

ESM 2010 Presentations

11:00 – 12:00	SESSION 5 Analysis Methods Chair: <i>Nurse M.</i>
10:59 – 11:24	art in science award finalist <i>Calculation of pressure time integral, a different approach</i> <i>Melai T., Uzerman H., de Lange T.L.H., Willems P.B., Meijer K., Schaper N.C., Savelberg H.C.M.</i>
11:24 – 11:36	Footprint masks: reproducibility of the Oxford anatomically-based selection by means of novel geometrical masks <i>Giacomozi C., Stebbins J., Kalpen A.</i>
11:36 – 11:48	A technique to assess plantar soft tissue stiffness during the stance phase of gait <i>Roposh C., Tucker C., Orlin M., Seliktar R.</i>
11:48 – 12:00	Reliability of dynamic foot geometry assessment using a pedobarographic platform and a two-step approach <i>Akins J.S., Keenan K.A., Dugan B.P., Francis M., Abt J.P., Sell T.C., Lephart S.M.</i>
12:00 – 13:00	Lunch, Hotel Providence Lobby
13:00 – 14:00	SESSION 6 Data Collection Methods and Gait Chair: <i>Rosenbaum D.</i>
13:00 – 13:12	Comparison of a six degree-of-freedom force sensor and pressure insole measurements in Selected skiing Manoeuvres <i>Kersting U.G., Kurpiers N., Hild E., Kieffmann A., Senner V.</i>
13:12 – 13:24	Data collection from two different pressure platforms using standardised methodology produces comparable results <i>Stebbins J., Giacomozi C.</i>
13:24 – 13:36	Do motion control running shoes decrease sagittal plane movement of the medial longitudinal arch? <i>McPoil T.G., Cornwall M.W., McNulty M.R.</i>
13:36 – 13:48	Lateral plantar loading during cutting correlates to decreased footwear rating <i>Ford K.R., Manson N.A., Myer G.D., Gwin R.C., Heidt R.S. Jr, Hewett T.E.</i>
13:48 – 14:00	Crossover second toe deformity: A robotic cadaveric study of increased second metatarsal length and plantar pressure <i>Whittaker E.C., Weber J.R., Aubin P.M., Sangeorzan B.J., Ledoux W.R.</i>
14:00 – 14:30	Break
14:30 – 16:30	SESSION 7 Dynamic Load Distribution Chair: <i>Teyen D.</i>
14:30 – 14:55	art in science award finalist <i>Hypothenar pressure mapping provides insight for reducing ulnar nerve compression in cyclists</i> <i>Slane J., Timmerman M., Ploeg H., Thelen D.</i>
14:55 – 15:07	Using centre of pressure (COP) data to identify golf putting techniques <i>McLaughlin P., Best R.</i>
15:07 – 15:19	Effect of mattress for prevention of decubitus, bed position and subjects' bmi on interface pressure <i>Bae T.S., Mun M.S.</i>
15:19 – 15:31	A study of the effects of gel liner thickness on in-socket residual limb pressures in trans-tibial prosthesis users <i>Stine R., Hansen A., Tucker K., Boutwell E., Edwards M., Gard S.</i>
15:31 – 15:43	Force and impulse of keystroke during piano playing. Differences among professional players in classical passages <i>Gaertner H., Pozzo R., Riehle H.</i>
15:43 – 16:28	Keynote lecture 2 <i>The evolution of human running</i> <i>Lieberman D.E., Harvard University</i>
16:30 – 17:00	Podium discussion II The Perfect Running Shoe is the Bare Foot? <i>Piscitella J., Lieberman D., Davis I., D'Andrea S.E., Wunderlich R., Nurse M.</i> Moderator: Morlock M.
17:00 – 17:15	Closing remarks Peter Seitz, Susan D'Andrea
19:00	Evening event, Aspire Restaurant (Hotel Providence) Banquet Dinner Music by Joe Potenza Award Presentations

Meeting Overview

Saturday, August 14th 2010

Site: Center for Restorative and Regenerative Medicine
novel Workshops 12:00 – 17:00
Tour of the Neurorehabilitation Lab 15:00 – 15:30

