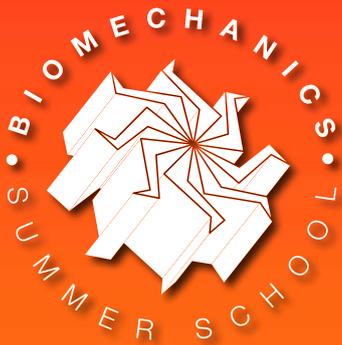


# biomechanics summer school



**Biomechanics  
& Foot Orthotic Therapy:**  
*The Kinematic, Kinetic  
& Neuromuscular effect*

**20th & 21st June**  
**Marriott Hotel - MANCHESTER**

**Langer**

**2014**

This year's school is entitled 'Biomechanics & Foot Orthotic Therapy: The Kinematic, Kinetic & Neuromuscular Effect' and will be led by 6 of the world's leading authorities on this subject area. The common thread throughout the conference will focus upon the orthotic in regards to its potential kinematic, kinetic and proprioceptive effect.

Through popular demand we have further increased the number of practical/intimate workshops to 4 per afternoon - giving the event an even more 'hands on feel'. 2014 will also see the introduction of a 'research presentation forum'; an opportunity for 3 PhD/MSc students to deliver their research on related biomechanical topics.

After listening to feedback from our 2013 delegates, we have relocated this year's event to the Marriott Hotel in Manchester. Set in the heart of the city, the Marriott offers a more intimate atmosphere for the lectures/workshops whilst having the perfect blend of historic detail and contemporary flair. On the Friday evening there will also be an opportunity to unwind and network with your fellow professionals at the FREE of charge three course gala dinner with wine; a feature which always proves to be a success.

We look forward to welcoming you to the Langer Biomechanics Summer School™ 2014.

The Langer Group



**Prof. Tom McPoil**  
PT, PhD, FAPTA

Tom McPoil, is a Professor of Physical Therapy at Regis University. He is an Emeritus Regent's Professor of Physical Therapy at Northern Arizona University and has held an Honorary Professorship in the School of Physiotherapy at the University of Queensland, Australia since 2001. Dr. McPoil has specialized in the evaluation and management of foot and ankle disorders since 1979.

He has published more than 105 referred manuscripts and 85 published abstracts, written five book chapters, and conducted over 180 workshops/lectures on the subject of foot and ankle evaluation and conservative treatment. Dr. McPoil has also presented over 120 research papers, both nationally and internationally, on various topics related to foot and ankle mechanics, evaluation, and management. His current research activities include the development of a static lower extremity measurement protocol.



**Mr. Simon Bartold**  
BSc, FASMF

Simon Bartold graduated from Adelaide University with a BSc in Science with majors in Physiology and Zoology. His further qualification in Podiatry was gained at the University of South Australia. Simon is the first and only person to have been awarded on multiple occasions the prestigious Best Clinical Paper award for original research at the Australasian Conference of Science and Medicine in Sport. Simon has been an executive board member of the Australian Sports Medicine Federation and Past President of the Australian Academy of Podiatric Sports Medicine, and remains the only podiatrist worldwide to ever hold a commission position with the International Sports Medicine Federation (F.I.M.S.). He has published over 30 papers in high impact peer-reviewed journals and has lectured at international conferences in 33 countries. Research interests include the technical aspects of athletic footwear and pressure/force measurement in relation to intervention parameters and injury.



**Dr. Simon K. Spooner**  
PhD, BSc

Dr Simon K. Spooner qualified as a podiatrist in 1991 from the University of Brighton. In addition to his BSc in Podiatry, he was awarded the Paul Shenton prize for his research into callus. He went on to complete his PhD in podiatry from the University of Leicester in 1997.

Simon moved to Plymouth in 1998 where he worked as a lecturer in podiatric biomechanics, sports injuries and orthotic manufacture. Simon eventually

went on to become the Head of the School of Podiatry at Plymouth.

In full-time private practice since 2005, Simon continues to research and publish in the field of podiatric biomechanics and speaks internationally on foot orthosis therapy; he was among the first to advocate and employ the use of finite element analyses in the study of foot orthoses. He provides podiatric care to a premiership rugby club, acts as a professional reviewer to the Journal of the American Podiatric Medical Association and sits on the advisory board of the Spanish Journal: Podologia Clinica.



