



# 29<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology

12-16 October 2019, Berlin, Germany

# Final Program

*Up to 36 CME credits*



Join the Congress conversation  
**#ISUOG2019**

 **isuog**.org

# Welcome to ISUOG!


As a Congress delegate, you receive one year of Basic ISUOG membership. Please check your details in **My isuog** ([www.isuog.org](http://www.isuog.org)).

Take a moment to visit us at the ISUOG Lounge to find out more about the exciting opportunities available to you as an ISUOG member during the Congress and throughout the year.



**Upgrade your membership during the Congress at the registration desk or ISUOG Lounge to include full access to our Journal *Ultrasound in Obstetrics & Gynecology*.**

## Online learning

- 320+ web lectures and webcasts from ISUOG education courses
- CME platform for continuing education; earn CME credits online
- 650+ World Congress presentations via ISUOG On Demand
-  **visuog**: a visual encyclopedia for ultrasound in obstetrics and gynecology

## Reduced fees to ISUOG events

- 30<sup>th</sup> ISUOG World Congress in Glasgow, UK, 17-21 October 2020
- 16<sup>th</sup> ISUOG International Symposium in Cairo, Egypt, 3-5 April 2020
- ISUOG's intensive education courses

## Regional education

- Opportunities to participate in:
  - ISUOG approved courses
  - Satellite education
  - Outreach projects

**96.27%**  
of members  
**recommend**  
**ISUOG!**



Be part of our growing community and  
join the conversation **#ISUOG2019**



# Contents

---

Welcome to Berlin	4
<b>General information</b>	
Venue floor plan	6
Opening times	7
General information	8-9
Social program	10-11
Supplement your learning	12-13
Invited faculty	15
Speaker declarations	16-17
Award winners	18-19
Keynote speakers	19-22
Travel Grant winners	23
ISUOG Fetal brain imaging certificate	24
Program at a glance	26-29

<b>Saturday</b>	
Pre-Congress courses	35-37

<b>Sunday</b>	
Program	41-44

<b>Monday</b>	
Program	46-53
Hubs	54-57
Short oral presentations	58-62
Poster discussion Hubs	63-67

<b>Tuesday</b>	
Program	70-79
Hubs	80-83
Short oral presentations	84-87
Poster discussion Hubs	88-92

<b>Wednesday</b>	
Program	96-101
Hubs	102-103
Short oral presentations	104-106
Poster discussion Hubs	107-109

<b>Exhibition &amp; sponsorship</b>	
Exhibition floor plan	112
Exhibitor listing	113
Exhibitor profiles	114-125
Hospitality and education suites	126-127
Satellite symposia	128
Industry acknowledgements	129

<b>ISUOG meetings</b>	
ISUOG Trustees and Committee meetings	130

# ISUOG 2019 Organising Committees

## Congress Chairs

R. Chaoui, *Germany*  
K. Hecher, *Germany*

## Local Organising Committee (LOC), Germany

K. Heling, W. Henrich, K.O. Kagan,  
D. Schlembach, S. Verlohren

## Local Advisory Board (LAB), Germany

B. Arabin, R. Axt-Fliedner, C. Bamberg,  
C. Berg, C. Brezinka (*Austria*), R. Faber,  
A. Geipel, U.G. Gembruch, J. Hackelöer,  
E. Merz, M. Meyer-Wittkopf

## ISUOG President

C.M. Bilardo, *Netherlands*

## Honorary Secretary

B. Tutschek, *Switzerland*

## ISUOG Scientific Committee

L.J. Salomon (Chair), *France*  
D. Timmerman (Vice-Chair), *Belgium*  
T. Bourne, *UK*  
R. Chaoui, *Germany*  
G. Condous, *Australia*  
F. da Silva Costa, *Brazil*  
K. Hecher, *Germany*  
E.A. Hernandez-Andrade, *USA*  
C. Lees, *UK*  
A.T. Papageorgiou, *UK*  
N. Raine-Fenning, *UK*  
M. Sanz-Cortes, *USA*  
S. Saso, *UK*  
T. Van den Bosch, *Belgium*

## ISUOG Secretariat, UK

W. Holloway, Director of Operations  
G. Mouterde, Event Manager  
Z. Ali, Event Coordinator

## Congress venue

Estrel Congress Center

Sonnenallee 225, 12057 Berlin, Germany  
+49 30 6831 0

[www.estrel.com](http://www.estrel.com)

## Welcome to Berlin

We are extremely pleased to welcome you to Berlin for the 29<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology. The Congress promises to be the largest ISUOG conference to date, following a record number of abstract submissions and registrations. The Scientific Committee have also invited the highest number of international faculty, which will ensure that this year's program is one of the best yet.

As well as hearing from the leading clinicians in the field, there are plenty of opportunities to meet like-minded people in the Hubs, during the social program and in the coffee breaks. We bring together attendees from over 112 different countries and we hope you will take up the opportunity to form worldwide collaborations.

Please also visit the ISUOG stand to learn more about being a member and how you can get involved in the ISUOG global community.

Berlin is an innovative city at the forefront of creative culture and we aim to incorporate this into our event. With a direct train line to the city centre, we also invite attendees to make the most of their time here and enjoy the history, architecture and art following the Congress.



**Rabih Chaoui**  
Congress Chair



**Kurt Hecher**  
Congress Chair

# GENERAL INFORMATION

## ISUOG 2019



**July 2019**

Sagittal view of aortic arch on 4D spatiotemporal image correlation with high-definition glass-body rendering with silhouette mode, showing tortuous and dilated descending aorta and descending aortic aneurysm in 23-week fetus.

*Karmegaraj B, Rajeshkannan R, Kappanayil M, Vaidyanathan B. Ultrasound Obstet Gynecol 2019; 54: 142–144.*

# Venue floor plan



\* This is the lift to Wing 3 meeting rooms 30210, 30212, 30225, 30227 and 30241

## Opening times

---

### Registration

Saturday 12 October	<b>07:00 – 17:00</b>
Sunday 13 October	<b>07:00 – 17:00</b>
Monday 14 October	<b>07:00 – 17:00</b>
Tuesday 15 October	<b>07:00 – 17:00</b>
Wednesday 16 October	<b>07:00 – 16:00</b>

The registration desk is located on the ground floor of the Estrel Congress Center in the Large gallery.

### Exhibition

Sunday 13 October	<b>10:25 – 19:30</b>
Monday 14 October	<b>09:00 – 16:00</b>
Tuesday 15 October	<b>09:00 – 16:00</b>
Wednesday 16 October	<b>09:00 – 14:30</b>

The exhibition is located on the ground floor of the Estrel Congress Center in Convention Hall IAB.

### Speaker preparation room

Saturday 12 October	<b>07:00 – 17:00</b>
Sunday 13 October	<b>07:00 – 17:00</b>
Monday 14 October	<b>07:00 – 17:00</b>
Tuesday 15 October	<b>07:00 – 17:00</b>
Wednesday 16 October	<b>07:00 – 16:00</b>

The speaker preparation room is located on the ground floor of the Estrel Congress Center in the Paris room. If you have submitted your presentation, you do not need to go to the speaker preparation room. If you need to upload or edit a presentation, please make your way to this room as early as possible on the day.

## General information



### AGM

All ISUOG members are invited to attend the AGM. This takes place on Sunday 13 October in Convention Hall II from 09:50 to 10:25.



### App

Stay up-to-date with what's going on at the Congress by downloading the ISUOG Congress app. Go to the App store or Google play and type 'ISUOG 2019'. You'll be able to create a personalised agenda, engage with other attendees, read all the abstracts, post on social media as well as have your say by rating, voting and filling out surveys.



### Awards

At the Closing plenary on Wednesday 16 October, we will be announcing the winners of the:

- Top abstract
- Young Investigator prize
- Best presentations in each topic.



### Badges

Please wear your name badge at all times; you will need this to gain admission to the sessions or exhibition area. Please note that our staff members are instructed not to permit entry without a badge, so please understand if you are asked to return to the registration desk.



Full delegate



ISUOG Trustee



Faculty



Exhibitor (*access to exhibition areas only*)



Staff



Day delegate (*with day printed*)



Accompanying person  
(*no access to scientific sessions*)



### Cash machines

A cash machine (ATM) is located at the Estrel Hotel, adjoined to the Estrel Congress Center. The banks with ATMs nearest to the Congress venue are Berliner Volksbank and Berliner Sparkasse.



### Catering

Catering is provided by the Estrel Congress Center. Tea, coffee and light lunches will be served in the exhibition hall from Sunday morning break until the end of the lunch break on Wednesday, excluding build and breakdown times.



### Certificates of attendance

After the Congress you will be emailed an evaluation form and, after this form has been completed, you will receive your certificate of attendance.

The Fetal brain imaging, pre-Congress courses and Basic Training simulation workshops certificates will be sent to the attendees who took part in these programs after the Congress.



### CME

ISUOG is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS).

The 29<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology<sup>1</sup> is designated for a maximum of 36 hours of European external CME credits. Your badge will be scanned at session hall entrances for CME accreditation. Each medical specialist should claim only those hours of credit that they actually spent in educational activity.

Through an agreement between UEMS and the American Medical Association (AMA), physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at [www.ama-assn.org/go/internationalcme](http://www.ama-assn.org/go/internationalcme).

Physicians from Germany will receive a maximum of 30 credits per day from Arztekammer Berlin.



### Co-authors

Please note that only the presenting author is listed in the event program. The names of the co-authors can be found on the ISUOG app, online On Demand stations and in the abstract book.





### Data protection

If you do not wish to receive further information about the 29<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology, please contact ISUOG and request that your name be removed from the mailing list. Alternatively, please tick the relevant box on your online booking form.



### Disclaimer

All best endeavours will be made to present the scientific and social programs as printed. However, the 29<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology and its agents reserve the right to alter or cancel without prior notice any of the arrangements, timetables, plans or other items relating directly or indirectly to the Congress, for any cause beyond its reasonable control. The Congress and its agents are not liable for any loss or inconvenience caused as a result of such alterations.



### Electronic posters

All electronic posters (EPs) and recorded Congress talks will be available at the ISUOG On Demand stations which are located at the ISUOG Lounge, in the exhibition area. EPs will also be available to view in the Rotunda.



### First aid

Should you require medical assistance during the Congress hours, please contact the registration desk or the nearest ISUOG member of staff who will be able to assist you.



### Lost property

Please hand any lost property to the staff at the registration desk where it will be made available for collection.



### Mobile phones

Throughout all of the Congress lectures, workshops and activities, ISUOG request that all mobile phones are kept on silent. Please also ensure that screen resolution remains low, to prevent disturbing any other delegates and speakers.



### Official language

The official language of the Congress is English.



### Parking

Attendees may use the public car parking at the Estrel Congress Center on a first-come, first-served basis at the prevailing car parking rates and according to the official operating hours. For more information about getting to the Estrel Congress Center, please visit [www.estrel.com/en/location-directions.html](http://www.estrel.com/en/location-directions.html)



### Prayer room

There is a prayer room available in Room 30225, in Wing 3 on the second floor.



### Recordings and photographer

All sessions are available to delegates and ISUOG members after the Congress, through the ISUOG On Demand web portal. Other audio or video recording or taping is strictly prohibited in the sessions, unless prior consent has been arranged with ISUOG Secretariat. ISUOG has arranged for a photographer to capture all aspects of the Congress. If you do not wish to be photographed, please notify the photographer as they are walking around the event.



### Smoking policy

There are designated smoking areas at the Estrel Congress Center outside Foyer 2 (under the Rotunda) and the adjoined Hotel.



### Star rating

On the Congress app you will be able to give each session you attend a star rating. Our session chairs will remind you throughout the event.



### Tickets

If you have purchased a ticket for the Congress party, or if you have bought an additional Opening ceremony and Welcome drinks pass, tickets will be given to you when you collect your badge from the registration desk. If you lose your tickets for the Congress party, please inform the ISUOG registration staff. Tickets for this party are selling fast, so please ask registration staff about availability.



### Wi-Fi

ISUOG has provided a premium Wi-Fi network for delegates. To access this, please go into your network settings, choose the network called 'ISUOG' and enter the password 'ISUOG2019'.

## Social program

---

### Sunday 13 October 2019, 17:35-19:30

#### Opening ceremony and Welcome drinks – Estrel Congress Center, Convention Hall I & II

ISUOG 2019 will officially open after our keynote speeches and awards. The evening will continue with music and drinks served in the exhibition area, giving you the opportunity to network with fellow delegates from around the world.

With grateful acknowledgment to our sponsor for this event:

**Canon**  
CANON MEDICAL



### Monday 14 October 2019, 06:00-07:00

#### Yoga session: beginners – Estrel Congress Center, Foyer 4

Prof. Daniela Prayer is an international Yoga Alliance-certified instructor teaching Vinyasa Yoga to beginners and advanced practitioners. Daniela will be leading a 45-minute yoga session (starting at 06:15) to get your blood flowing before your day at Congress. This promises to be a fun and exhilarating session. No experience will be required however, if you have any previous medical conditions that may result in injury, please do not take part in this session. Yoga mats will be provided. Be prepared to sweat and have fun! You are not required to wear your badge to participate.



### Monday 14 October 2019, 17:30-18:10

#### 7K run around east Berlin – meet at 17:25 at the Estrel Hotel lobby fountain

Join Profs. Kurt Hecher and Laurent Salomon for a fun 7K run around east Berlin. No need to register; simply turn up and join in! Due to daylight hours, the run will begin promptly at 17:30. No need to wear your badge to participate however, if you have any previous medical conditions that may result in injury, please do not take part in this run.



### Tuesday 15 October 2019, 06:00-07:00

#### Yoga session: intermediate – Estrel Congress Center, Foyer 4

Daniela Prayer will be leading a second 45-minute fun and exhilarating yoga session. This is an intermediate-advanced session. Yoga mats will be provided. Be prepared to sweat and have fun! You are not required to wear your badge to participate. If you have any previous medical conditions that may result in injury, please do not take part in this session.



**Tuesday 15 October 2019, 19:30-02:00****Congress party – Spindler & Klatt, Dress code: party!**

Party tickets: €85

Join us for this year's party in the industrial chic location of Spindler & Klatt. Catch up with colleagues on the heated winter terrace, try the three-course buffet in the zen room and dance the night away to our amazing live band who will be playing three sets throughout the night. As well as the buffet, unlimited Prosecco, beer, wine and soft drinks is included in your ticket. There will also be a paid bar for any attendees who prefer something different.

To get you to and from the venue, you can additionally buy a €10 return ticket for the organised coaches. The coaches will leave the Estrel Hotel at 18:40. Return coaches will depart regularly from 22:30. Please note that the last bus will leave at 01:00.

With grateful acknowledgement  
to our sponsor for this event:

**PHILIPS****Wednesday 16 October 2019, 17:00-18:00****Leaving drinks – Estrel Congress Center, Foyer 3**

To celebrate the end of a successful Congress, and to look forward to the 2020 World Congress in Glasgow, we invite all attendees to join us for our themed Scottish leaving drinks. Meet our next Congress Chairs and see how you can get involved.

**Apply for a 2020 Congress travel grant**

ISUOG is again inviting researchers from underserved regions to apply in 2020 to participate at the Congress in Glasgow. Travel, accommodation and registration will be offered to six successful applicants who submit an abstract for the Glasgow Congress and meet the eligibility criteria. All applications must be accompanied by a submitted abstract. Abstract submission will open in January 2020.

Full terms, conditions and application criteria are available online at:

[www.isuog.org/events/world-congress/call-for-papers/travel-grants.html](http://www.isuog.org/events/world-congress/call-for-papers/travel-grants.html)



# Supplement your learning



Learn more about four key topics of this year's Congress by watching previously recorded lectures, reading ISUOG Guidelines and UOG articles, as well as completing CME activities. The full details are available on the ISUOG website and Congress app, and below is an outline of the learning pathways and top UOG articles.

## Featured topic: First trimester ultrasound in the era of NIPT

### Sunday

- **09:25 Convention Hall II**  
Plenary 1: Moving the anomaly scan to the first trimester
- **11:45 Convention Hall II**  
Plenary 2: State-wide performance of traditional and cell-free DNA-based prenatal testing pathways: the Victorian Perinatal Record Linkage (PeRL) study
- **13:45 Convention Hall IC**  
WS02: NIPD for monogenic disorders
- **14:05 Convention Hall IC**  
WS02: Implementation of cfDNA-based screening policies

### Monday

- **08:15 Convention Hall IC**  
OC02: cfDNA in our daily practice: what should we expect?
- **09:40 Foyer 3**  
Hub 4: Fetal disease I
- **15:10 Convention Hall II**  
OC11: Role of early ultrasound scan: a two-year study of cases of increased nuchal translucency with normal karyotype

### Tuesday

- **09:40 Foyer 3**  
Hub 1: First, second and third trimester screening

### • 10:45 Foyer 3

Hub 3: In conversation with *K.O. Kagan*: fetal anomaly screening in the first trimester

### • 12:10 Estrel Hall AB

OP15: Screening for and diagnosis of congenital heart defects

### • 12:10 Foyer 3

P13: Hypertension in pregnancy

### Wednesday

### • 07:30 Convention Hall IC

MC09: First trimester fetal anomaly scan: the basics and beyond

### • 08:15 Estrel Hall AB

OC28: Hypertension in pregnancy and maternal hemodynamics

**UOG Journal top pick:** Agil, M. M., Quezada, M. S., Revello, R., Akolekar, R. and Nicolaidis, K. H. (2015), Analysis of cell-free DNA in maternal blood in screening for fetal aneuploidies: updated meta-analysis. *Ultrasound Obstet Gynecol*, 45: 249-266.

## Featured topic: Classifying ovarian masses

### Monday

- **08:15 Convention Hall ID**  
OC04: Classifying and managing ovarian masses
- **09:40 Convention Hall ID**  
OP03: Classifying and managing ovarian masses
- **12:10 Foyer 3**  
P07: Classifying ovarian masses using ultrasonography

### • 14:15 Foyer 3

Hub 3: In conversation with *D. Timmerman*: the IOTA study and classifying ovarian masses Q&A

### • 16:00 Convention Hall ID

WS09: Classifying ovarian tumours: knowing how to classify ovarian masses using IOTA terminology, rules and models

### Wednesday

### • 07:30 Convention Hall ID

MC10: Recognising different types of ovarian tumours from metastatic lesions to immature teratomas: features and case examples

**UOG Journal top pick:** Moro, F., Pasciuto, T., Djokovic, D., Di Legge, A., Granato, V., Moruzzi, M. C., Mancari, R., Zannoni, G. F., Fischerova, D., Franchi, D., Scambia, G. and Testa, A. C. (2019), Role of CA125/CEA ratio and ultrasound parameters in identifying metastases to the ovaries in patients with multilocular and multilocular-solid ovarian masses. *Ultrasound Obstet Gynecol*, 53: 116-123.

## Featured topic: Complications in early pregnancy

### Sunday

- **11:35 Convention Hall II**  
OC01.02 The assessment of microRNA expression in pregnancies classified as a pregnancy of unknown location using transvaginal ultrasonography [shortlisted for the Young Investigator award]
- **13:45 Convention Hall ID**  
WS04: Early pregnancy: management of common problems
- **16:05 Convention Hall II**  
Plenary 3: Caesarean scar pregnancy

### Monday

- **08:15 Foyer 3**  
HUB 3: In conversation with *J.E. Timor-Tritsch*: Caesarean scar pregnancy
- **12:10 Estrel Hall AB**  
OP08: Prediction of pregnancy complications

### Tuesday

- **07:30 Convention Hall ID**  
MC07: Diagnosis and surgical management of endometriosis
- **08:15 Convention Hall ID**  
OC16: Managing complications in early pregnancy

- **10:00 Convention Hall ID**  
WS13: Should we be screening for Caesarean scar pregnancies?

### Wednesday

- **08:15 Foyer 3**  
Hub 3: In conversation with *F. Ushakov*: early neurosonography – fetal CNS at 11–13 weeks
- **10:45 Foyer 3**  
Hub 4: In conversation with *F. da Silva Costa*: how to set up a first trimester screening for pre-eclampsia – a global perspective

**UOG Journal top pick:** Bobdiwala, S., Christodoulou, E., Farren, J., Mitchell-Jones, N., Ayim, F., Chohan, B., Abughazza, O., Guruwadhyarhalli, B., Al-Memar, M., Guha, S., Vathanan, V., Bottomley, C., Gould, D., Stalder, C., Timmerman, D., Van Calster, B. and Bourne, T. (2018), OC01.04: A multicentre trial on the performance of a two-step triage protocol based on initial serum progesterone and serial hCG used to manage pregnancies of unknown location (PUL). *Ultrasound Obstet Gynecol*, 52: 2-2.

## Featured topic: Optimal use of ultrasound to obtain the best obstetrical outcome

### Sunday

- **11:00 Convention Hall II**  
Plenary 2: Stuart Campbell lecture: Fetal growth restriction: talking the same language
- **13:45 Estrel Hall AB**  
WS05: Fetal surgery
- **17:00 Convention Hall II**  
Plenary 3: My journey in fetal medicine: from novel field to established practice

### Monday

- **08:15 Estrel Hall AB**  
OC05: Ultrasound in the labour ward

### Tuesday

- **08:15 Convention Hall II**  
OC15: Fetal growth: the bigger picture
- **10:45 Convention Hall II**  
OC19: Growth: insights into assessment
- **12:10 Foyer 3**  
Hub 4: Fetal growth: Doppler and other functional assessment
- **16:00 Convention Hall II**  
WS15: Ultrasound in the labour ward: why and how

### Wednesday

- **07:30 Estrel Hall AB**  
MCT1: All you need to know about multiple pregnancy
- **09:40 Convention Hall IC**  
OP16: IUGR: clinical studies
- **10:45 Convention Hall ID**  
OC30: Placenta accreta spectrum
- **14:15 Convention Hall IC**  
WS19: Abnormally invasive placenta

**UOG Journal top pick:** Sotiriadis, A. and Odibo, A. O. (2019), Systematic error and cognitive bias in obstetric ultrasound. *Ultrasound Obstet Gynecol*, 53: 431-435.

