

CURRICULUM VITAE

Professor Christopher James Nester

B.Sc. (Hon) Ph.D.

**School of Health Sciences
University of Salford**



University of
Salford
MANCHESTER

Executive summary 6.3.18

- 108 International peer reviewed journal publications, [h-index of 30](#)
- >£6.5M in external research funds across 40 funding awards
- 20 Post Graduate student completions (17 at PhD), and 16 external research degree examinations
- Leadership of internationally leading research group in foot and ankle research
- Established multiple major academic, industrial and clinical collaborations
- Established multiple long standing international partnerships
- Integration of research with teaching, student facing, innovation and consultancy activities
- Leadership experience at research group, School and Institutional levels

Professor Christopher James Nester

PERSONAL DETAILS

Date of Birth	31.5.74
Home Address:	Haigh Park Farm, Sennicar Lane, Wigan, WN1 2SN, England.
Telephone:	Work: 0161 295 2275 Mobile 07780 568054
E-mail:	c.j.nester@salford.ac.uk
Twitter:	@ProfChrisNester
Blog:	www.talkingfeet.online
Nationality:	British
Status:	Married, two children.
Education	<p>1995 -1999: Ph.D. Department of Rehabilitation, University of Salford. In vivo quantification of the functional characteristics of the rearfoot complex. Supervisor: Prof. P. Bowker.</p> <p>1992-1995: B.Sc.(Hons), Department of Podiatry, University of Salford.</p>
Present appointment	<p>2008 – ongoing Professor, providing strategic and operational leadership of the Knee, Foot and Ankle Research programme. <i>School of Health Sciences, Office PO. 32 Brian Blatchford Building (click here), Statham Steet, University of Salford, M6 6PU</i></p> <p>2010 – 2013 Associate Head for Research & Innovation, School of Health Sciences: <i>Providing Strategic leadership across 6 research programmes within the School of Health Sciences, responsible for research strategy, policy and practice for circa 120 academic staff, representing the School Research and Innovation activities externally locally, nationally and internationally.</i></p>
Previous appointments	<p>Feb 2000 to July 2003: Research Fellow, August 2003-August 2008, Senior Research Fellow, Centre for Rehabilitation and Human Performance Research, School of Health Care Professions, University of Salford. 2008 – Professor of Clinical Biomechanics.</p> <p>Jul 1999 to Jan 2000: Research Assistant, School of Health Care Professions, University of Salford.</p> <p>Oct 1995-Jun 1999: Post Graduate Student, and later Research Assistant (in same role), Department of Rehabilitation, University of Salford.</p> <p>1996 – Dec 1998: Laboratory supervisor, Department of Podiatry, University of Salford (part-time).</p>

Research funding (PI = principal investigator, CI = co investigator)

	Date	Funding body (title)	CI/PI	Amount
1.	1998	Arthritis Research Campaign	CI	£19,239
2.	1999	Arthritis Research Campaign	CI	£37,933
3.	2000	British Council - <i>Development of link with RRD, The Netherlands</i>	PI	£2000
4.	2001	North Manchester NHS Healthcare Trust	CI	£40,000
5.	2001	National Association for the Relief of Paget's Disease	CI	£3700
6.	2001	Industry sponsorship – <i>Country Footwear</i>	PI	£34,000
7.	2001	Wellcome Trust Travel fellowship (for overseas fellow)	CI	£1500
8.	'01-'02	Wellcome Trust Travel awards (2 of)	PI	£2000
9.	'01-02	Nuffield Foundation Undergraduate Research Bursaries (3)	PI	£3400
10.	2002	Industry sponsorship (SALT consortia)	PI	£6000
11.	2002	EPSRC - <i>Development of an improved biomechanical model of the foot</i>	PI	£85,000
12.	2002	Real-PROF -EU FP 5 (Project co-ordinator, total 1.2 Million Euro)	PI	£270,000
13.	2002	Southern Arizona Veterans Association	PI	£5500
14.	2003	UK Ministry of Defence – <i>gait testing for back pack design</i>	CI	£117,000
15.	2003	EPSRC - <i>Challenging the established paradigm of foot control</i>	CI	£86,000
16.	2005	DTI Knowledge Transfer Partnership – <i>New Foot orthoses</i>	CI	£68,000
17.	2006	NHS (Manchester) – <i>Evaluation of SOFTCAST boot</i>	CI	£23,000
18.	2006	Industry sponsorship (PhD Studentship)	PI	£64,000
19.	2006	EPSRC (EQUAL programme) - <i>IDGO 2 – Inclusive Design for Getting Outdoors 2</i>	CI	£450,000
20.	2006	EULAR – <i>Patient perceptions of therapeutic footwear in UK, Spain , Holland.</i>	CI	£20,000
21.	2007	Royal Society (International Project Grant)	PI	£12000
22.	2007	Industry sponsorship – <i>R&D, and evaluation of foot health products</i>	PI	£58000
23.	2008	Industry sponsorship – Feet Matter Partnership with Scholl	PI	£1,764,000
24.	2009	SSHOES project - EU Framework 7	PI	£380,000
25.	2010	KTP with Scholl	PI	£165,000
26.	2011	Biomechanics of foot skin with Scholl	PI	£312,000
27.	2012	NHS Trust – footwear and orthotics for intermittent claudication	PI	£35000
28.	2012	La Trobe (jointly funded GTA) – foot and ankle muscle function	CI	£15000
29.	2013	SMARTPIF –Smart Tools for insole prescription EU Framework 7	PI	£210,000
30.	2013	SOHEALTHY – EU Network and Knowledge Exchange for the footwear sector	PI	£185,000
31.	2013	AMINO 3D– Additive manufacture value chain to deliver bespoke orthotics within 48 hours with greatly improved health economics.	PI	£260,000
32.	2013	INGA3D+ Creative Transfer of Competencies in 3D Footwear Computer Aided Design to Vocational Education Training Professionals	PI	£33,300
33.	2014	Biomechanics of foot skin with Scholl	PI	£120,000
34.	2015	KTP Biomechanics data to improve design of occupational footwear	CI	£171,000
35.	2015	International Society for Prosthetics and Orthotics	CI	£50,000
36.	2015	SMALL STEPS Research programme	PI	£754,000
37.	2015	Industry Case Award (PhD Studentship)	PI	£66,000
38.	2016	Clinical Trial of Flow Ox device for wound healing	CI	£60,000
39.	2016	EU SME Instrument – FlowOx - Clinical Trial of Flow Ox device for wound healing	CI	£430,000
40.	2017	NIHR Brain Injury Healthcare Technology Co-operative – Seed corn Funding	CI	£10,000
41.	2017	Priority Setting Partnership William Scholl Endowment Trust	PI	£70,000
42.	2018	NHS Funding for matched research post	PI	£100,000
			Total external funding	£6,598,572

