

# DAY 1 – TUESDAY 5TH DECEMBER 2023

## Plenary 1 – Voltigeur 2 (3rd Floor)

### PRESIDENT'S ADDRESS

Prof. Adrian Lim, BMUS President

### GENOMICS FOR OBSTETRIC SONOGRAPHERS

9.30–11.00 Chairs: Mrs Ellen Dyer, Rosie Hospital, Dr Rita Phillips, University of the West of England

Making genomics accessible to all. Genomics has the potential to revolutionise pregnancy care. This session aims to equip delegates with essential genomics knowledge.

9.30 **Genetic tests explained: NIPT, RP-WES (exome sequencing), karyotype, microarray, qf-PCR, targeted variant testing**, Dr Gemma Chandratillake, Cambridge University Hospitals

10.00 **How genomics has changed fetal medicine**, Dame Lyn Chitty, University College London

10.30 **Revisiting the scan findings of common chromosomal differences**, Dr Trish Chudleigh, Addenbrooke's Hospital, Cambridge University Hospitals

**10.50 The impact on second victim obstetric sonographers following a diagnostic error and support mechanisms: An exploration**, Elaine Gardiner, Glasgow Caledonian University

### UNDERSTANDING TWIN PREGNANCIES

11.30–13.00 Chairs: Dr Trish Chudleigh, Addenbrooke's Hospital, Cambridge University Hospitals, Miss Alison Smith, Guy's & St Thomas' Hospital

Scanning twins is sometimes challenging. This session aims to demystify twins with the help of some expert speakers.

11.30 **Review of twin guidelines – what we all need to know**, Mrs Ellen Dyer, Rosie Hospital

11.50 **Twin tips and tricks: dating, anatomy and growth**, Mrs Kellen Gipson, Rosie Hospital

12.10 **TAPS, TTTS and selective growth restriction – telling the difference**, Prof. Asma Khalil, St George's University Hospitals NHS Foundation Trust

**12.40 The effect of an enhanced fetal growth ultrasound protocol on pregnancy outcomes: A retrospective service evaluation within a single UK NHS Centre between 2014–2022**, Eleanor Butterfield, Frimley Health NHS Foundation Trust

12.50 **Tips and tricks for performing and interpreting MCA Doppler PSV**, Mrs Sally Holloway, University of Cambridge

### OBSTETRIC TEACHING AND RESEARCH

14.00–15.30 Chairs: Dr Trish Chudleigh, Addenbrooke's Hospital, Cambridge University Hospitals, Mrs Ellen Dyer, Rosie Hospital

During this session we will look at why women's reproductive health research is everyone's business and how we can inspire the next generation of obstetric sonographers.

14.00 **NIHR RH&C strategy: Where do sonographers fit in?**, Mr Nigel Simpson, National Institute for Health and Care Research

14.20 **Creating enquiring minds:** Inspiring the next generation of obstetric sonographers, Mrs Famida Sadak, Princess Anne Hospital

14.40 **Obstetric audits: How do we make them more than a box-ticking exercise?**, Mrs Clare Collier, York and Scarborough NHS Trust

15.00 **PROMETHEUS study: Prospective trial of machine learning to help fetal ultrasound scanning**, Dr Thomas Day, King's College London

**15.20 What are midwives' and sonographers' understanding and experience of the informed consent process within antenatal screening for fetal anomalies following changes in professional and legal guidance?**, Alexandra Drought, London South Bank University

## **DONALD MACVICAR BROWN LECTURE**

16.00–17.00 Chairs: Prof. Adrian Lim, Charing Cross Hospital, Dr Barry Ward, Newcastle upon Tyne Hospitals NHS Foundation Trust

16.00 **Don't mention the P word ... !**, Dr Heather Venables, University of Derby

The theme of the Annual Scientific Meeting this year is “pushing the boundaries of medical imaging”. In this talk, I'll be reflecting on my own ultrasound journey, exploring some of the catalysts for the extraordinary changes I've witnessed and some of the obstacles that needed to be overcome.

I've always been interested in technology and have spent most of my career trying (with varying degrees of success!) to share some insight into this extraordinary tool that we hold literally at our fingertips. I may be known to most as a physics enthusiast, but it has always been people who have motivated me – both the talented professionals I've worked alongside and the people within our communities who use our services.

As we acknowledge the challenges that we face, we need to think ahead to what those services could look like in future. I'll be sharing my thoughts on why we may need to rethink priorities, why we need to engage with technology developments and the importance of building a workforce that is not only trained but inspired.

Sponsored by Canon Medical Systems



## **17.00 DRINKS RECEPTION**

## Plenary 2 – Voltigeur 1 (3rd Floor)

### THE USE OF ULTRASOUND IN ACUTE TRAUMA

9.30–11.00 Chairs: Ms Amanda Parry, University Hospitals of Leicester NHS Trust, Mrs Catharine Berry, University Hospitals of Leicester NHS Trust

Ultrasound is becoming an increasingly popular tool in the assessment of acute injury. This session aims to provide an insight into ultrasound diagnosis and guidance for onward management of injuries following trauma. Presentations include Achilles tendon, hand injuries and the distal biceps from experienced speakers in their field.

9.30 **Achilles tendon pathologies: Pearls and pitfalls**, Dr Syed Ali, Lancashire Teaching Hospitals NHS Foundation Trust

10.00 **Ultrasound of distal biceps injuries: Tips, tricks and how to stay out of trouble!**, Mr Mark Charnock, Sheffield Teaching Hospitals NHS Foundation Trust

10.30 **The role of ultrasound in hand trauma**, Miss Marlies Schreuder, Sherwood Forest Hospitals NHS Trust

### ULTRASOUND IN THE MANAGEMENT OF MSK DISEASE PROCESS

11.30–13.00 Chairs: Ms Amanda Parry, University Hospitals of Leicester NHS Trust, Mr Mark Charnock, Sheffield Teaching Hospitals NHS Foundation Trust

This session aims to highlight the importance of not only ultrasound diagnosis but also its use in the management of complex disease processes such as Rheumatology, sarcoma and more generalised musculoskeletal disease. Highly experienced speakers will give presentations on their area of expertise