Supplement your learning and earn CME via:

[www.isuog.org/events/world-congress/scientific-program/congress-supplement-your-learning.html](http://www.isuog.org/events/world-congress/scientific-program/congress-supplement-your-learning.html)

# Montreal 2020 ispd



**24th International Conference on  
Prenatal Diagnosis and Therapy**  
16-19 June 2020 Montreal, Canada



**While in Berlin**, make sure to join us for the workshop  
**CfdNA: New Challenges** held in collaboration with  
ISUOG on Sunday, 13 October 2019!

Come by our exhibit booth for more information.



# Invited faculty

- R. Abu-Rustum (USA)  
 A. Abuhamad (USA)  
 P. Acharya (India)  
 R. Achiron (Israel)  
 M. Al-Memari (UK)  
 F. Amant (Belgium)  
 B. Arabin (Germany)  
 W. Arzt (Austria)  
 R. Axt-Fliedner (Germany)  
 F. Bahlmann (Germany)  
 C. Bamberg (Germany)  
 F. Bardi (Netherlands)  
 A.A. Baschat (USA)  
 J. Bault (France)  
 B.R. Benacerraf (USA)  
 P. Benn (USA)  
 P. Bennett (UK)  
 B. Benoit (France)  
 C. Berg (Germany)  
 S. Bhatt (USA)  
 C.M. Bilardo (Netherlands)  
 S. Bobdiwala (UK)  
 A. Borrell (Spain)  
 P. Boukobza (France)  
 T. Bourne (UK)  
 C. Brezinka (Austria)  
 G. Cali (Italy)  
 A. Cameron (UK)  
 S. Campbell (UK)  
 J.S. Carvalho (UK)  
 G.E. Chalouhi (France)  
 F. Chantraine (Belgium)  
 R. Chauui (Germany)  
 L. Chitty (UK)  
 T. Chudleigh (UK)  
 T.E. Cohen-Overbeek (Netherlands)  
 S. Collins (UK)  
 G. Condous (Australia)  
 E. Contro (Italy)  
 J.A. Copel (USA)  
 C. Coutinho (Brazil)  
 F. Crispi (Spain)  
 M. Cruz-Lemini (Spain)  
 R. Cruz-Martinez (Mexico)  
 F. D'Antonio (Norway)  
 F. da Silva Costa (Brazil)  
 A. Dall'Asta (Italy)  
 J. Deprest (Belgium)  
 G.R. DeVore (USA)  
 A. Diemert (Germany)  
 L. Drukker (UK)  
 L. Dugoff (USA)  
 T.M. Eggebo (Norway)  
 S. Eik-Nes (Norway)  
 V.H. Eisenberg (Israel)
- E. Eixarch (Spain)  
 E. Epstein (Sweden)  
 C. Exacoustos (Italy)  
 R. Faber (Germany)  
 A. Farrokhi (Germany)  
 H. Feltovich (USA)  
 S. Ferrero (Italy)  
 F. Figueras (Spain)  
 D. Fischerová (Czech Republic)  
 C. Fotopoulou (UK)  
 H. Fourie (UK)  
 D. Franchi (Italy)  
 W. Froyman (Belgium)  
 T. Frusca (Italy)  
 A. Gagnon (Canada)  
 H. Gardiner (USA)  
 A. Geipel (Germany)  
 U.G. Gembruch (Germany)  
 T. Ghi (Italy)  
 G. Gigerenzer (Germany)  
 M. Gil (Spain)  
 P. Glanc (Canada)  
 S.R. Goldstein (USA)  
 S. Gordijn (Netherlands)  
 E. Gratacós (Spain)  
 F. Grati (Italy)  
 S. Guerniero (Italy)  
 L. Guibaud (France)  
 J. Hackelöer (Germany)  
 L. Hanson (USA)  
 K.K. Haratz (Israel)  
 K. Hecher (Germany)  
 U. Hehr (Germany)  
 K. Heling (Germany)  
 W. Henrich (Germany)  
 R. Heremans (Belgium)  
 E.A. Hernandez-Andrade (USA)  
 M. Herrera (Colombia)  
 T. Hildebrandt (Germany)  
 M. Hoopmann (Germany)  
 A. Horne (UK)  
 G. Hudelist (Austria)  
 J. Huhta (USA)  
 J. Huirne (Netherlands)  
 J. Hyett (Australia)  
 A. Johnson (USA)  
 L. Jokubkiene (Sweden)  
 M. Judas (Croatia)  
 D. Jurkovic (UK)  
 K.O. Kagan (Germany)  
 B.H. Kahrs (Norway)  
 F. Kainer (Germany)  
 K. Kalache (Qatar)  
 E. Kalafat (Turkey)  
 J. Karim (UK)
- K. Karl (Germany)  
 G. Kaspiran (Austria)  
 A. Khalil (UK)  
 A. Khurana (India)  
 E. Kirk (UK)  
 P. Klaritsch (Austria)  
 P. Kozlowski (Germany)  
 C. Kyriacou (UK)  
 C. Landolfo (UK)  
 W. Lee (USA)  
 C. Lees (UK)  
 M. Leonardi (Australia)  
 F.P.G. Leone (Italy)  
 L. Lewi (Belgium)  
 G. Malingier (Israel)  
 K. Maršal (Sweden)  
 J. Martins (USA)  
 W.P. Martins (Brazil)  
 S. Meagher (Australia)  
 K. Melchiorre (UK)  
 E. Merz (Germany)  
 M. Meyer-Wittkopf (Germany)  
 A.E. Millischer (France)  
 R. Napolitano (UK)  
 A. Ngu (Australia)  
 K. Nicolaides (UK)  
 M. Norton (USA)  
 J. Ochoa (Argentina)  
 A. Odibo (USA)  
 D. Paladini (Italy)  
 A.T. Papageorgiou (UK)  
 R. Pooh (Japan)  
 L. Poon (Hong Kong)  
 D. Prayer (Austria)  
 J. Preisler (Chile)  
 D. Pugash (Canada)  
 E. Quarello (France)  
 N. Raine-Fenning (UK)  
 G. Rizzo (Italy)  
 D. Rolnik (Australia)
- R. Romero (USA)  
 R. Ruano (USA)  
 J. Rychik (USA)  
 L.J. Salomon (France)  
 M. Sanz Cortes (USA)  
 S. Saso (UK)  
 L. Savelli (Italy)  
 D. Schlembach (Germany)  
 J. Sehoul (Germany)  
 L. Sentilhes (France)  
 S. Seshadri (India)  
 H. Shah (UK)  
 A. Sotiriadis (Greece)  
 T. Stampalija (Italy)  
 J. Stirnemann (France)  
 J. Stone (USA)  
 Å. Tabor (Denmark)  
 A.C. Testa (Italy)  
 D. Timmerman (Belgium)  
 I.E. Timor-Tritsch (USA)  
 S. Tudorache (Romania)  
 B. Tutschek (Switzerland)  
 H. Valensise (Italy)  
 L. Valentin (Sweden)  
 T. Van den Bosch (Belgium)  
 S. Verlohren (Germany)  
 Y. Ville (France)  
 C. von Kaisenberg (Germany)  
 N. Vrachnis (Greece)  
 A. Weichert (Germany)  
 H. Werner (Brazil)  
 S.C. Westerway (Australia)  
 L. Wilkins-Haug (USA)  
 C. Wohlmuth (Austria)  
 Q. Wu (China)  
 L. Wynants (Belgium)  
 S. Yagel (Israel)  
 J. Yazbek (UK)  
 G. Yeo (Singapore)  
 A. Youssef (Italy)



## Speaker declarations

The following speaker declarations have been received:

E. Antolin	Is on the Advisory Board of Roche (EP01.07).
P. Benn	Is a paid consultant for Natera; may make reference to work conducted for Natera Inc, a provider of non-invasive prenatal testing.
S. Bhatt	Is an employee of and shareholder in Illumina Inc, the manufacturer of VeriSeq NIPT Solution v2 (OC02.02).
A. Borrell	Illumina funded part of the study (OC06.07).
C. Brezinka	Has delivered GE invited lectures in China.
J.S. Carvalho	Will use images from various ultrasound systems, including from Hitachi, who provide technical support for training courses she organises in London.
R. Chaoui	Receives honoraria for talks from GE Healthcare.
G. Condous	Is a GE luminary.
J.A. Copel	Is a consultant for Nuvo Inc and for Philips Ultrasound; is on the Medical Advisory Board of Jubel LLC.
A. Dall'Asta	The work presented in the abstract OP19.08 was supported by an unrestricted educational grant from Samsung Medison (Seoul, South Korea) to Genesis Research Trust (registered charity 292518), London, UK (OP19.08).
G.R. DeVore	Is a speaker for GE Ultrasound; will discuss speckle-tracking analysis of the fetal heart in which software from TomTec (Munich, Germany) and GE Ultrasound (Austria) was used to derive the data; has however received no compensation for his work with GE FetalHQ or for the TomTec software used in his studies and presentations.
J. Durkan	Is a part-time applications specialist with Medical Diagnostic Instruments (distributor for GE Healthcare) in Ireland (EP19.10).
T.M. Eggebo	Will perform a live scan supported by GE; has participated in one focus group meeting with GE, but has not received any personal reimbursements and has not performed any talks or promotional activities for companies; one author (T. Scholbach) of abstract P13.10 developed the PixelFlux software and is a shareholder in Chamaleon Software GmbH (P13.10).
H. Feltovich	Receives engineering support and equipment loan from Siemens Ultrasound; may discuss an off label use of a prototype ultrasound transducer from Siemens Ultrasound.
S. Girardelli	Funded by UK Medical Research and Wiseman Trust with commercial collaboration with Canon Medical Systems (OP12.02, EP21.26).
S.R. Goldstein	Is a consultant for Cook OBGYN; GE Ultrasound equipment loan (OC08.06).
F. Grati	Is an Advisory Board member for Roche and receives a lecture fee.
K. Hecher	Will perform a live scan supported by GE.
K. Helling	Receives payment from GE for lectures; performs testing of GE US systems and software products.
S. Hong	The test described is the subject of a patent by the Seoul National University in Seoul, Republic of Korea. Dr. B.H. Yoon is an inventor and has a financial interest in OBMed Co., Ltd., Seoul, Republic of Korea, the manufacturer of this test (OC09.04).
K.O. Kagan	Immunoglobulines (Cytotect) are provided by Biotest. cfDNA tests are provided by commercial providers.
A. Khurana	Is a consultant for GE; is a consultant for Aspari Imagetech Quantus FLM; will discuss fetal lung maturity 3D/4D ultrasound.
S. Kim	The test described is the subject of a patent by the Seoul National University in Seoul, Republic of Korea. Dr. B.H. Yoon is an inventor and has a financial interest in OBMed Co., Ltd., Seoul, Republic of Korea, the manufacturer of this test (EP02.46).
E. Kostenko	All authors are employees of Roche Sequencing Solutions Inc (OP05.10).
W. Lee	Will perform a live scan supported by Philips; is a technology consultant for Philips Ultrasound.
S. Leonard	Is the Medical Director of Natera (OP12.09, EP04.03).
G. Malinger	Gives lectures for GE and Samsung and provides technical advice to Samsung.



M. Norton	Receives research support from Natera, a lab that performs cfDNA screening. However, that lab and product will not be specifically discussed or recommended.
M. Ozgun	Study was supported by 'Scientific and Technological Research Council of Turkey' (TUBITAK, project number: 216S865) (EP21.25).
A.T. Papageorghiou	Is a shareholder and consultant to Intelligent Ultrasound which may commercialise the product being evaluated in this work. Note: the product is not yet in the market (OP01.10).
L. Poon	Has received speaker fees from Roche Diagnostics; has received in-kind contributions from Roche Diagnostics, PerkinElmer, Thermo Fisher Scientific and GE Healthcare.
N. Raine-Fenning	Will use a GE machine for live scan and images of GE machines in his talks; is a luminary for GE Healthcare and receives travel costs/honoraria when invited to speak on their behalf.
M. Schmid	The majority of authors are employees of Ariosa Diagnostics Inc., and Roche Sequencing Solutions Inc (OP05.03, P01.04).
H. Shah	Financial support for this research was provided in part by Genesis Research Trust by way of an educational grant and the loan of Samsung Equipment by Samsung Medison. There was no involvement by the sponsor in the study design, writing of the report, or decision to submit the abstract (OC23.07, EP15.13).
K. Shek	Has accepted unrestricted educational grants from GE (Medical) (OC27.04, OP01.05, OP01.06, EP27.29).
A.C. Testa	Is a consultant for Canon, Toshiba, Samsung.
B. Tutschek	Use of GE 3D US system for volume acquisition and analysis.
S. Verlohren	Receives speaker fees and is on the Advisory Board for Roche Diagnostics and ThermoFisherScientific.
C. von Kaisenberg	Is organising regular hands-on courses with GE, for the transfer of technology and knowledge.
A. Weichert	Is a speaker and advisor for Samsung Electronics.
F. Zwanenburg	Research grant with Canon Medical Systems Nederland (EP10.07).

The following presentations will include discussion of commercial products/services:

OC02.02, OC06.07, OC09.04, OC10.02, OC10.06, OC13.05, OC16.06, OC18.04, OC19.03, OC22.06, OC28.02, OP01.10, OP02.06, OP04.09, OP05.03, OP09.05, OP14.02, OP17.03, P01.04, P03.08, P06.12, P09.01, P14.07, P14.10, P15.01, EP01.01, EP01.07, EP01.08, EP01.11, EP02.04, EP02.06, EP02.10, EP02.26, EP02.46, EP03.08, EP04.08, EP04.28, EP06.26, EP07.07, EP07.18, EP08.26, EP12.03, EP12.05, EP12.15, EP12.17, EP13.07, EP19.13, EP20.17, EP21.26, EP22.03, EP23.02, EP24.01, EP27.38, EP28.01, EP32.03, EP33.19, EP34.21, EP36.02, EP36.16, EP37.01.

The following presentations will include discussion of investigative or off label uses of products:

OC01.01, OP07.09, P01.04, P09.01, P19.09, EP02.34, EP05.08, EP06.26, EP09.17, EP11.10, EP12.15, EP12.17, EP12.18, EP13.09, EP13.14, EP23.05, EP28.01, EP28.16, EP29.04, EP32.05, EP35.11, EP37.01.

The following presentations will include discussion of clinical studies:

OC01.01, OC01.02, OC01.03, OC02.02, OC02.03, OC03.02, OC06.03, OC06.07, OC07.03, OC08.06, OC11.08, OC13.03, OC14.01, OC16.01, OC16.02, OC16.06, OC17.01, OC17.02, OC18.04, OC18.07, OC19.02, OC19.06, OC20.08, OC22.05, OC22.06, OC22.07, OC23.02, OC23.05, OC24.03, OC25.03, OC25.04, OC26.02, OC26.04, OC27.01, OC27.03, OC27.05, OC28.07, OC29.05, OC30.01, OC30.02, OC31.01, OC31.03, OP01.10, OP02.08, OP04.03, OP04.09, OP05.09, OP07.07, OP07.08, OP07.09, OP08.10, OP10.01, OP10.08, OP11.07, OP11.08, OP12.02, OP12.03, OP12.09, OP12.10, OP14.02, OP14.06, OP15.09, OP16.04, OP16.05, OP17.04, OP17.11, OP18.02, OP18.06, OP18.08, OP19.05, OP19.07, OP20.10, P01.04, P03.03, P03.08, P04.07, P08.01, P09.01, P09.05, P09.10, P10.06, P10.07, P10.09, P10.10, P11.01, P11.04, P11.08, P12.02, P12.03, P13.04, P15.04, P15.05, P15.10, P16.03, P16.05, P16.06, P19.03, P19.09, P19.12, EP02.01, EP02.18, EP02.24, EP02.30, EP02.32, EP02.34, EP02.39, EP03.03, EP04.02, EP04.03, EP04.06, EP04.09, EP04.18, EP04.27, EP05.08, EP07.20, EP09.16, EP09.17, EP10.07, EP10.09, EP10.10, EP10.16, EP10.17, EP10.19, EP11.10, EP11.15, EP12.04, EP12.15, EP12.18, EP13.02, EP13.09, EP13.12, EP13.14, EP13.17, EP15.15, EP15.21, EP16.13, EP17.06, EP17.26, EP18.13, EP18.14, EP18.21, EP18.23, EP19.02, EP19.04, EP20.03, EP20.07, EP20.16, EP20.19, EP20.22, EP21.04, EP21.16, EP21.23, EP22.03, EP22.18, EP23.05, EP23.07, EP23.08, EP23.10, EP23.15, EP23.21, EP23.24, EP24.05, EP24.09, EP27.14, EP27.17, EP27.38, EP28.01, EP28.21, EP28.22, EP31.10, EP31.22, EP32.08, EP34.23, EP34.36, EP35.01, EP35.11, EP36.03, EP36.04, EP36.06, EP36.08, EP36.16, EP37.01, EP37.02.

## Award winners

---



### Winner of the Ian Donald Gold Medal

#### Prof. Lil Valentin

Prof. Lil Valentin is an expert in gynecological and obstetric ultrasound. She is currently professor at Lund University, Sweden, and a consultant at Skane University Hospital, Sweden. In 1997, she started the International Ovarian Tumor Analysis (IOTA) collaboration together with four other European colleagues. Now the IOTA collaboration has co-workers in more than 40 centres all over the world. The aim is to develop methods to non-invasively and correctly discriminate between benign and malignant adnexal masses.

As well as being the author on more than 200 publications, Prof. Valentin is on the steering committee of the International Endometrial Tumor Analysis (IETA) collaboration founded in 2008. The aim of IETA is to develop methods for reliable ultrasound diagnosis of endometrial pathology, for predicting lymph node metastases in patients with endometrial cancer and for determining the extent of endometrial cancer pre-operatively (ultrasound “staging”). Together with colleagues in Gothenburg, she is currently coordinating a Swedish National multicentre study on ultrasound measurements of cervical length in pregnant women for prediction of preterm birth. This is funded by the Swedish Research Council.

---

### Winners of the Stuart Campbell Award for Education

#### Dr Alfred Abuhamad



Dr Alfred Abuhamad is well-known internationally for his work in ultrasound, prenatal diagnosis, fetal echocardiography, global outreach and patient safety. He has been a member of the faculty at Eastern Virginia Medical School for 26 years and currently serves as Professor and Chairman for the Department of Obstetrics and Gynecology and Associate Dean for Clinical Affairs. Dr Abuhamad is the immediate past president of the Society of Maternal-Fetal Medicine. He is the past chair of the Council for Patient Safety in Women’s Health Care and the past president of the American Institute for Ultrasound in Medicine.

Dr Abuhamad has published more than 170 peer-reviewed manuscripts, received numerous national and international awards, and authored six textbooks in fetal echocardiography, ultrasound in obstetrics and gynecology, first trimester ultrasound and office procedures. He is the recipient of the National Institutes of Health R01 grant to study Novel Tools for the Non-invasive Evaluation of the Human Placenta. Dr Abuhamad established the International Society of Obstetrics and Gynecology outreach program and has led several ultrasound training missions to the developing world including Haiti, Ghana and Somaliland.



### **Prof. Gustavo Malinger**

Prof. Gustavo Malinger is Director of Obstetrics and Gynecology Ultrasound Division at Lis Maternity Hospital, Tel Aviv Medical Center, Israel (since 2013), and associate Clinical Professor at Sackler School of Medicine, Tel-Aviv University. He is an expert in obstetric and gynecologic ultrasound and known worldwide for his research on the fetal brain. Prof. Malinger has published close to 150 manuscripts and book chapters, including the first descriptions of the normal development of the corpus callosum and the cerebellar vermis, and the findings in fetuses with congenital Zika virus syndrome, his most recent book being published in 2012.

Prof. Malinger is a Trustee of the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG), sits on two journal Editorial Boards and reviews multiple medical journals. He has served as course, symposium and congress director ranging from multiple world congresses to advanced courses for ISUOG, the Israeli Society of Ultrasound and the First Israeli Congress on Fetal Neurology. He is Past President of the Israeli Society of Ultrasound in Obstetrics and Gynecology and honorary member of AIUM and the Obstetric and Gynecological Ultrasound Societies of Argentina, Chile, Hungary and Uruguay.

## **Keynote speakers**



### **Prof. Frédéric Amant**

Prof. Frédéric Amant is a specialist in cancer in pregnancy and in techniques that do not harm female fertility. He focuses on the treatment and, more specifically, on the surgery of tumours of the female reproductive system. Prof. Amant is particularly interested in modifying the treatment based on the biological characteristics of cancer. He is currently working on centralising gynecological oncology in Amsterdam to improve quality of care, clinical research, and distribution of resources.

Prof. Amant is based at the KU Leuven in Belgium and at the University of Amsterdam in the Netherlands. He is also a member of the Netherlands Cancer Institute. Prof. Amant is visiting professor at the University of Bergen, Norway, and honorary professor at the University of Pretoria, South Africa. In addition, he has a seat on the scientific committee of the European Medicine Agency and is founding chair of the International Network on Cancer, Infertility and Pregnancy. In 2015, he was awarded a research grant from the European Research Council.

## Keynote speakers

---



### **Prof. Rabih Chaoui**

After growing up and going to school in Lebanon, Prof. Rabih Chaoui moved to Humboldt University in Berlin, Germany, to study medicine. Since 1986 he has had a major interest in fetal ultrasound, becoming a world expert on the topic. During his studies, he specialised in prenatal diagnosis and became interested in cardiovascular hemodynamics in fetal echocardiography using Doppler ultrasound. In 2001, he became a professor of obstetrics and gynecology at Charité University Hospital in Berlin, and from 2004 he has been working in the Center of Prenatal Diagnosis and Human Genetics.

His research focuses on fetal heart, fetal 3D, first trimester ultrasound, ultrasound in genetic diseases and high-resolution ultrasound. Prof. Chaoui has been an active member and Board member (2003-2013) of the International Society of Ultrasound in Obstetrics and Gynecology as well as a member of the Board of the German Society for Ultrasound in Medicine. In addition to his other duties, he has written three books on fetal ultrasound and has authored and co-authored more than 200 articles and monographies.



