adults who live independently in the community.

The effectiveness of calf muscle stretches for short-term treatment of plantar heel pain will be investigated by Joel Radford of the University of Western Sydney (UWS), in another 2006 APERF-funded study. The research team includes Dr Karl Landorf from La Trobe University, Dr Catherine Cook, also from UWS, and Associate Professor Rachelle Buchbinder.

Plantar heel pain is a common condition, with a recent US study reporting that each year in America one million patient visits are for the diagnosis and treatment of the disorder.¹ While management is usually conservative, the effectiveness of such treatments, used clinically, remains largely unestablished by research.

This randomised controlled trial aims to examine the effectiveness of calf muscle stretching for the short-term treatment of plantar heel pain, with patients randomly allocated through concealed allocation to one of two groups:

- Calf muscle stretched and placebo ultrasound (machine not turned on).
- Placebo ultrasound (machine not turned on).

The data collection phase was completed with the stretching group having performed daily weight bearing calf stretches for two weeks. At the completion of the two weeks, outcome measures, including foot pain and quality of life, were collected along with an evaluation of compliance to the stretching program. Funding of this study will provide for support to allow valuable analysis of the research data. The main study outcome is to provide evidence on the efficacy of calf muscle stretching for the short-term treatment of plantar heel pain.

Dr Shannon Munteanu, along with Dr Karl Landorf and Dr Hylton Menz of La Trobe University, has also been successful in attracting an APERF grant to examine the effectiveness of glycosamine sulphate for the treatment of osteoarthritis affecting the first metatarsophalangeal joint (Hallux Limitus). Hallux Limitus is the most common form of osteoarthritis in the foot, affecting 10% of people aged 20-34 years and 44% of those over the age of 80 years.^{2,3}

From left: Dr Shannon Munteanu, Dr Hylton Menz and Dr Karl Landorf



Treatment involves both conservative and surgical approaches, with adjunctive pharmacological therapy undertaken at times for pain relief.

Recently, the 'nutraceutical' agent glycosamine sulphate has attracted increasing attention in medical arenas for the management of osteoarthritis, with research showing the clinical effectiveness of the agent in management of knee osteoarthritis. Its value in management of the foot however remains unexplored.

This double-blinded, placebo-controlled trial (in accordance to CONSORT standards) will compare a once-daily dose of 1500mg glucosamine sulphate to a placebo in 100 participants with Hallux Limitus. Using computerised random number generating, participants will be randomly allocated to active medication or the placebo group.

Outcome measures of pain, function and joint range of motion will be taken at four time points throughout the study. The study aims to determine the effect of glycosamine sulphate on pain, function and range of motion in people with Hallux Limitus, thereby providing information on the potential usefulness of this therapy in the clinical setting. •

Congratulations to all the APERF recipients

References:

1. Riddle DL and Schappert SM. Foot and Ankle International 2004; 25:303.
2. Hamilton WG, et al. Foot and Ankle International 1997; 18:68-70.
3. vanSaase JL, et al. Annals of the Rheumatic Diseases 1989; 48:271-280.

What is APERF?

The Australian Podiatry Education and Research Foundation was established in 1990 to advance research into the causes, prevention and treatment of foot problems.

With the help of generous donations from the podiatry community – podiatrists, medical suppliers and grateful patients – APERF has supported more than 25 projects in the past 15 years.

Research reveals that the foot health needs of the community are substantial, as:

- Forty percent of Australians report foot problems.
- Sixty per cent of Australians have experienced foot pain.
- Systemic disease affects foot health. For example, 20% of rheumatoid arthritis cases and 35% of stress fractures occur in the feet.
- One in three Australians aged 65 and over suffers from a foot problem.
- Thirty per cent of children aged between four and six years of age suffer from 'growing pains'.
- Approximately 20% of workplace compensation claims relate to injuries to the feet and toes.
- Diabetes related foot disease is common, is associated with increased mortality, and is a major cause of hospitalisation. In Australia, diabetes related lower limb complications cost \$48 million per year.
- Your donation supports research projects that can address these important foot health issues, improving the health outcomes for millions of people in Australia and around the world.

EBAY AUCTION

In order to make sponsorship more exciting and rewarding, the Council is setting up a series of ebay auctions so that you can support your profession while bidding on memorabilia that has collectible value. The first auction items will be the Commonwealth Games Athletes' Village polo shirts that you all wished someone had chosen for you to wear... if only you were athletic enough.

- Athletes' Village polo shirt, size large. This limited edition polo could only be purchased by people working or living in the Commonwealth Games Athletes village. These sold out very quickly when people realised the limited edition nature of this item.
(Donated by the Podiatry Department of the Athletes village Polyclinic and AAPSM Members)
- Adidas replica Commonwealth Games Australian team polo shirt as worn by the entire Australian team during the Commonwealth Games. Featuring Commonwealth Games logo and green and gold shoulder stripes. Size large.
(Donated by the Podiatry Dept of the Athletes village Polyclinic and AAPSM Members)
- You will be sent an email when the auction begins and you can visit the link provided to place your bid.

Research that keeps us on our feet is vital to our long term health

APERF fulfils a vital role in funding podiatry research that enhances clinical care and extends podiatry scope of practice. For APERF to continue to fund high quality research projects, the ongoing support of the profession is required.

For more information visit www.apodc.com.au/apodc/aperf.htm.

I would like to support APERF.

(All donations over \$2.00 are tax deductible in Australia.)

- I enclose a cheque payable to the Australian Podiatry Education and Research Foundation (41 Derby Street Collingwood, VIC 3066).

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