Site: Hotel Providence – Lobby and Blackstone Terrace
Registration in Lobby 17:30 – 19:30
Opening Reception in Blackstone Terrace 17:30 – 19:30

Site: Memorial Boulevard Providence
Providence WaterFire throughout downtown Providence 19:30

Sunday, August 15th 2010

Site: Hotel Providence
Breakfast in Lobby 7:30
Scientific presentations & poster session 8:30

Site: RISD Museum of Art
Hors d'oeuvres, drinks and dinner 18:00
Music by Henriette Gaertner
Tour Museum until 21:00

Monday, August 16th 2010

Site: Block Island
Activity Day: sport activities, buses departure 6:30
Early dinner at The Atlantic Inn

Tuesday, August 17th 2010

Site: Hotel Providence
Breakfast in Lobby 8:00
Scientific presentations in Ballroom 9:00

Site: Aspire Restaurant (Hotel Providence)
Banquet Dinner, Music and Award Presentations 19:00

Venue

Brown University, Hotel Providence

Workshops

The Center for Restorative and Regenerative Medicine
830 Chalkstone Ave.
Providence RI 02908
www.biomed.brown.edu/orthopaedics/CCRM/newsletter_jan09.html

Welcome Reception

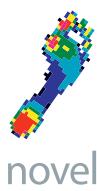
Conference/Presentations

Banquet Dinner

Hotel Providence
139 Mathewson Street
Providence RI 02903
tel 401-861-8000
www.hotelprovidence.com

Sponsor

novel electronics inc
St. Paul MN, USA
www.novelusa.com



novel
novel gmbh
Munich, Germany
www.novel.de

Program



ESM 2010

Providence, Rhode Island
August 14-17, 2010

Brown University
The Center for Restorative
and Regenerative Medicine
in cooperation with
University of Rhode Island



ESM 2010 Presentations

Saturday, August 14th 2010

Welcome to ESM 2010

10:30 – 11:30	Registration for the Workshop attendees in the Hotel Providence Lobby
11:30	Transportation to Workshops from Hotel Providence Lobby
	novel Workshops at Center for Restorative and Regenerative Medicine and tour of Neurorehabilitation Lab
	Each session will be approximately 45 minutes, with 15 minutes for questions. There will be a 10-15 minute break between each session.
12:00 – 13:00	Workshop I: novel hardware, data collection and analysis software overview
13:10 – 14:10	Workshop II: Project overview including setup of mock data collection and analysis
14:20 – 16:00	Workshop III: pliance sensor applications Tour of the Neurorehabilitation Lab 15:00 – 15:30
16:00 – 17:00	Workshop IV: 3D motion capture systems and pedography
17:00	Transportation from the Workshops to Hotel Providence
17:30 – 19:30	Registration in the Hotel Providence Lobby Opening Reception in Hotel Providence, Blackstone Terrace WaterFire Providence Memorial Boulevard
19:30	

