

Mr Nick S. Kalson MBChB (Hons), BSc (Hons), MRCS, PhD

Newcastle, UK

Tel: +44 7815 287602 Email: nickkalson@gmail.com

www.nickkalson.com

Training

Aug 2014 –	Academic Clinical Fellow (Specialty Trainee) in Trauma and Orthopaedic Surgery, Newcastle University
Aug 2013 – July 2014	FY2 doctor, Watford General Hospital
July 2012 – July 2013	FY1 doctor, Royal Free London Hospital
	Full GMC registration, number 7266705

Education

2015	MRCS (Member of the Royal College of Surgeons)
2003 – 2012	MB-PhD program, University of Manchester
2012	MBChB (Hons)
2008 – 2011	PhD in Developmental Biology Thesis title: The role of cell-generated force in tendon development Supervisor: Prof. Karl Kadler Wellcome Trust Centre for Cell Matrix Research, University of Manchester
2005 – 2006	Intercalated BSc (Hons) Pathology, 1st Class
1992 – 2002	Bedford School. A-Level Biology, Chemistry and Physics (A grade).

Career plan

2012 – 2014	Foundation doctor, including General Surgery, Orthopaedics, A&E.
2014 – 2017	ACF in Trauma and Orthopaedics, Newcastle University. Obtain MRCS.
2017– 2024	Academic Clinical Lectureship in Orthopaedic surgery. Develop research area and generate grant income. Obtain FRCS.
2024	CCT Orthopaedic Surgery.
2025	Fellowship in specialist area.
2026	Joint University-NHS academic/clinical position.

Clinical experience

08/14 – present	Specialist Trainee Year 1, Trauma and Orthopaedics, Royal Victoria Infirmary, Newcastle upon Tyne, UK
04/14 – 07/14	F2 Senior House Officer, Accident and Emergency, Watford General Hospital
12/13 – 03/14	F2 Senior House Officer, Stroke Medicine, Watford General Hospital
08/13 – 11/13	F2 Senior House Officer, Orthopaedics, Watford General Hospital.
04-12 – 07/13	F1 House Officer, Rheumatology Department, Royal Free Hospital.
12-12 – 03/13	F1 House Officer, Surgical Admission Unit, Royal Free Hospital.
08/12 – 11/12	F1 House Officer, Medical Admission Unit, Royal Free Hospital.

Research grants and awards

2008 – 2011	BBSRC PhD studentship. £50,000
2008	GHG Holt Fund prize for intercalating medical students. £1,000
2008	British Association of Plastic Surgeons Medical Student Elective Grant. £500
2007	British Society for Surgery of the Hand research grant. £1,200
2005 – 2006	Health Foundation Student Intercalated BSc Prize. £8,000

Publications

(* indicates shared first authorship)

Connective tissue biology (resulting from PhD)

- Non-muscle myosin II powered transport of newly-formed collagen fibrils at the plasma membrane. **Kalson NS***, Starborg T*, Lu Y, Humphries SM, Holmes DF, Kadler KE. **Proceedings of the National Academy of Sciences USA (PNAS)**. 2013, Nov 18.
- Using transmission electron microscopy and 3View to determine collagen fibril size and three-dimensional organization. Starborg T*, **Kalson NS***, Lu Y, Mironov A, Cootes TF, Holmes DF, Kadler KE. **Nature Protocols**. 2013 Jun 27;8(7):1433-48.
- Tenocyte contraction induces crimp formation in tendon-like tissue. Herchenhan A*, **Kalson NS***, Holmes DF, Hill P, Kadler KE, Margetts L. **Biomech Model Mechanobiol**. 2012 Mar;11(3-4):449-59.
- Slow stretching that mimics embryonic growth rate stimulates structural and mechanical development of tendon-like tissue in vitro†. **Kalson NS***, Holmes DF*, Herchenhan A, Lu Y, Starborg T, Kadler KE. **Dev Dyn**. 2011 Nov;240(11):2520-8.
†Highlighted as paper of special interest.
- An experimental model for studying the biomechanics of embryonic tendon: Evidence that the development of mechanical properties depends on the actinomyosin machinery. **Kalson NS**, Holmes DF, Kapacee Z, Otermin I, Lu Y, Ennos RA, Canty-Laird EG, Kadler KE. **Matrix Biol**. 2010 Oct;29(8):678-89.
- Collagen fibril amplification is driven MT1-MMP mediated fibril cleavage. **Kalson NS***, Starborg T*, Canty-Laird E, Yeung C, Lu Y, Starborg T, Kadler KE. In preparation.
- A simple experimental system to monitor cell-matrix mechanical interactions. Holmes DF, Chohan S, **Kalson NS**, Kadler KE. In preparation.