### **Dr Gerd Gigerenzer**

Dr Gerd Gigerenzer is a psychologist specialising in problem-solving and decision-making. He is Director at the Max Planck Institute for Human Development and Director of the Harding Center for Risk Literacy, based in Berlin. An acclaimed academic, he is former Professor of Psychology at the University of Chicago and Distinguished Visiting Professor at the School of Law, University of Virginia. Dr Gigerenzer is also Batten Fellow at the Darden Business School, University of Virginia, and Fellow of the Berlin-Brandenburg Academy of Sciences and the German Academy of Sciences.

Dr Gigerenzer has spent decades studying and writing on risk. His award-winning popular books include *Calculated Risks: How To Know When Numbers Deceive You* (2002) and *Risk Savvy: How To Make Good Decisions* (2015). A central theme to his work is the way people make bad decisions because they misunderstand risk. He particularly focuses on the medical profession although he does cover other fields such as finance and journalism. Dr Gigerenzer highlights those who mislead patients, clients and the public into exaggerated fears or hopes for their treatments and investments and the surprising results, which will make a very interesting keynote lecture.

**Prof. Dr Thomas Hildebrandt**

Prof. Dr Thomas Hildebrandt is professor and chair of wildlife reproduction medicine at the Free University of Berlin. Prof. Hildebrandt and his team are world leaders in using artificial reproduction to breed rare and endangered animals such as elephants, rhinos and komodo dragons. He is a member of the Credential Committee of the European College of Zoological Medicine, as part of the European Board of Veterinary Specialists. He holds the honorary appointment of professorial fellow of biosciences at the University of Melbourne and is also Head of the Department of Reproduction Management at the Leibniz Institute for Zoo and Wildlife Research in Berlin.

Prof. Hildebrandt is internationally known for his research into why artificial insemination alone will not save species, and the development of ground-breaking IVF techniques using state of the art ultrasound technology. A recipient of numerous awards, he was given the Conservation Legacy Award in 2015 for his substantial donation to conservation projects in the USA.

**Prof. Davor Jurkovic**

Recognised as an expert in gynaecological and early pregnancy ultrasound, Prof. Davor Jurkovic has published more than 200 scientific papers on this topic and has edited five books. When he is not fulfilling his role as Consultant Gynaecologist and Director of Gynaecology Diagnostic and Outpatient Treatment Unit at University College Hospital, London, he is regularly invited to speak at national and international scientific meetings. He is also a director of the Gynaecology Ultrasound Centre in Harley Street, which is one of the largest providers of specialised gynaecological diagnostic ultrasound scanning in the private sector.

Prof. Jurkovic's particular areas of interest are ultrasound diagnosis of ovarian and endometrial cancer, diagnosis and management of congenital and acquired uterine abnormalities, diagnosis of pelvic endometriosis and diagnosis, and the management of early pregnancy complications. He has helped to develop and run the RCOG training programmes in gynaecological ultrasound, acute gynaecology and early pregnancy, and is also a founding member of the educational charity Focus on Gynaecology.

# Keynote speakers

---



## Prof. Asma Khalil

Prof. Asma Khalil is a professor of maternal fetal medicine and the lead of the multiple pregnancy service at St George's Hospital, University of London. She also led on the development of the ISUOG twin guidelines and is Chair of the ISUOG course on multiple pregnancy.

Prof. Khalil is an editor for *Ultrasound in Obstetrics & Gynecology* and a member of the ISUOG Clinical Standards Committee. She has published more than 45 peer-reviewed research papers and has been awarded many research prizes at national and international meetings. Her research interests include hypertensive disease in pregnancy, multiple pregnancy and other complications of pregnancy.

Prof. Khalil is a member of the Twin and Multiple Pregnancy Guideline Update Committee at the National Institute for Health and Care Excellence (NICE). Previously, she was the Chair of the TAMBA Maternity Engagement Steering Group, which is a national project funded by the Department of Health to improve the pregnancy outcomes of multiple pregnancies.

---



## Prof. Kypros Nicolaides

Prof. Kypros Nicolaides is Professor of Fetal Medicine at King's College Hospital, London. He was born in Cyprus and studied medicine at King's, training in obstetrics and gynecology and specialising in fetal medicine. He has carried out extensive research in many aspects of fetal diagnosis and therapy leading to the publication of more than 1400 peer-reviewed papers in scientific journals. His research publications on imaging and prenatal diagnosis have transformed ultrasound practice and his work to implement quality control for nuchal translucency has led to this technique becoming an established screening test of Down's syndrome and other genetic conditions. He was awarded the ISUOG Ian Donald Gold Medal in 1999 in recognition of his outstanding contribution to the field.

He has provided training in fetal medicine to more than 500 doctors from 50 countries and has supervised more than 50 doctors to undertake research leading to PhDs and MDs. In 1995 he founded the charity The Fetal Medicine Foundation, which has donated more than £45 million to promote research and training in fetal medicine throughout the world.

# ISUOG AGM - Sunday 13.10.19

**Convention Hall II: 9:50-10:25**

Hear what your society has been doing this year and have your say to change the future.



have  
**your!**  
say.

## Travel Grant winners

We would like to congratulate our Travel Grant winners and wish them a warm welcome to Berlin.

### Dr Janet Akinmoladun

Dr Janet Akinmoladun is a radiologist with specialty training in fetal imaging. She is a lecturer at the premier University of Ibadan in Nigeria and an honorary consultant radiologist at the University College Hospital (UCH) in Ibadan, where she is in charge of the antenatal clinic ultrasound unit and does prenatal ultrasound screenings for fetal anomalies. She is a fellow of both the West African College of Surgeons and the National Postgraduate Medical College of Nigeria. Dr Akinmoladun undertook her specialty training at the Jessop wing of the Royal Hallamshire Hospital, Sheffield University Teaching Hospital. She is a facilitator of the ISUOG-approved fetal medicine ultrasound course in Benin, Nigeria, and coordinator of the UCH basic and advanced ultrasound courses. Dr Akinmoladun has more than 20 publications in peer-reviewed journals and has presented papers in many local and international conferences.

### Dr Solomon Igbarumah

Dr Solomon Igbarumah is a fellow of the West African College of Surgeons and consultant obstetrician and gynecologist at St Philomena Catholic Hospital in Benin City, Nigeria. A large part of his role is dedicated to training and supervising midwifery students through routine ward rounds, clinical attachment and rotations in theatre and the labour ward. At the forefront of his activities is the desire to incorporate obstetric ultrasound training for these students, to equip them with the requisite skills needed to practice, especially in rural areas. Since 2014 Dr Igbarumah has been co-facilitator of the ISUOG-approved course in Nigeria, an experience he has thoroughly enjoyed. His hope is to advance the scope of ultrasound services to rural and urban populations and therefore improving coverage in Nigeria. He is very excited to attend this year's World Congress and meet global experts in the field.

### Dr Anamika Jha

Dr Anamika Jha is an assistant professor at the Institute of Medicine, Tribhuvan University Teaching Hospital, a pioneer medical college of Nepal where she did her MD in radio-diagnosis in 2010. Her work includes general radiology practice, as well as academic work involving both graduate and postgraduate teaching. As General Secretary of the Radiologists' Association and Treasurer of the Breast and Thyroid Society, Dr Jha is actively involved in organising academic activities in Nepal. Her special interest is in women's imaging particularly of the breast and is very keen to improve her imaging skills, for which she did a short-term fellowship in breast imaging from All India Institute of Medical Sciences, New Delhi, in 2018. She hopes to start this subspecialty in Nepal, where she aims to train junior staff and serve a robust healthcare to the Nepalese population.

### Dr Doreen Osoro

Dr Doreen Osoro is a resident in obstetrics and gynecology at the Aga Khan University Hospital (AKUH) in Nairobi, a tertiary teaching and referral hospital in Kenya. Dr Osoro is passionate in research. Her clinical interest in fetal maternal medicine is influenced by the difference in perinatal outcomes seen with early intervention both clinically and radiologically. In addition, she is researching how changes in practice on routine ultrasound for pregnancies with clinical diagnosis of growth restriction compares with the outcome after delivery. Dr Osoro is honoured to attend the World Congress in Berlin to present preliminary findings on third trimester scans, subsequent to perinatal outcomes, alongside Sikolia Wanyonyi, Assistant Professor and Consultant fetal maternal specialist at AKUH.

### Dr Jean Marie Sebajuri

Dr Jean Marie Sebajuri is a clinician and junior consultant in obstetrics and gynecology at the Bushenge Provincial Hospital in the west region of Rwanda. She received her MD from the University of Rwanda in 2012, after which time she worked for two years as a general practitioner at a district hospital. She then trained for four years at the university, as a resident in obstetrics and gynecology, which focused on using the IOTA guidelines to classify ovarian tumours. Dr Sebajuri has one year's experience of working in remote settings, dealing with obstetric emergencies, performing obstetric and gynecological ultrasounds and gynecological cases. She is interested in clinical practice, in particular gynecological procedures, and research.

### Prof. Dr Nasreen Sultana

Prof. Dr Nasreen Sultana graduated in 1993 from Chittagong University and completed a postgraduate course 'Doctor of Medicine' in nuclear medicine from BSM Medical University in Bangladesh in 2005. She received a WFUMB fellowship to train in advanced vascular imaging in 2005 at the Jefferson University and Research Institute in Venezuela. Currently, Prof. Dr Sultana is a physician specialist in ultrasound imaging, nuclear imaging and radionuclide therapy, working as an Associate Professor at the National Institute of Nuclear Medicine and Allied sciences (NINMAS) since 2006. Her scientific papers were awarded by ARCCNM in 2004, 2006 and 2009. She trained in molecular neuroimaging at Utah University and Osaka Medical University in 2017. She has been an academic faculty member of NINMAS, a member of the AOFNMB Board of Directors and a fellow of the Asian Nuclear Medicine Board. She has authored 21 international publications and 27 national publications.

## ISUOG Fetal brain imaging certificate


---

Following on from the success last year, ISUOG will be running another certificate program at the World Congress, this year focusing on fetal brain imaging. Prof. Rabih Chaoui, Prof. Gustavo Malinger and Prof. Daniela Prayer have put together an incredible program for all those who would like to take part.

### Conditions for successful completion of the course:


- Attendance of 7 out of 12 specifically marked scientific sessions.
- Passing of an end-of-certificate test. Please register your interest for the certificate program here: [www.surveymonkey.co.uk/r/Fetal\\_brain\\_certificate](http://www.surveymonkey.co.uk/r/Fetal_brain_certificate)


---

**Sessions:** Below are the specified sessions which form the certificate and are marked in the program with a  symbol. The certificate sessions run from Saturday 12 to Tuesday 15 October. All certificate attendees should ensure they are scanned into each session.

 **Saturday 12 October** Pre-Congress course: Fetal anomalies: heart and CNS (afternoon sessions only)  
*It is not obligatory to attend the Pre-Congress course*

 **Sunday 13 October** Workshop: A glimpse into brain research: from the lab to imaging

 **Monday 14 October** Masterclass: Malformations of cortical development: is it possible to reach an etiologic diagnosis?  
OC: Cerebellum and posterior fossa  
OC: The challenge of ventriculomegaly  
OC: Fetal anomalies: head and spine  
Workshop: How isolated is "isolated" corpus callosum agenesis?

 **Tuesday 15 October** Masterclass: Acquired prenatal insults of the brain  
OC: Corpus callosum et al  
OP: Neuroimaging  
HUB: In conversation with *G. Malinger*: why do I (NOT) need MRI?  
Workshop: Outcome of infratentorial anomalies

---

**End of certificate test:** The test will be on the Congress app, or sent digitally to anyone who has signed up to participate.

**Fee:** The Fetal brain imaging certificate is only available to those attending the Berlin World Congress and there is no additional charge for participating.

Please note that this course does not represent an official fetal brain imaging certification program.



# Download the official Congress app



Create your **personalised agenda**

**Stay up-to-date**  
with what's going on



**Engage**  
with other attendees

**Stay social**  
on our Twitter  
and Facebook



**Have your say**  
by voting, rating and  
completing our surveys

Read all  
**abstracts**



Search for  
**'ISUOG 2019'**



Available on the iPhone  
**App Store**



GET IT ON  
**Google play**





Join the Congress conversation

#ISUOG2019





 **isuog**.org








## Saturday 12.10.2019

	Room I	Estrel Hall A	Estrel Hall B
07:00	Registration		
08:25-17:45	<p>Fetal anomalies: heart and central nervous system (08:25-17:00)</p>  <p>Accredited by: DEGUM</p> <p>Sponsored by:</p>  GE Healthcare	<p>Advances in prenatal diagnosis, pre-eclampsia prediction and future technologies (08:45-16:45)</p> <p>In collaboration with:</p>  Society for Maternal-Fetal Medicine	<p>Endometriosis: diagnostic challenges and surgical planning (09:00-17:45)</p> <p>Sponsored by:</p>  GE Healthcare





## Sunday 13.10.2019

	Convention Hall II	Convention Hall IC	Convention Hall ID	Estrel Hall AB	Hall Europa B
07:00	Registration				
08:30-09:50	Keynote lectures				
09:50-10:25	ISUOG achievements 2018 incorporating the AGM				
10:25-11:00	Coffee and electronic poster viewing				
11:00-12:15	Award lecture and top abstracts				
12:15-13:45	Lunch and electronic poster viewing / Satellite symposia (12:30-13:30)				
13:45-15:15	<p>WS: A glimpse into brain research: from the lab to imaging</p> 	<p>WS: cfDNA: new challenges</p> 	<p>WS: Early pregnancy: management of common problems</p>	<p>WS: Fetal surgery</p>	<p>WS: Use of ultrasound for breast imaging</p>
15:15-15:45	Coffee and electronic poster viewing				
15:45-17:35	Awards and plenaries				
Evening	Opening ceremony and Welcome drinks				

# Monday 14.10.2019

	Convention Hall IC	Convention Hall II	Convention Hall ID	Estrel Hall AB	Hall Europa B
<b>07:00</b>	Registration				
<b>07:30-08:10</b>	Masterclass: Prematurity prevention: from ultrasound to proteomics	Masterclass: Malformations of cortical development: is it possible to reach an etiologic diagnosis? 	Masterclass: How to evaluate a patient presenting with infertility with a single scan	Masterclass: Ultrasound and cfDNA: a happy marriage?	
<b>08:15-09:35</b>	OC: cfDNA in our daily practice: what should we expect? 	OC: Cerebellum and posterior fossa [LIVE SCAN] 	OC: Classifying and managing ovarian masses	OC: Ultrasound in the labour ward	
<b>09:40-10:20</b>	OP: Novel imaging methods, AI and more	OP: Multimodal management of fetal anomalies	OP: Classifying and managing ovarian masses	OP: Ultrasound in the labour ward	
<b>10:15-10:45</b>	Coffee and electronic poster viewing				
<b>10:45-12:05</b>	OC: New genetic technologies: how can they help?	OC: The challenge of ventriculomegaly 	OC: Investigating women with abnormal bleeding	OC: Prediction of pregnancy complications	
<b>12:10-12:50</b>	OP: Issues in prenatal genetic testing	OP: Fetal renal abnormalities	OP: Investigating causes of abnormal uterine bleeding and uterine disease	OP: Prediction of pregnancy complications	
<b>12:45-14:15</b>	Lunch and electronic poster viewing / Satellite symposia (13:00-14:00)				
<b>14:15-15:35</b>	OC: Novel developments in our field 	OC: Fetal anomalies: head and spine [LIVE SCAN] 	OC: Ultrasound to help manage the oncology patient	OC: Fetal interventions in monochorionic twins	
<b>15:35-16:00</b>	Coffee and electronic poster viewing				
<b>16:00-17:30</b>	WS: How isolated is "isolated" corpus callosum agenesis? 	WS: Abnormalities of situs and the venous system [LIVE SCAN]	WS: Classifying ovarian masses using IOTA terminology, rules and models	WS: Assessing early fetal growth restriction	WS: 3D ultrasound of the fetal head
<b>17:30-18:00</b>	Key messages of the day for trainees (in Hubs)				

# Tuesday 15.10.2019

	Convention Hall IC	Convention Hall II	Convention Hall ID	Estrel Hall AB
<b>07:00</b>	Registration			
<b>07:30-08:10</b>	Masterclass: Acquired prenatal insults of the brain 	Masterclass: Management and delivery in fetal growth restriction	Masterclass: Diagnosis and surgical management of endometriosis	Masterclass: Abnormal heart rhythm: how to diagnose and how to manage
<b>08:15-09:35</b>	OC: Corpus callosum et al 	OC: Fetal growth: the bigger picture [LIVE SCAN]	OC: Managing complications in early pregnancy	OC: Cardiac function and complications in congenital heart defects
<b>09:40-10:20</b>	OP: Neuroimaging 	OP: IUGR: basic science	WS: Current thinking on Caesarean section scars & EMV	OP: Evaluation of the intrinsic function of the fetal heart
<b>10:15-10:45</b>	Coffee and electronic poster viewing			
<b>10:45-12:05</b>	OC: Fetal surgery	Growth: insights into assessment	OC: Using ultrasound to evaluate women with pelvic pain and possible endometriosis	OC: Molecular techniques and MRI in the diagnosis of congenital heart defects
<b>12:10-12:50</b>	OP: Multiple pregnancy	OP: Fetal anomalies: infections	OP: Using ultrasound to evaluate women with pelvic pain and possible endometriosis	OP: Screening for and diagnosis of congenital heart defects
<b>12:45-14:15</b>	Lunch and electronic poster viewing / Satellite symposia (13:00-14:00)			
<b>14:15-15:35</b>	OC: Monochorionic twins	OC: Fetal anomalies in the second trimester [LIVE SCAN]	OC: Ultrasound, infertility and fertility preservation	OC: Hemodynamics from fetus to mother
<b>15:35-16:00</b>	Coffee and electronic poster viewing			
<b>16:00-17:30</b>	WS: Outcome of the infratentorial anomalies 	WS: Ultrasound in the labour ward: why and how [LIVE SCAN]	WS: Ultrasound, fertility preservation and fertility sparing surgery	WS: Updates on infections during pregnancy
<b>17:30-18:00</b>	Key messages of the day for trainees (in Hubs)			
<b>Evening</b>	Congress party at Spindler & Klatt			

## Wednesday 16.10.2019

	Convention Hall IC	Convention Hall ID	Estrel Hall AB
<b>07:00</b>	Registration		
<b>07:30-08:10</b>	Masterclass: First trimester fetal anatomy scan: the basics and beyond	Masterclass: Recognising different types of ovarian tumours from metastatic lesions to immature teratomas	Masterclass: All you need to know about multiple pregnancy
<b>08:15-09:35</b>	OC: Improvements in the diagnosis of congenital heart defects [LIVE SCAN]	OC: Assessing women with urinary incontinence with ultrasound	OC: Hypertension in pregnancy and maternal hemodynamics
<b>09:40-10:20</b>	OP: IUGR: clinical studies	WS: Evaluating myometrial pathology and fibroids	OP: Fetal surgery
<b>10:15-10:45</b>	Coffee and electronic poster viewing		
<b>10:45-12:05</b>	OC: Using ultrasound in reproductive medicine: the diagnosis of PCO and uterine abnormalities	OC: Placenta accreta spectrum	OC: Fetal anomalies: lungs and infections
<b>12:10-12:50</b>	OP: Ultrasound in early pregnancy and reproductive medicine (12:10-13:00) [LIVE SCAN]	OP: Placenta accreta spectrum	OP: Diagnosis of fetal abnormalities
<b>12:45-14:15</b>	Lunch and electronic poster viewing / Satellite symposia (13:00-14:00)		
<b>14:15-15:45</b>	WS: Abnormally invasive placenta [LIVE SCAN]	WS: Case discussions: using ultrasound to manage oncology patients	WS: Late FGR and stillbirth
<b>15:50-17:00</b>	Closing plenary: The power of ultrasound		
<b>17:00-18:00</b>	Leaving drinks and Welcome to Glasgow 2020!		





# STATE OF THE ART ULTRASOUND IN

**16-18 April 2020  
Washington, USA**

**Marriott Washington, Wardman Park**

**Save the date**

## **Chairs:**

*Prof. Lorraine Dugoff, Prof. Aris Papageorghiou,  
Prof. Laurent Salomon, Prof. Lynn Simpson  
and Prof. Joanne Stone*

## **Learning objectives:**

- Learn how to make the most out of your machine
- Hear about the latest developments in ultrasound in labour
- Take part in hands-on training in knobology, invasive procedures, US in labour and abnormal cases
- Improve your ability to identify heart, brain, abdominal and genitourinary anomalies
- Understand more about screening for chromosomal anomalies and dealing with the results

## **Critical dates**

Thursday 16 April  
13:30-19:00

Friday 17 April  
08:00-19:00

Saturday 18 April  
08:00-17:30

In partnership with:



See you in Washington 2020! For more information, please visit  
[www.isuog.org/event/state-of-the-art-ultrasound-in-pregnancy.html](http://www.isuog.org/event/state-of-the-art-ultrasound-in-pregnancy.html)



## **ISUOG Awards**

**Wednesday 16 October, 15:50-17:00**

At the Closing ceremony we will be announcing the winners of the:

- **Top abstract**
- **Young Investigator prize**
- **Best presentations in each topic.**

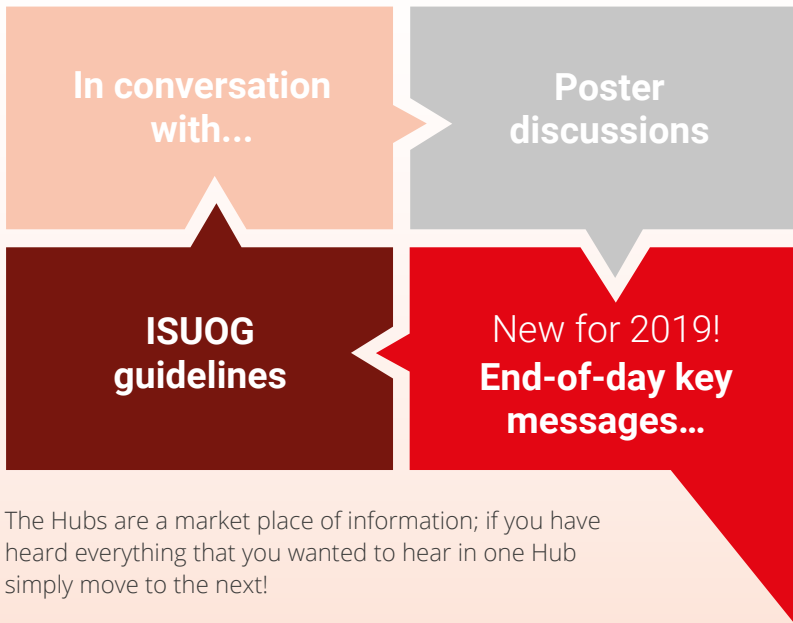


All OC and OP presentations will be judged within their subject categories by the session chairpersons and the ISUOG Scientific Committee. Winners will be formally acknowledged in our journal, *Ultrasound in Obstetrics & Gynecology*.