Research Student Supervision - ¹S = Main Supervisor , CS = co-supervisor

Completed students

	Award	FT/PT	Student	Status	Topic	Role¹
1.	PhD	FT	Toro	Completed, 2004	Gait assessment tools for physiotherapy practice	S
2.	MSc (by Res)	FT	Awad	Completed 2006	New boot for managing diabetic foot ulcers	S
3.	PhD	PT	Williams	Completed 2008	Footwear in rheumatoid arthritis	S
4.	PhD	FT	Forghany	Completed 2009	Foot biomechanics in stroke	CS
5.	PhD	PT	Phethean	Completed 2010	Plantar foot pressures in children aged 4-7	S
6.	PhD	FT	Jones	Completed 2010	Insoles and knee braces in knee osteoarthritis	S
7.	PhD	FT	Demneh	Completed 2011	TENS for improved balance and posture in stroke	CS
8.	MSc	PT	Boag	Completed 2012	Validity of a clinical method of assessing foot biomechanics	S
9.	PhD	FT	Jarvis	Completed 2013	Foot biomechanics database for new Podiatry curriculum	S
10.	Prf Doc	PT	Fitzgerald	Completed 2013	Foot orthoses and lower back pain	CS
11.	PhD	FT	Parker	Completed 2013	Biomechanical properties of the plantar tissue of the foot	S
12.	PhD	FT	Ahanchian	Completed 2014	Finite Element model of the plantar surface of the foot	S
13.	PhD	FT	Chapman	Completed 2014	Footwear design for optimal reducing on forefoot plantar pressures.	CS
14.	PhD	FT	Aksenov	Completed 2014	Footwear design features and their effect on muscle activity	CS
15.	PhD	FT	Melvin	Completed 2015	Effect of footwear design features on plantar pressure and comfort	S
16.	MPhil	FT	Thuesen	Completed 2015	Orthotic management of Achilles injury	S
17.	PhD	FT	Wright	Completed 2015	Plantar callus properties and relationship to pressure	S
18.	PhD	PT	Sweeney	Completed 2016	Explaining variation in kinematic response to foot orthoses	S
19.	PhD	FT	Martinez	Completed 2016	Orthotic management of foot problems in diabetes	CS
20.	PhD	FT	Evangelopoulou	Completed 2017	Orthotics and footwear in cases of intermittent claudication	S

Current students and status

	Award		Student	Status	Topic	Role¹
1.	PhD PW	PT	Harrison	Year 3	Managing change in professional foot health practices	CS
2.	PhD PW	FT	Anderson	Year 3	Work place foot health and footwear	CS
3.	PhD	PT	Newton	Year 3	Limited joint mobility in diabetes	S
4.	PhD	FT	Reeves	Year 3	Effect of foot orthoses on foot muscles	S
5.	PhD	FT	Abdeen	Year 3	Ultrasound in lateral ankle instability	S

Research Student Examinations:

	Award	Awarding University	Year	Topic
1.	PhD	University of Sydney (Australia)	2002	Foot biomechanics in stance phase of walking.
2.	PhD	Southern Cross University (Australia)	2004	Foot kinematics in people with patella femoral pain.
3.	PhD	University of New South Wales (Australia)	2005	Foot posture and motor task performance.
4.	MSc	Uni of Central Lancashire (UK)	2006	Acoustic signals from the knee.
5.	MPhil	University of Teeside (UK)	2006	Finite element foot model
6.	PhD	La Trobe University (Australia)	2007	Foot pressures in diabetes
7.	MPhil	University of Cardiff (UK)	2007	Clinical biomechanics of foot orthoses
8.	PhD	University of New South Wales (Australia)	2009	Effects of footwear on balance and gait in older people
9.	PhD	La Trobe University (Australia)	2010	Foot posture and orthoses and activity of lower limb muscles
10.	PhD	Catholic University Valencia (Spain)	2011	Simulation of the contact between foot and shoe upper
11.	PhD	Glasgow Caledonian (UK)	2013	Personalised Foot Orthoses for Rheumatoid Arthritis Patients.
12.	PhD	University of East London (UK)	2013	Paediatric foot and lower limb: associations with adiposity
13.	PhD	University of Sydney (Australia)	2013	Biomechanics of children feet and footwear
14.	PhD	University of Oxford (UK)	2014	Paediatric Flexible Flatfoot: A New Stance - Beyond Static Assessment
15.	PhD	Auckland University of Technology (New Zealand)	2015	Effects of Gout on the Achilles tendon
16.	PhD	National Institute of Education (Singapore)	2015	The Effect of Foot Structure, Functional Foot Stability on gait.

Presentations as an invited/keynote speaker:

1. "Gait analysis". Body & Sole Conference, Birmingham, UK, June 15-17th, 2001.
2. "Two axis model of the mid tarsal joint – fact or fiction?" Podiatry Foot Orthoses Laboratory Association Annual Conference, Miami, USA, November 10-12, 2001.
3. "Current concepts on mid tarsal joint function" and "Relationships between first toe motion and rearfoot motion". Belgium National Podiatry Association, Ghent, Belgium. October 2002.
4. "Real world monitoring of patient activity and performance" – Conference on "recent advances in prosthetics, orthotics and rehabilitation technology", Rotterdam, Netherlands, October 10th 2003.
5. "New paradigm for gait monitoring" – International Conference on Advanced Prostheses. Nov 16-17th 2003, Manchester UK.
6. "Contemporary issues in foot and ankle biomechanics" and "Inter-relationships between joints of the foot" Podiatry Foot Orthoses Laboratory Association Annual Conference, Las Vegas, USA, November 2003.
7. "Contemporary issues in foot and ankle biomechanics" and "Inter-relationships between joints of the foot" Western US Podiatry Meeting, Anaheim, California, USA, June 24th 2004.
8. "State of the art in foot and ankle biomechanics" and "State of the art in human movement assessment", Special congress on human movement science, Shanghai Jiaotong University, China, March 2005.
9. "Monitoring patient activity". The Diabetic Lower Extremity: An International Summit on Research and Treatment. The Cleveland Clinic, Cleveland Ohio, USA, October 20-22 2005.
10. "Bone Pin Studies in Living Subjects: How Much Does the Ankle, Subtalar, Midtarsal and Midfoot Joints Move" and "Treatment of Medial Knee Osteoarthritis: Biomechanical Effects of Valgus Insole Wedges versus Knee Braces" - Podiatry Foot Orthoses Laboratory Association Annual Conference, Chicago, USA, December 2006.
11. "State of the art in multi segment kinematic foot models" Podiatry Foot Orthoses Laboratory Association Annual Conference, Vancouver, Canada, November 2008.
12. "Lessons from dynamic cadaver and invasive bone pin studies – how the foot really moves during gait. " and "Root biomechanics versus Biomechanics research data – Time for change in Podiatry biomechanics education" . National Australasian Podiatry conference, Gold Coast, Australia, May 2009.
13. "How does the foot really move during gait" – invited presentation – 2nd Symposium on sports biomechanics in podiatry – Madrid, Spain, June 2011.
14. "From Root to Science" – Keynote lecture, National Conference of the Society of Chiropractors and Podiatrists, Harrogate, November 2011.
15. National Podiatry Congress, Valladolid, Spain, October 2012. "State of the art in footwear and insole technologies" and "New concepts of how foot orthoses work and how we should design them".

16. "Final nail in the coffin? What our kinematic studies tell us about the Root paradigm" and "Soft tissue contributions to foot biomechanics - ultrasound studies of muscle, tendon and plantar pad tissues" Langer Biomechanics Summer School, UK June 2013.
17. "Understanding foot orthotic effect", 4th congress of the International Foot and Ankle Biomechanics Community, Busan, South Korea, April 2014.
18. "Optimising rocker shoe design in cases of diabetes" World Congress of Biomechanics, Boston USA, June 2014.
19. "Effect of orthotic geometry and materials on foot tissues and function". Langer Biomechanics Summer School, UK June 2015.
20. "Biomechanical data to drive an improved understanding of footwear and orthotic effects", "Digital technologies and how they might impact upon orthotic practice" and "Understanding the scientific basis for use of foot orthoses". NSW & ACT state podiatry conference, Sydney, Australia, 28-30 April 2016.
21. "Foot Biomechanics in diabetes and off-loading strategies", OT world, 3 – 6 May 2016, Leipzig, Germany.
22. "Effect of Orthotic Geometry and Materials on Foot Tissues and Function". British Association of Prosthetists and Orthotists, Annual conference, Coventry, UK, March 2016.
23. "New technology in footwear design" The Society of Shoe Fitters/Healthy Footwear Guide scheme first conference, 'Fit not Frumpy', Northampton, UK, September 2016.
24. "History of Podiatric Biomechanics: the journey of human movement in the Podiatry profession, Royal College of Physicians and Surgeons of Glasgow, Glasgow, UK, June 2017.
25. "Keep moving" – keynote lecture, Society of Chiropractors and podiatrists, Annual conference, Liverpool Nov 2017.
26. "Foot Biomechanics in diabetes and off-loading strategies" , Swedish P&O branch, Stockholm, November 2017.