**Dr. Christian Barton**  
BPhysio (Hons), PhD

Christian qualified as a physiotherapist in 2005 in Australia, and completed his PhD relating to patellofemoral pain, lower limb biomechanics, and predictors of foot orthoses outcomes in 2010. At various private practices and sports medicine centres in Australia and London he has continued to combine research with clinical practice, maintaining part time research roles including student supervision

in the 'Centre for Sports and Exercise Medicine' at Queen Mary University of London; as Research Director at Pure Sports Medicine in London, and as a Research Fellow in La Trobe University's Musculoskeletal Research Centre. His current research interests include developing guidelines for running retraining interventions, lower limb biomechanics associated with various pathologies, and improving the translation of research to clinical practice. Clinically, Christian specialises in the management of knee and patellofemoral pain, and running related injuries.



**Mr. Mark Gallagher**  
MSc, ADv, DIAB, MED

Mark Gallagher qualified from the University of Huddersfield in 1994 and went on to complete his Masters Thesis on injection techniques for chronic soft tissue problems in 2000. He worked at the University Hospital Birmingham from 1996-2010 in one of the largest regional Trauma centres in the UK, for both civilian and military trauma as well as clinical lead in Podiatry at the Royal Orthopaedic Hospital Birmingham over the same time period. In addition to the trauma workload and complex ankle injury he is also involved in musculoskeletal injury based across the West Midlands and at Pure Sports Medicine in London. Mark is Clinical Director for one of the largest orthotic manufacturers in Europe and is actively engaged in research across a number of academic institutions looking at footwear design and bespoke ankle bracing in dealing with clinical pathology. He also provides the Podiatry input to the Masters Physiotherapy program at the University of Birmingham.



**Prof. David Pratt**  
PhD, ARCP

David Pratt gained his MSc in Medical Physics in 1976 and a PhD in Bioengineering in 1981, both from Aberdeen University in Scotland. He then moved to Derby to take up the position of Director of the Orthotics and Disability Research Centre where he stayed until 1999. In 1988 Dr. Pratt was appointed as a personal Professor of Biomedical Engineering at Derby University and in 2003 was elected to the Royal College of Physicians in recognition of his contribution to gait analysis, the understanding of lower limb biomechanics and lower limb orthotics. Professor Pratt has over 120 published papers, 10 book chapters and co-edited/wrote the standard text book on lower limb biomechanics in 1998. He is also an official examiner for the UK National School of Healthcare Science.

## NEW Research Presentation Forum

For the very first time the Langer Biomechanics Summer School will be introducing a special 'research presentation forum'. This unique session will be an opportunity for three handpicked MSc and PhD students/graduates to present their current research work. Each 20 minute lecture will be followed by a short Q&A session for you to further understand the implications of their findings. Our confirmed guest lecturers include:

**Dr. Lindsay A. Hill**  
BSc (Hons) MSc DProf MChS

Lindsay will be presenting her research work on the use of foot orthotics to treat lower back pain conditions. This is an area that has been neglected within the research field, despite its apparent widespread use in clinical practice.

**Miss Samantha Tolliday**  
BSc (Hons), PG Dip, MACP, HCPC, CSP

Samantha will be presenting her research investigation into the effects of customised 'v' off-the-shelf orthotics on EMG muscle activity of vastus medialis/ peroneus longus/ gluteus medius in runners.

*More to be confirmed....*

## DAY ONE Timetable

- 8:00 Registration**
- 8:20 Welcome**
- 8:30 Dr. Simon K. Spooner**  
*The Zone of Optimal Stress (ZOOS): Implications for orthotic practice.*
- 9:15 Prof. Tom McPoil**  
*The Treatment Direction Test - the use of adhesive strapping to determine the efficacy as well as guide the foot orthoses prescription.*
- 10:00 Dr. Christian Barton**  
*Neuromotor effects of foot orthotics and implications to injury.*
- 10:45 Break**
- 11:15 Mr. Simon Bartold**  
*An update on footwear: Barefoot, minimalism, maximalism. Confused yet?*
- 12:00 Research Presentation Forum**
- 13:00 Lunch**
- 14:00 Workshop 1,2,3 & 4**
- 14:45 Break / Move room**
- 15:00 Workshop 1,2,3 & 4**
- 15:45 Break / Move room**
- 16:00 Workshop 1,2,3 & 4**
- 16:45 Break / Move room**
- 17:00 Workshop 1,2,3 & 4**
- 17:45 Close**

