



## ISPO UK MS E-BULLETIN    DECEMBER 2017



Greetings to all!

Wishing everyone health, happiness, rest and lots of fun during the coming festive season. This report provides a summary of the main activities since our last communication, and our plans to meet key challenges that the O&P profession faces - Data and increasing the number of Prosthetists and Orthotists. These two topics are now evident in the global agenda of all P&O professionals & users.

ISPO UK MS is proactively contributing to ISPO International activities and the world congress in Cape Town was instrumental in establishing strategic direction for standards for best practice and the future of the industry. There is a severe shortage of certified prosthetists and orthotists globally. The shortfall of data on amputees and patients with physical disabilities and neuromuscular disorders makes it harder to strategically ask governments to plan. The need for Registry and Data, to support efficacy of rehabilitation, is required for evolving treatment pathways and for long term planning. Health economic data is now an essential part in the persuasion tool box to divert the required funds for effective rehabilitation of disabled people. Development and implementation of the NHS MPK policy requires a collective effort of the multi-disciplinary team to collect independent feedback which embodies ISPO. The UK MS supported this policy directly and with the blessing of the CRG commissioning group in conjunction with the University of Southampton sponsored the development of AMPROM ([www.amprom.uk](http://www.amprom.uk)) - comprehensive fully anonymised PEQ with open access to the outcome measure for analysis by researchers to quantify the benefit of the MPK for future NHS policies in funding of advanced technology. In conjunction with the American Association of Orthotists and Prosthetists the work commissioned to RAND Corporation to develop the health economics for trans-femoral amputees resulted in a comprehensive report ([www.rand.org](http://www.rand.org)) with compelling evidence showing a reduction in falls and associated cost with utilisation of MPKs for these amputees. The simulation models used for reduction in long term health care cost of Osteoarthritis, low back pain, and tissue health enables utilisation of a systematic review of Cochran based studies to develop future economic justification in a much shorter time scale. The next RAND report aims to address trans-tibial amputees benefit of MPF and Hydraulic and advance feet design. This is anticipated to show user benefit and long term reduction of healthcare costs, to be published in 2018.

In parallel, locally, ISPO UK MS held a one day workshop for support of future research work in P&O in London which was well attended and well received. Meetings with Centre managers and BSRM, and presenting this collaborative methodology to address our industry future needs, has been welcomed by all. The open partnership is the direction provided for government industrial strategy in life sciences. The plan is to link all the Registers of data by creation of a pool and data bank through the ISPO International website and provide an online cloud based offering to all member societies and beyond. In this way we are a step closer to breaking down barriers, with falling walls within our field of activities, and open access enabling and empowering all members and non-members of our profession to make their orchestrated contributory effort to meet the challenges we all face together.

Following this year's very successful meeting at Cambridge the planning for a one day workshop on Osseointegration on 18 January 2018 is progressing well – see further details later in this e-bulletin. This workshop is aimed at updating all participants on the latest global experiences, as well as outcomes of long term studies and work on standards for the future. These professional awareness programmes aim to inform the status of science and will continue in 2018. The Scoliosis Treatment Pathway is the next planned topic.

The preparation for ISPO UK MS 2018 at Southampton with the theme of Interfaces in O&P is well on the way. Closer collaboration with BAPCAR and BAPO is continuing and discussion continues for possible joint activities where useful to all. Similar conversations have taken place with the ISPO Scandinavian membership for long term planning of joint events and even planting the seed of a potential bid for a future joint world congress in 2023 or 2025 has also started.

Planning for 2019 TIPS/ISPO at Salford Quays is underway.

The Trailblazer Apprentice Technician programme is progressing well with government and NHS health professionals in agreement to support this. Nevertheless, we need a more long-term orchestrated effort in making the P&O profession more attractive for young external orthopaedic engineers of the future and to provide a funding framework for them to undertake studies in this field.

The 2012 legacy of the Paralympic Games and subsequent Invictus Games continues to keep our profession at the top of the list of public policies, through awareness, utilisation of all media coverage influencing political decision makers. We need to continue to maintain this momentum particularly with an aging population who live longer and want to live independently within a system of effectively lower healthcare funding in the future.

Utilisation of technology in self-sensing and self-measurements are a direction for such future clinical pathways. The recent NIHR led children's prosthetic research showed the key need is adjustable sockets and adjustable pylons that parents and children can refine to enhance comfort and reduce the number of clinic visits and reduce loss of school days. System thinking with users' needs at its heart.

This is the Renaissance of P&O and we are all in a transition period. We need to adopt and embrace the changes required in order to improve patient care and provide a unified standard across the country. The ISPO UK MS executive committee and many of its members are making great efforts to fulfil our common strategy and whilst being very grateful for their effort and support, we all need to get engaged at this phase of the journey in order to bring about the big social impact that we are destined to achieve.