11.30 **Ultrasound of soft tissue masses**, Dr Rachel Musson, Sheffield Teaching Hospitals NHS Foundation Trust

12.00 **Rheumatoid arthritis ultrasound – what does the rheumatologist want to know?**, Mrs Kate Smith, Chapel Allerton Hospital

12.30 **Tendons – the requisites!**, Mr James Marcus, University of Leeds

**12.50 A clinical case study of an atypical spontaneous hematoma**, Reena Tweddle, York and Scarborough Teaching Hospitals

### Industry Education Session

13.10 – 13.40	<b>The future is now: AI in obstetric ultrasound</b> , Prof Aris Papageorghiou, Short presentation and live scan	Sharpo Room, Floor 2	<b>GE</b>
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### ULTRASOUND IN OTHER SPECIALITIES

14.00–15.30 Chairs: Mr Mark Charnock, Sheffield Teaching Hospitals NHS Foundation Trust, Ms Amanda Parry, University Hospitals of Leicester NHS Trust

Ultrasound imaging is provided by a number of practitioners, for use as a tool in their own specialities. In this session, we hear from three specialist providers who give insight into the use of ultrasound in their professions, including podiatry, sports medicine and physiotherapy.

14.00 **Ultrasound of the shoulder – beyond the rotator cuff**, Mr John Leddy, Frimley Health NHS Trust

14.30 **The clinical and ultrasound assessment of the central forefoot**, Mr Jai Saxelby, Sheffield Teaching Hospitals NHS Foundation Trust

15.00 **Utilising ultrasound imaging as a health & performance tool in elite football**, Dr Steve McNally, Professional Game Match Officials Ltd

**15.20 Small but not insignificant: Ultrasound of the superficial peroneal nerve**, Samir Paruthikunnan, York and Scarborough Teaching Hospitals NHS Foundation Trust

## Plenary 3 – 4th Floor Box 1

### ULTRASOUND-GUIDED INTERVENTION

9.30–11.00 Chairs: Mrs Pam Parker, Hull University Teaching Hospitals NHS Trust, Dr Ben Stenberg, Freeman Hospital

A look at the uses and considerations around ultrasound guided interventional procedures in a range of specialities and how you might go about setting up an interventional service.

09.30 **The principles of superficial intervention**, Ms Amy Barnes, University Hospital of Leicester

9.45 **The principles of prostate intervention**, Mr Joseph Robinson, James Cook University Hospital

10.00 **The principles of MSK intervention**, Miss Alison Hall, The Royal Wolverhampton NHS Trust

10.15 **The principles of abdominal intervention**, Dr Andy McNeill, Freeman Hospital

10.30 **Setting up a new non-medical interventional service**, Mrs Roma Dave, Portsmouth Hospitals University NHS Trust

### POCUS 1: HOT TOPICS IN POCUS

11.30–13.00 Chairs: Prof. Bob Jarman, Royal Victoria Infirmary, Dr Anna Colclough, University Hospital Lewisham

PoCUS is increasingly being included in the curricula of many medical specialities and allied professions. As a result, we will need to train many more clinicians, especially in new areas of PoCUS practice. This will be a challenge with current NHS pressures and resources. This session will explore innovations to overcome barriers to training and how we can support great practice in PoCUS.

11.30 **Can general practice be improved with ultrasound?**, Dr Lee Pursglove, The Gables Medical Group

11.43 **Prehospital PoCUS by London's Advanced Paramedic Practitioners in Critical Care**, Mr Nick Brown, London Ambulance Service

11.56 **Developing a bespoke PoCUS PACS and quality-assurance system**, Dr Ashley Matthies, Homerton Healthcare NHS Foundation Trust

12.09 **Ultrasound can be used to add value for all stages of medical school training**, Dr Kate Dulohery, Sunderland University

12.22 **Forget the morphine: Regional ultrasound-guided nerve blocks for acute pain**, Dr Jonathan Womack, Royal Victoria Infirmary

12.35 **Big PoCUS for mini-patients: The role of ultrasound in paediatric acute care**, Dr Zoltan Gyorgyi, Royal Hospital for Children and Young People, Edinburgh

**12.48 Development & support of palliative care PoCUS at Marie Curie Hospice, Liverpool**, Colin Griffin, University of Salford

## **POCUS 2: THE PHANTOM IN POCUS**

14.00–15.30 Chairs: Prof. Bob Jarman, Royal Victoria Infirmary, Dr Ashley Matthies, Homerton Healthcare NHS Foundation Trust

Many aspects of learning PoCUS skills, especially with regard to practical procedures, can be aided by practising on an ultrasound phantom. However, are you fed up with expensive and low-fidelity models? If so, we hope to change your mind by showcasing some amazing and affordable creations, covering a variety of clinical applications. At the end of this session, you get to decide who is Top Phantom!

14.00 **Why don't you?! Reasons to make your own phantom**, Dr Ashley Matthies, Homerton Healthcare NHS Foundation Trust

14.13 **No need to make your own phantom? Using cadavers for ultrasound-guided procedures**, Dr Jonathan Womack, Royal Victoria Infirmary

14.26 **3D-printing your phantoms – here's how to do it**, Dr Krishan Nandapalan, M3dicube

14.39 **Hocus Pocus. What phantom recipes can you make in your cauldron – a review**, Dr Anna Colclough, University Hospital Lewisham

14.52 **Making a fascia iliaca block regional anaesthesia training phantom you can ultrasound**, Dr Karl Chopra, Imperial College Healthcare NHS Trust

15.05 **Introducing the Bob'o'Lung Mark III! State-of-the-art lung ultrasound simulator?**, Prof. Bob Jarman, Royal Victoria Infirmary