Surgical research

- Multiple schwannomas of the upper limb related exclusively to the ulnar nerve in a patient with segmental schwannomatosis. Molina AR, Chatterton BD, **Kalson NS**, Fallowfield ME, Khandwala AR. **J Plast Reconstr Aesthet Surg**. 2013 Jun 27.
- Low provision of diphtherine in chemical manufacturing plants in the UK highlights the need for new research. **Kalson NS**, Dheansa B. **Burns**. Jun;39(4):823-4.
- Subluxation-related ulnar neuropathy (SUN) syndrome related to distal radioulnar joint instability. Malone PS, Hutchinson CE, **Kalson NS**, Twining CJ, Terenghi G, Lees VC. **J Hand Surg Eur Vol**. 2012 Jul;37(6):550-4.
- Fibre bundles in the human extensor carpi ulnaris tendon are arranged in a spiral. **Kalson NS**, Malone PS, Bradley RS, Withers PJ, Lees VC. **J Hand Surg Eur Vol**. 2012 Sep;37(7):652-64.
- Burns represent a significant proportion of the total serious trauma workload in England and Wales. **Kalson NS**, Jenks T, Woodford M, Lecky FE, Dunn KW. **Burns**. 2012 May;38(3):330-9.
- Contribution to national acute injury and intensive care audit databases in England and Wales. **Kalson NS**, Dunn KW. **Emerg Med J**. 2011 Jun;28(6):538.
- Magnetic resonance arthrogram and arthroscopy of the shoulder: a comparative retrospective study with emphasis on posterior labral lesions and radiologist locality. **Kalson NS**, Geoghegan JM, Funk L. **Shoulder & Elbow**. 2011 Oct;3(4): 210–214.
- Destructive synovial hemangioma of the hip resembling pigmented villonodular synovitis. **Kalson NS**, Gikas PD, Tirabosco R, O'Donnell P, Skinner JA, Flanagan AM. **J Arthroplasty**. 2011 Feb;26(2):339.e15-20.
- Custom-made endoprostheses for the femoral amputation stump: an alternative to hip disarticulation in tumour surgery. **Kalson NS**, Gikas PD, Aston W, Miles J, Blunn G, Pollock R, Skinner J, Briggs TW, Cannon SR. **J Bone Joint Surg Br**. 2010 Aug;92(8):1134-7.
- V-Y advancement flap coverage of toe-tip injuries. Bharathi RR, Jerome JT, **Kalson NS**, Sabapathy SR. **J Foot Ankle Surg**. 2009 May-Jun;48(3):368-71.

- Does the number of trauma lists provided affect care and outcome of patients with fractured neck of femur? **Kalson NS**, Mulgrew E, Cook G, Lovell ME. **Ann R Coll Surg Engl**. 2009 May;91(4):292-5.
- Tendon graft-ulna fixation in distal radio-ulnar joint stabilisation; biomechanical comparison of three graft-bone fixation methods. **Kalson NS**, Charalambous CP, Powell ES, Hearnden A, Stanley JK. **Hand**. 2009 Sep;4(3):279-82.
- Post-radiation sciatic neuropathy: a case report and review of the literature. Gikas PD, Hanna SA, Aston W, **Kalson NS**, Tirabosco R, Saifuddin A, Cannon SR. **World J Surg Oncol**. 2008 Dec 11;6:130.