Yours,  
on behalf of ISPO UK MS Executive Committee and Membership

Saeed Zahedi  
Chair, ISPO UK MS



## ISPO UK MS OSSEOINTEGRATION WORKSHOP

### Challenges and Perceptions: – Direct Skeletal Fixation Following Amputation

Thursday 18<sup>th</sup> January 2018 9.30 am – 4.00 pm

[Friends' House, 173-177 Euston Road, London, NW1 2BJ](#)

(click on the link to view full details of the venue)

#### Confirmed Speakers/Participants as at 11 December 2017

##### [Associate Professor Munjed Al Muderis, MB ChB FRACS, FAOrthA](#)

Orthopaedic Surgeon, and Adjunct Clinical Associate Professor in the School of Medicine, Sydney Campus at the University of Notre Dame Australia and Clinical lecturer at Macquarie University and The Australian School of Advanced Medicine.

##### **Dr Marcus Orgel**

Medizinischen Hochschule, Hannover, Germany

##### **Toby Carlsson**

[PACE Rehabilitation](#)

##### **Matthew Hughes**

[Dorset Orthopaedic](#)

##### **Col Alan Mistlin**

[Consultant Rheumatology & Rehabilitation, DMRC Headley Court](#)

##### **Kate Sherman**

[DMRC Headley Court](#)

##### **Dr S Sooriakumaran**

##### **Morven McAlinden**

RNOH, Stanmore

##### **Sir Saeed Zahedi**

[Chas A Blatchford & Sons Ltd](#)

##### **Gemma Trotter**

Patient Experience



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### DRAFT PROGRAMME

0930 hrs	Registration and coffee
1000 hrs	Introduction
1000 hrs	Evidence review
1030 hrs	Patient experience and reflections
1100 hrs	Overview of direct fixation techniques <ul style="list-style-type: none"><li>• <i>Alignment considerations and biomechanics</i></li><li>• <i>Failsafe design</i></li><li>• <i>Prescription/component considerations</i></li></ul>
1145 hrs	NHS and direct skeletal fixation
1200 hrs	Lunch
1245 hrs	ISO Standards
1300 hrs	UK military update
1315 hrs	Reports from clinicians in the field (5 x 12 minute presentations)
1415 hrs	Coffee
1430 hrs	Panel discussion: <b><i>“How do we ensure the UK has robust and ethical governance for all amputees considering, or who have undergone, a direct skeletal fixation procedure?”</i></b>
1545 hrs	Summary
1600 hrs	Close

To register, complete the attached form and return by e-mail to [info@ispo.org.uk](mailto:info@ispo.org.uk), or post to ISPO UK MS Secretariat, PO Box 7225, Pitlochry, PH16 9AH Tel: 01796 473556 **Full details available at:** [www.ispo.org.uk](http://www.ispo.org.uk)



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### REGISTRATION FORM

Please complete and return to [info@ispo.org.uk](mailto:info@ispo.org.uk) or post to ISPO UK MS Secretariat, PO Box 7225, Pitlochry, PH16 9AH

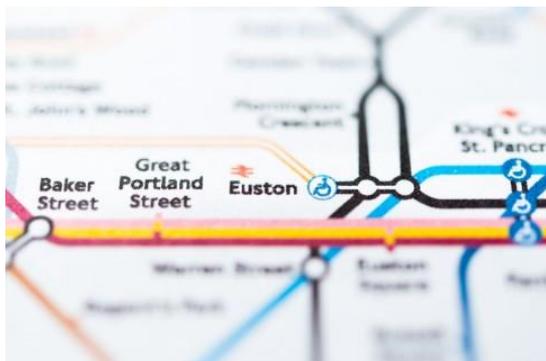
Title:	First Name:	Last Name:	
Company/ Organisation:			
E-mail:			
Correspondence Address:			
Tel:	Profession:		
Special Needs/Dietary Requirements:			
<b>Registration Fees</b> (v Tick one option)			
ISPO (full) Member - £50	<input type="checkbox"/>	Non-Member - £150	<input type="checkbox"/>
ISPO (student Member) – £25	<input type="checkbox"/>	Student non-Member - £50	<input type="checkbox"/>
<b>Method of Payment</b> (v Tick one option)			
By cheque payable to ISPO UK NMS and forwarded to ISPO UK NMS Secretariat, PO Box 7225, Pitlochry, PH16 9AH			<input type="checkbox"/>
By online bank transfer to Royal Bank of Scotland, Dundee Sort Code: 83-28-39 Account Number: 00146801 Use "[surnameSC002]" as reference			<input type="checkbox"/>
By invoice			<input type="checkbox"/>
Purchase order number: .....			
Invoice address if different from above:			
<b>Please note that ISPO UK MS is not able to accept credit card payments at this time.</b>			
Application forms for membership of ISPO available at <a href="http://www.ispo.org.uk">www.ispo.org.uk</a> or e-mail: <a href="mailto:info@ispo.org.uk">info@ispo.org.uk</a>			

## Travelling to Friends' House

Friends' House is located in the heart of Euston, London, directly opposite Euston Station, and ten minutes' walk from King's Cross and St Pancras International Stations.

**Address:** Friends House, 173-177 Euston Road, London, NW1 2BJ

**By rail:** From its position opposite Euston's rail and tube stations, it is a ten minute walk from King's Cross Station and St Pancras International Terminus. All major rail terminals are easily reached by tube.