**15.18 Ultrasound phantom for PoCUS turbo trainer**, Richard Beese, Queen Elizabeth Hospital London

## **Practical Workshop – Dayjur Suite (2nd Floor)**

### **INTERVENTIONAL WORKSHOP**

11.30–13.00 Led by Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust

Dr Ben Stenberg, Freeman Hospital

Ms Amy Barnes, United Lincolnshire Hospitals NHS Trust

Mr Joseph Robinson, James Cook University Hospital

Dr Tim Hoare, Newcastle upon Tyne Hospitals

Dr Andy McNeill, Freeman Hospital

Dr Alasdair Mackie, Newcastle Upon Tyne Hospitals

### **BOWEL ULTRASOUND PRACTICAL**

14.00–15.30 Led by Mrs Ruth Reeve, Portsmouth Hospitals University NHS Trust

Dr Richard Beable, Portsmouth Hospitals University NHS Trust  
Dr Alasdair Mackie, Newcastle Upon Tyne Hospitals  
Dr Tim Hoare, Newcastle Upon Tyne Hospitals  
Dr Anmol Gangi-Burton, Nottingham University NHS Trust  
Dr Chris Ball, Portsmouth Hospitals University NHS Trust  
Dr James A. Stephenson, University Hospitals of Leicester NHS Trust

## Satellite Session – 4th Floor Box 11

### TECHNOLOGY – REVISITED

9.30–11.00 Chairs: Miss Shaunna Smith, Hull University Teaching Hospitals NHS Trust, Dr Piero Miloro, National Physical Laboratory

This session will provide insights into emerging ultrasound technology developments and their clinical uses including AI. It will also aim to clarify and demystify Doppler technology to enable practitioners to use it effectively.

9.30 **Dreams and Reality: Future possibilities in ultrasound**, Prof. Sandy Cochran, University of Glasgow

9.50 **Doppler for the rookie – a Doppler masterclass**, Dr Barry Ward, Newcastle upon Tyne Hospitals NHS Foundation Trust

10.10 **Multiparametric ultrasound**, Prof Adrian Lim, Charing Cross Hospital

10.30 **Ultrasound users in non-traditional ultrasound departments: An insight into those who use ultrasound for diagnostic purposes within a clinical setting**, Sahra Deane, King's College London

10.40 **Initial operator experiences using a prototype ultrasound system for cavitation-enhanced drug delivery to solid tumours**, Jessica Thorne, Oxford University Hospitals NHS Foundation Trust

### PROFESSIONAL AND CLINICAL ISSUES

11.30–13.00 Chairs: Dr Rita Phillips, University of the West of England, Miss Shaunna Smith, Hull University Teaching Hospitals NHS Trust

This session will provide tips to enable practitioners to develop their professional and clinical skills. This includes getting published, improving measurement accuracy and preceptorships

11.30 **Academic writing and becoming published**, Mr Colin Griffin, Liverpool University Hospitals NHS

11.50 **Calliper placement in obstetrics – is accuracy important?**, Dr Nick Dudley, United Lincolnshire Hospitals

12.10 **Making a preceptorship work for you (top tips for how to maximise your preceptorship as the preceptee)**, Mrs Emma Sanderson, Hull University Teaching Hospitals NHS Trust

12.30 **Image quality in renal scanning and identification of perinephric fat stranding for early detection of chronic kidney disease**, Chelsea Scott, King's College University London

12.40 **Nephrocalcinosis: A review of how we assess and report it on ultrasound**, Mayurun Ramadas, Great Ormond Street Hospital for Children

12.50 **Developmental dysplasia of infant hips (DDH): Is there any correlation between high birthweight in females and incidence of DDH identified in ultrasound screening?**, Innocent Onu, Maidstone and Tunbridge Wells Hospital NHS Trust

## **SURVIVING UNDER PRESSURE**

14.00–15.30 Chairs: Dr Rita Phillips, University of the West of England, Miss Shaunna Smith, Hull University Teaching Hospitals NHS Trust

This session will consider strategies for practitioners to cope with the demands of delivering ultrasound services in the current climate.

14.00 **Decision Making – interactive (case scenarios)**, Dr Rita Phillips, University of the West of England, Miss Shaunna Smith, Hull University Teaching Hospitals NHS Trust

14.20 **Feeling like a fraud? Overcoming the imposter phenomenon**, Miss Gill Harrison, The Society and College of Radiographers

14.40 **Reporting do you need to change your ways**, Mrs Morag Stout, National Ultrasound Training programme, NHS Scotland Academy

15.00 Considering the needs of the trans community attending their pelvic scan, Dr Roxanne Sicklen, Royal Free London NHS Trust

**15.20 Brain tissue motion in acute ischaemic stroke**, Jennifer Nicholls, University of Leicester

## DAY 2 – WEDNESDAY 6TH DECEMBER 2023

### Plenary 1 – Voltigeur 2 (3rd Floor)

#### CHALLENGING EARLY PREGNANCY PATHOLOGIES AND DIAGNOSES WITH ULTRASOUND

08.30–10.00 Chairs: Dr Sian Mitchell, Guy's & St Thomas' Hospital, Mrs Roxanne Sicklen, Royal Free London NHS Trust

This session will focus on gestational trophoblastic disease, retained pregnancy tissue and pregnancies of unknown locations.

08.30 **Gestational trophoblastic disease**, Prof. Adrian Lim, Charing Cross Hospital

09.00 **The ultrasound appearances of retained pregnancy tissue**, Dr Jemma Johns, King's College Hospital

09.30 **An ultrasound diagnosis of PUL**, Dr Jackie Ross, King's College Hospital

#### ADVANCED ULTRASOUND TECHNIQUES USED TO CHARACTERISE OVARIAN MASSES

10.30–12.00 Chairs: Miss Alison Smith, Guy's & St Thomas' Hospital, Dr Jackie Ross, King's College Hospital

Borderline ovarian tumours will be demystified. There will be guidance on how to confidently define papillary projections and how to use in practice. In addition ovarian cysts in pregnancy will be discussed.

10.30 **Basic epidemiology ultrasound features of BOT**, Mr Ahmad Sayasneh, Guy's & St Thomas' Hospital

11.00 **When is it a papillary projection and when is it not?**, Dr Sian Mitchell, Guy's & St Thomas' Hospital

11.30 **Ovarian cysts in pregnancy**, Mr Jonathan Gaughran, Guy's & St Thomas' Hospital

#### LOOKING BEYOND THE USUAL

13.00–14.30 Chairs: Miss Alison Smith, Guy's & St Thomas' Hospital, Mr Jonathan Gaughran, Guy's & St Thomas' Hospital

The role of ultrasound in uro-gynaecology will be discussed. The needs of the trans-community attending for a pelvic scan will be considered and imaging of intra-uterine adhesions described.

