



KING'S COLLEGE HOSPITAL

**4TH INTERNATIONAL PAEDIATRIC
CEUS COURSE**

19TH – 20TH JUNE 2017



BMUS 

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WELCOME ADDRESS

The course will take place at the Windsor Walk Lecture Theatre, Fetal Medicine Research Institute, King's College Hospital in London SE5 8BB, within easy connection to central London.

The organizers of the above course wish to invite you to participate in a 2-day concentration of experience and education in the new and exciting field of contrast-enhanced ultrasound (CEUS) in children. This is now an important aspect of imaging in children with recent Food and Drug Administration (FDA of the USA) approval of CEUS for characterisation of focal liver lesions and assessment of vesical-ureteric reflux. The organizers have extensive experience in the application of CEUS in children with over 10 years of accumulated knowledge, and wish to share this widely.

This is the 4th occasion we are organizing this course, and this has grown to a full two days. The course is recognized as a EUROSON School, with full endorsement of the European Federation of Societies of Ultrasound in Medicine and Biology (EFSUMB) and is endorsed by the British Medical Ultrasound Society (BMUS), with continuing medical education credits provided by the Royal College of Radiologist, United Kingdom.

The aim is to attract participants from across Europe, and further afield, who have an interest in introducing CEUS for children, in whom the importance of radiation dose reduction and accurate imaging are paramount. It is hoped that the faculty as well as the participants will establish a worldwide network to encourage the use of CEUS in children. The aim is to bring together this experience with fruitful exchange of knowledge and experience.

We have put together a program that we hope will serve the needs of the participants, encourage discussion and subsequently increased clinical use.

The background to the development, safety and future developments of CEUS will be discussed, and the legal role in children explained. The use in focal liver lesions, benign and malignant will be discussed. CEUS in blunt abdominal trauma, vesical-ureteric reflux and in areas where only CEUS can be used as a problem solving tool will be demonstrated. Discussion around guidelines for CEUS, experience in Europe and the United States will be led by experts, and unusual case studies will be presented. Speakers who have recently set-up their own program of CEUS in children will share their experience.

Course beverages, lunches and the gala dinner will be complimentary. An exhibition will take place of ultrasound equipment. Free Wi-Fi will be provided.

We hope you will be able to participate and add to this exciting initiative.

Maria E Sellars , Annamaria Deganello, Paul S Sidhu
Course Directors

KING'S COLLEGE HOSPITAL, DENMARK HILL, LONDON, UNITED KINGDOM

	<p>Kassa Darge The Children's Hospital of Philadelphia, Philadelphia, United States</p>		<p>Anoushka Ljutikov Royal London Hospital, London, United Kingdom</p>
	<p>Annamaria Deganello King's College Hospital, London, United Kingdom</p>		<p>Beth MacCarville St. Jude Children's Research Hospital, Memphis, Tennessee, United States</p>
	<p>Christoph Dietrich Caritas Krankenhaus, Bad Mergentheim, Germany</p>		<p>Erica Makin King's College Hospital, London, United Kingdom</p>
	<p>Robert Eckersely King's College London, United Kingdom</p>		<p>Maciej Piskunowicz Medical University of Gdansk, Gdansk, Poland</p>
	<p>Doris Franke Medizische Hochschule, Hannover, Germany</p>		<p>Suzanne Ryan King's College Hospital, London, United Kingdom</p>
	<p>Christian Greis Bracco Imaging, Konstanz Germany</p>		<p>Maria Sellars King's College Hospital, London, United Kingdom</p>
	<p>Dino Hadzic King's College Hospital, London, United Kingdom</p>		<p>Paul Sidhu King's College Hospital, London, United Kingdom</p>
	<p>Zoltan Harkanyi Heim Pal Hospital, Budapest, Hungary</p>		<p>Ian Rivens, Royal Marsden NHSF Trust: Institute of Cancer Research, Surrey, United Kingdom</p>
	<p>Dean Huang King's College Hospital, London, United Kingdom</p>		<p>Frank Volberg Georgetown University Medical Center, Washington United States</p>
	<p>Paul Humphries Great Ormond Street Hospital, London, United Kingdom</p>		<p>Gibran Yusuf King's College Hospital, London, United Kingdom</p>
	<p>Martin Krix Bracco Imaging, Konstanz, Germany</p>		

Registration fees

(Fee includes all beverages, lunch on 2 days and course dinner)

EFSUMB/BMUS/AIUM member	£320.00 (with letter of proof)
Medical or Radiology Trainee	£320.00 (with letter of proof)
Sonographer or Ultrasound Technician	£320.00
Non-affiliated physician	£400.00

