

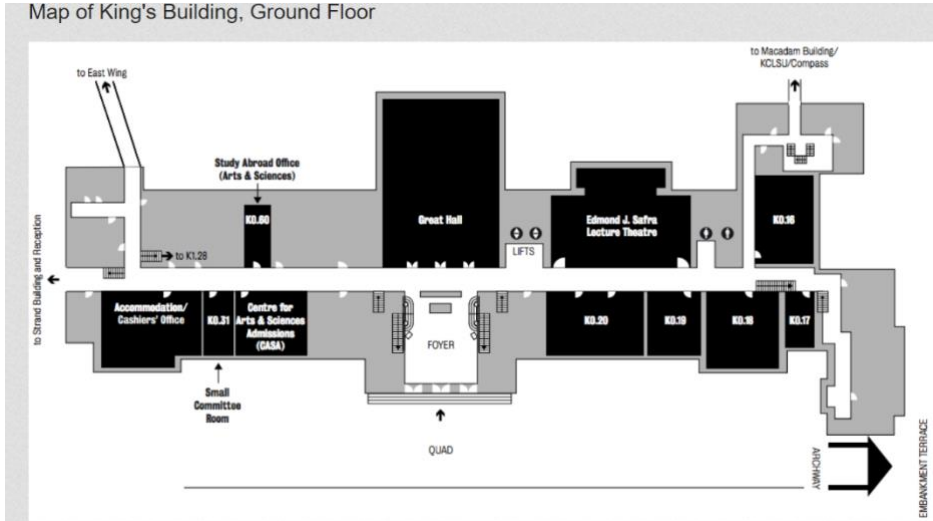


Versus Arthritis 4th Annual Pain Research in the UK Conference 2022

MONDAY 27TH JUNE 2022

GREAT HALL ON THE STRAND,
KING'S COLLEGE,
LONDON,
WC2R 2LS

Map of King's Building, Ground Floor



At present, it is not compulsory to wear a mask at this meeting. However, please respect those people who do wear masks and bear in mind that others might have different practices than you, with regards to masking and social distancing.

Morning Session – Great Hall

9.00 – 9.30 Registration & Orientation

9.30 – 9.40 Introduction - Professor David Walsh, Co-Director Pain Centre Versus Arthritis.

9.40 – 9.55 Welcome Address - Dr Neha Issar-Brown, Director of Research, Versus Arthritis

10.00 – 10.45 Elevator Pitches reflecting the range of pain research in the UK, from the following speakers and institutions

- Prof Marzia Malcangio: KCL
- Prof Ewan St John Smith: University of Cambridge
- TBC: University of Liverpool
- Dr Shafaq Sikandar: QMUL
- Prof John McBeth, University of Manchester
- Prof Chantal Chenu: Royal Veterinary College
- Dr Simon W Jones: University of Birmingham
- Dr James P Dunham: University of Bristol

10.45 – 11.10 Coffee

11.10 – 12.00 Elevator Pitches

- Dr Fiona Watt: ICL
- Prof Fiona Boissonade: University of Sheffield
- Dr Lorenzo Fabrizi: UCL
- Prof Zameel Cader: University of Oxford
- Prof Nikita Gamper: University of Leeds
- Prof Ernest Choy: Cardiff University
- Prof David Walsh: University of Nottingham

Lunch Session - Great Hall

12.00 – 13.30 Networking Lunch & Poster Presentations

12.15 – 12.45 Poster session #1 (& Networking Lunch)

12.45 – 13.15 Poster session #2 (& Networking Lunch)

13.30 – 13.45 Move to Workshop rooms

Afternoon Session – Great Hall and Break Out Rooms

13.45 – 14.45 Workshops, Chairs and questions for discussion

Psychosocial aspects of pain: Room K0.20 (Chairs: Dr Lauren Heathcote, KCL & Dr Whitney Scott, KCL. Facilitator: Dr Rebecca Lee, Manc)

- What are the key psychosocial mechanisms which should be measured in all studies?
- What are the understudied psychosocial mechanisms?
- What are the major challenges facing psychosocial pain research?
- Do/can psychosocial factors impact pain? Or just functioning?