13.00 **Pelvic Schwannoma – A rare pelvic mass**, Deirdre Murphy, University Hospital Southampton

13.05 **What does the urogynaecologist need from ultrasound?**, Dr Edward Ribbons, Guy's & St Thomas' Hospital

13.30 **Considering the needs of the trans community attending their pelvic scan**, Dr Roxanne Sicklen, Royal Free London NHS Trust

13.55 **Ultrasound and intra-uterine adhesions**, Dr Tejal Amin, Imperial College Healthcare Trust

14.20 **Question and Answer Session**

#### A MULTI-DISCIPLINARY TEAM APPROACH TO IMAGING IN GYNAECOLOGY

15.00–16.30 Chairs: Mr Jonathan Gaughran, Guy's & St Thomas' Hospital, Dr Trish Chudleigh, Addenbrooke's Hospital, Cambridge University Hospitals



A radiologist, clinical nurse specialist and sonographer will bring their respective skill set to describe their role in supporting, diagnosing and managing the patient in their clinical pathway.

15.00 **When is CT & MRI a first-line investigation in gynaecological imaging from a pro-ultrasound radiologist**, Dr Anne Marie Coady, Hull and East Yorkshire Women and Children's Hospital

15.20 **The do's and don't's of a clinically useful gynae scan & its report**, Miss Alison Smith, Guy's & St Thomas' Hospital

15.40 **The role of the gynae-onc CNS in the patient's pathway**, Ms Michelle Winser, Guy's & St Thomas' Hospital

16.00 **Round Table Discussion: What should a departmentally useful gynae ultrasound imaging audit tool look like**, Dr Anne Marie Coady, Hull and East Yorkshire Women and Children's Hospital, Miss Alison Smith, Guy's & St Thomas' Hospital, Ms Michelle Winser, Guy's & St Thomas' Hospital

## Plenary 2 – Voltigeur 1 (3rd Floor)

### HEAD AND NECK – PUSHING THE BOUNDARIES

08.30–10.00 Chairs: Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust, Mrs Amy Barnes, University Hospitals of Leicester NHS Trust

The Head and Neck sessions will embrace the conference theme of 'pushing the boundaries'. It will explore the innovative work of ultrasound in head and neck and the future direction. Is artificial intelligence an integral part of the ultrasound already and how will it affect future practice? It will also dive into head and neck ultrasound to enhance everyday practice.

8.30 **Should I Biopsy and Why? Lessons Learned**, Prof. Rhodri Evans, Withybush Hospital, Hywel Dda University Health Board

9.00 **Will AI be useful in head and neck ultrasound?**, Dr Andrew McQueen, Newcastle upon Tyne Hospital NHS Foundation Trust

9.30 **Pre-operative USG wire marking of neck lymph nodes**, Dr Peter Cantin, University Hospital Plymouth NHS Trust

### HEAD AND NECK ULTRASOUND – WHAT IS IT GOOD FOR?

10.30–12.00 Chairs: Dr Andrew McQueen, Newcastle upon Tyne Hospital NHS Foundation Trust, Prof. Rhodri Evans, Withybush Hospital, Hywel Dda University Health Board

10.30 **Salivary gland imaging**, Dr Gitta Madani, Salivary Gland Imaging

**10.55 Probing the paediatric neck mass**, Rhian Price-Davies, Morrison Hospital, Swansea Bay University Health Board

11.05 **Parathyroid imaging**, Dr Amy Gerrish, Nottingham University Hospitals NHS Trust

11.30 **Head and neck service provision and governance**, Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust

### LUNCHTIME INDUSTRY EDUCATIONAL SESSION

12:10	<b>Integrating AI into everyday Ultrasound. Learn how Ultrasound is changing!</b> , Presented by Mr Pavan Pankhania, Multi-Segment Senior BDM, MIS Healthcare	Voltigeur 1	MIS Healthcare/Samsung Distributor
12:30	<b>Tomorrow's One-stop Liver Ultrasound Clinic</b> , Paul Sidhu, Professor of Radiology Kings College Hospital	Voltigeur 1	

## TEACH THE TEACHER

13.00–14.30 Chairs: Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust, Miss Shaunna Smith, Hull University Teaching Hospitals NHS Trust

Professional Issues sessions will focus on Ultrasound Education Provision, exploring how we teach the teacher. Since the inception of ultrasound, teams in departments have shared the responsibility for teaching ultrasound trainees. However, how much training have they had as a group? Do we empower our whole teams to become modern mentors or do we only single out a select few? What is best practice and can we do better for our trainees and our teams? Are Radiology trainees a completely different kettle of fish or should we all be held to the same standard? Are clinical educator posts the key? BMUS intends to fully examine all aspects of this crucial topic for the future benefit of the ultrasound workforce.

13.00 **Practice Educators – What are their value and how to embed them into the dept**, Mrs Farrah Elsaghir, AECC University College & Royal United Hospital

**13.25 Findings of a scoping survey exploring UK sonographers' views on professional supervision**, Gillian Coleman, University of Derby

13.35 **Mentoring and coaching – how to do it better**, Ms Suean Pascoe, Zedu ultrasound training solutions

14.00 **CASE – 30 years on**, Dr Heather Venables, University of Derby

## THORACIC ULTRASOUND

15.00–16.30 Chairs: Dr Heather Venables, University of Derby, Dr Barry Ward, Newcastle upon Tyne Hospitals NHS Foundation Trust

Over the last decade or so, thoracic ultrasound has become widely used by respiratory physicians, sonographers and radiologists in a range of diagnostic procedures. In this session, we will explore the commonly and less commonly used techniques for imaging the lung and thoracic cavity, and discuss how the use of ultrasound in these applications is likely to develop over the coming years.