Journal publications

1. Nester, C.J. Rearfoot complex: a review of its interdependent components, axis orientation and functional model. *The Foot*, 1997. 7:86-96.
2. Nester, C.J. A review of the literature on the axis of rotation at the sub talar joint. *The Foot*, 1998. 8:111-118.
3. Hockings.M., Nester.C.J. A report on the use of dorsal ankle orthoses in the management of Achilles tendon rupture. *The Foot*, 2000. 10:1: 51-54.
4. Nester, C.J., Bowker, P. Effect of two external devices used in gait analysis on the pattern of normal walking. *Journal of Human Movement Studies*, 2000. 38:287-296.
5. Nester.C.J. Pragmatic approach to the effect of camera arrangement on the performance of a motion analysis system. *Journal of Human Movement Studies*, 2000. 39, 265-276.
6. Nester, C.J., Hutchins S, Bowker P Shank Rotation: A Measure of Rearfoot Motion during Walking. *Foot & Ankle International*, 2000. 21:7, 578-583.
7. Nester.C.J. Relationship between transverse plane leg rotation and transverse plane knee and hip motion during normal walking. *Gait and Posture*, 2000. 12:3: 251-256.
8. Nester, C.J., Findlow.A., Bowker .P Scientific approach to the axis of rotation at the mid tarsal joint. *Journal of the American Podiatric Medical Association*, 91:2, 68-73, 2001.
9. Nester, C.J., Hutchins, S, Bowker, P. Effect of foot orthoses on rearfoot complex kinematics during walking gait. *Foot & Ankle International*, 2001, 22:2. 133-9
10. France L, Nester C J. Effect of errors in the identification of anatomical landmarks on the accuracy of Q angle values. *Clinical Biomechanics*, 2001, 16:8:710-713.
11. Nester, C.J., Bowker, P., Bowden, P.D. Kinematics of the mid tarsal joint during transverse plane rotation of the leg. *Journal of the American Podiatric Medical Association*, 2002. 92:2.77-81.
12. Nester.C.J., Findlow.A.F., Bowker.P., Bowden.P. Transverse plane motion at the ankle joint. 24:2:164-168, 2003. *Foot & Ankle International*.
13. Nester C J, van der Linden M L, Bowker P. Effect of foot orthoses on the kinematics and kinetics of normal walking gait. *Gait & Posture*, Volume 17, Issue 2 , 2003 , Pages 180-187.
14. Parker J, Nester C, Long AF, Barrie J. The problem with measuring patient perceptions of outcome with existing outcome measures in foot and ankle surgery. *Foot and Ankle International*, 24:1:1-4, 2003.
15. Toro B, Nester C, Hudson P. A review of observational gait assessment in clinical practice. *Physiotherapy Theory and Practice* 19:137-149, 2003.
16. Toro B, Nester CJ, Hudson P. A survey of the use of gait assessment amongst UK physiotherapists. *Archives of Physical Medicine and Rehabilitation* 2003: 84: 1878-1884.