High altitude medicine and physiology

- Changes to colour vision on exposure to high altitude. Davies AJ, Morris DS, **Kalson NS**, Wright AD, Imray CH, Hogg CR; Birmingham Medical Research Expeditionary Society. **J R Army Med Corps**. 2011 Mar;157(1):107-9.
- Do changes in gastro-intestinal blood flow explain high-altitude anorexia? **Kalson NS**, Hext F, Davies AJ, Chan CW, Wright AD, Imray CH; Birmingham Medical Research Expeditionary Society. **Eur J Clin Invest**. 2010 Aug;40(8):735-41.
- Age is no barrier to success at very high altitudes. Stokes S, **Kalson NS**, Earl M, Whitehead AG, Tyrrell-Marsh I, Frost H, Davies A. **Age Ageing**. 2010 Mar;39(2):262-5.
- Determinants of summiting success and acute mountain sickness on Mt Kilimanjaro (5895 m). Davies AJ, **Kalson NS**, Stokes S, Earl MD, Whitehead AG, Frost H, Tyrrell-Marsh I, Naylor J. **Wilderness Environ Med**. 2009 Winter;20(4):311-7.
- Adolescents with altitude: young people do well on Kilimanjaro. Stokes SH, **Kalson NS**, Frost H, Tyrrell-Marsh I, Whitehead AG, Davies A, Earl M. **Arch Dis Child**. 2009 Jul;94(7):562-3.
- The effect of angiotensin-converting enzyme genotype on acute mountain sickness and summit success in trekkers attempting the summit of Mt. Kilimanjaro (5,895 m). **Kalson NS**, Thompson J, Davies AJ, Stokes S, Earl MD, Whitehead A, Tyrrell-Marsh I, Frost H, Montgomery H. **Eur J Appl Physiol**. 2009 Feb;105(3):373-9.
- Bronchial asthma on Mount Kilimanjaro is not a disadvantage. Stokes S, **Kalson N**, Earl M, Frost H, Whitehead AG, Tyrrell-Marsh I, Davies A. **Thorax**. 2008 Oct;63(10):936-7.
- Climbers with diabetes do well on Mount Kilimanjaro. **Kalson NS**, Davies AJ, Stokes S, Frost H, Whitehead AG, Tyrrell-Marsh I, Earl MD. **Diabet Med**. 2007 Dec;24(12):1496.

Reviews

- Current strategies for knee cartilage repair. **Kalson NS**, Gikas PD, Briggs TW. **Int J Clin Pract**. 2010 Sep;64(10):1444-52.
- Strategies for regeneration of the intervertebral disc. **Kalson NS**, Richardson S, Hoyland JA. **Regen Med**. 2008 Sep;3(5):717-29.
- UK high altitude research: a report from the Birmingham Medical Research Expeditionary Society (BMRES) altitude research conference, December 4, 2009, held at the Birmingham Medical Institute, United Kingdom. **Kalson NS**, Stubbings AH, Collins HL, Pattinson KT, Wright AD. **Wilderness Environ Med**. 2010 Jun;21(2):181-2.

Book authorship

Wikipaedics. Section contributor for Knee. British Orthopaedic Association online orthopaedic textbook. In preparation. Section editors Gikas PD and Briggs TW. September 2013.

Oxford Textbook of Trauma and Orthopaedics (2nd edition, 2010. Eds - Bulstrode, Buckwalter et al.) Co-author, Sections 2.3 Benign tumours of soft tissues and 2.5 Benign bone tumours.

Presentations – basic science (PhD)

European Microscopy Congress, Manchester, UK, September 2012. *The use of serial block face scanning electron microscopy for high throughput analysis of extracellular matrix deposition.*

Collagen Gordon Research Conference, Boston, USA, July 2011. *Cells as master craftsmen: Designing and building complex tissues.*

British Orthopaedic Research Society, Newcastle, Sept. 2009. *The mechanical and morphological properties of in vitro generated tendon-like tissue.*

Presentations – clinical research

British Society for Surgery of the Hand, Harrogate, April 2013. *K-wire versus compression screw fixation for phalangeal joint arthrodesis*

British Society for Surgery of the Hand, Harrogate, April 2013. *Why do we seek radiographic evidence for healing of hand fractures?*

British Society for Surgery of the Hand, Manchester, April 2010. *Subluxation-related Ulnar Neuropathy 'SUN Syndrome': Anatomical Relationships of the Ulna Nerve in Instability of the Distal Radioulnar Joint*

British society for surgery of the hand/American Society for Surgery of the Hand Combined Scientific meeting, London, 2009. *Tendon Graft - Ulna Fixation in Distal Radio-Ulnar Joint Stabilisation: Biomechanical Comparison of Three Graft-Bone Fixation Methods*

European Federation of National Associations of Orthopaedics and Traumatology (EFORT) Congress, Vienna, July 2009. *Interference screws for tenodesis in the wrist*

British Burn Association Annual Meeting, Belfast, April 2009. *Estimating the contribution of burns-trauma to the national trauma workload.* Awarded Best Clinical Paper Prize

International conference on Health Promoting Hospitals, Berlin, Germany, May 2008. *Prevention of secondary fractures in patients with Colles' fracture*