**By tube:** The nearest tube stations are Euston and Euston Square, which are on the Northern, Victoria, Metropolitan, Circle, Hammersmith & City lines and overground.



**By bus:** Numbers 10, 18, 30, 73, 205 and 390 pass the door whilst 59, 68, 91, 168, and 253 stop nearby.

**By car:** Friends House is within a meter parking zone (Monday to Friday 08:30 - 18:30 and Saturday 09:00 - 13:30). There are alternative, longer-term parking facilities under Euston Station. **Please note that Friends House is within the congestion charge zone.**



## **REPORT ON ISPO UK ASM 2017 – CAMBRIDGE**

Stephen Kirker MD FRCP FRCPI  
Consultant in Rehabilitation Medicine  
Addenbrookes Rehabilitation Clinic  
Cambridge University Hospitals NHS Foundation Trust

The 2017 ISPO UK MS annual meeting was held in [Clare College, Cambridge](#) on 8 & 9 September 2017 and attracted 115 delegates from across the UK. The programme comprised a mixture of local speakers, national experts and international authorities, and free papers from prosthetists, orthotists, physiotherapists and engineers.

To give the wider context to our work, the historical experiences of war related amputees in recent conflicts and WW1 were described <http://www.imperial.ac.uk/people/e.mayhew>, illustrated by photos from the 1500 bed tented hospital on this site 100 years ago <http://www.firsteasterngeneralhospital.co.uk/>.

Two of our local limb users described firstly, experiences of taking part in many Paralympic sports without hands or feet, using bespoke but mechanically simple appliances [www.youtube.com/watch?v=aZ3TBWMyCro](http://www.youtube.com/watch?v=aZ3TBWMyCro) and secondly the ease and speed of learning to control a very sophisticated multi articulating prosthesis with pattern recognition software. It is essential that prosthetic services retain the ability and time to help people with limb loss by making bespoke appliances, and not becoming restricted to purchase of components from catalogues.

We heard of progress and uptake of recently announced UK government funding for microprocessor knees and children's sports prostheses, and of how these technologies bring benefits in psychological well-being and participation beyond purely biomechanical improvements in efficiency.

Osseointegration provides much more secure and comfortable attachment of transfemoral prostheses, and we heard of Group Captain Jonathan Kendrew's UK experience of this technique among army veterans, and increasing confidence that infection and loosening are not as common as initially feared. Dr Kerstin Hagberg, from Gothenburg, delivered the Blatchford lecture on rehab after osseointegration, giving us benefit of many years of experience from the pioneering centre. Combined with a free paper reporting very positive outcomes of amputation late after trauma and repeated reconstructive operations, we should ensure that orthopaedic surgeons are aware that amputation may allow better mobility than extensive fusion and attempts at limb preservation. On the other hand, results from soldiers attending Headley Court rehabilitation centre, show much improved walking and reduced pain after ankle and foot trauma with a passive dynamic ankle-foot orthosis, which may avoid or delay requests for some below knee amputations.

Dinner was held in the 17th century Great Hall, during which we were entertained by a wonderful magician who moved from table to table throughout the meal.

On Saturday morning, Mr Roy Bowers explained, in the OETT lecture, methods with wide ranging levels of complexity for recording human movement and forces, and discussed which are adequate and most practical for clinical use. The most important issue is to clarify the question you are asking movement analysis to answer. Further free papers continued the theme of measurement, sensing and the effects of hydraulic ankles.

Prizes for best free papers were awarded as follows:-



**BLESMA The Limbless Veterans Lord Shuttleworth Award 2017**

Lou-Ann Raymond  
Research Engineer, Chas A Blatchford & Sons Ltd

***“Optimising plantar-pressure sensor distribution for centre-of-pressure estimation”***



**BLESMA The Limbless Veterans Lord Shuttleworth Award 2017**

Alix Chadwell  
Medical Engineer, University of Salford

***“Prosthesis use outside the clinic – an objective approach”***



**Sam Gallop Prize 2017**

Zoe Schafer  
PhD Researcher, University of Hull

***“The effects of a 12-week exercise programme on stair walking performance and falls prevention in lower limb amputees”***

We would like to thank our sponsors Steepers, Opcare, Orthomobility and North Sea Plastics for their continuing support, and Irene Cameron for all her work in making it run so smoothly.

Next year’s meeting will be held in the [Grand Harbour Hotel, Southampton](#) on 12 & 13 October 2018 with the overarching theme of ***“The Interface – advancing our understanding of the body interface in O & P”***.