# Hubs - join the buzz!

**The Hubs are informal interactive sessions which provide excellent opportunities to communicate and network with fellow attendees.**

These intimate Hubs cover various formats and topics such as: 'In conversation with...', ISUOG Guidelines, poster discussions, wellbeing of the clinician, and Outreach, Partnership and Trainee sessions.



The Hubs are a market place of information; if you have heard everything that you wanted to hear in one Hub simply move to the next!

**Location:** Foyer 3

**Date:** Monday 14 - Wednesday 16 October

**Program:** Please see the 'Hubs' pages each day

**Attending the Hubs:** The Hubs are part of the Congress and there are no additional fees to attend.

Join the Congress conversation

#ISUOG2019    

 **isuog**.org

**Launching Patient Information Series:**

# **Empowering Women**

A new resource to support women and their families by providing answers to the why, how and what now on gynecological and obstetrical conditions in an easy to understand language.



Find out more and meet the Patient Information Task Force chair at the ISUOG Lounge:

**16 October**

**13:35 - 13:45**

Download for free at

**[isuog.org/clinical-resources/  
patient-information-series.html](https://isuog.org/clinical-resources/patient-information-series.html)**

or from the VISUOG chapters



**#LoveUltrasound**



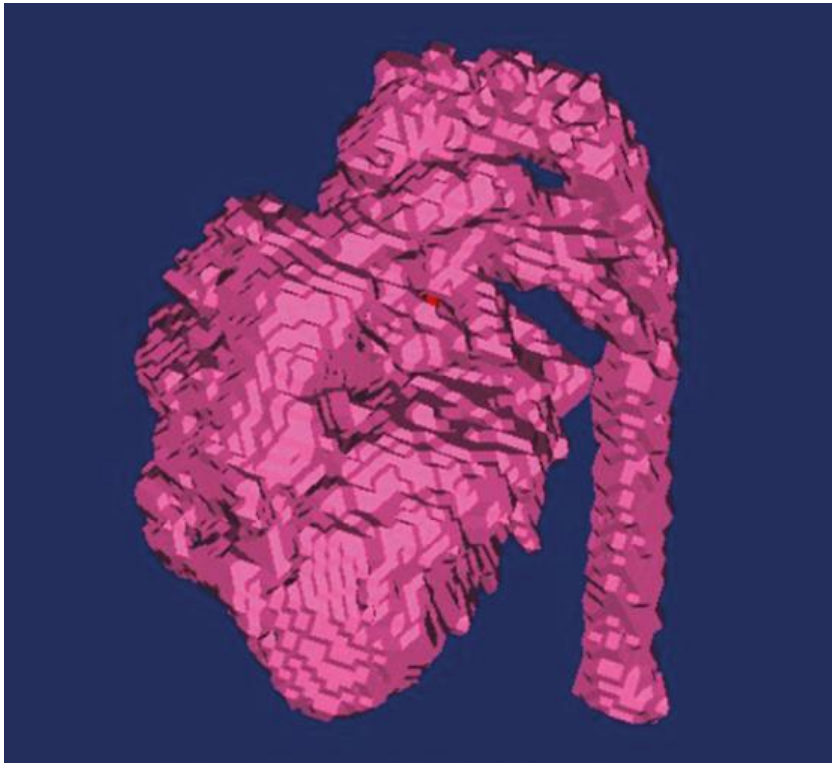
**isuog**.org



# PRE-CONGRESS COURSES

## Saturday 12 October 2019

SATURDAY

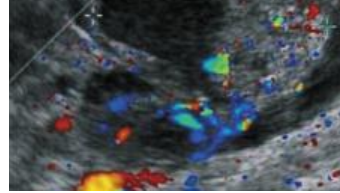


### December 2018

Generation of 3D ultrasound-derived model of heart of 27-week fetus (post-processing stage).

*Chen SA, Ong CS, Hibino N, Baschat AA, Garcia JR, Miller JL. Ultrasound Obstet Gynecol 2018; 52: 808–809.*

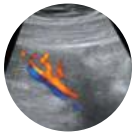
# ISUOG Education 2019/20



ISUOG delivers quality education courses internationally in ultrasound in obstetrics and gynecology, providing up-to-date research and clinical guidance for a range of topics and professional levels.



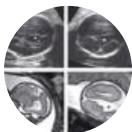
**Endometriosis and gynecologic oncology:  
do they have something in common?**  
29 November 2019  
London, UK and live streamed worldwide



**Doppler and maternal vascular imaging**  
24 - 25 January 2020  
London, UK and live streamed worldwide



**Modern management in twins: All you  
need to know**  
4 February 2020  
(in association with SMFM)  
Texas, USA



**State of the art ultrasound in pregnancy**  
16 - 18 April 2020  
(in association with SMFM)  
Washington, USA



**Advances in fetal echocardiography**  
Dates to be confirmed 2020  
London, UK and live streamed worldwide



**Our previous  
delegates said:**

*"Very relevant to  
clinical practice"*

*"Well organised, good  
speakers"*

*"Great course,  
especially the fact that  
it was live streamed"*

**Register now at:  
[isuog.org/events](http://isuog.org/events)**

**Discounts available  
for ISUOG members**

Find out more at:  
[www.isuog.org/events](http://www.isuog.org/events)

 **isuog**.org

# Saturday 12.10.2019

## ROOM I

Accredited by: DEGUM

### Fetal anomalies: heart and central nervous system (CNS)

Sponsored by:



#### Fetal heart

*Chairs: R. Chaoui (Germany); K. Heling (Germany)*

- 08:25** Opening on behalf of ISUOG and DEGUM
- 08:30** 2D/3D/4D of the fetal heart *K. Heling (Germany)*
- 09:00** Four-chamber anomalies *E. Quarello (France)*
- 09:30** Outflow tract anomalies *A. Abuhamad (United States)*
- 10:00** Cardiac anomalies and genetic diseases *R. Chaoui (Germany)*
- 10:30** **Coffee**
- Chairs: J.S. Carvalho (United Kingdom); R. Faber (Germany)*
- 11:00** First trimester heart anomalies *J.S. Carvalho (United Kingdom)*
- 11:30** Cardiac disproportion: more than aortic coarctation *D. Paladini (Italy)*
- 12:00** Fetal arrhythmias *U.G. Gembruch (Germany)*
- 12:30** **Lunch**



#### Fetal brain

*Chairs: G. Maligner (Israel); R. Chaoui (Germany)*

- 13:30** Sonoembryology of the fetal brain *B. Benoit (France)*
- 13:50** Fetal CNS anomalies at 11–14 weeks *R. Chaoui (Germany)*
- 14:10** Open and closed spinal dysraphism *M. Hoopmann (Germany)*
- 14:40** Simple hints for complex brain malformations *K. Karl (Germany)*
- 15:00** Fetal CNS anomalies before 20 weeks *G. Maligner (Israel)*
- 15:30** **Coffee**
- Chairs: D. Prayer (Austria); G. Maligner (Israel)*
- 16:00** Ventriculomegaly: what to check for? *I.E. Timor-Tritsch (United States)*
- 16:30** Posterior fossa anomalies: what to check for? *L. Guibaud (France)*
- 17:00** End of course

## ESTREL HALL A

### Advances in prenatal diagnosis, pre-eclampsia prediction and future technologies

In collaboration with:



#### Ultrasound working together with other technologies

*Chairs: A.T. Papageorghiou (United Kingdom); J. Stone (United States)*

**08:45** Is there a place for biomarkers in the modern management of pregnancies? *J. Stone (United States)*

**09:15** Prediction of preterm birth: can "-omics" and new technologies help? *H. Feltovich (United States)*

**09:45** Can we improve our prediction models for pre-eclampsia? *S. Verlohren (Germany)*

**10:05** Artificial intelligence in ultrasound *A.T. Papageorghiou (United Kingdom)*

**10:25** **Coffee**

**10:55** Getting to the right diagnosis using "big data" *J. Stirnemann (France)*

**11:15** The place of MRI in pregnancy management: future developments *D. Prayer (Austria)*

**11:35** New technologies and informed consent: are they compatible? *M. Norton (United States)*

**11:55** Discussion

**12:15** **Lunch**

#### Ultrasound working together with genetics

*Chairs: L. Dugoff (United States); L.J. Salomon (France)*

**13:15** Expanded carrier screening: pros and cons *L. Dugoff (United States)*

**13:45** **INTERACTIVE DISCUSSION:** Let's talk about what's next: cfDNA for all or invasive for all? Important articles, practical cases and highlights *J. Stone (United States); L.J. Salomon (France)*

**14:15** Screening for aneuploidy: what should we do in 2019? *K. Nicolaides (United Kingdom)*

**14:45** **Coffee**

**15:15** cfDNA: no-calls, anomalies at ultrasound, multiple pregnancies – how to manage when things get complex (including case discussions) *L. Dugoff (United States)*

**15:45** Exomes and genetic evaluation in fetal anomalies: are we eventually ready? *M. Norton (United States)*

**16:15** Q&A and discussion: genetics cases that stumped me *L. Dugoff; M. Norton (United States)*

**16:45** End of course

**ESTREL HALL B****Endometriosis: diagnostic challenges and surgical planning***Chairs: G. Condous (Australia); S. Guerriero (Italy)*

Sponsored by:



- 09:00** IDEA consensus *G. Condous (Australia)*
- 09:30** Endometriosis: is it underdiagnosed? Data on diagnostic delay *G. Hudelist (Austria)*
- 10:00** Hemoperitoneum as a precursor of deep endometriosis *D. Jurkovic (United Kingdom)*
- 10:30** Case studies
- 11:00** **Coffee**
- 11:30** TVS and MRI for diagnosis of endometriosis: complimentary or independent imaging modalities *S. Guerriero (Italy)*
- 12:00** Ultrasound assessment of the rectum, rectosigmoid and sigmoid: planning joint colorectal surgery *T. Van den Bosch (Belgium)*
- 12:30** Case studies
- 13:00** **Lunch**
- Chairs: G. Condous (Australia); A. Horne (United Kingdom)*
- 14:00** Ultrasound evaluation of endometriosis of the urinary tract: what does the surgeon need to know? *D. Jurkovic (United Kingdom)*
- 14:30** SonoPODography: a new technique to diagnose superficial endometriosis of the posterior compartment *M. Leonardi (Australia)*
- 15:00** Surgical implications of fixed ovaries and/or POD obliteration noted on preoperative ultrasound *M. Leonardi (Australia)*
- 15:30** What are the alternative treatment options to surgery for women with endometriosis and are there future candidate treatments in the pipeline? *A. Horne (United Kingdom)*
- 16:00** **Coffee**
- 16:30** How to counsel women with endometriosis and endometriotic cysts: what is the risk of developing cancer in the future? *A. Horne (United Kingdom)*
- 16:45** Diagnosing adenomyosis *T. Van den Bosch (Belgium)*
- 17:15** Surgery for endometriosis *G. Hudelist (Austria); G. Condous (Australia)*
- 17:45** End of course



# 16<sup>th</sup> ISUOG INTERNATIONAL SYMPOSIUM

**3-5 April 2020**  
**Cairo, Egypt**

Hilton Heliopolis Hotel, Cairo

**Register now**

**Chair** *M. Kamal (Egypt)*

**Speakers** *C.M. Bilardo (Netherlands), T. Bourne (UK), G. Chalouhi (France),  
W. Froyman (Belgium), M. Kamal (Egypt), H. Mirghani (UAE), D. Paladini (Italy),  
A.T. Papageorghiou (UK), L.J. Salomon (France), N. Vrachnis (Greece), A. Youssef (Italy)*

## Critical dates

Registration and abstract submissions opens	<b>01.07.19</b>
Abstract deadline	<b>31.11.19</b>
Early bird deadline	<b>31.01.20</b>
Exhibition/sponsorship deadline	<b>20.02.20</b>
Basic Training course	<b>02.04.20</b>
Pre-Symposium courses	<b>03.04.20</b>

## Pre-Symposium courses:

- ISUOG Basic Training
- Advanced ultrasound course: how to use 3D in obstetrics and gynecology

In partnership with:

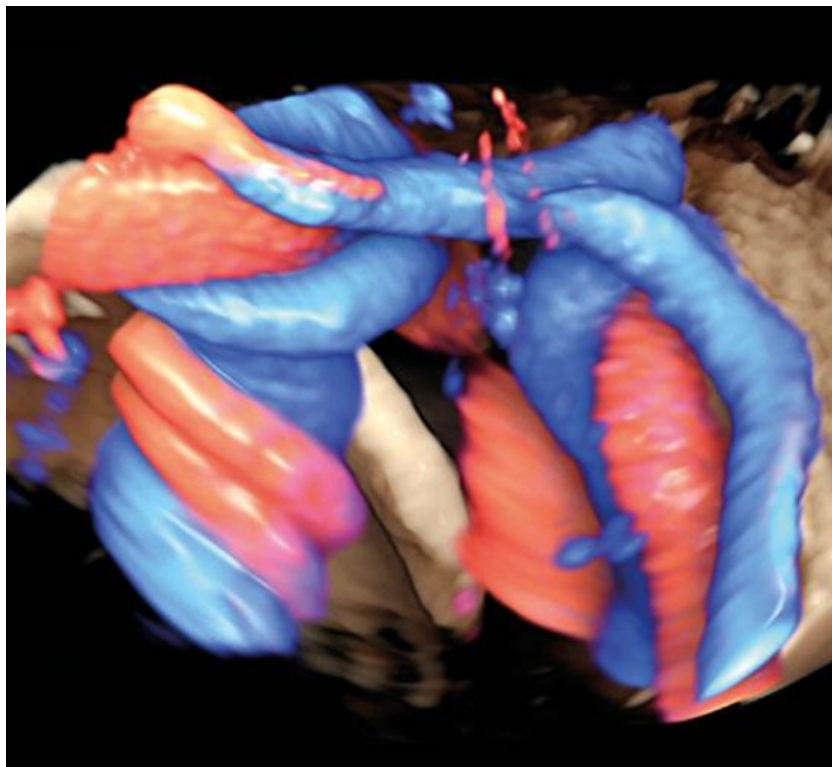


**See you in Cairo 2020!** For more information,  
please contact: [congress@isuog.org](mailto:congress@isuog.org)

 **isuog**.org

# SCIENTIFIC PROGRAM

**Sunday 13 October 2019**



**May 2019**

Transvaginal 4D spatiotemporal image correlation (STIC) with HD-Flow™ image (sagittal view) in pregnancy complicated by vasa previa, showing aberrant blood vessels adjacent to internal cervical os.

*Hayata E, Nakata M, Oji A, Takano M, Nagasaki S, Morita M. Ultrasound Obstet Gynecol 2019; 53: 701–702.*

# Earn CME any time from anywhere in the world



**Supplement your learning and gain CME\* through ISUOG's latest educational resource**

**Join ISUOG to have access!**



## Learning activities include:

- ISUOG's practice guidelines
- Web lectures from ISUOG education courses and congresses
- Journal Club articles from *Ultrasound in Obstetrics & Gynecology*

**88% of CME users said the learning activities have improved their professional effectiveness**

*"I feel more confident answering questions and counselling."*

**81% of CME users rate the content as very good or excellent**

Start exploring at **isuog.org**

**info@isuog.org**  
**+44 (0)20 7471 9955**

\* 1 AMA PRA category credit = 1 EACCME credit



**1**  
credit per hour

**250+**  
online CME activities now available



#LoveUltrasound



**isuog.org**



# SUNDAY 13.10.2019

---

## CONVENTION HALL II

**08:30-09:50**

### **Keynote lectures**

*Chairs: C.M. Bilardo (Netherlands); R. Chaoui (Germany)*

- 08:30 Welcome from the ISUOG President  
*C.M. Bilardo (Netherlands)*
- 08:35 Cancer in pregnancy  
*F. Amant (Belgium)*
- 09:00 Controversies in the management of multiple pregnancies  
*A. Khalil (United Kingdom)*
- 09:25 Moving the anomaly scan to the first trimester  
*R. Chaoui (Germany)*

**09:50-10:25**

### **ISUOG achievements 2018 incorporating the Annual General Meeting**

*Chairs: C.M. Bilardo (Netherlands); T. Bourne (United Kingdom); B. Tutschek (Switzerland)*

**10:25-11:00**

### **Coffee and e-poster viewing**

11:00-12:15

## Award lecture and top abstracts

*Chairs: L.J. Salomon (France); D. Timmerman (Belgium)*

- 11:00 **STUART CAMPBELL LECTURE:** Fetal growth restriction: talking the same language  
*S. Gordijn (Netherlands)*
- 11:25 **OC01.01** Reducing intrapartum fetal compromise at term: results of double blind RCT of sildenafil citrate versus placebo  
*S. Kumar (Australia)*
- 11:32 Discussion
- 11:35 <sup>YI</sup>**OC01.02** The assessment of microRNA expression in pregnancies classified as a pregnancy of unknown location using transvaginal ultrasonography  
*C. Kyriacou (United Kingdom)*
- 11:42 Discussion
- 11:45 **OC01.03** State-wide performance of traditional and cell-free DNA-based prenatal testing pathways: the Victorian Perinatal Record Linkage (PeRL) study  
*L. Hui (Australia)*
- 11:52 Discussion
- 11:55 <sup>YI</sup>**OC01.04** Incidental finding of endometrial cancer: results from a multicentre prospective cohort study (IETA3)  
*R. Heremans (Belgium)*
- 12:02 Discussion
- 12:05 <sup>YI</sup>**OC01.05** Feasibility of the short-term physiologic support of the late-gestation miniature pig fetus using umbilical cannulation, a pumpless extracorporeal membrane oxygenator and fluid incubation  
*L.K. Taniguchi (Canada)*
- 12:12 Discussion

12:15-13:45

Lunch and e-poster viewing

12:30-13:30

Industry sponsored satellite symposia\*\*

## CONVENTION HALL IC

13:45-15:15

Workshop

**cfDNA: new challenges**

*Chairs: L. Chitty (United Kingdom); S. Yeo (Singapore)*

- 13:45 NIPD for monogenic disorders  
*L. Chitty (United Kingdom)*
- 14:05 Implementation of cfDNA-based screening policies  
*A. Tabor (Denmark)*
- 14:25 Failures, multiple pregnancies, discordant results, sex chromosome anomalies: how to deal with difficult cases  
*L. Wilkins-Haug (United States)*
- 14:50 Case presentations and discussion



<sup>YI</sup> This presentation is eligible for the Young Investigator award (to be presented in the closing plenary).

\*\*Lunchtime satellite symposia are brought to you by our sponsors and are not part of the ISUOG CME program. ISUOG takes no responsibility for scientific or clinical content. Please see page 128 for our satellite program.

## CONVENTION HALL II

13:45-15:15



### Workshop

#### A glimpse into brain research: from the lab to imaging

*Chairs: D. Pugash (Canada); G. Malinger (Israel)*

- 13:45 The role of MRI-histology correlations in studying perinatal hypoxic-ischemic brain damage  
*M. Judas (Croatia)*
- 14:10 Genetics of fetal brain malformations  
*U. Hehr (Germany)*
- 14:35 Brain plasticity, lessons from fetal MRI?  
*D. Prayer (Austria)*
- 15:00 Discussion

## CONVENTION HALL ID

13:45-15:15

### Workshop

#### Early pregnancy: management of common problems

*Chairs: T. Bourne; A. Horne (United Kingdom)*

- 13:45 Does bleeding or the presence of subchorionic hematoma in the first trimester matter if it seems to settle down?  
*M. Al-Memar (United Kingdom)*
- 14:00 Diagnosing miscarriage and markers predicting likely pregnancy failure  
*T. Bourne (United Kingdom)*
- 14:15 Ectopic pregnancy: selecting appropriate management options for tubal and non-tubal ectopic pregnancy  
*E. Kirk (United Kingdom)*
- 14:35 Caesarean scar pregnancy: making the diagnosis, treatment and long-term outcomes when managed conservatively  
*D. Jurkovic (United Kingdom)*
- 14:55 Pregnancy of unknown location: an evidence-based approach to management using the M6 prediction model  
*S. Bobdiwala (United Kingdom)*

## ESTREL HALL AB

13:45-15:15

### Workshop

#### Fetal surgery

*Chairs: K. Hecher (Germany); M. Sanz Cortes (United States)*

- 13:45 Overview and updates on Twin-twin transfusion syndrome  
*Y. Ville (France)*
- 14:05 Twin reversed arterial perfusion sequence: current state of the art  
*K. Hecher (Germany)*
- 14:25 Fetal tracheal occlusion: for whom and when  
*J. Deprest (Belgium)*
- 14:45 Prenatal myelomeningocele repair: open and fetoscopic techniques and future directions  
*M. Sanz Cortes (United States)*
- 15:05 Discussion

## HALL EUROPA B

13:45-15:15

### Workshop

#### Use of ultrasound for breast imaging

*Chairs: J. Hackelöer; A. Farrokh (Germany)*

- 13:45 Elastography: gimmick or real help in tumour diagnosis?  
*A. Farrokh (Germany)*
- 14:15 Tumour or mastopathy-diagnostic strategy change by 4D "canyon-sign"  
*J. Hackelöer (Germany)*
- 14:45 Discussion

15:15-15:45

Coffee and e-poster viewing

## CONVENTION HALL II

15:45-17:35

### Awards and plenaries

*Chairs: T. Bourne (United Kingdom); K. Hecher (Germany)*

- 15:45 Presentation and acceptance of the Ian Donald Gold Medal 2019 to L. Valentin  
*D. Timmerman (Belgium)*
- 15:50 **IAN DONALD GOLD MEDAL LECTURE:** My ultrasound journey  
*L. Valentin (Sweden)*
- 16:05 Caesarean scar pregnancy  
*D. Jurkovic (United Kingdom)*
- 16:30 The psychology of decision-making  
*G. Gigerenzer (Germany)*
- 17:00 My journey in fetal medicine: from novel field to established practice  
*K. Nicolaidis (United Kingdom)*

# SCIENTIFIC PROGRAM

**Monday 14 October 2019**



## June 2019

Fetal MRI segmentation-based 3D printed model (dorsal view) of diaphragm (yellow), diaphragmatic defect (magenta), liver (translucent) and inferior vena cava and hepatic veins (blue) in 37 + 5-week fetus with congenital diaphragmatic hernia with left posterolateral defect.