Nociplastic pain: Room K0.16 (Chairs: Dr Michael Lee, Camb & Dr Anushka Soni, Oxford. Facilitator: Wendy Chaplin, Nott)

- In what ways is the term nociplastic pain helpful in clinical and research settings?
- What tools do we have to assess nociplastic pain in clinical and research settings?
- What are the best ways of communicating the nociplastic pain beyond the pain community eg. wider audience MDT, researchers, public, student, policy-holder - what resources are available? Who are champions for the term etc?

'Omics' in pain: Room K0.18 (Chairs: Dr Gopuraja Dharmalingam, Eli Lilly and Prof Geoff Woods, Camb. Facilitator: Afroditi Kouraki, Nott)

- What are the relevant tissues in different pain indication? How can we harmonize the sample collection and storage to enable reproducible research through Omics? How can we ensure continued future access to the samples?
- How can we perform deep phenotyping of pain subjects and controls to identify and characterise pain subtypes?
- What are the useful Omics data types in pain research?
- What are the challenges to generate high quality Omics data?
- What are the challenges and opportunities to use Omics data a) for patient stratification b) to find biomarkers c) to find novel therapeutic targets?
- How relevant is rodent Omics in pain research? What are the differences and similarities between pain mechanisms between species?

Peripheral mechanisms of chronic pain: Room, Great Hall (Chairs: Prof Ewan St John Smith, Camb & Prof Camilla Svensson, Karolinska. Facilitator: Dr George Goodwin, KCL)

- Do peripheral pain mechanisms explain widespread pain?
- The importance of neuroimmune interactions in chronic pain is becoming ever more apparent: what are the best methods for studying neuroimmune interactions?
- Do human induced pluripotent stem cell derived sensory neurones provide a good translational system for studying (chronic) pain?
- What are the most appropriate behavioural methods for studying chronic pain in rodent models?
- How can we best employ -omics methods to study the peripheral aspects of chronic pain?
- Which animal models are most relevant for studying chronic pain?

Comorbidities and chronic pain: Room K0.19 (Chairs: Prof Weiya Zhang, Nott & Dr Katy Vincent, Ox. Facilitator: Sara Hestehave, UCL)

- Which comorbidities are relevant in the context of chronic pain, and why are they relevant to explore?
- How should we capture information on comorbidities in future studies (clinical or preclinical)?
- How would you like to investigate comorbidities in the context of chronic pain?

14.45 – 15.15 Return to Auditorium & Coffee

Plenary Lecture Session - Great Hall

15.15 – 15.45 Workshop Round ups (Chairs and delegates)

15.45 – 16.45 Plenary Lecture

Professor Camilla Svensson

Karolinska Institutet, Stockholm, Sweden

“Peripheral immune mechanisms of widespread pain”

16.45 – 17.00 Conference Summary and Close



Poster presentations

NOCIOPLASTIC PAIN #1-7

#1 Sex Differences in a Murine Model of Osteoarthritis

Sabah Bharde, Sara Caxaria, Alice Fuller, Petek Celik, Brian Herath, Francesco Dell'Accio, Shafaq Sikandar (Senior Author)

Queen Mary University of London

#2 Stress exposure promotes long-term widespread hypersensitivity in mouse models of joint pain

Roxana Florea, Sara Hestehave, Oakley Morgan, Sandrine M. Géranton

University College London

#3 The stress regulator FKBP51 drives the exacerbation of inflammation-induced hypersensitivity by early stress exposure

Morgan, O. B., Andreou, A., Geranton, S. M.