15.00 **Thoracic ultrasound in clinical context**, Dr Rahul Bhatnagar, North Bristol NHS Trust and University of Bristol

15.22 **Pleural ultrasound in practice: past, present and future**, Dr Izhaq Masih, Antrim Area Hospital

15.45 **Ultrasound imaging in lung disease**, Dr Raja Reddy, Kettering General Hospital NHS Foundation Trust

16.07 **Advanced ultrasound for procedures**, Prof. Najib Rahman, Oxford University Hospitals NHS Foundation Trust and University of Oxford

## Plenary 3 – 4th Floor Box 1

### YOUNG INVESTIGATORS

08.30–10.00 Chairs: Prof. Carmel Moran, University of Edinburgh, Mrs Terry Humphrey, Leeds Teaching Hospital

During this session, 5 short-listed oral papers from submitters under the age of 39 will battle it out to win the title of BMUS Young Investigator 2023 and the prize of representing the UK at the EUROSON 2024 Congress in Naples, Italy. Further details can be found on the awards page.

**8.30 Introduction of a paperless ultrasound quality-assurance system: A service improvement project**, Alice Bevan, Somerset NHS Foundation Trust

**8.45 PoCUS – Game changer in resuscitation**, Divya Lovelin Regina Rajaiah, York Teaching Hospital

**9.00 Gallbladder polyps: To follow or not to follow, that is the question**, Nazanin Babazadeh, Hull University Teaching Hospital NHS Trust

**9.15 Assessment of thermal index compliance in clinical ultrasound examinations**, Sam Butler, University Hospitals of North Midlands NHS Trust

**9.30 The effect of dead transducer elements on pulsed Doppler and imaging performance**, Daniel Wyatt, Multi-Medix

### SQUEEZING THE PIPS: HOW TO GET THE MOST FROM YOUR ULTRASOUND SCANNER

10.30–12.00 Chairs: Dr Heather Venables, University of Derby, Dr Sian Curtis, St Michael's Hospital

This teaching session is designed to provide sonographers, radiologists and other clinical users with useful snippets of information that will allow them to get even better images from their ultrasound equipment. We'll be talking about the various controls that are available on a typical modern scanner, and what happens to the image when you adjust them. We'll also touch on what users can do to ensure that they're scanning even more safely in their day-to-day clinical practice.

**10.30 Imaging anatomy: How to get the most from the 2D button**, Dr Barry Ward, Newcastle upon Tyne Hospitals NHS Foundation Trust

**11.00 Imaging and measuring flow: How to get the most from the CF and PW buttons**, Dr Colin Deane, King's College London and Cleveland Clinic London

**11.30 Caring for your scanner is caring for your patient**, Mr David Rowland, The Christie NHS Foundation Trust

### VASCULAR 1

13.00–14.30 Chairs: Mrs Tanyah Ewen, North West Anglia NHS Foundation Trust, Mrs Tracey Gall, Independent Vascular Services Ltd

The first session will look at pushing the boundaries of vascular ultrasound. The topics will include artificial intelligence, the use of deep learning within ultrasound equipment and 3D vascular ultrasound.

**13.00 Calf and Pedal 3D and Contrast Ultrasound Imaging**, Mr Joao Carreira, Manchester University NHS FT, IVS Ltd & Tomorrow Health Group

13.30 **Bridging the Gap: Implementation of duplex ultrasound techniques in general medical ultrasound**, Mr Ben Warner-Michel, Salford Royal NHS Foundation Trust

13.50 **Bilateral persistent sciatic artery**, Ms Lynne McRae, Royal Gwent Hospital

14.05 **A multidisciplinary team-led approach to improving care for patients with suspected giant cell arteritis**, Borsha Sarker, NIHR Leeds Biomedical Research Centre and Leeds Teaching Hospitals NHS Trust

## VASCULAR 2

15.00–16.30 Chairs: Mrs Tanyah Ewen, North West Anglia NHS Foundation Trust, Mrs Tracey Gall, Independent Vascular Services Ltd

This second session will include pelvic congestion imaging, tumours that mimic DVT and carotid velocity criteria.

15.00 **When an occluded vein isn't thrombus – a case study on Leiomyosarcoma**, Ms Jodie Baker, University Hospitals Sussex NHS Foundation Trust

15.20 **Grading carotid disease**, Mrs Tracey Gall, Independent Vascular Services Ltd

15.40 **Disparity in Pelvic Vein Incompetence: Time to recognise and treat in women**, Mrs Katja Norse, Independent Vascular Services Ltd

16.00 **Pelvic Vein Embolisation: the vascular radiologist perspective**, Dr Dare Seriki, Manchester University NHSFT

## Practical Workshop – Dayjur Suite (2nd Floor)

### OBSTETRICS PRACTICAL SESSION

8.30–10.00 Led by Mrs Ellen Dyer, Rosie Hospital

Dr Titia Cohen-Overbeek, Erasmus MC

Dr Anna Clark, Hillingdon Hospital, Queen Charlotte's & Chelsea Hospital, Imperial College London

Dr Trish Chudleigh, Addenbrooke's Hospital, Cambridge University Hospitals

### MSK LOWER LIMB PRACTICAL

10.30–12.00 Led by Ms Amanda Parry, University Hospitals of Leicester NHS Trust

Mr Mark Charnock, Sheffield Teaching Hospitals NHS Foundation Trust

Mr Andrew Longmead, Midlands Partnership NHS University Foundation Trust

Mr Richard Brindley, Cannock Hospital

Dr Syed Ali, Lancashire Teaching Hospitals NHS Foundation Trust

Mr John Leddy, Frimley Health NHS Trust

Mrs Catharine Berry, Leicester Hospitals

Mrs Kate Smith, Chapel Allerton Hospital

### MSK UPPER LIMB PRACTICAL

13.00–14.30 Led by Ms Amanda Parry, University Hospitals of Leicester NHS Trust

Mr Mark Charnock, Sheffield Teaching Hospitals NHS Foundation Trust  
Mr Andrew Longmead, Midlands Partnership NHS University Foundation Trust  
Mr Richard Brindley, Cannock Hospital  
Dr Syed Ali, Lancashire Teaching Hospitals NHS Foundation Trust  
Mr John Leddy, Frimley Health NHS Trust  
Mrs Catharine Berry, Leicester Hospitals  
Mrs Kate Smith, Chapel Allerton Hospital