## DAY ONE Workshop

- Workshop 1: Prof. Tom McPoil**  
*Techniques for applying adhesive tape to perform the treatment direction test.*
- Workshop 2: Mr. Mark Gallagher**  
*Use of dynamic surface EMG to assist with foot orthotic prescription.*
- Workshop 3: Dr. Simon K. Spooner**  
*Clinical tests to assist in orthotic prescription writing.*
- Workshop 4: Mr. Simon Bartold**  
*Gait Retraining.. Practical Implications..*

**FREE**  
**3 COURSE**  
*(including wine)*  
**GALA DINNER:**  
*Meet and greet at 19:30*  
*Sit down at 20:00*

**Friday**  
**20<sup>th</sup> June**

## DAY TWO Timetable

|       |  |
|-------|--|
| 8:00  | Registration   |
| 8:20  | Welcome  |
| 8:30  | <b>Dr. Christian Barton</b><br><i>The role of foot orthoses in the management of patellofemoral pain.</i>  |
| 9:15  | <b>Dr. Simon K. Spooner</b><br><i>Don't believe the hype? An evaluation of contemporary technology in orthotic prescription, design and manufacture.</i> |
| 10:00 | <b>Prof. David Pratt</b><br><i>How good are gait analysis systems in informing foot orthotic provision?</i>  |
| 10:45 | Break  |
| 11:15 | <b>Prof. Tom McPoil</b><br><i>The clinical assessment of foot mobility.</i>  |
| 12:00 | Ask The Stars  |
| 13:00 | Lunch  |
| 14:00 | Workshop 5, 6, 7 & 8   |
| 14:45 | Break / Move room  |
| 15:00 | Workshop 5, 6, 7 & 8   |
| 15:45 | Break / Move room  |
| 16:00 | Workshop 5, 6, 7 & 8   |
| 16:45 | Break / Move room  |
| 17:00 | Workshop 5, 6, 7 & 8   |
| 17:45 | Close  |

## DAY TWO Timetable

|  |
|--|
| <b>Workshop 5:</b><br><b>Prof. David Pratt</b><br><i>Modelling in gait analysis – informing orthotic prescription.</i>     |
| <b>Workshop 6:</b><br><b>Mr. Simon Bartold</b><br><i>Taping for Plantar Heel Pain.</i>                                     |
| <b>Workshop 7:</b><br><b>Prof. Tom McPoil</b><br><i>Manual Therapy Techniques for the Management of Plantar Heel Pain.</i> |
| <b>Workshop 8:</b><br><b>Dr. Christian Barton</b><br><i>Clinical predictors of foot orthoses outcomes.</i>                 |

**Saturday**  
21<sup>st</sup> June

# biomechanics summer school 2014

## How to get here:

Just a few minutes from Piccadilly and Victoria stations and 25 minutes from Manchester International Airport

## ATTENDANCE FEE:

**£ 495\***

\*excluding VAT & accommodation

## AVAILABLE DISCOUNTS:

**- 25%**  
Group discount  
(3 or more)

**- NHS\***  
\*please call us for details

**- Early bird\***  
\*until 31<sup>st</sup> December 2013

To book your place or for more information call:  
**+44 (0) 845 678 0182**  
or email:  
[sales@langergrp.com](mailto:sales@langergrp.com)

## Cancellation & Refunds:

Cancellations must be notified in writing and refunds are as follows:

- Before Friday 23<sup>rd</sup> May 2014:  
*full refund less £100 admin fee.*
- After Friday 23<sup>rd</sup> May 2014:  
*strictly no refunds under ANY circumstances.*

**N.B.**

Places are limited & are allocated on a first-come-first-served basis. Receipt of a completed registration does not guarantee your attendance, which is secured only upon receipt of full payment