# SAVE THE DATE!

**Friday 12<sup>th</sup> & Saturday 13<sup>th</sup> October 2018**

**ISPO UK MS Annual Scientific Meeting & Exhibition**

**Grand Harbour Hotel, Southampton**

*(<http://www.grandharbourhotel.co.uk/>)*



**Theme “The interface”, advancing our understanding of the body interface in O&P.**

**Areas can include but not limited to:**

- Surgical methods & techniques
- Advanced components and technologies
- Personalization of care and devices
  - Clinical biomechanical analysis
  - Orthotic care and devices
- Rehabilitation outcome measures,
  - health economic analysis
  - Neuro-Rehabilitation

**An exciting program to include:**

- Invited Speakers
- The Blatchford Lecture
- The OETT Lecture
- Free Papers & Posters
- Commercial Exhibition

**To register your interest in attending/participating/exhibiting**

**Please e-mail: [info@ispo.org.uk](mailto:info@ispo.org.uk)**



**ISPO UK MS ANNUAL SCIENTIFIC MEETING & EXHIBITION**  
**12 & 13 October 2018, The Grand Harbour Hotel, Southampton**  
[\(http://www.grandharbourhotel.co.uk/\)](http://www.grandharbourhotel.co.uk/)

## **CALL FOR PAPERS & POSTER SUBMISSIONS**

ISPO UK MS is pleased to invite you to submit abstracts at its forthcoming Annual Scientific Meeting to be held on 12<sup>th</sup> & 13<sup>th</sup> October 2018, at the Grand Harbour Hotel, Southampton, with a broad **theme of “The Interface”, advancing our understanding of the body interface in O & P.**

All abstracts should be submitted in accordance with the guidelines noted below. Please complete the form below and submit with your abstract to [info@ispo.org.uk](mailto:info@ispo.org.uk).

**Important dates:**

- The deadline date for receipt of all abstract submissions is **Friday 29<sup>th</sup> June 2018.**
- Notification of acceptance in the week commencing **6<sup>th</sup> August 2018.**
- Early bird delegate rate closes on **7<sup>th</sup> September 2018.**
- Full rate registration closes on **5<sup>th</sup> October 2018.**

<b>Name:</b>	<b>E-mail:</b>
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**Please indicate your preferred option for presentation.**

**Please tick  as appropriate**

<b>Free Paper</b>	12 minute podium presentation + 3 minute Q&A	
<b>Short Clinical Paper</b>	3 minute podium presentation + 2 minute Q&A	
<b>Poster Presentation</b>	Poster exhibition + 2.5 minute podium presentation	
<b>Poster Exhibition</b>	Poster exhibition only (no podium presentation)	

**Tick the box to ensure at least one of the abstract Authors will register and present the free paper or poster at the conference**

**Free paper and short clinical paper abstracts will be published in the scientific meeting compendium and on the ISPO UK MS website ([www.ispo.org.uk](http://www.ispo.org.uk)) If you DO NOT wish your abstract to be published, please tick here**



# The George Murdoch Prize 2018



The ISPO UK National Member Society awards this prestigious prize, instituted in honour of the late Professor George Murdoch, every two years.

## Professor George Murdoch's wishes were

1. That the Lecture, normally given as an award by application, is a Prestige Lecture in the field of amputation surgery, prosthetics, orthotics and related rehabilitation and bio-engineering and awarded every alternate year at the ISPO UK MS Annual Scientific Meeting
2. That it is awarded to an individual who demonstrates 'commitment and real understanding of the patient's personal problem, assessment, the program of rehabilitation and a measurement of the ultimate outcome'.
3. That the applicant shows evidence of commitment to the disabled.
4. That the applicant 'tackled' the influence of government (in the broadest sense) with respect to attitude, regulations applied and their influence on major events in the patient's history.

The recipient is awarded the George Murdoch Prize Medal at that year's Annual Scientific Meeting following a 30-minute presentation. In line with Professor Murdoch's wishes, the paper and presentation should be based preferably on major research or other original work carried out by the presenter. The subject must be relevant to the field of amputation surgery, prosthetics, orthotics, rehabilitation or bioengineering.

Members of all relevant professional disciplines in the fields of amputation surgery, prosthetics, orthotics and bioengineering are encouraged and invited to submit papers for the **2018 George Murdoch Prize**. Submissions can only be accepted from fully paid up ISPO members.

## Applicants should submit

1. A Personal up-to-date CV with achievements highlighting work done generally, possibly 'over and above' the routine job to show commitment to the specialty, patients and service, and
2. An essay with a maximum of 3000 words to include research and/or professional work with outcomes (proposed content of Lecture)

Submissions should be e-mailed to [info@ispo.org.uk](mailto:info@ispo.org.uk)

Closing dates for submissions is 30<sup>th</sup> April 2018.



## ***It's time to renew your ISPO membership!***

We now invite existing members to renew membership subscriptions with ISPO for 2018 to ensure continuity of ISPO's many benefits, including

- Free subscription to Prosthetics and Orthotics International (POI), one of the leading international scientific publications in the field of prosthetics and orthotics;
- Reduced registration fees at ISPO national and international events: ISPO World Congress, national congresses, workshops, seminars and other professional activities;
- ISPO's bi-monthly eUpdates and gain access to ISPO's members-only online services;
- Join a worldwide network of professionals with the same patient-centric approach to care and dedication to excellence and enjoy exposure to the highest level of expertise and latest developments in the field;
- Eligibility to serve on ISPO Committees and Working Groups;
- A membership certificate, reflecting your commitment to global exchange of knowledge and participation in the leading worldwide prosthetics and orthotics network.