17. Dai JS, Zhao T, Nester C, Sprained Ankle Physiotherapy Based Mechanism Synthesis and Stiffness Analysis of a Robotic Rehabilitation Device, *Autonomous Robots*, Volume 16, Issue 2, March 2004, Pages 207 - 218
18. Hall C, Nester C. The importance of first metatarsal phalangeal joint dorsiflexion in sagittal plane walking kinematics. *Journal of the American Podiatric Medical Association*. 2004. 94 (3): 269-274.
19. Herrington, L, Nester, C. Q-angle undervalued? The relationship between Q angle and medio-lateral position of the patella *Clinical Biomechanics* 2004, Vol 19/10 pp 1070-1073.
20. Thompson L, Nester C, Stuart L, Wiles P. Inter clinician variation in diabetes foot health assessment – a national lottery? *Diabet Med*. 2005 Feb;22(2):196-9.
21. Goulermas, JY, Findlow, AH, Nester, CJ , Howard D, Bowker P. Automated design of robust discriminant analysis classifier for foot pressure lesions using foot kinematics data. *IEEE Biomedical Engineering*, 2005. 52: 9: 1549- 1563.
22. Goulermas, JY, J Canderle, Findlow, AH, Nester, CJ , Howard D, R Jones, L Ren. Regression techniques for the prediction of lower limb kinematics. *Journal of Biomedical Engineering*. Nov 2005. 127: 1020 - 1024.
23. Nester C, Findlow A. Clinical and experimental models of the midtarsal joint: proposed terms of reference and associated terminology. *Journal of the American Podiatric Medical Association*. 2006. 96:1, 24-31
24. Williams A, O'Neil T, Mercer S, Nester C, Toro B. Foot problems in Paget's Disease. *J Am Podiatr Med Assoc*. 2006 May-Jun;96(3):226-31.
25. Williams A, Nester C J. Does one shoe fit all? Comparison of patient perceptions of footwear in patients with rheumatoid arthritis and diabetes. *Prosthet Orthot Int*. 2006 Apr;30(1):61-71.
26. Toro B, Nester CJ, Hudson P. Cluster analysis for the extraction of sagittal gait patterns in children with cerebral palsy. *Gait Posture*. 2007 Feb;25(2):157-65.
27. Williams A, Nester C, Rome K. A clinical trial of specialist footwear for patients with rheumatoid arthritis. *Rheumatology* 2007. Feb;46(2):302-7.
28. Nester CJ, Liu AM, Ward E, Howard D, Cocheba J, Derrick T, Patterson P. In vitro study of foot kinematics using a dynamic walking simulator. *J Biomech*. 2007;40(9):1927-37.
29. Toro B, Nester CJ, Hudson P. Development and validity of a gait assessment tool. *Arch Phys Med Rehabil*. 2007 Mar;88(3):321-7.
30. Toro B, Nester CJ, Hudson P. Intra and inter clinician reliability of a gait assessment tool. *Arch Phys Med Rehabil*. 2007 Mar;88(3):328-32.
31. Arndt T, Stacoff A, Wolf P, Nester C, Liu A, Jones R, Howard D, Lundberg A. Intrinsic foot kinematics measured in vivo during the stance phase of slow running. *J Biomech*. 2007;40(12):2672-8.
32. Nester C, Liu A, Jones R, Howard D, Lundberg A, Arndt T, Stacoff, A, Wolf, P. Comparison of foot kinematic data from bone mounted, plate mounted and skin mounted markers. *J Biomech*. 2007 Jul 12;

33. Preece S, Graham-Smith P, Nester C, Herrington L, Howard D. Influence of hip musculature of limb rotations and foot biomechanics. *Gait Posture*. 2007 Sep 26;
34. Wolf P., Stacoff A., Liu A., Nester C., Arndt A., Lundberg A., Stuessi E. Does a specific MR imaging protocol with the subject lying supine replicate his tarsal kinematics seen during upright standing? *Biomed Tech (Berl)*. 2007;52(4):290-4.
35. Williams AE, Nester CJ., Ravey M. Rheumatoid arthritis patients' experiences of wearing therapeutic footwear - A qualitative investigation. *BMC Musculoskeletal Disorders* 2007, 8:104
36. Lundgren, P, C Nester, A Liu, A, Arndt, R Jones, Stacoff, A, Wolf, P. Lundberg, A. Invasive in vivo measurement of rear, mid and forefoot motion during walking. *Gait Posture*. 2008 Jul;28(1):93-100. Epub 2007 Dec 21.
37. Preece S, Willian P, Nester C, Herrington L, Graham-Smith P, Howard D. Variation in Pelvic Morphology May Prevent the Identification of Anterior Pelvic Tilt. *J Man Ther*. 2008;16(2):113-7.
38. Findlow, AH, Goulermas, JY, Nester, CJ , Howard D, Kenney L. Prediction of lower limb kinematics during walking using foot accelerations. *Gait Posture*. 2008 Jul;28(1):120-6.
39. Goulermas JY, Findlow AH, Nester CJ, Liatsis P, Zeng XJ, Kenney LP, Tresadern P, Thies SB, Howard D. An instance-based algorithm with auxiliary similarity information for the estimation of gait kinematics from wearable sensors. *IEEE Trans Neural Netw*. 2008 Sep;19(9):1574-82.
40. Wolf P, Stacoff A, Liu A, Nester C, Arndt A, Lundberg A, Stuessi E. Functional units of the human foot. *Gait Posture*. 2008 Oct;28(3):434-41.
41. Ren L, Howard D, Ren L, Nester C, Tian L. A generic analytical foot rollover model for predicting translational ankle kinematics in gait simulation studies. *J Biomech*. 2010 Jan 19;43(2):194-202. Epub 2009 Oct 29.
42. Nester CJ, Leardini A, Cavanagh PR, Rosenbaum D, Burns J. International Foot and Ankle Biomechanics Community (i-FAB): past, present and beyond. *J Foot Ankle Res*. 2009 Jun 16;2:19.
43. Nester CJ. Lessons from dynamic cadaver and invasive bone pin studies: do we know how the foot really moves during gait? *J Foot Ankle Res*. 2009 May 27;2:18.
44. Kallenberg LA, Preece S, Nester C, Hermens HJ. Reproducibility of MUAP properties in array surface EMG recordings of the upper trapezius and sternocleidomastoid muscle. *J Electromyogr Kinesiol*. 2009 Dec;19(6):e536-42.
45. Tao K, Wang DM, Wang C, Wang X, Liu A, Nester CJ, Howard D. In Vivo Experimental Validation of a computational model of the human foot. *Journal of Bionic Engineering*. *Journal of Bionic Engineering*. 2009, Volume: 6, Issue: 4. Pages: 387-397.
46. Forghaney S, Tyson S, Nester C. Lateral wedge. Early observations of the effects of lateral wedge orthoses on lower limb muscle length and potential for exacerbating spasticity. *Prosthet Orthot Int*. 2010 Sep;34(3):319-26.
47. Nester CJ, Liu AM, Ward E, Howard D, Cocheba J, Derrick T. Error in the description of foot kinematics due to violation of rigid body assumptions. *J Biomech*. 2010 Mar 3;43(4):666-72.