Cancellation

No refunds will be given after April 1st 2017

Course Endorsement

BMUS 



Course Accreditation

THE ROYAL COLLEGE OF RADIOLOGISTS (UK) 12CPD CREDITS

EFSUMB CME CREDIT

Monday 19th JUNE 2017

09.00	Registration
09.20 - 9.30	Welcome by the Course Directors A short introduction with an overview of the programme. Prof Paul Sidhu, Professor of Imaging Sciences, King's College Hospital , London Dr Maria Sellars, Consultant Paediatric Hepatobiliary Radiologist, King's College Hospital, London Dr Annamaria Deganello, Consultant Paediatric Hepatobiliary Radiologist, King's College Hospital, London
09.30 – 10.00	Introduction to CEUS Technical and clinical basics of CEUS Prof Martin Krix, Bracco Imaging, Konstanz, Germany
10.00 – 10.20	EFSUMB Liver/Non Liver CEUS Guidelines The evolving CEUS Guidelines are introduced with comments on their application to paediatrics. Prof Christoph F Dietrich, Professor of Internal Medicine, Bad Mergentheim, Germany
10.20 – 10.40	Legal aspects: Using CEUS Off Licence This lecture will demonstrate the standing in legal terms for the use of medicines 'off-label' in the adult population, with extrapolation to the child. Evidence based findings, regulatory view, and the legal aspect will be discussed. Prof Paul Sidhu, Professor of Imaging Sciences, King's College , London, UK
10.40 – 11.10	FDA Approval: How did we do it? An insight to the workings of the FDA and the need for lobbying to achieve a goal. Prof Kassa Darge, Professor of Radiology and Surgery, University of Pennsylvania, Chief, Division of Body Imaging, Dept. of Radiology, The Children's Hospital of Philadelphia, Philadelphia, USA
11.10 – 11.40	Safety of CEUS in Adults and Children Ultrasound contrast agents are driven to vibrate by a diagnostic ultrasound beam. In this talk, the possible biological consequences of this motion are discussed and put into context of the safety of CEUS. Dr. Ian Rivens, Therapeutic Ultrasound, Division of Radiotherapy and Imaging, Joint Department of Physics, Royal Marsden NHSF Trust : Institute of Cancer Research, Sutton, UK
11.40 – 12.00	Refreshment Break
12.00 – 12.20	EFSUMB Paediatric Registry – current status? The need to collect convincing data for the implementation of this technique into acceptable clinical practice. Prof Christoph F Dietrich, EFSUMB President 2013-2015, Professor of Gastroenterology, Bad Mergentheim, Germany
12.20 – 12.50	Quantitative Measurement: Techniques and Challenges A discussion of the potential and limitations of contrast enhanced ultrasound imaging for quantitative measurement of blood flow. Particular attention will be paid to practical approaches and the avoidance of common pitfalls. Dr Robert Eckersley, Senior Lecturer in Biomedical Engineering at King's College London.

12.50 – 13.10	<p>VueBox™ for SonoVue™</p> <p>An overview of the use of dedicated software for CEUS dynamic analysis. Assessment of focal liver lesions and potential use in paediatric applications.</p> <p>Dr Christian Greis, Bracco Imaging, Konstanz, Germany</p>
13.10 – 14.00	<p>Lunch</p>
14.00 – 14.10	<p>EFSUMB Paediatric Statement Part I</p> <p>A review of the position statement from EFSUMB of the use of CEUS in children, with reference to the afternoon session.</p> <p>Prof Maciej Piskunowicz, Department of Radiology, Medical University of Gdansk, Poland</p>
14.10 - 14.30	<p>Paediatric Liver Disease –A physicians perspective</p> <p>Investigation into causes of acute and chronic liver disorders of childhood heavily relies on modern radiological methods. Bidirectional clinical communication is essential in order to ensure optimal and acceptably invasive work up with minimal side effects</p> <p>Prof Dino Hadzic, Consultant in Paediatric Hepatology Paediatric Centre for Hepatology, Gastroenterology and Nutrition, King's College Hospital, London, UK</p>
14.30 – 14.50	<p>Paediatric Liver Disease Imaging Spectrum</p> <p>An overview of all imaging techniques in the assessment of focal liver lesions in children, from common to unusual. Existing imaging strategies detailed, with the suggestion of the potential role of CEUS following FDA approval.</p> <p>Dr Paul Humphries, Consultant Paediatric Radiologist, Great Ormond Street Hospital, London, UK</p>
14.50 – 15.10	<p>CEUS Paediatric Indeterminate Focal Liver Lesions</p> <p>Our extensive experience of assessing and characterising incidental focal liver lesions in children. The position of CEUS in the imaging pathway is discussed.</p> <p>Dr Maria Sellars, Consultant Paediatric Hepatobiliary Radiologist, King's College Hospital, London, UK</p>
15.10 – 15.40	<p>CEUS in Paediatric Oncology</p> <p>This lecture will review our experience with CEUS in clinical trials of pediatric solid tumors. I will also discuss the value of CEUS as a problem solving tool in this patient population.</p> <p>Prof Beth MacCarville, Pediatric Radiologist, Department of Radiological Sciences, St. Jude Children's Research Hospital, Memphis, Tennessee, USA</p>
15.40 – 16.00	<p>Refreshment Break</p>
16.00 – 16.30	<p>CEUS in Paediatric Transplantation</p> <p>Applications of CEUS in children with emphasis on transplantation</p> <p>Dr Doris Franke, Children's Department, Medical School Hannover, Germany</p>
16.30 – 17.00	<p>How we set up a Paediatric CEUS Service</p> <p>This will be a discussion about our experiences in setting up paediatric contrast ultrasound services at The Royal London Hospital and at Great Ormond Street Hospital.</p> <p>Dr Anoushka Ljutikov, Consultant Paediatric Radiologist, Royal London Hospital, UK Dr Paul Humphries, Consultant Paediatric Radiologist, Great Ormond Street Hospital, London, UK</p>