To renew your membership for 2018, simply complete the renewal form overleaf and return with your payment to the ISPO UK MS Secretariat, PO Box 7225, Pitlochry, PH16 9AH or e-mail [info@ispo.org.uk](mailto:info@ispo.org.uk).

### ***Not a member yet?***

### ***Why not take advantage of our Membership Bursaries!***

ISPO UK MS is committed to supporting interested individuals working in the fields of prosthetic, orthotic, mobility and assistive devices as well as students studying prosthetics and orthotics or carrying out research and development in this area. One way we do this is by awarding membership bursaries. Membership bursaries for 2017/18 were awarded to eight successful applicants. A total of **TEN** bursaries are available for 2018/19. **Applications are now invited from interested parties. The closing date for submission of applications is Friday 20<sup>th</sup> January 2018.**

Successful applicants will receive a contribution of £55 from ISPO UK MS towards the cost of the annual membership fee for two consecutive years. Successful applicants must contribute the balance payment of £50 each year for two consecutive years, and will receive all benefits of ISPO membership listed above.

#### **Criteria for Application**

- Individuals working in the relevant fields of prosthetics/orthotics/ rehabilitation/ wheelchairs.
- Individuals who have not been a member of ISPO in the last 5 years.
- Students studying or carrying out research and development in prosthetics and orthotics who have not previously been an ISPO member.

#### **Application Process**

- Applicants should complete a membership application form along with a written statement of not more than 150 words outlining the benefits membership would offer them personally, their organisation and team including areas of interest.
- Statements and contact details should be e-mailed to [info@ispo.org.uk](mailto:info@ispo.org.uk).
- **The closing date for applications for 2018/19 membership bursaries is Friday 20th January 2018.**



**2018 MEMBERSHIP RENEWAL FORM**

Please complete and return to  
ISPO UK NMS Secretariat, PO Box 7225, Pitlochry, PH16 9AH by 31st January 2018  
e-mail: [info@ispo.org.uk](mailto:info@ispo.org.uk)

(Please v)

I wish to renew membership of ISPO for the year 1 January to 31 December 2018.

(Please v)

I enclose cheque payable to ISPO UK NMS for £105.00  (full member)  
£27.00  (student member)

I have made arrangements to pay by online bank transfer

(Royal Bank of Scotland Sort Code: 83-28-39 Account No: 001468019)

Please use member name and membership number as reference with your payment)

I will continue to pay by Standing Order

(Please ensure that your standing order is updated to reflect the appropriate membership rate (£105 or £27) and that payment is made by 31<sup>st</sup> January 2018)

To ensure our database is kept up to date and all communications are delivered to you promptly, please complete the section below including your preferred e-mail address

Membership No:	<i>(if you do not know your membership number leave blank)</i>
Name:	
Address (for correspondence):	
Telephone:	
E-mail:	
Profession:	

# APPLICATION FORM



## INTERNATIONAL SOCIETY FOR PROSTHETICS AND ORTHOTICS

### Personal Information

Organization/Institution/Company					
Title		Last Name		First Name	
Address					
City			Postal Code		
County			Country		
Phone1			Phone2		
Email			Fax		
Nationality		Date of Birth		Gender	

### Professional Information

Present Position					
Qualification1					
Qualification2					
Professional Category					
	if other, please specify:				

### Language Information

Mother tongue					
Language1		Level			
Language2		Level			
Language3		Level			

### Other Information

Type of Membership requested	Full	Student	
Willingness to work for ISPO	Yes	No	Time available

### Current Activities

*please provide a brief summary here*

### Subscription Fees - £105 (full member) £27 (student member)

Payment may be made by cheque, made payable to ISPO UK NMS or by online bank transfer – please e-mail [info@ispo.org.uk](mailto:info@ispo.org.uk) for bank details.

Please return the completed application form via e-mail to [info@ispo.org.uk](mailto:info@ispo.org.uk) or post to ISPO UK MS Secretariat, PO Box 7225, Pitlochry, Perthshire, PH16 9AH



## **INTERNATIONAL NEWS**

### **Global Standards for Prosthetics and Orthotics Service Provision**

We're pleased to announce that the World Health Organization, in partnership with ISPO and the United States Agency for International Development (USAID), has published Global Standards for Prosthetics and Orthotics Service Provision. Its aim is to ensure that prosthetics and orthotics services are people-centred and responsive to every individual's personal and environmental needs. The standards provide guidance on the development of national policies, plans and programmes for prosthetics and orthotics services of the highest standard. The standards are divided into two documents: the standards and an implementation manual.

**You can download a pdf version of the WHO Global Standards**

here: [http://www.who.int/phi/implementation/assistive\\_technology/prosthetics\\_orthotics/en](http://www.who.int/phi/implementation/assistive_technology/prosthetics_orthotics/en)



**The 17<sup>th</sup> ISPO World Congress will take place in Kobe, Japan between 5 and 8 October 2019.**

It's not too early to make plans to attend this prestigious event. It's a great opportunity to share research, learn about new initiatives, network and meet colleagues from across the world, visit an international exhibition showcasing new technologies.