48. Williams AE, Nester CJ, Ravey MI, Kottink A, Morey G. They improve my mobility but restrict my activities" - Women's experiences of wearing therapeutic footwear for foot problems associated with rheumatoid arthritis- a qualitative investigation. *J Foot Ankle Res.* 2010 Oct 8;3:23.
49. Thies SB, Kenney LP, Howard D, Nester C, Ormerod M, Newton R, Baker R, Faruk M, Maclennan H. Biomechanics for inclusive urban design: Effects of tactile paving on older adults' gait when crossing the street. *J Biomech.* 2011 May 17;44(8):1599-604. Epub 2011 Apr 8.
50. Wang X, Ma X, Ma L, Chen L, Zhang C, Huang J, Gu X, Jiang J, Wang D, Wang C, Tao K, Nester C, Williams A, Liu A. Computer Assisted Design of Therapeutic Personalized Footwear for Diabetic Foot: a Preliminary Study. *Chinese Journal of Orthopaedics*, 2011;31(5):514-529
51. Findlow AH, Nester CJ, Bowker P. Foot kinematics in patients with two patterns of pathological plantar hyperkeratosis. *J Foot Ankle Res.* 2011 Feb 9;4:7.
52. Forghany S, Tyson S, Nester CJ, Preece S, Jones R. Foot posture after stroke: frequency, nature and clinical significance. *Clin Rehabil.* 2011 Nov;25(11):1050-5.
53. Phethean J, Nester CJ. The influence of body weight, body mass index and gender on plantar pressures: Results of a cross-sectional study in healthy children's feet. *Gait and Posture*, 2012 Jun;36(2):287-90.
54. Jarvis H, Nester CJ, Jones RK, Bowden P, Forghaney S, Liu A. Development and intra and inter clinician reliability of a clinical foot biomechanics assessment. *Journal of Foot and Ankle Research.* 2012, 5:14.
55. Liu A, Nester CJ, Jones RK, Lundgren P, Lund-Berg A, Arndt A, Wolf P. The Effect of an Antipronation Foot Orthosis on Ankle and Subtalar Kinematics. *Med Sci Sports Exerc.* 2012 Dec;44(12):2384-91
56. Dubbeldam R, Nester C, Nene AV, Hermens HJ, Buurke JH. Kinematic coupling relationships exist between non-adjacent segments of the foot and ankle of healthy subjects. *Gait Posture.* 2013 Feb;37(2):159-64.
57. Jones RK, Nester CJ, Richards JD, Kim WY, Johnson DS, Jari S, Laxton P, Tyson SF. A comparison of the biomechanical effects of valgus knee braces and lateral wedged insoles in patients with knee osteoarthritis. *Gait Posture.* 2013 Mar;37(3):368-72.
58. Hashmi F, Richards BS, Forghany S, Hatton AL, Nester CJ. The formation of friction blisters on the foot: the development of a laboratory-based blister creation model. *Skin Res Technol.* 2013 Feb;19(1):e479-89.
59. Germani M, Mandolini M, Mengoni M, Nester C, Raffaelli R. Tools for design and validation of shoe lasts for diabetic patients. *Footwear Science*, 4:3, 221-241
60. Bernabeu JA, Germani M, Mandolini M, Mengoni M, Nester C, Preece S, et al. CAD tools for designing shoe lasts for people with diabetes. *Computer-Aided Design* (2013), doi:10.1016/j.cad.2012.12.005
61. Mickle K, Nester CJ, Crofts G, Steele JR. Reliability of ultrasound to measure morphology of the toe flexor muscles. *J Foot Ankle Res.* 2013 Apr 4;6(1):12.