## HEAD AND NECK PRACTICAL

15.00–16.30 Led by Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust

Prof. Rhodri Evans, Withybush Hospital, Hywel Dda University Health Board  
Dr Andrew McQueen, Newcastle upon Tyne Hospital NHS Foundation Trust  
Mrs Amy Barnes, University Hospitals of Leicester NHS Trust  
Mr Colin Griffin, Liverpool University Hospitals NHS Foundation Trust  
Dr Lol Berman, Cambridge University Hospitals – Addenbrooke's  
Dr Ben Stenberg, Newcastle upon Tyne Hospital NHS Foundation Trust  
Dr Amy Gerrish, Nottingham University Hospitals NHS Trust

## Satellite Session – 4th Floor Box 11

### THERAPY IN ULTRASOUND NETWORK DRUG DELIVERY AND ABLATION RESEARCH 1

10.20 **Multi-modal confirmation of thermosensitive liposome delivery to the brain after FUS-induced blood-brain barrier (BBB) opening for the treatment of glioblastoma**, Paul Cressey, Chris Payne, Antonios Pouloupoulos, Maya Thanou, Kings College London

10.45 **Mechanisms of Therapeutic Ultrasound on Biomimetic Models of Cancer**, Silva, D., Cheema, U., Gélât. P., University College London

11.10 **Single cell analysis of tumour infiltrating leukocytes in boiling histotripsy-exposed orthotopic pancreatic tumours**, Petros Mouratidis, Gail ter Haar, The Institute of Cancer Research, London, UK

11.35 **A Comparative Study of Experimental and Simulated Ultrasound Beam Propagation Through Cranial Bones**, Alisa Krokmal, Bradley Treeby, Eleanor Martin, University College London

### THERAPY IN ULTRASOUND NETWORK DRUG DELIVERY AND ABLATION RESEARCH 2

13.00 **AI integrated treatment planning and feedback for ultrasound-guided High Intensity Focused Ultrasound (USgHIFU) therapy of thyroid nodules**, Lewis Howell, Tze Wah, James Chandler, James McLaughlan. Leeds

13.25 **Ultrasound hyperthermia as radiosensitiser on a preclinical glioblastoma model**, Gianni Durando, Federica Vurro (co-first), Fabio Saba, Piero Miloro, Ivory M. Aoife, Raphaela de Melo Baesso, Antonello E Spinelli

13.50 **An in vitro platform to treat cancer spheroids with heat and radiation**, Petros Mouratidis, Ian Rivens, Gail ter Haar, The Institute of Cancer Research, London, UK

14.15 **Safety considerations for FUS therapies in the spinal cord: acoustic and thermal simulations coupled with a historical investigation of spinal cord exposure thresholds**, Rui Xu, Bradley E. Treeby, Eleanor Martin UCL

# DAY 3 – THURSDAY 7TH DECEMBER 2023

## Plenary 1 – Voltigeur 2 (3rd Floor)

### THE FOCAL LIVER LESION

09.00–10.50 Chairs: Dr Jeanette Kraft, Leeds Teaching Hospital NHS Trust, Dr Peter Cantin, University Hospital Plymouth NHS Trust

This session is intended to assist the ultrasound practitioner in developing strategies for characterising focal abdominal lesions in the adult and child. It will give hints and tips in the ultrasound management of these patients, discuss the role of new ultrasound technologies and look at how findings might be correlated with other imaging modalities.

09.00 **Ultrasound of the focal liver lesion in the adult**, Prof. Adrian Lim, Charing Cross Hospital

09.20 **Ultrasound of the focal liver lesion in the child**, Dr Helen Woodley, Leeds Teaching Hospital NHS Trust

09.40 **Managing uncertainty. A multimodality approach to the focal liver lesion**, Dr Raneem Albazaz, St James's University Hospital, Leeds

10.05 **Treatment of suspected liver malignancy. Current approaches**, Mrs Helen Reeves, Newcastle upon Tyne Hospital NHS Foundation Trust

**10.30** Ultrasound in cases abnormal LFTs: quality of referrals and a need for report standardisation, Morag Stout, NHS Education Scotland

**10.40** A preliminary experience in the role of new liver tools in the assessment of steatosis, Andrea Mould, Fiona Stanley Hospital

### UROLOGY OUT OF THE ORDINARY

11.20–13.10 Chairs: Mrs Ruth Reeve, Portsmouth Hospitals University NHS Trust, Dr Peter Cantin, University Hospital Plymouth NHS Trust

This session intends to highlight how ultrasound is best used in the patient presenting with a urological problem. It will cover testicular, renal and urinary bladder ultrasound together with new ultrasound technologies being used in assessing the prostate gland. This session will also cover contrast-enhanced ultrasound and multi-parametric ultrasound and their use in refining management strategies in patients who have indeterminate ultrasound findings.

11.20 **Equivocal lesions in the adult testis. The role of multiparametric ultrasound**, Dr Timothy Yusuf, King's College London

11.45 **Scrotal ultrasound in children. An overview**, Dr Jeanette Kraft, Leeds Teaching Hospital NHS Trust

12.10 **The problem transplant kidney. Can new ultrasound technologies help?**, Dr Ben Stenberg, Newcastle upon Tyne Hospital NHS Foundation Trust

12.35 **Micro-ultrasound of the prostate gland. What does it offer?** Mrs Pamela Parker, Hull University Teaching Hospitals

**12.55** Contrast Enhanced Ultrasound (CEUS) for indeterminate renal lesions – What are you waiting for?, Jamie Wild, Sheffield Teaching Hospitals

## OUCH IT HURTS – ULTRASOUND IN THE ACUTE SETTING

14.00–16.00 Chairs: Mrs Ruth Reeve, Portsmouth Hospitals University NHS Trust, Dr Jeanette Kraft, Leeds Teaching Hospital NHS Trust

This session is intended to update ultrasound practitioners who may use ultrasound in an acute setting. It will give insight into ultrasound techniques which may be used in patients presenting with an ‘acute abdomen’. The session will look at common acute abdominal complaints in the adult, child and pregnant patient, how ultrasound contributes to their management and recognition of ‘red flag’ ultrasound signs which might indicate the acutely deteriorating patient.