Tuesday 20th JUNE 2017

09.20 – 09.30	EFSUMB Paediatric Statement Part II A review of the position statement from EFSUMB of the use of CEUS in children, with reference to the morning session. Prof Paul Sidhu, Professor of Imaging Sciences, King's College , London, UK
09.30 - 10.00	Clinical Safety of Paediatric CEUS in 2017 Recently published papers show not only the trends in CEUS examinations. Some of them help consolidate the knowledge as well as inspire researchers to their own experiments. Therefore, knowledge about CEUS publications in children population is essential for each who would like go deeper into CEUS world. Prof Maciej Piskunowicz, Department of Radiology, Medical University of Gdansk, Poland
10.00 - 10.30	Blunt Abdominal Trauma in children– a surgeons perspective An overview of the surgical management of blunt abdominal trauma in the paediatric patient and the role of imaging in clinical management Miss Erica Makin, Consultant Paediatric Hepatobiliary Surgeon, King's College Hospital, London, UK
10.30 – 11.00	CEUS in Blunt Abdominal Trauma in Children The use of CEUS in blunt abdominal trauma in children is detailed, with the position of CEUS in relation to CT of the abdomen highlighted with the reduction in radiation paramount in our practice. Dr Annamaria Deganello, Consultant Paediatric Hepatobiliary Radiologist, King's College Hospital, London, UK
11.00 – 11.20	Refreshment Break
11.20 – 11.40	Clinical Experience from Europe Current status of paediatric CEUS in Europe. Brief overview on the potential role of contrast US studies in the everyday clinical practice. Prof Zoltan Harkanyi, Radiologist, Department of Paediatric Radiology, Heim Pal Children's Hospital, Budapest, Hungary
11.40 – 12.30	Contrast enhanced Voiding Urosonography (ceVUS): Current status The intravesical administration of US contrast agent for diagnosis of vesicoureteric reflux in children is a safe method with higher diagnostic yield than conventional imaging and without radiation. Advanced contrast scan modalities allow short examination time, detection of minimal reflux and intrarenal reflux, 3D visualization and contrast urethrosonography. ceVUS has the potential to completely replace fluoroscopic and scintigraphic reflux studies. Prof Kassa Darge, Professor of Radiology and Surgery, University of Pennsylvania, Chief, Division of Body Imaging, Dept. of Radiology, The Children's Hospital of Philadelphia, Philadelphia, USA
12.30 – 12.50	CEUS in the Paediatric Testis The potential and real application of CEUS in the testis will be illustrated with examples of torsion, infection, tumours and trauma. Dr Dean Huang, Consultant Interventional Radiologist, King's College Hospital, London, UK
12.50 – 14.00	Lunch

14.00 – 15.30	<p>Case Presentations and Interactive Voting</p> <p>A series of interactive case presentations from the archives of the Radiology Department at King’s College Hospital will be presented by Fellows and trainees.</p> <p>Dr Suzanne Ryan Consultant Hepatobiliary Radiologist, King’s College Hospital, London, UK</p>
15.30 – 15.50	<p>What will happen with paediatric CEUS in the USA/Europe/Worldwide?</p> <p>After the recent FDA approval for pediatric IV and intra-vesical use, contrast ultrasound use should expand in the USA. Billing codes are now available, removing economic barriers. There is increased awareness of radiation dangers, and increased concern for controlling costs, both of which make contrast ultrasound an attractive option. In view of the new environment, the Society of Pediatric Radiology task force for contrast ultrasound has surveyed the membership regarding CEUS. The survey results will be discussed.</p> <p>Prof Frank Volberg, Professor of Radiology and Chief, Pediatric Radiology, Georgetown University Medical Center, Washington D.C. USA</p>
15.50 – 16.10	<p><i>Refreshment Break</i></p>
16.10 – 16.30	<p>Cost Effectiveness of Paediatric CEUS</p> <p>A detailed review of the cost implications of adding CEUS in the imaging work-up of the child, with emphasis on radiation dose reduction, absence of sedation and potential nephrotoxic contrast agents.</p> <p>Dr Gibran Tim Yusuf, Consultant Radiologist, King’s College Hospital, London, UK</p>
16.30 – 16.50	<p>Paediatric CEUS in Unusual Places</p> <p>A ‘tour’ of the areas where improvisation and lateral thinking allows a radiation free diagnostic procedure in the child.</p> <p>Dr Annamaria Deganello, Consultant Paediatric Hepatobiliary Radiologist, King’s College Hospital, London, UK</p>
16.50 – 17.00	<p>Course Assessment</p>