62. Anton A, Lundgren P, Liu A, Nester C, Maiwald C, Jones R, Lundberg A, Wolf P. The effect of a midfoot cut in the outer sole of a shoe on intrinsic foot kinematics during walking, *Footwear Science*, 2013, 5(1), pp.63-69.
63. Majumdar R, Laxton P, Thuesen A, Nester CJ, Richards B, Liu A. Development and biomechanical evaluation of a prefabricated anti pronation foot orthosis. *JRRD*, Volume 50 Number 10, 2013, Pages 1331 — 1342.
64. Williams AE, Hill LA, Nester CJ. Foot orthoses for the management of low back pain: a qualitative approach capturing the patient's perspective. *J Foot Ankle Res*. 2013 May 7;6(1):17.
65. Tyson S, Sadeghi-Demneh E, Nester C. A systematic review and meta-analysis of the effect of an ankle-foot orthosis on gait biomechanics after stroke. *Clin Rehabil*. 2013 Oct;27(10):879-91.
66. Tyson SF, Sadeghi-Deneh E, Nester CJ (2013). The effects of Transcutaneous electrical stimulation on balance, mobility, strength and proprioception in people with stroke. *Clinical Rehabilitation*
67. Crofts G, Angin S, Mickle KJ, Hill S, Nester CJ. Reliability of ultrasound for measurement of selected foot structures. *Gait Posture*. 2013 Jun 20.
68. Chapman JD, Preece S, Braunstein B, Höhne A, Nester CJ, Brueggemann P, Hutchins S. Effect of rocker shoe design features on forefoot plantar pressures in people with and without diabetes. *Clin Biomech (Bristol, Avon)*. 2013 Jun 1.
69. Forghany S, Nester CJ, Richards B, Hatton AL, Liu A. Rollover footwear affects lower limb biomechanics during walking. *Gait Posture*. 2013 Aug 1.
70. Phethean J, Pataky TC, Nester CJ, Findlow AH. A cross-sectional study of age-related changes in plantar pressure distribution between 4 and 7 years: A comparison of regional and pixel-level analyses. *Gait Posture*. 2013 Jul 16.
71. Forghany S, Nester CJ, Richards B. The effect of rollover footwear on the rollover function of walking. *J Foot Ankle Res*. 2013 Jul 9;6(1):24.
72. Kirkham S, Lam S, Nester C, Hashmi F. The effect of hydration on the risk of friction blister formation on the heel of the foot. *Skin Res Technol*. 2014 May;20(2):246-53.
73. Angin S, Crofts G, Mickle KJ, Nester CJ. Ultrasound evaluation of foot muscles and plantar fascia in pes planus. *Gait Posture*. 2014 May;40(1):48-52.
74. Forghany S, Nester CJ, Tyson SF, Preece S, Jones RK. The effect of stroke on foot kinematics and the functional consequences. *Gait Posture*. 2014 Apr;39(4):1051-6.
75. Harrison-Blount M, Cullen M, Nester CJ, Williams AE. The assessment and management of diabetes related lower limb problems in India-an action research approach to integrating best practice. *J Foot Ankle Res*. 2014 May 18;7:30.
76. Melvin JMA, Preece S, Nester CJ, Howard D. An Investigation into Plantar Pressure Measurement Protocols for Footwear Research. *Gait Posture*. 2014 Sep;40(4):682-7.
77. Nester CJ, Jarvis H, Jones RK, Bowden PD and Liu A. Movement of the human foot in 100 pain free individuals aged 18-45: implications for understanding normal foot function. *J Foot Ankle Res*. 2014 Nov 28;7(1):51.

78. Sweeney D, Preece S, Mickle K, Nester CJ. The effect of orthoses heel and arch geometry on compression of heel and arch soft tissues. *JRRD*, Volume 52, Number 5, 2015, Pages 543–552.
79. Buldt AK, Levinger P, Murley GS, Menz HB, Nester CJ, Landorf KB. Foot posture and function have only minor effects on knee function during barefoot walking in healthy individuals. *Clin Biomech (Bristol, Avon)*. 2015 Jun;30(5):431-7.
80. Buldt AK, Levinger P, Murley GS, Menz HB, Nester CJ, Landorf KB. Foot posture is associated with kinematics of the foot during gait: A comparison of normal, planus and cavus feet. *Gait Posture*. 2015 Jun; 42(1):42-8.
81. Ormerod, MG, Newton, RA, MacLennan, HA, Faruk, M, Thies, SBA, Kenney, LPJ, Howard, D and Nester, CJ 2014, 'Older people's experiences of using tactile paving' , *Municipal Engineer*, 168 (1) , pp. 3-10.
82. Hashmi F, Wright C, Nester C, Lam S. The reliability of non-invasive biophysical outcome measures for evaluating normal and hyperkeratotic foot skin. Hashmi F, Wright C, Nester C, Lam S. *J Foot Ankle Res*. 2015 Jul 9;8:28
83. Hashmi F, Nester CJ, Wright C, Newton V, Lam S. Characterising the biophysical properties of normal and hyperkeratotic foot skin. *J Foot Ankle Res*. 2015 Aug 12;8:35.
84. Parker D, Cooper G, Pearson S, Crofts G, Howard D, Busby P, Nester CJ. A device for characterising the mechanical properties of the plantar soft tissue of the foot. *Med Eng Phys*. 2015 Sep 3. pii: S1350-4533(15)00188-5.
85. Vie B, Nester CJ, Porte LM, Behr M, Weber JP, Jammes Y. Pilot study demonstrating that sole mechanosensitivity can be affected by insole use. *Gait Posture*. 2015 Jan;41(1):263-8
86. Harrison-Blount M, Cullen M, Nester CJ, Williams AE. An action research approach to facilitating the adoption of a foot health assessment tool in India. *J. Foot Ankle Res*. 2015 Sep 16;8:52
87. Sadeghi-Demneh E, Tyson SF, Nester CJ, Cooper G. The Effect of Transcutaneous Electrical Nerve Stimulation (TENS) Applied to the Foot and Ankle on Strength, Proprioception and Balance: A Preliminary Study. *Clin Res Foot Ankle* 2015, 3:2
88. Buldt AK, Murley GS, Levinger P, Menz HB, Nester CJ, Landorf KB. Are clinical measures of foot posture and mobility associated with foot kinematics when walking? *J Foot Ankle Res*. 2015 Nov 24;8:63.
89. Price C, Parker D, Nester CJ. Validity and repeatability of three in-shoe pressure measurement systems Article reference: *Gait & Posture* (2016), May;46:69-74.
90. Hashmi F, Nester CJ, Wright CR, Lam S. The evaluation of three treatments for plantar callus: a three-armed randomised, comparative trial using biophysical outcome measures. *Trials*. 2016 May 17;17(1):251.
91. Price C, Nester CJ. Is retail footwear fit for purpose for the feet of adults who are obese? Volume 8, p139-146. June 2016. *Footwear Science*