14.00 **Acute pelvic pain. Non-gynaecological findings in the adult and child**, Dr Peter Cantin, University Hospital Plymouth NHS Trust

14.25 **The child’s acute abdomen**, Dr Emily Holt, Leeds Teaching Hospital NHS Trust

14.55 **Ultrasound in acute right upper quadrant pain**, Dr Andrew Logan, Imperial College London

**15.20 Our experience of transitioning to ultrasound as the first-line investigation for suspected midgut malrotation**, Emma Alison, Great Ormond Street Hospital for Sick Children

**15.30 Ultrasound of the appendix**, Erin Nugent, Alberta Health Services Foothills Medical Centre

15.40 **Ultrasound of the acute abdomen. What does the surgeon need to know?**, Mr John Moir, RVI and Freeman Hospital in Newcastle

## Plenary 2 – Voltigeur 1 (3rd Floor)

### PROFESSIONAL ISSUES 3: MEDICO LEGAL

9.00–10.50 Chairs: Mrs Pamela Parker, Hull University Teaching Hospital NHS Trust, Prof. Rhodri Evans, Withybush Hospital, Hywel Dda University Health Board

Professional Issues sessions will explore the medico-legal world of ultrasound, but from viewpoints other than the traditional or the obvious. As ultrasound continues to ‘push the boundaries of clinical imaging’, does that have an impact on practitioners in medico-legal terms? What keeps us and our patients safe? How can our patients help themselves and us? In the emerging field of artificial intelligence (AI), where will the boundaries lie?

09.05 **Reporting – do you need to change your ways?**, Mrs Morag Stout, National US Training Programme, NHS Scotland Academy

**09.35 Towards understanding patient and sonographer experience of diagnostic ultrasound imaging reports**, Charlie Rogers, King’s College London

09.50 **Ultrasound and the duty of candour – exploring the grey area?**, Prof. Erika Denton, Norfolk and Norwich University Hospitals NHS Trust

10.20 **Lessons learnt from being an expert witness: protecting ourselves from litigation**, Dr Viv Gibbs, University of West England

### AI IN IMAGING

11.20–13.10 Chairs: Prof. Adrian Lim, Charing Cross Hospital, Dr Sian Curtis, St Michael’s Hospital



Are we ready for AI in ultrasound imaging and do we even have a choice?

The last few years have provided a rush of artificial intelligence applications across all walks of life and ultrasound is no exception. Should we be embracing this as the future of ultrasound? Do we even have a choice? Will it improve our performance, including accuracy and better patient outcomes? Or is it a slippery slope to the dumbing down and eventual extinction of the sonographer/sonologist? Would you want a self-driving ultrasound machine doing your ultrasound scan? This BMUS debate will explore how much we should be welcoming AI onto our ultrasound machines and can we/should we be stemming the tide anyway?

11.25 **AI in imaging – reasons to be cheerful**, Prof. Erika Denton, Norfolk and Norwich University Hospitals NHS Trust

11.40 **Adoption challenges of AI in medical imaging & ultrasound**, Mr Graham King, AXREM/Annalise.ai

11.55 **AI in imaging – what’s the problem?**, Dr Trish Chudleigh, Addenbrooke’s Hospital, Cambridge University Hospitals

## INDUSTRY EDUCATIONAL SESSION

13.15	<b>Advanced technology in breast ultrasound’</b> Sahra Deane, Esaote	Voltigeur 1	Esaote
13.35	<b>Mastering Ultrasound Decontamination - Probe Care for Prolonged Performance</b> , Ellie Wishart, Nanosonics Senior Medical Affairs Manager, EMEA	Voltigeur 1	Nanosonics

## PROFESSIONAL ISSUES 4: MANAGEMENT

14.00–16.00 Chairs: Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust, Miss Gill Harrison, Society and College of Radiographers

In the second Professional Issues session of the day: As BMUS looks to support all its members to ‘push the boundaries of clinical imaging’ with best-practice documents and clinical guidance, it also promotes the support that should be afforded to the leaders in the ultrasound world with managerial roles. Hot topics in ultrasound management, strategy and team leadership will be key factors in this session.

**14.05 BSc (Hons) Medical Ultrasound, direct entry undergraduate education for Sonographers**, Anushka Sumra, Birmingham City University

14.20 **Addressing challenges of recruitment of non-CASE-accredited practitioners**, Mrs Pamela Parker, Hull University Teaching Hospitals

**14.50 Developing the next generation of sonography leaders**, Catherine Rienzo, Society of Diagnostic Medical Sonography

**15.05 Impact on sonographer vetting with implementation of a decision algorithm**, Rina Pindora, London North West University Hospital Trust

15.20 **Introduction to the BMUS Preceptorship Endorsement Scheme**, Mrs Catherine Kirkpatrick, United Lincolnshire Hospitals NHS Trust



**15.45 Taking part in the BMUS Preceptorship Endorsement Scheme pilot, Sharon Watty, Guy's and St Thomas' Hospital**

## **Plenary 3 – 4th Floor Box 1**

### **ULTRASOUND PHYSICS 1**

09.00–10.50 Chairs: Prof. Peter Hoskins, University of Dundee, Dr Prashant Verma, Sheffield Teaching Hospitals

This session will cover technology developments available commercially and relevant to today's clinical practice

**09.00 Commercial ultrasound imaging systems: Established and emerging technologies, Prof. Sandy Cochran, University of Glasgow**

**09.30 Ultrasound Computed Tomography: Current status and future challenges, Dr Luca Forte, University of Dundee**

**10.00 Assessment of thermal index compliance in clinical ultrasound examinations, Sam Butler, University Hospitals of North Midlands NHS Trust**

**10.10 Automated image processing of ultrasound quality assurance (USQA) images, Madalina Negoita, Guy's and St Thomas' NHS Foundation Trust**

**10.20 Know your limits – predicting AI performance on diverse ultrasound hardware, Dr Laurence Still, Intelligent Ultrasound**

### **ULTRASOUND PHYSICS 2**

11.20–13.10 Chairs: Prof. Peter Hoskins, University of Dundee, Dr Prashant Verma, Sheffield Teaching Hospitals

This session will cover technology developments which are either in development or have become recently available commercially.