*Prayer F, Metzelder M, Krois W, Brugger PC, Gruber GM, Weber M, Scharrer A, Rokitansky A, Langs G, Prayer D, Unger E, Kasprian G. Ultrasound Obstet Gynecol 2019; 53: 816–826.*

# Monday 14.10.2019

## CONVENTION HALL IC

07:30-08:10

### Masterclass

Prematurity prevention: from ultrasound to proteomics

*R. Romero (United States)*

08:15-09:35

### cfDNA in our daily practice: what should we expect?

*Chairs: K.O. Kagan (Germany); M. Norton (United States)*

08:15 **INVITED:** NIPD beyond aneuploidy  
*L. Chitty (United Kingdom)*

08:45 **OC02.01** Performance of first trimester screening for Trisomy 21 in twin pregnancies  
*E. Bergstrand-Poulsen (Denmark)*

08:50 Discussion

08:53 **OC02.02** Performance of a genome-wide PCR-free, paired-end sequencing-based non-invasive prenatal screening test, VeriSeq NIPT Solution v2  
*S. Bhatt (United States)*

08:58 Discussion

09:01 **OC02.03** Predictive value of cell-free DNA screening in a modern cohort: a single institution's experience  
*D.L. Gray (United States)*

09:06 Discussion

09:09 **OC02.04** Residual risk for a postnatal diagnosis and livebirth of an atypical chromosomal aberration following first trimester combined screening  
*P. Conner (Sweden)*

09:14 Discussion

09:17 **OC02.05** What is the chance for pathogenic chromosomal microarray analysis results in structurally normal fetuses?  
*D.V. Valsky (Israel)*

09:22 Discussion

09:25 **OC02.06** Prenatal fetal gender discordance following cfDNA testing  
*J. Miguez (Brazil)*

09:30 Discussion

## CONVENTION HALL II



### Masterclass

Malformations of cortical development: is it possible to reach an etiologic diagnosis?

*G. Maling (Israel); D. Prayer (Austria)*



### Cerebellum and posterior fossa

*Chairs: B.R. Benacerraf (United States); K. Karl (Germany)*

08:15 **LIVE SCAN:** How I scan the brain [industry supported\*]  
*L. Guibaud (France)*

08:35 **OC03.01** Prenatal diagnosis of rhombencephalosynapsis: beyond the fusion of the cerebellar hemispheres  
*K.K. Haratz (Israel)*

08:40 Discussion

08:43 **OC03.02** 3D fetal MRI visualisation of cerebellar white matter tracts  
*G.O. Dovyak (Austria)*

08:48 Discussion

08:51 **OC03.03** Neurodevelopmental outcome of children with fetal isolated vermian abnormalities  
*R. Berkovitz-Sherling (Israel)*

08:56 Discussion

08:59 **OC03.04** Prospective detection and differential diagnosis of cystic posterior fossa anomalies by assessing posterior brain at 11–14 weeks  
*T. Fanelli (Italy)*

09:04 Discussion

09:07 **OC03.05** Cerebellar hypoplasia: prenatal diagnosis and outcome  
*T. Borkowski (Israel)*

09:12 Discussion

09:15 **OC03.06** Diagnosis of spina bifida in a routine clinical setting at the first trimester scan: a prospective multicentre study  
*J. Tiechl (Austria)*

09:20 Discussion

09:23 **OC03.07** Prenatal diagnosis of malformations of cortical development associated to midbrain-hindbrain anomalies  
*K.K. Haratz (Israel)*

09:28 Discussion

## CONVENTION HALL ID

## Masterclass

How to evaluate a patient presenting with infertility with a single scan

*B.R. Benacerraf (United States)*

## Classifying and managing ovarian masses

*Chairs: T. Bourne (United Kingdom); D. Timmerman (Belgium)*

- 08:15 **INVITED:** Using the IOTA ADNEX model to classify all ovarian masses  
*W. Froyman (Belgium)*
- 08:35 <sup>Y1</sup>**OC04.01** Imaging in gynecology: mature cystic teratoma of the ovary  
*R. Heremans (Belgium)*
- 08:40 Discussion
- 08:43 **OC04.02** The role of IOTA ADNEX model compared to subjective assessment in the preoperative diagnosis of unilocular-solid adnexal masses  
*D. Franchi (Italy)*
- 08:48 Discussion
- 08:51 **OC04.03** Prediction of adnexal torsion by ultrasound in women with acute abdominal pain  
*R. Bardin (Israel)*
- 08:56 Discussion
- 08:59 **OC04.04** A machine-learning algorithm to distinguish benign and malignant adnexal tumours from ultrasound images  
*S. Jassim (United Kingdom)*
- 09:04 Discussion
- 09:07 **OC04.05** Conservative management of adnexal pathology classified as benign by ADNEX model before and after the menopause: a prospective multicentre study  
*D. Djokovic (Portugal)*
- 09:12 Discussion
- 09:15 **OC04.06** Management of adnexal masses during pregnancy: a prospective study  
*C. Landolfo (Belgium/United Kingdom)*
- 09:20 Discussion
- 09:23 **OC04.07** Presurgical assessment of adnexal masses: performance of IOTA-LR2, ADNEX and RMI models and added value of tumour marker-based models ROMA and CPH-I  
*N. Carreras Diéguez (Spain)*
- 09:28 Discussion

## ESTREL HALL AB

## Masterclass

Ultrasound and cfDNA: a happy marriage?  
*C.M. Bilardo (Netherlands); F. Grati (Italy)*

## Ultrasound in the labour ward

*Chairs: C. Lees (United Kingdom); W. Henrich (Germany)*

- 08:15 **ISUOG GUIDELINES:** Intrapartum ultrasound  
*T. Ghi (Italy)*
- 08:35 **OC05.01** Rotational forceps delivery: a novel role of intrapartum ultrasound for quality control and teaching  
*L. Hinkson (Germany)*
- 08:40 Discussion
- 08:43 **OC05.02** Movement of the fetal head during active pushing assessed with ultrasound  
*B.H. Kahrs (Norway)*
- 08:48 Discussion
- 08:51 **OC05.03** Ultrasound in the second stage of labour before instrumental vaginal delivery: a randomised controlled trial  
*J.G. Barros (Portugal)*
- 08:56 Discussion
- 08:59 **OC05.04** Dynamic two-dimensional transperineal ultrasound prior to perineal suturing as a screening tool for anal sphincter injury and fecal incontinence  
*G. Salsi (Italy)*
- 09:04 Discussion
- 09:07 **OC05.05** Moulding of the fetal head diagnosed with ultrasound  
*T.M. Eggebø (Norway)*
- 09:12 Discussion
- 09:15 **OC05.06** Point of Care Ultrasound for fluid assessment and management in a pre-eclamptic patient with postpartum hemorrhage  
*S. Lau (Hong Kong)*
- 09:20 Discussion
- 09:23 **OC05.07** Prediction of mode of delivery using intrapartum ultrasound in the assessment of fetal head deflexion  
*F. Bellussi (Italy)*
- 09:28 Discussion

<sup>Y1</sup> This presentation is eligible for the Young Investigator award (to be presented in the closing plenary).

## CONVENTION HALL IC

- 09:40-10:20 Short oral presentation (OP)**  
**OP01** Novel imaging methods, artificial intelligence and more  
*Chairs: C. Brezinka (Austria); J. Stirnemann (France)*
- 10:15-10:45 Coffee and e-poster viewing**
- 10:45-12:05 New genetic technologies: how can they help?**  
*Chairs: P. Benn (United States); F. Grati (Italy)*
- 10:45 **INVITED:** Cases that stump me  
*L. Dugoff (United States)*
- 11:05 **OC06.01** Single gene, gene panel and exome sequencing applied in structurally abnormal fetuses with a normal chromosomal microarray analysis *A. Borrell (Spain)*
- 11:10 Discussion
- 11:13 **OC06.02** A new molecular work-up for early pregnancy losses based on QF-PCR and SNP-array in chorionic villi is more accurate than karyotyping *L. Benitez Quintanilla (Spain)*
- 11:18 Discussion
- 11:21 **OC06.03** Increased fetal nuchal translucency: genetic examination by the advanced technology  
*M. Chen (China)*
- 11:26 Discussion
- 11:29 **OC06.04** Population-based prevalence of 22q11 deletion syndrome and other chromosome abnormalities in a combined prenatal and postnatal cohort *L. Hui (Australia)*
- 11:34 Discussion
- 11:37 **OC06.05** Prenatal diagnosis and clinical analysis of CNV in fetal cleft lip *X. Chen (China)*
- 11:42 Discussion
- 11:45 **OC06.06** Cell-free DNA in the detection of chromosomal aneuploidies in early fetal demise and miscarriage  
*M. Hynek (Czech Republic)*
- 11:50 Discussion
- 11:53 **OC06.07** Maternal plasma genome-wide cell-free DNA testing can detect fetal aneuploidy in pregnancy loss and can be used to guide further work-up in recurrent losses  
*A. Borrell (Spain)*
- 11:58 Discussion

## CONVENTION HALL II

- Short oral presentation (OP)**  
**OP02** Multimodal management of fetal anomalies  
*Chairs: P. Acharya (India); A. Diemert (Germany)*
- Coffee and e-poster viewing**
-  **The challenge of ventriculomegaly**  
*Chairs: G. Malinger (Israel); I.E. Timor-Tritsch (United States)*
- 10:45 **INVITED:** Fetal brain anomalies: how to counsel your patient  
*A.T. Papageorghiou (United Kingdom)*
- 11:05 <sup>YI</sup>**OC07.01** Role of prenatal magnetic resonance imaging in fetuses with isolated ventriculomegaly: a multicentre study  
*D. Di Mascio (Italy)*
- 11:10 Discussion
- 11:13 **OC07.02** Differential diagnosis of irregular lateral ventricle walls: correlation between prenatal imaging and fetal neuropathological studies *K.K. Haratz (Israel)*
- 11:18 Discussion
- 11:21 **OC07.03** Prenatal work-up, associated anomalies and long-term postnatal outcomes of fetuses with 9–10mm cerebral ventricular atria width *M. Sharon-Weiner (Israel)*
- 11:26 Discussion
- 11:29 **OC07.04** Differential regional distribution of ventricular volumes in fetuses with isolated non-severe ventriculomegaly is associated with poor neurodevelopmental outcome  
*N.M. Hahner (Spain)*
- 11:34 Discussion
- 11:37 **OC07.05** Prenatal diagnosis of arachnoid cysts: MRI features and neurodevelopmental outcome *E. Katorza (Israel)*
- 11:42 Discussion
- 11:45 **OC07.06** Prenatal diagnosis of dural sinus malformation using fetal magnetic resonance imaging *M.C. Diago (Austria)*
- 11:50 Discussion
- 11:53 **OC07.07** SS-FSE FAIR ASL parameters for non-invasive measurement of fetal brain perfusion *in vivo* *A.E. Millischer (France)*
- 11:58 Discussion



## CONVENTION HALL ID

### Short oral presentation (OP)

**OP03** Classifying and managing ovarian masses  
*Chairs: J. Preisler (Chile); S. Saso (United Kingdom)*

### Coffee and e-poster viewing

#### Investigating women with abnormal bleeding

*Chairs: J. Huirne (Netherlands); L. Jokubkiene (Sweden)*

- 10:45 **INVITED:** Predicting pathology in women with abnormal bleeding using standardised ultrasound features: data from the IETA 1 study on >3,000 women  
*T. Van den Bosch (Belgium)*
- 11:00 **INVITED:** Caesarean section scars (the niche): ultrasound assessment and the current position on whether treatment is necessary  
*J. Huirne (Netherlands)*
- 11:15 **OC08.01** Could comparative elastography help in the sonographic diagnosis of adenomyosis?  
*S. Iglesias Ferreira (Spain)*
- 11:20 Discussion
- 11:23 **OC08.02** A prospective controlled study for Caesarean section niche development with hysteroscopic correlation in symptomatising patients  
*H.M. Gaafar (Egypt)*
- 11:28 Discussion
- 11:31<sup>Y</sup> **OC08.03** Prevalence of malignancy or premalignancy in postmenopausal women without vaginal bleeding in whom the endometrial thickness measured  $\geq 11$ mm  
*M. Wong (United Kingdom)*
- 11:36 Discussion
- 11:39 **OC08.04** Oral administration of norethisterone acetate in women with adenomyosis: effects on ultrasound features and clinical symptoms  
*C. Exacoustos (Italy)*
- 11:44 Discussion
- 11:47<sup>Y</sup> **OC08.05** Incidental finding of endometrial polyps: results from a prospective multicentre study (IETA3)  
*R. Heremans (Belgium)*
- 11:52 Discussion
- 11:55 **OC08.06** Ability to adequately visualise an endometrial echo on transvaginal ultrasound in asymptomatic postmenopausal women  
*S.R. Goldstein (United States)*
- 12:00 Discussion

## ESTREL HALL AB

### Short oral presentation (OP)

**OP04** Ultrasound in the labour ward  
*Chairs: K. Kalache (Qatar); C. Bamberg (Germany)*

### Coffee and e-poster viewing

#### Prediction of pregnancy complications

*Chairs: R. Romero (United States); D. Schlembach (Germany)*

- 10:45 **INVITED:** Prediction of pre-eclampsia in 2019  
*D.L. Rolnik (Australia)*
- 11:05 **OC09.01** Prediction of preterm delivery by cervical length at 11–14 weeks of gestation  
*M. Bermudez Rojas (Mexico)*
- 11:10 Discussion
- 11:13 **OC09.02** The risk of subsequent preterm birth in women with a short cervix who delivered at term  
*S. Bak (Republic of Korea)*
- 11:18 Discussion
- 11:21 **OC09.03** Contribution of the amniocentesis for the ultrasound prediction of spontaneous preterm delivery in women with preterm labour  
*C. Murillo Bravo (Spain)*
- 11:26 Discussion
- 11:29 **OC09.04** A rapid MMP-8 bedside test performs better than amniotic fluid white blood cell count in the antenatal identification of acute histologic chorioamnionitis  
*S. Hong (Republic of Korea)*
- 11:34 Discussion
- 11:37 **OC09.05** Low Papp-A at booking: is serial ultrasound surveillance warranted?  
*H. Mousa (United Kingdom)*
- 11:42 Discussion
- 11:45 **OC09.06** Value of universal third trimester ultrasonography as predictor of adverse perinatal outcome at term  
*A. Cavallaro (United Kingdom)*
- 11:50 Discussion
- 11:53 **OC09.07** Women with a second trimester placenta previa of 14mm or less are at low risk of a placenta previa in the third trimester: a prospective cohort  
*C.H. Jansen (Netherlands)*
- 11:58 Discussion

<sup>Y</sup> This presentation is eligible for the Young Investigator award (to be presented in the closing plenary).

## CONVENTION HALL IC

### 12:10-12:50 Short oral presentation (OP)

**OP05** Issues in prenatal genetic testing  
*Chairs: P. Benn (United States); P. Kozlowski (Germany)*

### 12:45-14:15 Lunch and e-poster viewing

### 13:00-14:00 Industry sponsored satellite symposia\*\*

### 14:15-15:35 Novel developments in our field

*Chairs: L.J. Salomon (France); K. Maršál (Sweden)*

14:15 **INVITED:** Imaging the future: overview of latest new developments in fetal imaging, simulation, Al H. Werner (Brazil)

14:30 **OC10.01** Combination of ultrasound and magnetic resonance imaging for virtual reality systems to evaluate fetal malformations  
*H. Werner (Brazil)*

14:35 Discussion

14:38 **OC10.02** Bioeffects safety indices of ultrasound: quantifying adherence to recommendations on routine obstetric scan  
*L. Drukker (United Kingdom)*

14:43 Discussion

14:46 **OC10.03** Fetal exposure to magnetic resonance imaging: neurodevelopment outcome  
*E. Katorza (Israel)*

14:51 Discussion

14:54 **OC10.04** Introducing ISUOG's Basic Training novel approach to the second trimester anomaly scan: the 20+2 planes  
*T. Chudleigh (United Kingdom)*

14:59 Discussion

15:02 **OC10.05** The "Valensise Radar" to understand the maternal hemodynamic status  
*D. Farsetti (Italy)*

15:07 Discussion

15:10 **OC10.06** Breaking bad news due to fetal abnormalities during prenatal ultrasound examination: can simulation training be done?  
*E. Mousty (France)*

15:15 Discussion

15:18 **OC10.07** To measure or not to measure? Current NCHD practice of abdominal circumference measurement in the Antenatal Clinic, Cork University Maternity Hospital, and the level of training required in achieving international best practice  
*S. O'Brien (Republic of Ireland)*

15:23 Discussion

15:26 **OC10.08** A standardised examination protocol based on priority assessment levels to optimise first trimester ultrasound screening  
*P. Macé (France)*

15:31 Discussion

## CONVENTION HALL II

### Short oral presentation (OP)

**OP06** Fetal renal abnormalities  
*Chairs: R. Ruano (United States); A. Geipel (Germany)*

### Lunch and e-poster viewing

### Fetal anomalies: head and spine

*Chairs: C.M. Bilardo (Netherlands); J.A. Copel (United States)*

14:15 **LIVE SCAN:** Fetal anomalies head to toe [industry supported\*]  
*C.M. Bilardo (Netherlands)*

14:35 **OC11.01** Sensitivity of retronasal triangle view in first trimester detection of palatine clefts  
*S. Lakshmy (India)*

14:40 Discussion

14:43 **OC11.02** Characterisation of the fetal external ear location and size by three-dimensional ultrasound  
*S. Porat (Israel)*

14:48 Discussion

14:51 **OC11.03** The relevance of fetal ductus venosus or ductus venosus-like structures-inferior vena cava shunt abnormalities and Down's syndrome  
*G. Tao (China)*

14:56 Discussion

14:59 **OC11.04 & OC11.05** Vertebral patterns in conditions with variable outcome  
*P.C. Schut (Netherlands)*

15:07 Discussion

15:10 **OC11.06** Role of early ultrasound scan: a two-year study of cases of increased nuchal translucency with normal karyotype  
*M.M. Elsayed (United Kingdom)*

15:15 Discussion

15:18 **OC11.07** Randomised controlled study on the use of systematic simulator-based training (OPUS Fetal Heart Trainer) for learning the standard heart planes in fetal echocardiography  
*J. Steinhard (Germany)*

15:23 Discussion

15:26 **OC11.08** Syndromic craniofacial dysmorphic feature assessment *in utero*: potential for a novel imaging methodology with reconstructed 3D fetal MRI models  
*J. Matthew (United Kingdom)*

15:31 Discussion

## CONVENTION HALL ID

### Short oral presentation (OP)

**OP07** Investigating causes of abnormal uterine bleeding and uterine disease

*Chairs: E. Epstein (Sweden); T. Van den Bosch (Belgium)*

### Lunch and e-poster viewing

## Ultrasound to help manage the oncology patient

*Chairs: A.C. Testa (Italy); D. Fischerová (Czech Republic)*

- 14:15 **INVITED:** How does imaging influence my management of women with probable ovarian carcinoma *C. Fotopoulou (United Kingdom)*
- 14:35 **INVITED:** How to assess the extent of tumour for women with endometrial and cervical cancer *E. Epstein (Sweden)*
- 14:49 **INVITED:** Preoperative assessment of ovarian cancer *D. Fischerová (Czech Republic)*
- 15:03 **OC12.01** Can ultrasound do distinguished diagnosis between complete and partial hydatidiform mole with coexistent fetus? *J. Qin (China)*
- 15:08 Discussion
- 15:11 **OC12.02** Management of borderline ovarian tumours: overall survival and long-term follow-up *S. Saso (United Kingdom)*
- 15:16 Discussion
- 15:19 **OC12.03** Comparison of clinical and ultrasound characteristics in low- and high-grade serous cancer *B. Cornelli (Italy)*
- 15:24 Discussion
- 15:27 **OC12.04** A new advanced tool in gynecological surgery: the intraoperative ultrasound examination *I. De Blasis (Italy)*
- 15:32 Discussion

## ESTREL HALL AB

### Short oral presentation (OP)

**OP08** Prediction of pregnancy complications

*Chairs: L. Poon (Hong Kong); J. Stone (United States)*

### Lunch and e-poster viewing

## Fetal interventions in monochorionic twins

*Chairs: E. Gratacós (Spain); K. Hecher (Germany)*

- 14:15 **VIDEO:** Fetoscopic surgery of monochorionic twins *A. Johnson (United States)*
- 14:31 **OC13.01** Surgical versus expectant management in twin reversed arterial perfusion sequence *K. Kostyukov (Russian Federation)*
- 14:36 Discussion
- 14:39 **OC13.02** Umbilical artery end-diastolic flow patterns are associated with right ventricular outflow abnormalities in Twin–twin transfusion syndrome *J. Espinoza (United States)*
- 14:44 Discussion
- 14:47 **OC13.03** Perioperative hemodynamic changes in Twin–twin transfusion syndrome and long-term neurodevelopmental outcomes *M. Gijtenbeek (Netherlands)*
- 14:52 Discussion
- 14:55 **OC13.04** Intertwin differences in fetal cardiac geometry are associated with decreased dual twin survival in Twin–twin transfusion syndrome *R. Corroenne (United States/France)*
- 15:00 Discussion
- 15:03 **OC13.05** Cervical pessary for prevention of preterm birth in Twin–twin transfusion syndrome *J. Gottula (United States)*
- 15:08 Discussion
- 15:11 **OC13.06** Risk of intrauterine demise of donors with selective fetal growth restriction after laser surgery for Twin–twin transfusion syndrome *J.U. Ortiz (Germany)*
- 15:16 Discussion
- 15:19 **OC13.07** Ultrasound evaluation of fetomaternal circulation after modified laparoscopic cervicoisthmic cerclage *K. Seo (Japan)*
- 15:24 Discussion
- 15:27 **OC13.08** Mechanical properties and toxicity of different bioadhesives as sealing system for fetal membranes *T. Micheletti (Spain)*
- 15:32 Discussion

\* Scientific content of sessions is defined by the Scientific Committee; ultrasound systems and technical support are provided by sponsors.