University College London, King's College London

#4 Endogenous opioid modulation of acute and persistent post-surgical pain

Brian Herath, Sabah Bharde, Sara Caxaria, Alice Fuller, Petek Celik, Shafak Sikandar

University College London, King's College London

#5 Altered neuro-to-microglia communication is implicated in arthritis-associated allodynia in a model of Alzheimer's disease

George Sideris-Lampretsas, Archana Bajpai, Gopuraja Dharmalingham, David A. Collier, Marzia Malcangio

King's College London

#6 An MRI compatible conditioned pain modulation (CPM) paradigm for studying Nociceptive Pain in Rheumatoid Arthritis: Feasibility and Preliminary Data

George Tackley, Sharmila Khot, Ian Driver, Hannah Chandler, Dhivya Ghandi Das, Richard Wise, Ernest Choy

Cardiff University, Cardiff and Vale University Health Board, Northern Care Alliance Foundation Trust, University of Chieti-Pescara

#7 Neutrophils infiltrate sensory ganglia and mediate nociceptive pain

S. Caxaria, S. Bharde, A. Fuller, P. Celik, R. Evans, B. Thomas, C.Y. Man, S. Yona, F. Dell'Accio, M. Perretti, S. Nadkarni, M. B. Voisin, D. Gilroy, J. Wood, S. Sikandar

Queen Mary University of London

COMORBIDITIES AND CHRONIC PAIN #8-11

#8 Chronic pain and emotional comorbidities in joint diseases, - targeting the stress-regulator protein FKBP51 to combat it all

Sara Hestehave, Sandrine M. Géranton

University College London

#9 Does pain change over disease course in Inflammatory Arthritis? A protocol for the "Pain phenotypes and their underlying mechanisms in Inflammatory Arthritis (PUMIA)" study

Z Rutter-Locher, LS Taams, K Bannister, S Norton, F Denk, B Kirkham

Guy's & St Thomas' NHS Foundation Trust, King's College London

#10 Investigating Musculoskeletal Pain and Frailty in an Ageing Population

Wendy J. Chaplin, Daniel .F. McWilliams, Bonnie S. Millar, John R.F. Gladman, David A. Walsh

#11 Living with persistent pain and additional long-term conditions: a patients' and healthcare professionals' perspective

Barbara I Nicholl, Susan Browne, Karen Wood, Caitlin Jones, Yvonne Cunningham, Bhautesh D Jani, Stefan Siebert, Frances S Mair, Sara Macdonald

University of Glasgow

PSYCHOLOGICAL ASPECTS OF PAIN #12-19

#12 Examining the representation of peripersonal space in adults with fibromyalgia

Dr Jennifer Todd; Dr Flavia Cardini; Dr Michael Lee; Dr Jane Aspell (PI)

Anglia Ruskin University, Perdana University, University of Cambridge

#13 “Because that’s their job, isn’t it?”: Exploring children and young peoples’ experiences of and perspectives about pain communication in paediatric rheumatology in the UK

R.R.Lee, D.Mountain, J.E.McDonagh, M.Connelly, T.Palermo, S.Peters, L.Cordingley

University of Manchester, Manchester University Hospital NHS Trust, Manchester University Hospitals Trust, Children’s Mercy Kansas City, Seattle Children's Research Institute

#14 “My gut feeling is...”: Identifying how healthcare professionals communicate about pain in paediatric rheumatology multi-disciplinary team meeting

R.R.Lee, J.E.McDonagh, T.Rapley, A.Farre, M.Connelly, T.Palermo, K.Toupin-April, S.Peters, L.Cordingley

University of Manchester, Manchester University Hospital NHS Trust, Manchester University Hospitals Trust, Manchester, UK. Northumbria University, University of Dundee, Children's Mercy Kansas City, Behavior and Development, Seattle Children's Research Institute, University of Ottawa, Children's Hospital of Eastern Ontario Research Institute

#15 Assessing brain function, endogenous pain inhibition, and adverse childhood experiences in people with endometriosis