ISPO UK travel bursaries will be available. Read overleaf the experiences of some of the 2017 World Congress travel bursary award winners from ISPO UK and be inspired!





## ISPO UK travel bursary report

### Carolyn Hirons, Pace Rehabilitation

With the support of the ISPO UK travel bursary I was able to attend and present at the 16<sup>th</sup> World Congress in Cape Town, in May 2017.

This year, the World Congress theme was “**Assistive Technology for All**” - supporting the ISPO vision of a ‘*world where all people have an equal opportunity for full participation in society.*’

The ISPO President, 2015 to 2017, was Professor Rajiv Hanspal. During his introduction of Giles Duley’s Inspirational Lecture, Rajiv reflected on the fact that some people are imprisoned by their disability. He said that ‘*They must be freed, and this is rehabilitation.*’ Giles Duley’s message was ‘*that every day we clinicians give a gift to somebody who has a disability.*’ A thought provoking start to the congress, an inspiration for the way we provide our specialist field in the UK.

Key learning points to share are outlined in this report.

#### 1) **Proximal Mass Knee (PMK) for short stump transfemoral amputees (VGK-S) by Jacob Boender**

The biggest problem for the short femur residuum is that the knee equipment is too heavy and too distal, which causes high inertia within the socket and therefore increased forces. The VGK-S raises the centre of mass of the knee joint to reduce the inertia by 70%. Of course a good socket is still required but the components are important too. This knee works by dynamic fluid control and has stumble recovery, variable cadence and can be used on the blade also. A great solution.

#### 2) **PLUS-M by Brian Hafner. [www.plus-m.org](http://www.plus-m.org)**

The PLUS-M is a self-reported questionnaire of mobility tasks, for adults with amputation, designed to monitor progress of and document the outcome of intervention.

Mobility is a fundamental rehabilitation outcome and the primary determinant in quality of life. The 12 item questionnaire is an ideal clinical tool; the percentile provides inherent context, such as above average, below average, by how much a change has occurred. The user’s guide displays normative values for different levels and ages. The PLUS-M can be completed in a paper, digital or electronic form, the latter has online auto scoring. A clinical report can be generated, with an interpretation of the results. The recommended use is to test prior to treatment, one to three months after delivery, and at follow-up.

#### 3) **Comparative Effectiveness Research by Professor Robert Gailey**

Claude Tardiff, Knud Jensen lecture, discussed how in health care there is a history of spending the budget where there is the greatest demand. The problem for rehabilitation involving mobility devices is that it has no evidence base. Research and data is required to persuade the budget holders. This theme was continued into the keynote lecture, which examined how

‘comparative effectiveness research’ looks at measures useful in determining the value of treatment, i.e. which works best, which has the greatest benefit or does most harm? The level of evidence usually presented are systematic reviews and randomised control trials, however a randomised control trial cannot not be used in all activities, i.e. how to test a parachute’s effectiveness?!

• Health:	WOMAC
• Health:	MODI
• Socket Fit:	SFCS – PCASS
• Function/Satisfaction:	TAPES-R
• Prosthetic Mobility:	PLUS-M
• Balance:	ABC
• Function/Mobility:	AMP
• Mobility:	6 MWT or 2 MWT
• Fall Risk :	TUG / L-Test

Which interventions are the most effective for a transtibial or a transfemoral level, what is the level of complexity, how many visits are they going to use, which outcome measures are necessary for short and long-term input, what is the patient's satisfaction? Outcome measures using the gait laboratory are easy, but what about people who have a sedentary lifestyle? We all want one test but there is not one test, there are many tests, there are a huge number of outcome measures.

Other conditions have huge pools of data, such as joint replacements and low back pain. Amputee rehabilitation uses outcomes but there is no pool of data to demonstrate the value of rehabilitation. We need to document and demonstrate the changes, and all do the same, like they do in other fields of medicine. A prosthesis is a medical device, the same as a knee replacement. We need to use outcome measures to prove our worth, measure our intervention (see toolbox) and to show referrers how we rehabilitate people.

**TIME - The Tool Box**

		Max Time	Min Time
• Prosthetic Mobility:	PLUS-M	5	3
• Prosthetic Function:	PEQ-MS	5	3
• Socket Fit:	SFCS	1	1
• Balance/Confidence:	ABC	10	5
• Low Back Pain:	OPDS	10	5
• OA knee or hip:	WOMAC	12	6
• Mobility/Function:	AMP	15	10
• Fall Risk/Agility :	TUG	5	5
• Mobility:	6 MWT	10	8
• Activity Level:	Pedometer	2	0
	Patient Time	43 min	23 min
	Clinician Time	32 min	23 min

Value-based purchasing demands effectiveness **and** speed, quality **and** best value. As we know, research in rehabilitation is difficult due to its multi-faceted nature, perhaps a consensus conference would help provide legitimate evidence?