\*\* Lunchtime satellite symposia are brought to you by our sponsors and are not part of the ISUOG CME program. ISUOG takes no responsibility for scientific or clinical content. Please see page 128 for our satellite program.

## CONVENTION HALL IC

15:35-16:00

Coffee and e-poster viewing

16:00-17:30

### Workshop

#### How isolated is “isolated” corpus callosum agenesis?

*Chairs: G. Pilu (Italy); A.E. Millischer (France)*

- 16:00 The contribution of ultrasound to the diagnosis of associated anomalies  
*D. Pugash (Canada)*
- 16:25 The contribution of MRI to the diagnosis of associated anomalies  
*A.E. Millischer (France)*
- 16:50 Is this corpus callosum normal?  
*G. Malinger (Israel)*
- 17:15 Discussion

## CONVENTION HALL II

Coffee and e-poster viewing

### Workshop

#### Abnormalities of situs and the venous system

*Chairs: D. Paladini (Italy); E. Quarello (France)*

- 16:00 **LIVE SCAN:** Assessing situs and the venous system [industry supported\*]  
*J.S. Carvalho (United Kingdom)*
- 16:20 Fetal umbilico portal ductus venous system  
*R. Achiron (Israel)*
- 16:40 Pulmonary venous system  
*D. Paladini (Italy)*
- 17:00 Fetal situs anomalies and heterotaxy  
*R. Chaoui (Germany)*
- 17:20 Discussion

**CONVENTION HALL ID**

## Coffee and e-poster viewing

**Workshop****Classifying ovarian tumours: knowing how to classify ovarian masses using IOTA terminology, rules and models**

*Chairs: A.C. Testa (Italy); D. Timmerman (Belgium)*

- 16:00 Terms and definitions used to describe ovarian masses: the key to getting it right  
*J. Preisler (Chile)*
- 16:15 IOTA descriptors and simple rules: what are the ultrasound features and how to use the rules – can they be applied to all masses?  
*T. Bourne (United Kingdom)*
- 16:30 The IOTA ADNEX model: what variables are used and how to interpret the results  
*D. Timmerman (Belgium)*
- 16:45 How worried should you be by solid projections into otherwise unilocular looking cysts?  
*C. Landolfo (United Kingdom)*
- 17:00 Using the IOTA approach to classify ovarian masses in clinical practice: case examples  
*W. Froyman (Belgium)*

**ESTREL HALL AB**

## Coffee and e-poster viewing

**Workshop****Assessing early fetal growth restriction**

*Chairs: S. Campbell; A.T. Papageorghiou (United Kingdom)*

- 16:00 Assessing fetal growth: the ISUOG fetal biometry guidelines  
*L.J. Salomon (France)*
- 16:20 Pathophysiology of early onset fetal growth restriction  
*A.A. Baschat (United States)*
- 16:40 Management of early growth restriction: the European view  
*E. Gratacós (Spain)*
- 16:55 Management of early growth restriction: the USA view  
*A. Abuhamad; J. Martins (United States)*
- 17:10 Discussion

**HALL EUROPA B****Workshop****3D ultrasound of the fetal head**

*Chairs: B. Tutschek (Switzerland); S. Tudorache (Romania)*

- 16:00 Volume acquisition and qualitative and quantitative analysis of the fetal face and skull: a step-by-step guide  
*B. Tutschek (Switzerland)*
- 16:20 Genetic syndromes with an abnormal face that you must know: added value of 3D  
*E. Merz (Germany)*
- 16:40 Brain views that benefit from or are only possible with 3D  
*A. Youssef (Italy)*
- 17:00 Live volume/video demonstration face and skull: 1. essentials in 2D and additional information from 3D; 2. bone rendering  
*B. Benoit (France)*
- 17:20 Discussion

# Hubs

## HUB 1

08:15-09:15

### Interactive

The ISUOG Basic Training (BT) practical curriculum: how to teach and assess the BT trainee

*Chair: R. Abu-Rustum (United States)*

Objectives: To offer tools to understand basic elements of fetal anatomy (heart), focusing on the practical aspect of the exam

09:40-10:20 **Poster discussion (P)**

P01: cfDNA and new genetic technologies

*Chair: A. Sotiriadis (Greece)*

**Poster discussion (P)**

P02: Diagnosis and prognosis of congenital heart defects

*Chair: B. Tutschek (Switzerland)*

10:45-11:45 **Interactive**

Outreach virtual mentor workshop

*Chair: L. Hanson (United States)*

Objectives: To launch the Virtual Mentoring Program, explaining the process, outcomes and what being a mentor entails

12:10-12:50 **Poster discussion (P)**

P05: Fetal disease II

*Chairs: S.C. Westerway (Australia); A. Khurana (India)*

**Poster discussion (P)**

P06: Fetal growth: predicting outcomes

*Chairs: P. Glanc (Canada); R. Cruz-Martinez (Mexico)*

13:10-14:10

Please see the app for further details of the Hub programs

FOYER 3 *JOIN THE BUZZ*

## HUB 3

**Interactive**

In conversation with *J.E. Timor-Tritsch*:  
Caesarean scar pregnancy

Objectives: To place this dangerous disease in perspective of its occurrence and teach how to minimise impact on patients who wish to conceive after Caesarean deliveries

**Poster discussion (P)**

P03: Ultrasound and reproductive medicine  
*Chairs: W.P. Martins (Brazil); M. Leonardi (Australia)*

**Interactive**

In conversation with *G. Condous*: how I evaluate my patients for endometriosis before surgery  
*Chairs: G. Hudelist (Austria); N. Raine-Fenning (United Kingdom)*

**Poster discussion (P)**

P07: Classifying ovarian masses using ultrasonography  
*Chairs: W. Froyman (Belgium); A.C. Testa (Italy)*

## HUB 4

**Interactive**

In conversation with *S. Campbell*:  
pearls of gynecological imaging

**Poster discussion (P)**

P04: Fetal disease I  
*Chair: N. Vrachnis (Greece)*

**Poster discussion (P)**

P08: New techniques for the evaluation of the fetal heart  
*Chairs: A. Gagnon (Canada); J. Huhta (United States)*

HALL  
EUROPA B**Guidelines**

Chinese  
*Chair: Q. Wu (China)*

Objectives: To familiarise delegates with ISUOG guidelines, discussing how to apply them to daily practice

# Hubs

## HUB 1

14:15-15:15

### Interactive

3D: the right modality for the right patients in the right time

*Chair: S. Tudorache (Romania)*

Objectives: To give a specific concrete overview of the benefits and shortcomings of volumetric ultrasound, to help participants optimise their daily clinical practice

15:20-16:20

### Interactive

Polish Society of Gynecologists and Obstetricians

*Chairs: M. Zimmer; M. Wielgos; W. Rokita (Poland)*

Objectives: To introduce current and important topics relating to modern ultrasound and its practical application in obstetrics and gynecology

16:25-17:25

### Interactive

Intrapartum ultrasound quiz: look at the screen and decide how to deliver the baby!

*Chairs: T. Ghi; G. Rizzo (Italy)*

Objectives: To discuss how to obtain and interpret ultrasound findings during labour/postpartum and to work with an ultrasound-friendly mannequin (IUSIM plus) to train clinical and sonographic skills

17:30-18:00

### New for 2019!

Key messages from Monday: Convention Hall IC

*Chairs: L. Drukker (United Kingdom); M. Gil (Spain)*

Objectives: To summarise the scientific content of Convention Hall II and explore the main themes

## HUB 2

### Guidelines

French recommendations for cell-free DNA

*Chair: G. Haddad (France)*

Objectives: To discuss how to use the DNA test properly in France: what do we find, what do we miss?

### Interactive

Society of Fetal Medicine, India

*Chairs: A. Khurana; V. Kashyap (India)*

Objectives: To discuss whether low-cost solutions are possible in resource restricted populations

### Interactive

Ultrasound in labour in a low-resource setting

*Chairs: T.M. Eggebø (Norway); R. Kamel (Egypt)*

Objectives: To learn basic scanning techniques used in active labour and how to interpret findings

### New for 2019!

Key messages from Monday: Convention Hall II

*Chairs: G. Kasprian (Austria); F. D'Antonio (Norway)*

Objectives: To summarise the scientific content of Convention Hall ID and explore the main themes

Please see the app for further details of the Hub programs



FOYER 3 *JOIN THE BUZZ*

## HUB 3

**Interactive**

In conversation with *D. Timmerman*: the IOTA study and classifying ovarian masses Q&A

*Chairs: T. Bourne; N. Raine-Fenning (United Kingdom)*

**Interactive**

In conversation with *W.P. Martins*: uterine anomalies

Objectives: To present problems to distinguish and identify most reliable/accurate criteria to distinguish between normal and non-normal uterine shapes

**Interactive**

Why 'p' values are not the be all and end all

*Chair: L. Wynants (Belgium)*

Objectives: To understand the context of the reproducibility crisis in medical research; learn about problems with p-values and alternatives to report findings; understand how (not) to interpret significant and insignificant findings; learn how to communicate research findings in a modest, thoughtful and transparent way

## HUB 4

**Interactive**

Argentine Society of Ultrasonography in Medicine and Biology: fetal growth – from biometry to Doppler

*Chair: D. Cafici (Argentina)*

Objectives: To explore the correct use of the different formulas and references of fetal growth; discuss Doppler in obstetrics: ISUOG guidelines and the use of Doppler in the identification of the fetus with growth restrictions

**Interactive**

In conversation with *N. Raine-Fenning*: fertility

**New for 2019!**

Key messages from Monday: Estrel Hall AB

*Chairs: R. Napolitano (United Kingdom);*

*M. Cruz-Lemini (Spain)*

Objectives: To summarise the scientific content of Estrel Hall AB and explore the main themes

# OP - Monday 14.10.2019

## OP01: Novel imaging methods, artificial intelligence and more Convention Hall IC

*Chairs: C. Brezinka (Austria); J. Stirnemann (France)*

- Is simulation training only for inexperienced trainees? Exploring the effects of simulation-based ultrasound training on obstetricians' diagnostic accuracy OP01.01  
*L.A. Andreasen (Denmark)*
- The use of physical guidance to teach the scanning skills required for clinical practice: an Australian national survey OP01.02  
*D. Nicholls (Australia)*
- Development of an endocavity ultrasound and photoacoustic imaging device for non-invasive assessment of blood oxygenation and perfusion in fetuses and neonates OP01.03  
*E.A. Hernandez-Andrade (United States)*
- The characteristics of the physiological development of chorionic villous vessels between 19 and 38 weeks described using super microvascular imaging OP01.04  
*T. Horinouchi (Japan)*
- How accurate is the clinical diagnosis of obstetric anal sphincter injury? OP01.05  
*K. Shek (Australia)*
- The appearance of perineal trauma on translabial ultrasound OP01.06  
*K. Shek (Australia)*
- Mobile virtual reality platform as a teaching tool for fetal echocardiography OP01.07  
*M. Wiechec (Poland)*
- Exploring large prenatal image databases with a deep learning framework OP01.08  
*J. Ritgen (Germany)*
- Automatic classification of fetal ultrasound images: a remarkable application of deep learning technology for fetal medicine OP01.09  
*E. Eixarch (Spain)*
- Auditing the quality of ultrasound images using an AI solution: ScanNav® for fetal second trimester ultrasound scans OP01.10  
*A.T. Papageorghiou (United Kingdom)*

## OP02: Multimodal management of fetal anomalies Convention Hall II

*Chairs: P. Acharya (India); A. Diemert (Germany)*

- Prenatal description of Binder-like phenotype with different outcomes OP02.01  
*M. Lanna (Italy)*
- Accuracy of prenatal imaging in the diagnosis of vascular anomalies OP02.02  
*A. Laoreti (Italy)*
- First trimester non-visualisation of the parotid gland is a sensitive sign for aneuploidy in fetuses with increased nuchal translucency OP02.03  
*S. Perlman (Israel)*
- Next generation sequencing (NGS) in the prenatal diagnosis of recurrent Steel syndrome OP02.04  
*M. Larroya Sola (Spain)*
- The nasofrontal angle can help to identify palate involvement in fetuses with facial clefts OP02.05  
*E. de Jong-Pleij (Netherlands)*
- Noonan syndrome fetal phenotype with PTPN11, RIT1, RAF1 and NRAS pathogenic variant: ultrasound data, fetopathology study and literature review OP02.06  
*A. Lamouroux (France)*

Venous lymphatic malformations: prenatal evaluation by MRI and long-term outcomes <i>A.P. Matos (Brazil)</i>	OP02.07
The prenatal diagnosis of cleft lip and cleft palate: the role and value of ultrasound and magnetic resonance imaging <i>L. Wang (China)</i>	OP02.08
Antenatal diagnosis of fetal micrognathia by ultrasound: which is the most reproducible method? <i>M. Bertin (United Kingdom)</i>	OP02.09
Sequential axial approach for the routine ultrasound evaluation of the fetal basic anatomy at 11–13 weeks: toward a methodological standardisation <i>A. Dall'Asta (Italy)</i>	OP02.10
The eyes hide surprises: unilateral microphthalmia with severe bilateral colobomatous involvement <i>M. Medina Castellano (Spain)</i>	OP02.11

**OP03: Classifying and managing ovarian masses**

**Convention Hall ID**

*Chairs: J. Preisler (Chile); S. Saso (United Kingdom)*

The introduction of IOTA ADNEX in a referral cancer centre as an improvement strategy: is this bet worth it? <i>M. Medina Castellano (Spain)</i>	OP03.01
Colour Doppler transvaginal ultrasound in early diagnosis of ovarian cancer: a 19-year experience <i>M. Pascual (Spain)</i>	OP03.02
Obstetrics and gynecology residents can accurately classify benign ovarian tumours with the International Ovarian Tumor Analysis (IOTA) guidelines <i>J.V. Sebajuri (Rwanda)</i>	OP03.03
Imaging in gynecological disease: ultrasound features of malignant yolk sac tumours (endodermal sinus tumours) <i>P. Anfelter (Sweden)</i>	OP03.04
Pregnancy woman with sudden right abdominal pain <i>X. Li (China)</i>	OP03.05
Characteristics of conservatively managed ovarian masses <i>B. Erdodi (Hungary)</i>	OP03.06
Ultrasonographic evaluation of ovarian mass for prediction of malignancy in pregnant women: comparison of scoring systems in a multicentre study <i>S. Lee (Republic of Korea)</i>	OP03.07
Classification of the adnexal masses by ultrasound based on simple rules compared to ROMA index (risk of ovarian malignancy algorithm) <i>M. Peró Garcia (Spain)</i>	OP03.08
Rapid access suspected ovarian cancer clinic: an audit examining the GP referral pathway <i>A.A. Ashmore (United Kingdom)</i>	OP03.09
New insight on exophytic serous borderline adnexal tumours: specific imaging and clinical features <i>L. Haddad (Israel)</i>	OP03.10

**OP04: Ultrasound in the labour ward**

**Estrel Hall AB**

*Chairs: K. Kalache (Qatar); C. Bamberg (Germany)*

Modifiable risk factors for obstetric anal sphincter injury (OASI) in primiparous women <i>V.H. Eisenberg (Israel)</i>	OP04.01
Prediction model for obstetric anal sphincter injuries (OASI) <i>V.H. Eisenberg (Israel)</i>	OP04.02
Ultrasound and clinical parameters at the start of the active phase of labour and prediction of time remaining in labour <i>H. Hjartardóttir (Iceland)</i>	OP04.03

Maternal hemodynamics and computerised CTG in the identification of risk during labour <i>D. Farsetti (Italy)</i>	OP04.04
Prediction of the risk of intrapartum fetal distress using maternal hemodynamics <i>E. Kalafat (Turkey)</i>	OP04.05
Clinical value of transvaginal real-time ultrasound elastography in evaluating the cervical tissue homogeneity in late pregnancy <i>M. Wang (China)</i>	OP04.06
Three-dimensional transperineal ultrasound render of fetal head in the second stage of labour: a pilot study <i>A. Youssef (Italy)</i>	OP04.07
Fetal station assessed with transabdominal ultrasound <i>J.K. Iversen (Norway)</i>	OP04.08
Evaluation of ultrasound-determined labour progress in women requiring Caesarean delivery following induction of labour <i>L. Poon (Hong Kong)</i>	OP04.09
Correlation of 3D–4D transperineal ultrasound of levator hiatus dimensions amongst primigravids with term pregnancy and mode of delivery <i>L.C. Coloma (Philippines)</i>	OP04.10

## OP05: Issues in prenatal genetic testing

## Convention Hall IC

*Chairs: P. Benn (United States); P. Kozłowski (Germany)*

High risk: what's next? Decisional conflict, regret and satisfaction among pregnant women making choices about further prenatal testing <i>F.S. Joergensen (Denmark)</i>	OP05.01
Fetal fraction of cell-free DNA in frozen-thawed and fresh embryo transferred IVF patients <i>F.S. Joergensen (Denmark)</i>	OP05.02
Changes in fetal cell-free DNA fraction between consecutive maternal plasma samples in individual pregnancies <i>M. Schmid (United States)</i>	OP05.03
Nasal bone width in first trimester is a highly sensitive and specific marker for trisomies and associated abnormalities <i>V. Kashyap (India)</i>	OP05.04
Prevalence of fetal congenital abnormalities in pregnancies with a twice-inconclusive cell-free DNA result <i>F. Bardi (Netherlands)</i>	OP05.05
Genetic polymorphism in high-risk obstetric and infertility populations <i>N. Rodrigo (Sri Lanka)</i>	OP05.06
Outcomes following the detection of fetal edema in early pregnancy prior to non-invasive prenatal testing <i>S. Meagher (Australia)</i>	OP05.07
Role of chromosomal microarrays analysis in identifying pathogenetic variants in fetuses with single or multiple ultrasound abnormalities <i>A. Fichera (Italy)</i>	OP05.08
Correlation between increased nuchal translucency and chromosomal abnormalities <i>M. Chen (China)</i>	OP05.09
A global landscape analysis of reimbursement policies for prenatal cell-free DNA testing in public healthcare systems <i>E. Kostenko (United States)</i>	OP05.10

**OP06: Fetal renal abnormalities****Convention Hall II***Chairs: R. Ruano (United States); A. Geipel (Germany)*

Outcome of fetal duplex-collecting system: a systematic review and meta-analysis <i>G. Rizzo (Italy)</i>	OP06.01
Fetal multicystic dysplastic kidney: prenatal compensatory renal growth pattern, associated anomalies and postnatal outcome <i>N. Gilad (Israel)</i>	OP06.02
Genetic disorders in congenital anomalies of the kidney and the urinary tract <i>V. Borobio (Spain)</i>	OP06.03
Fetal pancake kidney: prenatal diagnosis and postnatal follow-up <i>S. Perlman (Israel)</i>	OP06.04
Chromosomal disorders in fetal isolated echogenic kidneys <i>V. Borobio (Spain)</i>	OP06.05
Pulmonary arterial Doppler changes in the fetuses with congenital pulmonary airway malformation <i>A. Takamizu (Japan)</i>	OP06.06
Value of fetal MRI after sonography in the evaluation of renal agenesis <i>S.L. Laifer-Narin (United States)</i>	OP06.07
Prenatal diagnosis of pelvic kidney: should we expect compensatory growth in the normal positioned kidney? <i>S. Bar-Adon (Israel)</i>	OP06.08
Cornelia de Lange syndrome amenable to early prenatal diagnosis? Lessons from 106 affected fetuses <i>J. Weichert (Germany)</i>	OP06.09

**OP07: Investigating causes of abnormal uterine bleeding and uterine disease****Convention Hall ID***Chairs: E. Epstein (Sweden); T. Van den Bosch (Belgium)*

New sonographic classification of adenomyosis: do type and degree of adenomyosis correlate to severity of symptoms? <i>C. Exacoustos (Italy)</i>	OP07.01
Assessment of myometrial invasion in endometrial cancer by transvaginal sonography versus magnetic resonance <i>F. Buonomo (Italy)</i>	OP07.02
Performance of simultaneous endometrial aspiration and sonohysterography in the diagnosis of endometrial polyps in women with postmenopausal bleeding <i>S. Barlow (United States)</i>	OP07.03
Success rate and diagnostic performance of ultrasound-guided trucut biopsies in cases with suspected sarcoma <i>E. Dreisler (Denmark)</i>	OP07.04
Ultrasonographic indications for conservative of uterine arteriovenous malformations <i>F. Buonomo (Italy)</i>	OP07.05
3D junctional zone indices: relationship to heavy menstrual bleeding and dysmenorrhea of adenomyosis <i>R.P. Arigue (Philippines)</i>	OP07.06
MUSA-classification of junctional zone appearance in MRI shows a good diagnostic prediction of adenomyosis, while junctional zone measurement does not <i>T. Tellum (Norway)</i>	OP07.07
Characteristics of real-time transvaginal sonoelastography in the diagnosis of endometrial cancer: a preliminary prospective study <i>C. Ong (Singapore)</i>	OP07.08

WITHDRAWN	OP07.09
Artificial intelligence weights the importance of clinical and sonographic factors predicting nodal metastasis in endometrial cancer <i>V. Chiappa (Italy)</i>	OP07.10
Dynamic contrast-enhanced ultrasound can improve the detection of high-risk endometrial cancer <i>R.W. Green (Sweden)</i>	OP07.11