Claire E Lunde, Ziyang Wu, Edina Szabo, Keerthana Karunakaran, Ayeong Kim, Scott A Holmes, David Borsook, Christine B Sieberg

University of Oxford, Boston Children's Hospital, Massachusetts General Hospital, Harvard Medical School

#16 Access to chronic pain services for adults from Minority Ethnic groups in the UK: A scoping review

Emily Leach, Mwidimi Ndosi, Gareth Jones, Helen Ambler, Sophie Park, Jennifer Lewis

University of the West of England, Solent NHS Trust, University of Aberdeen Royal United Hospitals Bath NHS Trust

#17 Exploring the difference between distress and depression in people with persistent musculoskeletal pain: a qualitative study

Adam W.A. Geraghty, Hollie Birkinshaw, Carolyn A. Chew-Graham, Noureen Shivji, Helen Johnson, Paul Little, Michael Moore, Beth Stuart, Tamar Pincus.

University of Southampton, Royal Holloway, University of London, Keele University, West Midlands Applied Research Collaboration

#18 Neurodivergent characteristics are associated with variant connective tissue features (hypermobility) and this relationship is mediated by differences in sensory processing: implications for chronic pain

JA Eccles MRCPsych, GK Savage BA, G Davies PhD, JLL Ccecs D Clin, HD Critchley FRCPsych

#19 Forecasting Variability in Pain Severity among People with Chronic Pain

Claire Little, Dr Thomas House, Prof Will Dixon, Prof David Schultz,
Prof John McBeth

University of Manchester

'OMICS' IN PAIN #20-25

#21 Investigating the gene expression of lingual nerve neuromas with spatial transcriptomics

Martina Morchio, Simon Atkins, David Collier, Emanuele Sher, Dan Lambert, Fiona Boissonade

University of Sheffield, Eli Lilly and Company

#22 Mechanisms of chronic pain and fatigue: Using Transcriptomics to investigate the effects of mild inflammation in ME/CFS and Fibromyalgia

Marisa L Amato, Benjamin P Towler, Kristy Themelis, Kevin A Davies, Sarah Newbury, (**Jessica A Eccles**, Neil A Harrison = joint last author)

Brighton and Sussex Medical School, University of Sussex, Cardiff
University

#23 Interrogating the genetic mechanisms that underpin the association of the specialised pro-resolving mediator pre-cursor, 17-HDHA, with pain in people with osteoarthritis

Peter R. W. Gowler, James Turnbull, Rakesh R. Jha, Asta Tranholm, Paul Millns, Tony Kelly, Sameer Gohir, Susan Franks, David Onion, David A. Barrett, Ana Valdes, and Victoria Chapman

University of Nottingham

#24 Chronic pain in complex diseases: a systematic review of genome-wide association studies

Ioana-Wilhelmina Lucinescu, Katy Vincent, Krina Zondervan, Nilufer Rahmioglu, Anne Ndungu

University of Oxford

#25 Osteoarthritis GWAS using an optimized control group derived from the UK Biobank

Aidan Nickerson, Julian Mutz, Samuel Handelman, Ryan Smith, Gopuraja Dharmalingam, Jim Dunham, David Collier, Tony Pickering, **Achim Kless**

Eli Lilly and Company, University of Bristol, King's College London

PERIPHERAL MECHANISMS OF CHRONIC PAIN #26-40

#26 Dorsal root ganglia macrophages mediate pain in a model of inflammatory arthritis

Oggero Silvia, Perretti Mauro, Malcangio Marzi

King's College London, Queen Mary University of London

#27 A role for the proton-sensing GPCR, GPR65 in inflammatory pain

Luke A. Pattison, Rebecca H. Rickman, Graham Ladds and Ewan St. John Smith

Department of Pharmacology, University of Cambridge, UK

#28 Development of a novel scoring system for the characterisation of bone marrow lesions in knee osteoarthritis, the osteoarthritis bone score (OABS)