Sunday, August 15th 2010

7:30 – 8:15	Breakfast, Registration , Hotel Providence Lobby
8:15 – 8:30	Welcome Susan E. D'Andrea, Peter Seitz, Leslie Klenerman
8:30 – 10:00	SESSION 1 Foot Deformities Chair: McPoil T.
8:30 – 8:55	art in science award finalist First ray instability in hallux valgus deformity – a kinematic radiographic and pedobarographic analysis Dietze A., Bahlike U., Martin H., Mittlmeier T.
8:55 – 9:20	art in science award finalist Is hallux valgus associated with different peak plantar pressure and pressure-time integrals? Galica A., Dufour A.B., Hillstrom H.J., Lenhoff M.W., Frey J.C., Casey V.A., Hannan M.T.
9:20 – 9:32	Comparison of geometry hallux angles with radiographic hallux abductus angles for predicting hallux abductovalgus Furmatz J.A., Song J.
9:32 – 9:44	Plantar loading in the cavus foot Kraszewski A.P., Chow B., Backus S.I., Deland J.T., Demp P.H., Song J., Heilman B., Rajan S., Woodley A., Hillstrom H.J.
9:44 – 9:56	Foot structure is related to foot function Mootanah R., Song J., Backus S., Deland J., Demp P., Heilman B., Lenhoff M., Frey J., Kraszewski A.P., Hillstrom H.J.
9:56 – 10:25	Break
10:25 – 12:00	SESSION 2 The Evolution of Gait Chair: Pisciotta J.
10:25 – 11:10	Keynote lecture 1 Human Walking: Comparative and evolutionary approaches Wunderlich R., James Madison University
11:10 – 11:35	art in science award finalist Effect of shoe flexibility on plantar loading in children who are learning to walk Hillstrom H., Buckland J.M., McCarthy C., Scher D., Root L., Backus S.I., Kraszewski A.P., Frey J., Song J., Whitney K., Choate C., Scherer P.
11:35 – 11:47	Dynamic plantar pressure changes during loaded gait Teyhen D.S., Goffar S.L., Reber R.J., Christiansen B.C., Miller R.B., Naylor J.A., Rodriguez B.M., Walker M.J.