92. Williams AE, Martinez-Santos A, McAdam J, Nester CJ. 'Trial and error...', '...happy patients' and '...an old toy in the cupboard': a qualitative investigation of factors that influence practitioners in their prescription of foot orthoses. *J Foot Ankle Res.* 2016 Mar 22;9:11.
93. Price C, Nester C. Foot dimensions and morphology in healthy weight, overweight and obese males. *Clin Biomech (Bristol, Avon).* 2016 Aug; 37:125-30.
94. Hashmi F, Kirkham S, Nester C, Lam S. The effect of topical anti blister products on the risk of friction blister formation on the foot. *J Tissue Viability.* 2016 Aug;25(3):167-74.
95. Mickle KJ, Angin S, Crofts G, Nester CJ. Effects of Age on Strength and Morphology of Toe Flexor Muscles. *J Orthop Sports Phys Ther.* 2016 Dec;46(12):1065-1070.
96. Tavakoli S, Forghany S, Nester C. The effect of dual tasking on foot kinematics in people with functional ankle instability. *Gait Posture.* 2016 Sep;49:364-70.
97. Anderson J, Williams AE, Nester CJ. A narrative review of musculoskeletal problems of the lower extremity and back associated with the interface between occupational tasks, feet, footwear and flooring. *Musculoskeletal Care.* 2016 Dec 29.
98. Ahanchian N, Nester CJ, Howard D, Ren L, Parker D. Estimating the material properties of heel pad sub-layers using inverse Finite Element Analysis. *Med Eng Phys.* 2017 Feb; 40:11-19.
99. Maiwald C, Arndt A, Nester C, Jones R, Lundberg A, Wolfe P. The effect of intracortical bone pin application on kinetics and tibio-calcaneal kinematics of walking gait. *Gait Posture.* 2017 Feb;52:129-134.
100. Jarvis HL, Nester CJ, Bowden PD, Jones RK. Challenging the foundations of the clinical model of foot function: further evidence that the root model assessments fail to appropriately classify foot function. *J Foot Ankle Res.* 2017 Feb 3;10:7.
101. Price C, Nester CJ. The Effect of Aging, Obesity and Diabetes on Foot Health and its Association with Current and Future Footwear Technologies. *Turkiye Klinikleri J Physiother Rehabil-Special Topics* 2016;2(3):7-13
102. Preece S, Chapman J, Braunstein B, Brüggemann P, Nester CJ. Optimisation of rocker sole footwear for prevention of first plantar ulcer: comparison of group-optimised and individually-selected footwear designs. *Journal of Foot and Ankle Research*, July, 2017, 10:27.
103. Nester CJ, Graham A, Martinez-Santos A, Williams AE, McAdam J, Newton V. National profile of foot orthoses provision in the United Kingdom (Part 1): Practitioners and scope of practice. *Journal of Foot and Ankle Research*, July, 2017. 10:35.
104. Price C, Morrison S, Phethen J, Hashmi F, Nester CJ, Biomechanics of the infant foot during the transition to independent walking: a narrative review. *Gait & Posture.* <https://doi.org/10.1016/j.gaitpost.2017.09.005> .
105. Mickle K, Nester CJ. Morphology of the toe flexor muscles in older people with toe deformities. *Arthritis Care & Research. Arthritis Care Res (Hoboken).* 2017 Aug 22.
106. Akramia M, Qianb Z, Zoua Z, Howard D, Nester CJ, Ren L. Subject-Specific Finite Element Modelling of the Human Foot Complex during Walking: Sensitivity Analysis of Material Properties, Boundary and Loading Conditions. *Biomechanics and Modeling in Mechanobiology.* DOI 10.1007/s10237-017-0978-3

107. Angin S, Mickle K, Nester CJ. Contributions of foot muscles and plantar fascia morphology to foot posture. In press
108. Morrison S, McClymont J, Proce C, Nester C. Time to revise our dialogue: how flat is the paediatric flatfoot? *Journal of Foot and Ankle Research*. 2017. 10:50
109. Nester CJ, Graham A, Martinez-Santos A, Williams AE, McAdam J, Newton V, Sweeney D, Walker D. National profile of foot orthotic provision in the UK, Part 2: podiatrist, orthotist and physiotherapy practices. *Journal of Foot and Ankle research*, in press. 2018.