Hypoxia Symposium, Lake Louise, Canada, February 2007. *The effect of the ACE-I/D polymorphism on climbers attempting Mt Kilimanjaro.* Awarded prize for Top 20 student presentation

Poster presentations

Collagen Gordon Research Conference, Boston, USA, July 2013. *Reduced Osmium Protocol for TEM and 3View® to Determine Collagen Fibril Size and 3D Organisation.*

International Society for Burn Injury Scientific Meeting, Edinburgh, Sept 2012. *Low provision of diphtherine highlights the need for new research.*

European Society for Surgery of the Shoulder, Lyon, 2011. *MR Arthrogram and Arthroscopy of the Shoulder: A Comparative Retrospective Study with emphasis on Posterior Labral lesions and Radiologist Locality*

British society for surgery of the hand/American society for surgery of the hand Combined Scientific meeting, London, 2009. *Incidence of Ulnar Neuropathy in Patients Presenting with Distal Radio-ulnar Joint Dysfunction*

Hypoxia Symposium, Lake Louise, Canada, February 2009. *Regulation of gut blood flow in high altitude hypoxia.*

British Trauma Society, Nottingham, October 2007. *Trauma list provision and care of patients with fractured neck of femur.*

Academic awards and prizes

2009	Best oral presentation at British Burn Association annual scientific meeting
2006 – 2008	Honours in undergraduate OSCEs (orthopaedics, neurology) and written exams
2006	1 st prize, Arthritis Research Campaign Medical Student Prize for Rheumatology
2005	Distinction in medical exams (year 2) resulting in Health Foundation iBSc prize, awarded to the top three intercalating students (n=~200).

Non-academic awards

2007	Athletic Union Club of the Year Award (when I served as Hockey Club Treasurer)
2007	University of Manchester Athletic Union Club Colours
2006	University of Manchester Student Teamwork Award, 1 st prize £500 for high altitude expedition

Teaching

2013 – present	Trained as a facilitator for RCS Systematic Training in Acute Illness Recognition and Treatment (START) course. I helped set up the course at Royal Free Hospital (run in September 2013).
2013 – present	Simulated surgical emergency scenarios teaching for 4 th year students on Surgical firm using SimMan. Program designed and developed during my F1 year.
2012 – present	Teaching sessions for all 4 th year UCL medical students on secondary research techniques for clinical medicine. Run for 40 students per month as part of their Introduction to Clinical Medicine Module
2013	Prize for Teaching Excellence, London Deanery.
2011	Medical student SSM on High Altitude Medicine, University of Birmingham
2007-2008	Monthly suturing sessions for medical student members of SCALPEL surgical society
2007-2008	Student facilitator for PBL sessions
2002-2003	Ski instructor, Whistler, Canada

Supervision

2013 – present	UCL medical student mentoring scheme
2010-2011	Tom Cavenagh, MSc, Uni. Manchester. Awarded with Distinction
2009-2010	Andreas Herchenhan, MSc, Uni. Manchester. Awarded with Honours
2008-2011	Undergraduate projects (V Ormston, D Golijanin), BSc Biology, Uni. Manchester

Courses

09 2013	ALERT Course (Acute Life Threatening Events Recognition and Treatment) , Chelsea and Westminster Hospital, UK.
08 2013	Teach the Teachers Course . London, UK.
07 2013	Laparoscopic Cholecystectomy Curriculum . Completed at the Royal Free Simulation Centre (using LapSim).
04 2013	Advanced Life Support , Northwick Park Hospital.
03 2013	Advanced Trauma Life Support , Peterborough City Hospital.
03 2012	Basic Psychomotor Skills Curriculum in laparoscopic surgery at the Royal Free Simulation Centre (using LapSim).
11 2012	Systemic Illness Recognition in Surgery (START) , Royal College of Surgeons of England.
10 2012	Teaching Improvement Project System (TIPS) for Foundation Doctors teaching course . University College London, UK.
09 2012	Basic Surgical Skills , Royal College of Surgeons of England, London, UK.
03 2012	Trauma and Burns Course , Queen Victoria Hospital, East Grinstead, UK.
08 2008	Microsurgical Skills . Ganga Hospital, Coimbatore, India. 40 hours of individual microscope work on live rats. Performed successful end-end, vein graft and end-side anastomosis.
07 2008	Basic Surgical Skills Workshop . Wythenshawe Hospital, Manchester, UK.
12 2007	So you want to be an Orthopaedic Surgeon? Royal College of Surgeons of England

Positions of responsibility

2012-	F1 representative on the North Central Thames Foundation Program Committee . I liaised with local hospital representatives and reported good training practices and problems with training to the committee meetings.
2010-2011	Post-graduate student representative, Wellcome Trust Centre for Cell Matrix Research . During the 2 nd year of my PhD I was the PG representative on the Centre Management Committee. I gathered the views of students undertaking research degrees in the centre by organizing meetings and through online surveys and reported their views to the management committee. This led to the creation of monthly postgrad-postdoc meetings where science could be discussed in an informal, relaxed environment.