11:47 – 11:59	'Kidfoot Muenster' – Nine-year results of plantar pressure measurements in children's foot development Rosenbaum D., Bosch K., Gerss J.
12:00 – 13:00	Lunch, Hotel Providence Lobby
13:00 – 15:00	SESSION 3 Pressure Distribution Measurements as a Diagnostic Tool Chair: Ford K.
13:00 – 13:12	Dynamic foot loading patterns in children with juvenile idiopathic arthritis (JIA) Rosenbaum D., Michels H., Hartmann M.
13:12 – 13:24	Plantar fascitis and pain symptom are related to the longitudinal arch shape and not to the plantar pressure during running Sacco I.C.N., Ribeiro A.P., Trombini-Souza F., Tessutti V., João S.M.A.
13:24 – 13:36	Foot pressure distribution following operative reduction of high grade intra-articular fractures of the calcaneus Ayalon M., Ben-Sira D., Nyska M., Hetsroni I.
13:36 – 13:48	Plantar pressure distribution following operative treatment for proximal femur fractures Brunk M., Emmerich J., Mittlmeier T.
13:48 – 14:00	The Maori foot: static morphology and dynamic function in healthy and diabetic populations Gurney J., Kuch C., Rosenbaum D., Kersting U.
14:00 – 14:12	Asymmetry in plantar loading during gait in Native Americans with and without diabetes and with and without neuropathy Kernozenk T.W., Heizler C., Greany J.F.
14:12 – 14:24	Plantar pressure distribution patterns in multiple sclerosis patients with different neurological status Tsvetkova T.L., Stolyarov I.D., Pichugina O.L., Petrov A.M., Ilves A.G., Prakhova L.N., Nikiforova I.G., Lebedev V.V., Yakushev F.V., Tartakovskiy V.N.
14:24 – 14:36	Can gait initiation process be evaluated with pressure platforms? Rosenbaum D., Lobo da Costa P.H., Bosch K.
14:36 – 14:48	The effects of footwear, learning, and fatigue on center of pressure excursion during single limb balance Zaferiou A.M., Zifchick R.A., Brown A.M., Frey J., Hillstrom H.J.
14:48 – 15:00	Relationship between foot range of movement and plantar pressure distribution in diabetic neuropathic patients Sacco I., Sartor C.D., Picon A.P., Roveri M.I., Dinato R.C.
15:00 – 16:00	Posters & Break RISD Room/Johnson & Wales Room, Hotel Providence
	The effect of special shoe insert designed for diabetic patients on plantar foot pressure distribution Ayalon M., Hetsroni I., Nyska M.
	Effect of gait speed changes on foot loading characteristics in children Bosch K., Westhues M., Rosenbaum D.
	Effects of intense running to exhaustion on the in-shoe plantar pressure patterns in young middle-distance athletes Fourchet F., Kelly L., Horobeanu C., Millet G.P.
	Clinical applications of a forefoot conic curve model Hillstrom H., Kraszewski A., Demp P., Chow B., Lenhoff M., Song J., Heilman B., Rajan S., Woodley A.
	Variation of tactile cues reduce nociceptive capacity of plantar irritating stimulus impact on walking gait Janin M., Dupui P.
	Effect of interlocking pattern in electrical bed on the prevention of bedsores Lim D., Choi H., Kim J.H., Hong J.S., Chun K.J.
	Biomechanical factor to be considered during power-lift design to reduce the risk of musculoskeletal disorders Lim D., Choi H., Chun K.J.
	Variations in plantar loading patterns in individuals with soft tissue versus boney rearfoot trauma: a preliminary study McPoil T.G., Albin S., Cornwall M.W.
	Effects of sub-hallucial wedge and medial arch support on dynamic plantar pressure Song J., Nimick C., Banks J., Marroquin R., Hood C., Tango D., Kane R., Furmatz J., Whitney K.
16:00 – 17:00	Podium discussion I Pedopraphy as a Diagnostic Method for Determining Foot Function: Technical, Methodological and Other Requirements Hillstrom H., Kalpen A., Giacomozzi C., McPoil T., Rosenbaum D. Moderator: Bus S.
18:00 – 21:00	Evening event RISD Museum of Art Hors d'oeuvres, drinks and dinner Music by Henriette Gaertner Museum Tour
	Block Island Activity Day Breakfast pickup Buses depart MUST BE in lobby by 6:15 Ferry Ride from Point Judith to Block Island Arrival on Block Island, distribution of bikes and lunches, activities begin Clam Bake at The Atlantic Inn Walk back to Old Harbor Ferry Departure
	Monday, August 16th 2010
8:00 – 9:00	Breakfast, Hotel Providence Lobby
9:00 – 10:25	SESSION 4 Gait and Orthoses Chair: Stine R.
9:00 – 9:25	art in science award finalist Cast-boot ankle-foot orthoses yield greater forefoot load reduction than total contact casts Gutekunst D.J., Bohnert K.L., Hastings M.K., Sinacore D.R.
9:25 – 9:50	art in science award finalist Preservation of the first rocker is related to increases in gait speed in individuals with hemiplegia and AFO Nolan K.J., Yarossi M.
9:50 – 10:02	Effect of CAD designed pedorthosis with build-in wedge for children with clubfoot Liu X.C., Rizza R., Thometz J., Lyon R., Tassone C., Tarima S.
10:02 – 10:14	Intraarticular and muscle force reactions of the leg using different insoles Wyss C., Roethlisberger M., Gerber H.
10:14 – 10:26	Ratios of lateral to medial patellofemoral forces and pressures in a simulated operative environment of total knee arthroplasty King J.J., Cerynik D.L., Peretz J.I., Black A., Johanson N.A.
10:26 – 10:59	Break
	Tuesday, August 17th 2010
8:00 – 9:00	Breakfast, Hotel Providence Lobby
9:00 – 10:25	SESSION 4 Gait and Orthoses Chair: Stine R.
9:00 – 9:25	art in science award finalist Cast-boot ankle-foot orthoses yield greater forefoot load reduction than total contact casts Gutekunst D.J., Bohnert K.L., Hastings M.K., Sinacore D.R.
9:25 – 9:50	art in science award finalist Preservation of the first rocker is related to increases in gait speed in individuals with hemiplegia and AFO Nolan K.J., Yarossi M.
9:50 – 10:02	Effect of CAD designed pedorthosis with build-in wedge for children with clubfoot Liu X.C., Rizza R., Thometz J., Lyon R., Tassone C., Tarima S.
10:02 – 10:14	Intraarticular and muscle force reactions of the leg using different insoles Wyss C., Roethlisberger M., Gerber H.
10:14 – 10:26	Ratios of lateral to medial patellofemoral forces and pressures in a simulated operative environment of total knee arthroplasty King J.J., Cerynik D.L., Peretz J.I., Black A., Johanson N.A.
10:26 – 10:59	Break