Carolyn Hirons, Physiotherapist, Pace Rehabilitation  
Sponsored by ISPO UK, BACPAR, Physio First and Össur UK.





I work as an Associate Specialist, at Specialised Ability Centre (previously known as Disablement Services Centre) attached to University Hospital of South Manchester.

Firstly, I wish to thank ISPO UK MS for granting me the travel bursary which assisted me to attend the recent ISPO World congress held in Cape Town, May 2017. This gave me an opportunity to present my poster titled “**Is High Tech Assistive technology beneficial in the developing world?** “. The content of my poster was based on my experience, lessons learnt with conclusions and recommendations from the free amputee camps I have conducted in South Eastern part of India. For the past decade, I have been trying to improve the amputee services in rural India for the individuals below the poverty line – by gradually introducing the British model of prosthetic rehabilitation services, together with the concept of mobile work shop to reach the amputees living in rural / tribal areas, through the local charitable Non Govt Organisations ( NGOs) in India.

Nearly 2,000 participants from all over the world were present at the Cape Town International Convention Centre for this 16<sup>th</sup> Edition of ISPO World congress, held

for the first time on the African continent, with the theme Assistive Technology for All, to reflect ISPO’s vision of “a world where all people have equal opportunity for full participation in the society” by ensuring increased access to assistive technology for users worldwide.

### Highlights of this great conference in the context of “Assistive technology for ALL “:

1. Together with the World Health Organisation (WHO) and USAID, ISPO organised a **Global Cooperation on Assistive Technology (GATE) Symposium** on the opening day of this World Congress to highlight global assistive technology issues.
2. Launch of the **WHO Standards of Prosthetics and Orthotics Service Provision**.

The first session of the GATE Symposium was chaired by Professor Rajiv Hanspal (ISPO President) and Professor Alarcos Cieza, Head of the WHO Dept for Disability and Rehabilitation. High-profile speakers and representatives of various governments and leading institutions discussed how to improve access to high-quality and affordable mobility & therapeutic aids. Mr Chapal Khasnabis, Technical Officer, WHO dept for Disability and Rehabilitation, and leader of the GATE initiative, explained that Assistive Technology is not a priority in most of the developing countries and it is an important goal of the GATE initiative to make governments take more responsibility for assistive devices to help the people in need. As per WHO, 90% of the people worldwide who need assistive technologies to restore or maintain their mobility do not have access to appropriate devices.

**The WHO GATE Initiative** is aimed at improving access to high-quality, affordable assistive products for persons with disabilities. With the ageing population and predicted rise in the incidence of non-communicable diseases, the number of people requiring assistive products globally is projected to increase to beyond two billion by 2050. Currently, only one in 10 people in need have access to assistive technology. The WHO is coordinating the GATE initiative to address this massive and growing unmet need in the coming years. The Goal of GATE initiative is to improve access to high-quality affordable assistive products globally. To achieve this, WHO has planned to focus on four interlinked activities (4P) - **1.Policy**: Assistive technology policy framework (ATP), **2. Products**: Priority Assistive Products List (APL), **3. Personnel**: Assistive products training package (APT) and **4.Provision**: Assistive products service delivery model (APS).

It was a wonderful experience and a great opportunity for me to learn and share knowledge & experiences of experts from several countries. I have attended several presentations and seminars related to P&O technology and also gained further insight into how to improve services to the amputees in the developing countries, who cannot obtain High –Tech prostheses /assistive devises.

In addition, it was also very interesting to note that many European organisations are focussing to manufacture affordable -high quality appliances / prostheses aiming at the people in the developing world e.g: [www.legbank.org](http://www.legbank.org) (Holland), [www.amparo.world](http://www.amparo.world) (Germany) & [www.crequipements.ch/en](http://www.crequipements.ch/en) (Switzerland). I have also learnt how experts from developed countries are collaborating with the local experts in the developing nations in transferring their technology and training skills. e.g : [www.exceed-worldwide.org](http://www.exceed-worldwide.org) (Formerly Cambodia Trust, Myanmar), [www.thecoppers.org](http://www.thecoppers.org) ( team of experts from Holland linked to physical therapy department based at University of Western Cape, South Africa ) and [www.mobility-india.org](http://www.mobility-india.org) ( India ).

Once again my sincere appreciation to the executive committee of ISPO UK MS for granting me the travel bursary. This was of substantial assistance to attend this special conference, where I not only had an opportunity to present my poster with similar theme of the conference but also it enabled and empowered me with the 4Point formula of WHO GATE initiative to continue with my ambition of helping the needy amputees in the developing world . email : [Raghu.Pabbineedi@nhs.net](mailto:Raghu.Pabbineedi@nhs.net)

**WHO Priority Assistive Products List:**

[http://apps.who.int/iris/bitstream/10665/207694/1/WHO\\_EMP\\_PHI\\_2016.01\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/207694/1/WHO_EMP_PHI_2016.01_eng.pdf?ua=1)

**ISPO Biennium report 2015 – 2017:** [http://www.ispoint.org/sites/default/files/10\\_ispo\\_br2017.pdf](http://www.ispoint.org/sites/default/files/10_ispo_br2017.pdf)