Soraya Koushesh, Sayyed Haybatollahi, Seyed Mohsen Shahtaheri, Franklyn Howe, Mary Sheppard, Joseph Westaby, Daniel McWilliams, David Walsh, Nidhi Sofat

St George's University of London, University of Nottingham

#29 The role of resolvins in chronic pain

Natalie Wong, Daniel W Lambert, Fiona M Boissonade

University of Sheffield

#30 In vivo imaging of spontaneous activity in joint neurons – can induction of murine arthritis be confounded by injection method?

George Goodwin, Anja Wegner, Zoe Hore, Franziska Denk

King's College London

#31 Activity-Dependent Slowing Patterns of Mouse C-Fibres Cannot be Used to Ascertain Fibre Sensory Phenotypes: Exploring Why Using a Bioinformatics Approach

Graeme W. T. Newton, James P. Dunham, and Anthony E. Pickering

University of Bristol

#32 Open-source, closed-loop threshold tracking of mouse and human nociceptors via microneurography

James P. Dunham, Graeme W. T. Newton, James H. O'Sullivan, Manuel Martinez-Perez, Anna C. Sales, Gethin Williams and Anthony E. Pickering

University of Bristol, Eli Lilly and Company

#33 Preclinical investigation of stroke: from neuroprotection to pain relief

Milena De Felice and Arshad Majid

University of Sheffield

#34 Refining methods to assess spontaneous pain behaviour in surgically induced murine osteoarthritis

Vicky Batchelor, Jadwiga Miotla-Zarebska, Tonia L Vincent

The Kennedy Institute of Rheumatology, University of Oxford

#35 Mechanistic factors contributing to pain and fatigue in fibromyalgia and ME/CFS: insights from an experimental medicine study

JA Eccles, C Thompson, B Thompson, ML Amato, K Themelis, HD Critchley, NA Harrison, KA Davies

#36 Naturally Occurring Disease in Companion Animals as a Model of Human (Painful) Disease: University of Oxford A Scoping Review

Kozlowski I, Jones-Diette J, .White K, Wever K.

University of Nottingham, Radboud University Medical Centre

#37 Determining the contribution of small fibre pathology to pain in fibromyalgia syndrome: Preliminary data from DEFINE-FMS

Anne Marshall, Leandros Raptas, Jamie Burgess, David Riley, Stephen Kaye, Andrew Marshall, Nicola Goodson, Marta Garcia-Finana, Andreas Goebel, Bernhard Frank, Uazman Alam

University of Liverpool

#38 Expression of XCR1 and XCL1 in human lingual nerve neuromas

George D.W. Emms, Nina S.E. Fraser, Martina Morchio, Simon Atkins, Oscar O. Solis-Castro and Fiona M. Boissonade

University of Sheffield

#39 Functional Characterisation of Nav Currents in Dorsal Root Ganglia Neurons

Alexander Cloake, Maya Dannawi, Ewan St. John Smith

University of Cambridge

#40

Sheela Medahunsi

National Institute for Health Research

Additional conference information

Approved for 5 CPD credits by the Royal College of Physicians

- **Feedback forms will be available from the registration desk and will also be provided electronically to all attendees.**
- **Attendance certification can be provided after the conference upon request.**

Conference organising committee

Franziska Denk, KCL

Clare Farmer, Versus Arthritis

Rose Farrands-Bentley, University of Nottingham

Sandrine Geranton, UCL

Julie Jones-Diette (Chair), University of Nottingham

Edmund Keogh, University of Bath

John McBeth, University of Manchester

Daniel McWilliams (Chair), University of Nottingham

Emanuele Sher, Eli Lilly

Stephanie Smith, University of Nottingham

David Walsh, University of Nottingham

Vlada Yarosh, University of Nottingham

Email: paincentre@nottingham.ac.uk