**11.20 High-speed adaptive beam-forming, processing and applications, Prof. Steven Freear, University of Leeds**

**11.50 Microvascular structure and flow imaging using super-resolution ultrasound localisation microscopy – from benchside to bedside, Prof. Mengxing Tang, Imperial College London**

**12.20 The effect of dead transducer elements on pulsed Doppler and imaging performance, Daniel Wyatt, Multi-Medix**

**12.30 7 years of ultrasound probe failures from a monthly QA programme, Jasmin Lister, Sheffield Teaching Hospitals NHS Foundation Trust**

**12.40 Photoacoustic Imaging – Technical validation and emerging applications, Dr James Joseph, University of Dundee**

### **ULTRASOUND PHYSICS 3**

14.00–16.00 Chairs: Prof. Peter Hoskins, University of Dundee, Mr Barry Ward, Newcastle upon Tyne Hospitals NHS Foundation Trust

This session will cover issues relevant to the practice of ultrasound.

14.00 **Progress in the development of phase-insensitive pyroelectric sensors for quantitative imaging of breast tissue composition**, Dr Dan Sarno, National Physical Laboratory, Teddington

14.30 **Harmonisation of international ultrasound safety standards**, Dr Prashant Verma, Sheffield Teaching Hospitals

15.00 **Exploring phantom types: An overview and recent advances**, Dr Simone Ambrogio, Guy's and St Thomas' NHS Foundation Trust

15.30 **Quality assurance update**, Dr Alban Killingback, St George's NHS Trust

## **Practical Workshop – Dayjur Suite (2nd Floor)**

### **VASCULAR CAROTID PRACTICAL**

09.00–10.50 Led by Tanyah Ewen, North West Anglia NHS Foundation Trust

Ms Jodie Baker, Royal Sussex County Hospital

Mr Michael Lucas, Independent Vascular Services

Mrs Anna Rengel, Bristol Royal Infirmary

Miss Felicity Woodgate, Royal United Hospital Bath

Mr Antonio Sassano, North Bristol NHS Trust

Mr Simon Ward, Newcastle upon Tyne University Hospitals Trust

Mr Ben Warner-Michel, Salford Royal NHS Foundation Trust

### **VASCULAR UPPER LIMB PRACTICAL**

11.20–13.10 Led by Tanyah Ewen, North West Anglia NHS Foundation Trust

Ms Jodie Baker, Royal Sussex County Hospital

Mr Michael Lucas, Independent Vascular Services

Mrs Anna Rengel, Bristol Royal Infirmary

Miss Felicity Woodgate, Royal United Hospital Bath

Mr Antonio Sassano, North Bristol NHS Trust

Mr Simon Ward, Newcastle upon Tyne University Hospitals Trust

Mr Ben Warner-Michel, Salford Royal NHS Foundation Trust

## **Satellite Session – 4th Floor Box 11**

### **VETERINARY 1**

09.00–10.50 Chairs: Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Dr Naomi Earley, Wear Referrals Veterinary Specialist and Emergency Hospital

The Veterinary session will once again include a variety of interesting topics and case studies to enable vets and non-vet trained ultrasound operators working within the veterinary profession to promote the safe and effective use of diagnostic ultrasound.

We seek to promote high standards of clinical ultrasound practice and diagnostic confidence by inviting thought-provoking speakers from a multitude of clinical veterinary ultrasound backgrounds, including expert veterinary specialists, to share their experiences and invaluable clinical knowledge.

We hope to empower multi-disciplinary professionals from both the Veterinary and Medical professions to come together to improve the quality and standards of small animal ultrasound practice.

09.00 **Welcome and introduction from the Chair and Co-chair**, Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Dr Naomi Earley, Wear Referrals Veterinary Specialist and Emergency Hospital

09.05 **Top tips for ultrasound-guided needle procedures**, Dr Petra Agthe, Anderson Moores Veterinary Specialists

09.45 **Primary care ultrasound in a Dubai setting!**, Dr Omer Kutubi, Vet Village LLC, Dubai

10.20 **Why NOW is the time for RVNs and Diagnostic Medical Sonographers to support veterinary specialist referral ultrasound services**, Mrs Julie Burnage, Aspire UCS Ltd

## VETERINARY 2

11.20–13.10 Chairs: Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Dr Naomi Earley, Wear Referrals Veterinary Specialist and Emergency Hospital

11.20 **Ultrasound of the eye**, Dr John Beel, Clinical Services Director, Medivet

12.00 **Interesting cardiac case studies**, Ms Gaynor Jones, Medical and Veterinary Cardiac Physiologist

12.30 **Old dog ... New tricks**, Mr Ibrahima Barry, Mindray Animals

12.50 **RVN role extension: PoCUS and beyond – Ultrasound encounters of an OOH Vet Nurse!**, Ms Carrissa Gray, Vets Now Ltd

## VETERINARY 3

13.45–16.00 Chairs: Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Dr Naomi Earley, Wear Referrals Veterinary Specialist and Emergency Hospital

13.45 **The use of ultrasound in the management of GIT diseases**, Dr Rebecca Littler, Northwest Veterinary Specialists

14.25 **How to find the pancreas and adrenal glands – Practical demonstration**, Mrs Angie Lloyd-Jones, Aspire UCS Ltd

15.05 **How on-going ultrasound training and mentorship can support primary care practice**, Dr Anna McCosh, Westway Veterinary Group, Newcastle

15.35 **Debate: Isn't the time now for a stand-alone, competency-based veterinary ultrasound certificate?** Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Mrs Julie Burnage, Aspire UCS Ltd, Dr Naomi Early, Wear Referrals Veterinary Specialist and Emergency Hospital, Dr Anna McCosh, Westway Veterinary Group, Newcastle

15.55 **Final Question and Answers**, Mrs Angie Lloyd-Jones, Aspire UCS Ltd, Mrs Julie Burnage, Aspire UCS Ltd