- 2007-2008** **Events Director, Univ. Manchester Surgical Society (Scalpel).** I was responsible for organizing lectures, meetings and courses for our members (numbering >300).
- 2006-2007** **Captain,** University of Manchester Men's Hockey Club. I led the team to success in inter-university competition.
- 2005-2006** **Treasurer,** University of Manchester Men's Hockey Club. I was responsible for the club's annual budget of >£10,000. The club was £3,000 in debt at the start of the year; I designed and implemented financial measures that eliminated the debt and the hockey club was awarded the University Club of the Year for this achievement.
- 2004-2005** **Co-founder** of the Manchester Altitude Research Society and leader of an expedition to Kilimanjaro to study the effect of high altitude on trekkers attempting this popular mountain. This resulted in seven peer-reviewed publications and our team was awarded first prize in the University of Manchester Student Teamwork Awards (£500).

Audit

- 2013 –** DNAR policy compliance at the Royal Free Hospital. Mr Bimbi Fernando.
- 2013 –** Consent to treatment practice at the Royal Free Hospital. Miss Fiona Myint and Mr Bimbi Fernando.
- 2013 –** Use of dermoscopy for skin cancer diagnosis. Royal Free Hospital, Miss Barbara Jemec.
- 2012 –** Mortality audit in Acute Medical Unit. Supervisor Dr Arvind Kaul.
- 2012 –** Post-operative antibiotic prescribing practice. Royal Free Hospital. Supervisor Mr Rován D'Souza.
- 2012 –** Surgical admission unit handover. Royal Free Hospital. Supervisor Mr Rován D'Souza.
- 2007** Provision of trauma lists and delay to operation for fractured neck of femur. University Hospital South Manchester. Mr Martyn Lovell.
- 2007** Prevention of osteoporosis after distal radial fractures. Stepping Hill Hospital. Dr Gary Cook.

Professional activities

Reviewing – International Journal of Clinical Practice, Wilderness and Environmental Medicine, Journal of Occupational Medicine.

Elective visits

- 06 2012** Plastic Surgery, Mr A Khandwala, Queen Victoria Hospital, East Grinstead, UK.
- 05 2012** Burns surgery, Mr Ken Dunn, Manchester, UK
- 09 2008** Trauma and Plastic Surgery, Dr Raja Sabapathy, Ganga Hospital, Coimbatore, India.
- 08 2008** Bone Tumour Surgery, Prof Tim Briggs, Royal National Orthopaedic Hospital Stanmore, UK.
- 06 2008** Hand Surgery, Prof John Stanley, Wrightington, UK.
- 06 2007** Hand Surgery, Miss Vivien Lees, Manchester, UK.

Interests

At University I was Captain and then Treasurer of the University Hockey Club. I also regularly represented the University 1st XI in cricket. I am a professionally qualified ski instructor (Canadian Ski Instructors' Alliance Level II) with one season of teaching experience. Currently I am most interested in training for triathlons and improving my rock climbing/mountaineering.

Memberships

British Society for Matrix Biology, Royal College of Surgeons of England (Affiliate Member), Royal Society of Medicine, General Medical Council, British Medical Association.
The Alpine Club, The British Mountaineering Council.

References

Mr Ben Rudge. Consultant Foot and Ankle Surgeon, Watford General Hospital.

Ben.rudge@whht.nhs.net

Mr Rován D'Souza, Consultant Emergency and Vascular Surgeon, Royal Free Hospital.

Rovan.dsouza@nhs.net or masa.hseih@nhs.net.

Dr Arvind Kaul, Consultant Physician, Royal Free Hospital. Arvind.kaul@nhs.net or

donna.henry@nhs.net.

Dr Karl Kadler. Professor of Biochemistry. Wellcome Trust Centre for Cell Matrix Research. University of Manchester, UK. Karl.kadler@manchester.ac.uk