## OP08: Prediction of pregnancy complications

## Estrel Hall AB

<i>Chairs: L. Poon (Hong Kong); J. Stone (United States)</i>	
Prenatal prediction of fetal lung maturity using pulmonary artery Doppler and 3D ultrasound <i>M. Aboulghar (Egypt)</i>	OP08.01
Predictive value of cervical length by transvaginal sonography at 20–24 weeks to preterm delivery in twin pregnancy <i>X. Zhang (China)</i>	OP08.02
First trimester placental growth factor level and adverse obstetric outcomes <i>C.K. Ekelund (Denmark)</i>	OP08.03
Prediction of adverse perinatal outcome in twin pregnancies using sFlt-1/PIGF ratio <i>A. Karge (Germany)</i>	OP08.04
Aspirin 100mg versus 150mg in pregnancy at high risk for pre-eclampsia <i>M.E. Brito (Portugal)</i>	OP08.05
Assessing quality standards in measurement of uterine artery pulsatility index at 11 to 13+6 weeks of gestation, multicentric study <i>D. Nemescu (Romania)</i>	OP08.06
Prediction pregnancies with fetal growth restriction by whole-genome sequencing of cfDNA <i>C. Xu (China)</i>	OP08.07
Maternal serum levels of PIGF and sFlt-1 in a low-risk population of pregnant women in predicting delivery of an SGA newborn <i>M. Lubusky (Czech Republic)</i>	OP08.08
Relationship between first trimester markers for pre-eclampsia and fetal fraction <i>T. Fanelli (Italy)</i>	OP08.09
Longitudinal adrenal gland measurements and growth trajectories as risk markers for late preterm delivery <i>A. Diemert (Germany)</i>	OP08.10
Uterine artery pulsatility index assessment <11 weeks of gestation: a prospective study <i>T.J. Taylor (Australia)</i>	OP08.11
Cardiovascular events following pregnancies complicated by early versus late pre-eclampsia: a systematic review and meta-analysis <i>A. Dall'Asta (Italy)</i>	OP08.12

# P - Monday 14.10.2019

## P01: cfDNA and new genetic technologies

### Foyer 3 Hub 1

Chair: A. Sotiriadis (Greece)

- The role of single-nucleotide polymorphism chromosomal microarray analysis in evaluation of early pregnancy loss: a prospective study P01.01  
S. Kim (Republic of Korea)
- Metabolomics fingerprint of chorionic villi in physiological state and chromosomal disorders during the first trimester of pregnancy P01.02  
A. Iuculano (Italy)
- PLGF inclusion in first trimester combined screening for Trisomy 21 P01.03  
G. Kalogiros (Greece)
- Cell-free DNA analysis in twin pregnancies after reduction because of fetal aneuploidy P01.04  
M. Schmid (United States)
- Low fetal fraction in NIPT: aneuploidy and adverse pregnancy outcome P01.05  
P. Scheffer (Netherlands)
- Whole-genome sequencing of cell-free fetal DNA exhibits predictive value for fetal macrosomia P01.06  
F. Yang (China)
- cfDNA after combined screening: factors that influence patient decisions P01.07  
L.C. Ferreira (Portugal)
- First and second trimester fetal screening: are women well informed? P01.08  
G. Verma (United Kingdom)
- The levels of cell-free fetal DNA in cases of early fetal demise and miscarriage P01.09  
M. Hynek (Czech Republic)
- Incidence of Noonan syndrome in fetuses with persistent increased nuchal translucency, normal karyotype and normal Array-CGH: a prospective study P01.10  
A. Laoreti (Italy)

## P02: Diagnosis and prognosis of congenital heart defects

### Foyer 3 Hub 2

Chair: B. Tutschek (Switzerland)

- The construction and application of a cross-sectional database in fetal echocardiography P02.01  
Z. Yang (China)
- First trimester maternal serum biomarkers in fetuses with major congenital heart defects P02.02  
L.J. Salomon (France)
- Prenatal diagnosis of the fetal retroesophageal left brachiocephalic vein P02.03  
J. Han (China)
- Prenatal diagnosis of tetralogy of Fallot with a restrictive ventricular septal defect P02.04  
C. Villalain Gonzalez (Spain)
- Cardiac parameters to predict the prognosis of fetus with TOF using fetal echocardiography P02.05  
S. Park (Republic of Korea)
- Clinical significance of prenatally diagnosed right aortic arch and double aortic arch P02.06  
J. Lee (Republic of Korea)
- Prediction of emergency balloon atriostomy at birth in transposition of the great arteries: a different approach P02.07  
C. Scala (Italy)
- Maternal hyperoxygenation (MH) for the treatment of fetal ductal occlusion (FDO) with hydrops P02.08  
J. Huhta (United States)
- Prenatal markers of atypical neurodevelopment in children with congenital heart defects P02.09  
L. Carmant (Canada)
- Long-term follow up of cardiac defects defined by fetal ultrasound: a longitudinal study P02.10  
A. Weissmann-Brenner (Israel)

**P03: Ultrasound and reproductive medicine****Foyer 3 Hub 3***Chairs: W.P. Martins (Brazil); M. Leonardi (Australia)*

- T-shaped uterus by congenital uterine malformation by experts (CUME): interrater reliability of useful measurements P03.01  
*W.P. Martins (Brazil)*
- Sonographic findings in infertile women with genital tuberculosis P03.02  
*Y. Zhou (China)*
- The diagnostic accuracy of three-dimensional saline infusion transvaginal ultrasound in the distinction between septate and bicornuate uteri P03.03  
*M. Ebrahimi (Islamic Republic of Iran)*
- 3D microscopic images of the human uterine cervix evaluated by microtomography P03.04  
*P.T. Castro (Brazil)*
- Ultrasound diagnosis and incidence of inborn uterine developmental defects in women with reproductive disorder treated in our IVF centre P03.05  
*D. Smetanova (Czech Republic)*
- Clinical value of a standard model in 3D/4D hysterosalpingo-contrast-sonography imaging P03.06  
*X. Gu (China)*
- Value of 3D hysterosalpingo-contrast-sonography with new contrast (mixture of 2% lignocaine jelly, air and saline) for the evaluation of tubal patency P03.07  
*N. Chegondi (India)*
- "One shot" fertility work-up: combining two- and three-dimensional ultrasound, hydrososonography and foam hysterosalpingo-sonography P03.08  
*M. Zajicek (Israel)*
- Methodological approach to minimise costs: efficient implementation of hysterosonosalingography in a tertiary hospital P03.09  
*M. Medina Castellano (Spain)*
- Ultrasound strain elastography features in patients with early and advanced stages of cervical cancer P03.10  
*E. Epstein (Sweden)*

**P04: Fetal disease I****Foyer 3 Hub 4***Chair: N. Vrachnis (Greece)*

- Etiology and perinatal outcome in periviable fetal growth restriction associated with structural or genetic anomalies P04.01  
*A. Dall'Asta (United Kingdom/Italy)*
- Ultrasongraphic findings of cloacal dysgenesis at 11–14 weeks of gestation P04.02  
*M. Medina Castellano (Spain)*
- In utero* diagnosis of autosomal dominant polycystic kidney disease P04.03  
*M. Cal (Portugal)*
- Is there a neonatal risk from congenital CMV infection beyond the first trimester of pregnancy? P04.04  
*S. Lipitz (Israel)*
- Ultrasound of abdominal fetal cystic masses: prenatal diagnosis, management and long-term prognosis P04.05  
*I. Pelayo (Spain)*
- Prenatal ultrasound diagnosis of hemivertebrae at 11–14 weeks: associations and outcomes P04.06  
*S. Lakshmy (India)*
- A novel screening protocol in prenately identifying the variants and malformations of fetal hepatic circulation: a multicentre study P04.07  
*Z. Gou (China)*
- Serpentine-like syndrome in a fetus presenting with abnormal median diaphragmatic hernia P04.08  
*A. Schubert (Germany)*
- Obese pregnancy ultrasound study (OPUS): preliminary results P04.09  
*A. Comanescu (Romania)*



**P05: Fetal disease II***Chairs: S.C. Westerway (Australia); A. Khurana (India)*

A case of sacrococcygeal teratoma: management and outcome <i>N. Al Riyami (Sultanate of Oman)</i>	P05.01
Prognostic significance of prenatal ultrasound in fetal arthrogryposis multiplex congenital (AMC) <i>B. Busack (Germany)</i>	P05.02
Antenatal sonographic and genetic diagnosis of two cases of Bardet-Biedl syndrome <i>J. Hartung (Germany)</i>	P05.03
Visualisation of intrahepatic portosystemic shunt and intra-abdominal umbilical vein varix by fetal echocardiography with HDliveFlow imaging <i>H. Kawamura (Japan)</i>	P05.04
Prenatal diagnosis of umbilical artery thrombosis: a series of six cases with literature review <i>J. Wang (China)</i>	P05.05
WITHDRAWN	P05.06
Fetal thymus size in pregnancies after assisted reproductive technologies <i>J. Braun (Germany)</i>	P05.07
Antenatal diagnosis of Diamond-Blackfan anemia <i>S. Wavrant (Canada)</i>	P05.08

**Foyer 3 Hub 1****P06: Fetal growth: predicting outcomes***Chairs: P. Glanc (Canada); R. Cruz-Martinez (Mexico)*

Routine late trimester ultrasound for the detection of small-for-gestational-age and growth-restricted fetus in low-risk pregnancy: a randomised controlled trial <i>S.Z. Wanyonyi (Kenya)</i>	P06.01
Third trimester ultrasound screening in IVF pregnancies <i>F. Amro (United States)</i>	P06.02
Third trimester ultrasound screening in class 3 obesity <i>F. Amro (United States)</i>	P06.03
Prognostic factors of vaginal delivery after labour induction of late-onset fetal growth restriction <i>I. Herraiz (Spain)</i>	P06.04
Association of isolated short femur detected in the second trimester scan with adverse perinatal outcome <i>M. Echevarria (Spain)</i>	P06.05
INTERGROWTH-21 versus World Health Organization fetal growth charts for the identification of small for gestational age in a population from Latin America <i>N. Maestre (Colombia)</i>	P06.06
Validity of ultrasound estimated fetal weight and abdominal circumference for assessment of IUGR from 35 weeks of gestation <i>S. Lunshof (Netherlands)</i>	P06.07
Diagnostic accuracy of Doppler ultrasound in predicting perinatal outcome in non-small-for-gestational-age fetuses: a prospective study <i>D. Buca (Italy)</i>	P06.08
Antenatal prediction of small for gestational age using uterine artery Dopplers as part of a multiparameter test in the second trimester <i>D. Casagrandi (United Kingdom)</i>	P06.09
Prediction of small for gestational age using uterine artery Doppler as part of a multiparameter pragmatic approach in the second trimester <i>D. Casagrandi (United Kingdom)</i>	P06.10
Can we predict the birthweight in the first trimester? <i>N. Félix (Portugal)</i>	P06.11
Umbilical vein flow predicts adverse perinatal outcome in late fetal growth retardation at the time of the diagnosis <i>G. Rizzo (Italy)</i>	P06.12

**Foyer 3 Hub 2**

**P07: Classifying ovarian masses using ultrasonography****Foyer 3 Hub 3**

*Chairs: W. Froyman (Belgium); A.C. Testa (Italy)*

Artificial intelligence (AI) weights the importance of clinical and sonographic factors predicting malignancy in unilocular-solid cysts before surgery P07.01

*V. Chiappa (Italy)*

Presurgical evaluation of undetermined adnexal masses and the added value of the tumour marker HE4 on the predictive indexes based on ultrasonography P07.02

*N. Agusti (Spain)*

To investigate the ultrasonographic features of struma ovarii and malignant struma ovarii P07.03

*L.T. Sun (China)*

Benign tumours that are false positives for malignancy in the application of IOTA ADNEX, are the confounding factors explicable and grouped? P07.04

*M. Medina Castellano (Spain)*

Can we improve diagnostic accuracy and ovarian salvage rates for suspected adnexal torsion? P07.05

A two-year retrospective observational study

*Y. Sana (United Kingdom)*

The great pretender: a case of a broad ligament lipoma in a postmenopausal woman P07.06

*M.J. Arroyo (Philippines)*

Ultrasound features of benign asymptomatic adnexal masses submitted to surgical excision, according to IOTA terminology P07.07

*A. Meira (Portugal)*

Role of image finding and biomarker in the granulosa cell ovarian sex cord-stromal tumours P07.08

*W. Huang (Taiwan)*

Sonographic, clinicopathologic features and genetic characteristics of epithelial ovarian cancers among Filipinos: a pilot study P07.09

*E. Llamas-Clark (Philippines)*

Are the results of vascularisation index obtained with 3D power Doppler and 4D power Doppler technology comparable? P07.10

*M.J. Kudla (Poland)*

A case of monodermal teratoma of the ovary (struma ovarii): a case report P07.11

*L. Hovsepyan (Armenia)*

Unexpected malignancy development from an ovarian formation classified as benign by IOTA prediction models (case report) P07.12

*D. Djokovic (Portugal)*

**P08: New techniques for the evaluation of the fetal heart****Foyer 3 Hub 4**

*Chairs: A. Gagnon (Canada); J. Huhta (United States)*

A novel deep learning-based system for fetal cardiac screening P08.01

*R. Matsuoka (Japan)*

Automated analysis of fetal atrioventricular (AV) plane displacement in normal pregnancy P08.02

*L. Herling (Sweden)*

2D speckle-tracking echocardiography: atrial and biventricular strain analysis in normal fetal hearts P08.03

*C. Enzensberger (Germany)*

Novel technique for measurement of fetal right myocardial performance index using synchronised images of right ventricular inflow and outflow P08.04

*M. Lee (Republic of Korea)*

Value of fetal intelligent navigation echocardiography with colour flow imaging (5D heart colour) in the display of key diagnostic elements in basic fetal echocardiographic views P08.06

*B. Zhao (China)*

Cardiac axis measurement during the first trimester screening ultrasound: a pilot study P08.07

*A.K. Kesrouani (Lebanon)*

Longitudinal behaviour of cardiovascular parameters in fetuses with congenital atrioventricular block <i>M. Cruz Lemini (Mexico)</i>	P08.08
Annular plane systolic excursion z-scores in evaluation of ventricle systolic function of fetuses with Ebstein's anomaly <i>X. Guo (China)</i>	P08.09
Analysis of STIC flow imaging characteristics of fetal double aortic arch and right-side aortic arch with mirror carotid branch <i>Q. Pei (China)</i>	P08.10
Fetal cardiac screening program in our centre: how to use Doppler imaging at routine screening? A retrospective study <i>Y. Inoue (Japan)</i>	P08.11

# ULTRASOUND

## in Obstetrics & Gynecology

Upgrade your membership for full access to *Ultrasound in Obstetrics & Gynecology (UOG)*, the Society's official Journal and the leading peer reviewed Journal in its field.

### How to upgrade:

- During the Congress at the registration desk or at the ISUOG Lounge
- Online at [www.isuog.org](http://www.isuog.org) by logging into your membership account

Upgrade for only £60 for online access and £140 for both an online and print subscription.

*UOG* includes a stimulating mixture of original research articles, opinions and reviews on a broad range of subjects related to imaging in maternal-fetal medicine and gynecology.

Collect your **FREE** printed journal!



Download the *UOG* App to your tablet or smartphone to read free *UOG* Journal articles



iOS



Android

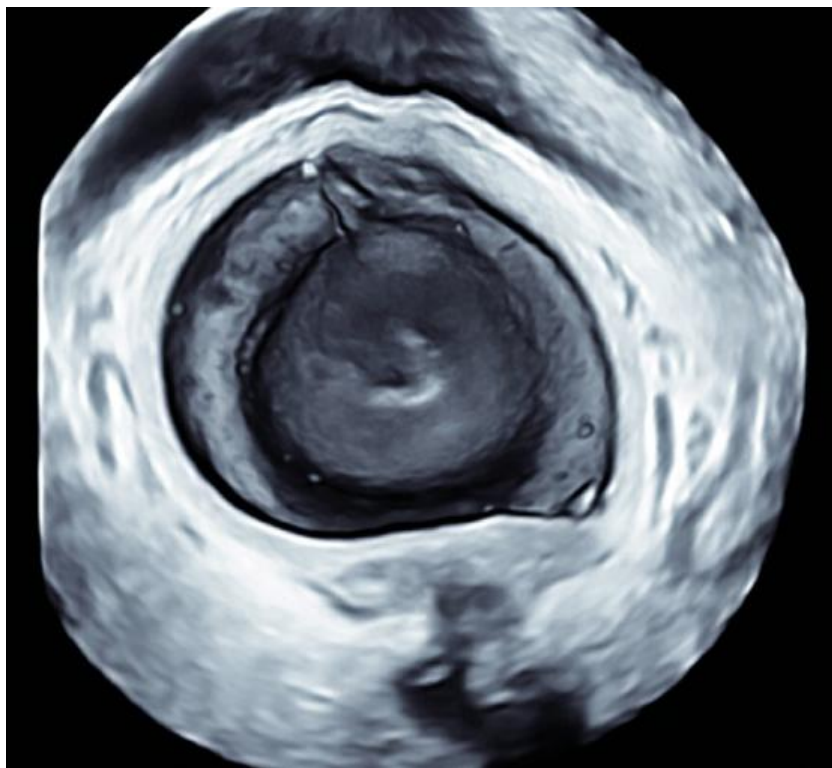


Visit the **ISUOG Lounge** to receive a FREE print copy, download the app and learn more about *UOG*.

 **isuog**.org

# SCIENTIFIC PROGRAM

**Tuesday 15 October 2019**



**April 2019**

3D transvaginal ultrasound image of vaginal area in coronal plane, showing endometriotic nodule infiltrating posterior fornix, rectovaginal septum and rectal wall.

*Cossi P, Schor E, Gonçalves LF, Werner H. Ultrasound Obstet Gynecol 2019; 53: 558–560.*

TUESDAY

# Tuesday 15.10.2019

## CONVENTION HALL IC

07:30-08:10 

### Masterclass

Acquired prenatal insults of the brain  
*G. Malinge (Israel); D. Prayer (Austria)*

08:15-09:35 

### Corpus callosum et al

*Chairs: R.K. Pooh (Japan); F. Bahlmann (Germany)*

- 08:15 **INVITED:** From ultrasound to counselling  
*L. Guibaud (France)*
- 08:35 <sup>YI</sup> **OC14.01** Prenatal neurodevelopmental outcome prediction using a novel MR-based scoring system in isolated callosal agenesis  
*S. Glatter (Austria)*
- 08:40 Discussion
- 08:43 **OC14.02** Assessment of the corpus callosum in fetuses with isolated non-severe ventriculomegaly  
*E. Monerde (Spain)*
- 08:48 Discussion
- 08:51 **OC14.03** Added value of fetal MR tractography in evaluation of the short corpus callosum: preliminary results  
*A.E. Millischer (France)*
- 08:56 Discussion
- 08:59 **OC14.04** Corpus callosum length in fetuses with confirmed Down's syndrome  
*E. Sinkovskaya (United States)*
- 09:04 Discussion
- 09:07 **OC14.05** Prenatal diagnosis of Aicardi syndrome  
*L. Pomar (Switzerland)*
- Discussion

## CONVENTION HALL II

### Masterclass

Management and delivery in fetal growth restriction  
*A.A. Baschat (United States)*

### Fetal growth: the bigger picture

*Chairs: A.T. Papageorghiou (United Kingdom); A. Odibo (United States)*

- 08:15 **LIVE SCAN:** How to evaluate the growth-restricted fetus [industry supported\*]  
*K. Hecher (Germany)*
- 08:31 **OC15.01** Obstetric consequences of a false-positive diagnosis of large-for-gestational-age fetus  
*A. Fichera (Italy)*
- 08:36 Discussion
- 08:39 **OC15.02** Born small for gestational age and moderate preterm: implications on postnatal growth  
*L. Lindström (Sweden)*
- 08:44 Discussion
- 08:47 **OC15.03** Identification of intrapartum fetal compromise using universal third trimester ultrasonography  
*P. Iannone (United Kingdom)*
- 08:52 Discussion
- 08:55 **OC15.04** Perinatal outcome of appropriate-weight fetuses with decelerating growth  
*A. Sotiropoulos (Greece)*
- 09:00 Discussion
- 09:03 **OC15.05** Neighbourhood deprivation and fetal growth: the Generation R study  
*D. Gootjes (Netherlands)*
- 09:08 Discussion

\* Scientific content of sessions is defined by the Scientific Committee; ultrasound systems and technical support are provided by sponsors.

<sup>YI</sup> This presentation is eligible for the Young Investigator award (to be presented in the closing plenary).