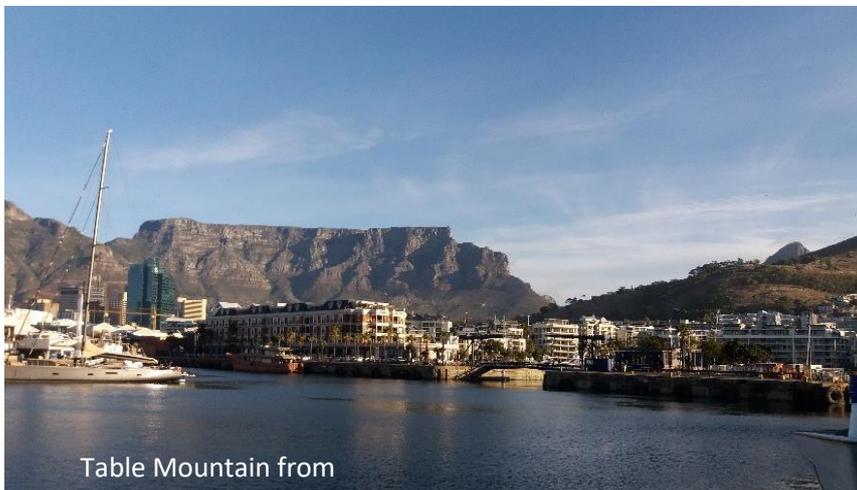
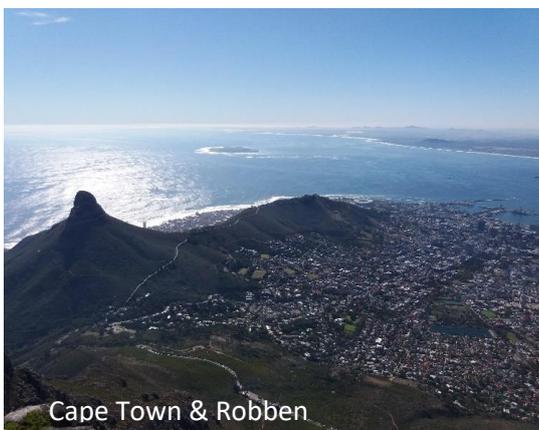
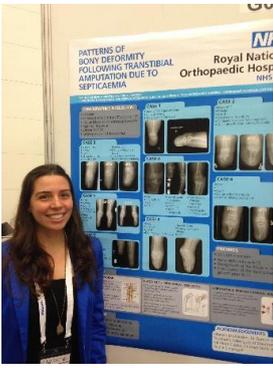


Table Mountain from



Cape Town & Robben





## ISPO 16th World Congress Cape Town Report

### Marta Geada, RNOH, Stanmore

It was such an honour to be present at ISPO 16th World Congress hosted under the theme “Assistive Technology for All”. This one was particularly special for me since I was part of such an amazing and versatile team of professionals and I was going to present some of the findings of the team.

I teamed up with Jennifer Fulton, our Lead Amputee Physiotherapist at The Royal National Orthopaedic Hospital, and Marjan Zuur, the Psychologist at De Hoogstraat rehabilitation centre based in Utrecht the Netherlands to share our experience with paediatrics amputee rehabilitation processes in a presentation titled ‘Not just small adults’. It was such an incredible experience to share our reality and learn about different realities from a great mix of countries. From Canada to Rwanda, we learn about different approaches, limitations of prescriptions, what you can achieve with limited prescriptions, timings of different rehabilitation techniques and social challenges of children with limb deficiency and families of children with limb deficiency in different cultures.

I was also humbled to be part of the Symposium about Fibula Hemimelia, showing the different prosthetic approaches when there is a lengthening surgery planned, when there is not, and when there is an early amputation. It was so interesting to hear the discussions of different disciplines and different countries. How the goal is the same, to have the best functional outcome possible for the patient, but the approaches differ.

My third project of the Congress was in the form of a poster about our team findings titled ‘Patterns of bony deformity in children with trans tibial amputation due to septicaemia’, already presented at ISPO UK Glasgow but still attracting interest from many disciplines and points of view.

I learned so much from other papers and symposiums but in particular the discussions regarding Osteointegration (different surgeries and implants comparing results and the big question mark of long term outcomes) and energy return feet or ‘sports limbs’ for children (what impact does it cause in physical but also psycho-social development).

Every World Congress is different and special in its own way. But for me, this one in particular, for being the Professor Hanspal the president and the expression of everything that he showed us about what Prosthetics and Orthotics care in the world is. The focus on patient care, equality of opportunities and the efforts to take assistive technologies to every person that needs to be able to fully participate in the society. This shows that there are no limits, there is no tiredness, there is will, there is commitment to the cause and there is still so much work to be done.

So we will continue to work together, to develop the best care possible and to be able to deliver that care to every single person that needs it. Yes, it is very difficult, but not impossible if we work together.

Being awarded with the ISPO UK MS Travel Bursary was such a great help for me to attend this World Congress and I would like to again express my sincere gratitude.