## CONVENTION HALL ID

### Masterclass

A practical guide to the diagnosis and surgical management of endometriosis and assessment of women with pelvic pain  
*G. Condous (Australia)*

### Managing complications in early pregnancy

*Chairs: D. Timmerman (Belgium); E. Kirk (United Kingdom)*

- 08:15 **INVITED:** Assessing anatomy in the first trimester of pregnancy: moving beyond dating and viability  
*H. Shah (United Kingdom)*
- 08:30 **OC16.01** The role of human chorionic gonadotrophin and transvaginal ultrasound in pregnancies of unknown location beyond 48 hours  
*C. Kyriacou (United Kingdom)*
- 08:35 Discussion
- 08:38 **OC16.02** Application value of the contrast-enhanced ultrasound in the diagnosis of Caesarean scar pregnancy type  
*Y. Wu (China)*
- 08:43 Discussion
- 08:46 **OC16.03** Implementation of a tool for predicting early pregnancy outcome: a psychological impact study  
*K. Lawson (United Kingdom)*
- 08:51 Discussion
- 08:54 **OC16.04** External validation of the M6 model and the two-step triage system for pregnancies of unknown location  
*E. Christodoulou (Belgium)*
- 08:59 Discussion
- 09:02 **OC16.05** The diagnostic value of contrast-enhanced ultrasound in Caesarean scar pregnancy  
*D. Liu (China)*
- 09:07 Discussion

## ESTREL HALL AB

### Masterclass

Abnormal heart rhythm: how to diagnose and how to manage  
*J.S. Carvalho (United Kingdom)*

### Cardiac function and complications in congenital heart defects

*Chairs: E.A. Hernandez-Andrade (United States); R. Axt-Fliedner (Germany)*

- 08:15 **INVITED:** Modern cardiac function assessment  
*G.R. DeVore (United States)*
- 08:30 **OC17.01** Development and application of deep learning for identification, quantification and disease diagnosis in second trimester fetal hearts  
*A.J. Moon-Grady (United States)*
- 09:35 Discussion
- 08:38 **OC17.02** Assessment of fetal right ventricular systolic function: nomograms of fractional area change by 2D-echocardiography  
*O. Gómez (Spain)*
- 08:43 Discussion
- 08:46 **OC17.03** The diastolic and systolic velocity time integral ratio of aortic isthmus is a sensitive indicator of aortic coarctation in fetuses  
*H. Wang (China)*
- 08:51 Discussion
- 08:54 **OC17.04** Assessment of fetal hemodynamics and flow volume of the umbilical vein in the EXtrauterine environment for neonatal development system  
*K. Ozawa (United States/Japan)*
- 08:59 Discussion
- 09:02 **OC17.05** Fetal cardiac function before and after intrauterine transfusion assessed by automated analysis of colour tissue Doppler  
*L. Herling (Sweden)*
- 09:07 Discussion

# Tuesday 15.10.2019

## CONVENTION HALL IC

- 09:15 **OC14.06** Differential effect in corpus callosum development in fetuses with congenital heart defect  
*E. Eixarch (Spain)*
- 09:20 Discussion
- 09:23 **OC14.07** The effect of flow and oxygenation on cortical development in fetuses with congenital heart defects using an automated brain-maturation prediction algorithm  
*S.M. Everwijn (Netherlands)*
- 09:28 Discussion

## CONVENTION HALL II

- 09:11 **OC15.06** Human fetal growth restriction is influenced mainly by maternal socioeconomic status: an ecological study within a city from a developing country  
*N. Maestre (Colombia)*
- 09:16 Discussion
- 09:19 **OC15.07** Identification of phenotypes of fetal growth restriction using a network-based clustering approach  
*J. Miranda (Spain)*
- 09:24 Discussion
- 09:27 **OC15.08** The association between fetal growth velocities and postnatal growth during the first five years after birth  
*M. Hendrix (Netherlands)*
- 09:32 Discussion

### 09:40-10:20 Short oral presentation (OP)



**OP09** Neuroimaging  
*Chairs: F. Kainer (Germany); G. Kasprian (Austria)*

### Short oral presentation (OP)

**OP10** IUGR: basic science  
*Chairs: A. Odibo (United States); D. Schlembach (Germany)*

10:15-10:45 Coffee and e-poster viewing

Coffee and e-poster viewing



**CONVENTION HALL ID**

- 09:10 **OC16.06** Can cervical elastography guide management of missed miscarriage?  
*H. Fourie (United Kingdom)*
- 09:15 Discussion
- 09:18 **OC16.07** Early pregnancy biomarkers for the prediction of first trimester viability  
*M. Al-Memar (United Kingdom)*
- 09:23 Discussion
- 09:26 **OC16.08** Uterine artery embolisation in extreme cases of “enhanced myometrial vascularity” (acquired AVM) after previously treated early pregnancies  
*I.E. Timor-Tritsch (United States)*
- 09:31 Discussion

**Workshop****Current thinking on Caesarean section scars and enhanced myometrial vascularity (EMV)**

*Chairs: D. Jurkovic (United Kingdom); K. Kalache (Qatar)*

A consensus view on how to define and evaluate a uterine niche

09:40 *J. Huirne (Netherlands)*

Enhanced myometrial vascularity: is this something to be concerned about?

09:50 *D. Timmerman (Belgium)*

Should we be screening for Caesarean scar pregnancies?

10:00 *I.E. Timor-Tritsch (United States)*

10:10 Discussion

Coffee and e-poster viewing

**ESTREL HALL AB**

- 09:10 **OC17.06** Hemodynamic patterns in late-gestation human fetuses with cyanotic congenital heart disease  
*L. Sun (Canada)*
- 09:15 Discussion
- 09:18 **OC17.07** Relationship between foramen ovale restriction and flow characteristics of the ductus arteriosus in the fetus with transposition of the great arteries  
*J. Rychik (United States)*
- 09:23 Discussion
- 09:26 **OC17.08** Risk of pre-eclampsia, small for gestational age and placental abnormalities in pregnancies with prenatal diagnosis of major congenital heart disease  
*V. Giorgione (United Kingdom)*
- 09:31 Discussion

**Short oral presentation (OP)**

**OP11** Evaluation of the intrinsic function of the fetal heart

*Chairs: J. Rychik (United States); F. Crispi (Spain)*

Coffee and e-poster viewing

## CONVENTION HALL IC

10:45-12:05

### Fetal surgery

*Chairs: L. Lewi (Belgium); J. Stirnemann (France)*

- 10:45 **INVITED:** Fetal cardiac intervention 2019  
*W. Arzt (Austria)*
- 11:05 **OC18.01, OC18.02 & OC18.03**  
Myelomeningocele repair: from prenatal evaluation to postnatal outcome  
*R. Corroenne (United States/France)*
- 11:15 Discussion
- 11:18 **OC18.04** Low transverse versus midline skin incision for *in utero* spina bifida repair  
*M. Fishel-Bartal (United States)*
- 11:23 Discussion
- 11:26 **OC18.05** Fetal tracheoscopy and endoscopic tracheal intubation to ensure tracheal permeability in cases with cervical masses and fetal airways compromise  
*R. Cruz-Martinez (Mexico)*
- 11:31 Discussion
- 11:34 **OC18.06** Fetal endoscopic tracheal occlusion is associated with resolution of pulmonary hypertension in moderate congenital diaphragmatic hernia  
*J. Espinoza (United States)*
- 11:39 Discussion
- 11:42 **OC18.07** International Fetal Cardiac Intervention Registry: a decade of data sharing and collaborative investigation  
*A.J. Moon-Grady (United States)*
- 11:47 Discussion
- 11:50 **INVITED:** MMC repair: future directions  
*M. Sanz Cortes (United States)*

## CONVENTION HALL II

### Growth: insights into assessment

*Chairs: F. Figueras (Spain); B. Arabin (Germany)*

- 10:45 **INVITED:** Biochemical manifestations of poor placentation  
*S. Verloren (Germany)*
- 11:00 **OC19.01** The impact of periconceptional parental alcohol exposure on embryonic growth trajectories using 3D ultrasound and virtual reality  
*M. Rousian (Netherlands)*
- 11:05 Discussion
- 11:08 **OC19.02** A novel eye tracking study: how common is expected value bias in fetal growth scan assessment?  
*L. Drukker (United Kingdom)*
- 11:13 Discussion
- 11:16 **OC19.03** Antenatal corticosteroid therapy is associated with reduced intrauterine fetal growth velocity  
*G. Rizzo (Italy)*
- 11:21 Discussion
- 11:24 **OC19.04** Early growth velocity and mode of conception in the prediction of small for gestational age  
*G. Albaiges (Spain)*
- 11:29 Discussion
- 11:32 **OC19.05** Fetoplacental Doppler identifies small fetuses with increased concentrations of cord blood erythropoietin  
*J. Miranda (Spain)*
- 11:37 Discussion
- 11:40 **OC19.06** Metabolomic profiling of paired maternal and cord blood in pre-eclampsia and fetal growth restriction  
*L. Youssef (Spain)*
- 11:45 Discussion
- 11:48 **OC19.07** Maternal vascular malformation in the placenta is an indicator for fetal growth restriction irrespective of neonatal birthweight  
*M. Hendrix (Netherlands)*
- 11:53 Discussion
- 11:56 **OC19.08** Cerebroplacental ratio and AC growth velocity as novel predictors of severe neonatal hypoglycemia  
*A. Cavallaro (United Kingdom)*
- 12:01 Discussion

## CONVENTION HALL ID

### Using ultrasound to evaluate women with pelvic pain and possible endometriosis

*Chairs: D. Jurkovic (United Kingdom); L. Valentin (Sweden)*

- 10:45 **INVITED:** Clinical application of ultrasound in the planning of rectal and bladder endometriosis surgery *G. Hudelist (Austria)*
- 11:00 **OC20.01** Preoperative mapping of deep infiltrating endometriosis in the posterior compartment using transvaginal strain elastography and IDEA classification *G. Szabó (Hungary)*
- 11:05 Discussion
- 11:08 **OC20.02** The prevalence of pouch of Douglas obliteration depicted on basic transvaginal ultrasound by a negative sliding sign in a general population *M. Leonardi (Australia)*
- 11:13 Discussion
- 11:16 **OC20.03** Prevalence of endometriosis at transvaginal ultrasound in women with dysmenorrhoea *L. Jokubkiene (Sweden)*
- 11:21 Discussion
- 11:24 **OC20.04** Accuracy of 2D-ultrasonography in the diagnosis of abdominopelvic tuberculosis at the Philippine General Hospital: a five-year review *K.N. Reforma (Philippines)*
- 11:29 Discussion
- 11:32 **OC20.05** External validation of International Ovarian Tumor Analysis (IOTA) for classification of adnexal masses suspected to be endometriomas *V.H. Eisenberg (Israel)*
- 11:37 Discussion
- 11:40 **OC20.06** Comparison of diagnostic accuracy of transvaginal ultrasound for deep endometriosis and pouch of Douglas obliteration in the presence and absence of ovarian endometriomas *M. Leonardi (Australia)*
- 11:45 Discussion
- 11:48 **OC20.07** Early learning curve in the assessment of deep infiltrating pelvic endometriosis when using ultrasound and magnetic resonance imaging *T. Indrielle-Kelly (Czech Republic/United Kingdom)*
- 11:53 Discussion
- 11:56 **OC20.08** Is endometriosis a progressive disease? Ultrasonographic long-term study *S. Ferrero (Italy)*
- 12:01 Discussion
- 12:04 **OC20.09** Learning curve for the visualisation of ureters on transvaginal ultrasound in gynecological sonology trainees *M. Leonardi (Australia)*
- 12:09 Discussion

## ESTREL HALL AB

### Molecular techniques and MRI in the diagnosis of congenital heart defects

*Chairs: J.S. Carvalho (United Kingdom); J.A. Copel (United States)*

- 10:45 **OC21.01** Assessment of the correlation between congenital heart defects and brain injury in fetuses through magnetic resonance imaging *A. Weissmann-Brenner (Israel)*
- 10:50 Discussion
- 10:53 **OC21.02** The incidence of genetic variants in fetuses with severe congenital heart defects *A. van Nesselrooij (Netherlands)*
- 10:58 Discussion
- 11:01 **OC21.03** Dynamic fetal cardiac magnetic resonance imaging using Doppler ultrasound gating in the assessment of the fetal aortic arch: a feasibility study in comparison to fetal echocardiography *M. Tavares de Sousa (Germany)*
- 11:06 Discussion
- 11:09 **OC21.04** Next generation sequencing in 83 Chinese fetal congenital cardiac left-sided congenital heart defects reveals the entire genetic architecture in fetal population *Y. He (China)*
- 11:14 Discussion
- 11:17 **OC21.05** A comparative study of prenatal ultrasound diagnosis and autopsy MRI and pathology on fetal congenital heart disease *W. Xia (China)*
- 11:22 Discussion
- 11:25 **OC21.06** Whole-exome sequencing and whole-genome sequencing improves genetic diagnosis of fetuses with heterotaxy syndrome revealed by prenatal ultrasound *Y. He (China)*
- 11:30 Discussion
- 11:33 **OC21.07** The diagnostic value of postmortem magnetic resonance imaging of the fetal heart compared to conventional autopsy and ultrasound *D. Prayer (Austria)*
- 11:38 Discussion
- 11:41 **OC21.08** Pilot study: utilising MRI to measure cardiac function in the sheep fetus *K. Cho (Canada)*
- 11:46 Discussion
- 11:49 **INVITED:** Innovations in fetal cardiovascular imaging *S. Yagel (Israel)*

## CONVENTION HALL IC

**12:10-12:50 Short oral presentation (OP)**

**OP12** Multiple pregnancy

*Chairs: R. Abu-Rustum (United States);  
A. Geipel (Germany)*

**12:45-14:15 Lunch and e-poster viewing**

**13:00-14:00 Industry sponsored satellite symposia\*\***

**14:15-15:35 Monochorionic twins**

*Chairs: K. Hecher (Germany); P. Klaritsch (Austria)*

- 14:15 **INVITED:** Fetal cardiac assessment in monochorionic twins  
*H. Gardiner (United States)*
- 14:35 **OC22.01** Reducing stillbirth in twin pregnancy through implementation of guidelines: is it possible?  
*A. Khalil (United Kingdom)*
- 14:40 Discussion
- 14:43 **OC22.02** Contribution of the Solomon technique in the treatment of Twin–twin transfusion syndrome: a single centre experience  
*J. Stimmann (France)*
- 14:48 Discussion
- 14:51 **OC22.03** Apparent diffusion coefficient differences between normal and complicated monochorionic diamniotic pregnancy  
*M. Aertsen (Belgium)*
- 14:56 Discussion
- 14:59 **OC22.04** Cardiac morphometry in uncomplicated monochorionic diamniotic twins: comparison to singletons  
*M. Bannasar (Spain)*
- 15:04 Discussion
- 15:07 **OC22.05** Amniotic fluid NT-proBNP is only associated with congestive heart failure of recipient twin in Twin–twin transfusion syndrome but not larger twin in selective IUGR  
*M. Nakata (Japan)*
- 15:12 Discussion

## CONVENTION HALL II

**Short oral presentation (OP)**

**OP13** Fetal anomalies: infections

*Chairs: A. Sotiriadis (Greece); M. Meyer-Wittkopf (Germany)*

**Lunch and e-poster viewing**

**Fetal anomalies in the second trimester**

*Chairs: A. Ngu (Australia); C. Brezinka (Austria)*

- 14:15 **LIVE SCAN:** The full anomaly scan [industry supported\*]  
*A. Weichert (Germany)*
- 14:35 **OC23.01** Risk of congenital anomalies in newborns conceived by ART versus spontaneous pregnancies  
*L. Perdomo (Spain)*
- 14:40 Discussion
- 14:43 **OC23.02** Fetal anogenital distance is longer in polycystic ovary syndrome mothers  
*S. Perlman (Israel)*
- 14:48 Discussion
- 14:51 **OC23.03** Prenatal diagnosis of disorders of sex differentiation  
*L.J. Salomon (France)*
- 14:56 Discussion
- 14:59 **OC23.04** Reference range of the fetal anal sphincter from 22–37 weeks of gestation  
*K. Ichizuka (Japan)*
- 15:04 Discussion
- 15:07 **OC23.05** Effect of maternal BMI on ultrasound image quality at the routine anatomy scan  
*A.T. Papageorghiou (United Kingdom)*
- 15:12 Discussion

\* Scientific content of sessions is defined by the Scientific Committee; ultrasound systems and technical support are provided by sponsors.

\*\*Lunchtime satellite symposia are brought to you by our sponsors and are not part of the ISUOG CME program. ISUOG takes no responsibility for scientific or clinical content. Please see page 128 for our satellite program.

## CONVENTION HALL ID

### Short oral presentation (OP)

**OP14** Using ultrasound to evaluate women with pelvic pain and possible endometriosis

*Chairs: S. Guerriero; S. Ferrero (Italy)*

### Lunch and e-poster viewing

## Ultrasound, infertility and fertility preservation

*Chairs: J. Yazbek (United Kingdom); D. Franchi (Italy)*

- 14:15 **INVITED:** Use of intraoperative ultrasound during fertility-sparing surgery  
*S. Saso (United Kingdom)*
- 14:27 **OC24.01 & C24.02** Fertility-sparing surgery  
*S. Saso (United Kingdom)*
- 14:32 Discussion
- 14:35 **INVITED:** How I use ultrasound to guide treatment for Caesarean scar ectopic pregnancies to reduce the risk of damage to the uterus  
*D. Jurkovic (United Kingdom)*
- 14:45 **OC24.03** Ovarian reserve parameters as indications for ovarian tissue cryopreservation in children suffering from non-iatrogenic premature ovarian failure  
*M. Zajicek (Israel)*
- 14:50 Discussion
- 14:53 **OC24.04** Study on correlation between tubal patency and uterine pressure under three-dimensional hysterosalpingo-contrast-sonography  
*M. Tu (China)*
- 14:58 Discussion
- 15:01 **OC24.05** Clinical and ultrasound characteristics of adnexal torsion  
*F. Moro (Italy)*
- 15:06 Discussion
- 15:09 **OC24.06** Value of transvaginal sonography in diagnosing cervical pregnancy after *in vitro* fertilisation-embryo transfer  
*Y. Mao (China)*
- 15:14 Discussion

## ESTREL HALL AB

### Short oral presentation (OP)

**OP15** Screening for and diagnosis of congenital heart defects

*Chairs: H. Gardiner (United States); M. Cruz-Lemini (Spain)*

### Lunch and e-poster viewing

## Hemodynamics from fetus to mother

*Chairs: L. Poon (Hong Kong); T. Frusca (Italy)*

- 14:15 **INVITED:** Maternal hemodynamics: has the time come for routine implementation?  
*C. Lees (United Kingdom)*
- 14:30 **VIDEO:** How to assess the maternal heart  
*K. Melchiorre (United Kingdom)*
- 14:40 **OC25.08** Fetoplacental Doppler for the identification of cardiac dysfunction in small-for-gestational-age fetuses  
*A. Sepúlveda-Martínez (Chile)*
- 14:45 Discussion
- 14:48 **OC25.01** Hemodynamic factors associate with fetal cardiac remodelling in late fetal growth restriction  
*G. Rizzo (Italy)*
- 14:53 Discussion
- 14:56 **OC25.02** Estimated pulse wave velocity in growth-restricted fetuses: a novel perspective for fetal hemodynamic changes using phased tracking method  
*S. Miyashita (Japan)*
- 15:01 Discussion
- 15:04 <sup>YI</sup>**OC25.03 & OC25.04** Fetal Dopplers are associated with maternal cardiovascular function  
*J. Tay (United Kingdom)*
- 15:12 Discussion
- 15:15 **OC25.05** Maternal hemodynamic findings in small-for-gestational-age and growth-restricted fetuses  
*E. di Pasquo (Italy)*
- 15:20 Discussion

<sup>YI</sup> This presentation is eligible for the Young Investigator award (to be presented in the closing plenary).

## CONVENTION HALL IC

- 15:15 **OC22.06** Short-term cardiac follow-up of survivors of Twin–twin transfusion syndrome treated with fetoscopic laser coagulation  
*M. Gijtenbeek (Netherlands)*
- 15:20 Discussion
- 15:23 **OC22.07** Monochorionic diamniotic twins with selective fetal growth restriction (sFGR) and intermittent absent end-diastolic flow have outcomes more similar to type 1 versus type 3 sFGR  
*J. Gebb (United States)*
- 15:28 Discussion

15:35-16:00

Coffee and e-poster viewing

16:00-17:30



Workshop

### Outcome of infratentorial anomalies

*Chairs: F. D'Antonio (Norway); K.K. Haratz (Israel)*

- 16:00 How sure am I that this vermis is normal?  
*D. Paladini (Italy); L. Guibaud (France)*
- 16:30 Normal and pathological development of the mid-brain-hindbrain  
*K.K. Haratz (Israel); G. Kasprjan (Austria)*
- 17:00 Follow-up of infants diagnoses with brain anomalies prenatally: a plea for a standard evaluation of outcomes  
*F. D'Antonio (Norway)*
- 17:15 Discussion

## CONVENTION HALL II

- 15:15 **OC23.06** Significant variation in practice for first trimester anatomy assessment: results from a nationwide survey  
*J. Karim (United Kingdom)*
- 15:20 Discussion
- 15:23 **OC23.07** A longitudinal study of three-dimensional fetal anatomy imaging in the first and early second trimester  
*H. Shah (United Kingdom)*
- 15:28 Discussion

Coffee and e-poster viewing

Workshop

### Ultrasound in the labour ward: why and how

*Chairs: T. Ghi (Italy); T.M. Eggebø (Norway)*

- 16:00 **LIVE SCAN:** How to scan in active labour? [industry supported\*]  
*T.M. Eggebø (Norway)*
- 16:15 Ultrasound in labour arrest: malpositions and malpresentations  
*T. Ghi (Italy)*
- 16:30 Ultrasound in women with slow progress in the second stage: Caesarean section, instrumental delivery or wait for spontaneous delivery?  
*B.H. Kahrs (Norway)*
- 16:45 Ultrasound in postpartum hemorrhage: spotting the cause, solving the problem  
*W. Henrich (Germany)*
- 17:00 Novel applications of ultrasound in labour  
*B. Tutschek (Switzerland)*
- 17:15 Antepartum prediction of dystocia  
*G. Rizzo (Italy)*

**CONVENTION HALL ID**

- 15:17 **OC24.07** Prevalence of congenital uterine anomalies in asymptomatic premenopausal women at three-dimensional transvaginal ultrasound examination  
*A. Arechvo (Sweden)*
- 15:22 Discussion

**Coffee and e-poster viewing****Workshop****Ultrasound, fertility preservation and fertility sparing surgery**

*Chairs: S. Saso (United Kingdom); A.C. Testa (Italy)*

- 16:00 Oncofertility: past present and future  
*S. Saso (United Kingdom)*
- 16:20 How to carry out ultrasound-guided laparoscopic surgery: case examples and videos  
*J. Yazbek (United Kingdom)*
- 16:40 Avoiding damage to the uterus: ultrasound-guided procedures and the uterus  
*D. Jurkovic (United Kingdom)*
- 17:00 Managing incidental findings found on ultrasound scans: when can we safely discharge from follow-up or at least avoid surgery  
*L. Valentin (Sweden)*
- 17:20 Discussion

**ESTREL HALL AB**

- 15:23 **OC25.06 & OC25.07** Maternal hemodynamics in small babies  
*A. Khalil (United Kingdom)*
- 15:31 Discussion

**Coffee and e-poster viewing****Workshop****Updates on infections during pregnancy**

*Chairs: F. da Silva Costa (Brazil); S. Eik-Nes (Norway)*

- 16:00 Zika virus epidemic in Brazil: what happened?  
*C. Coutinho (Brazil)*
- 16:20 CMV: what is new in antiviral therapy  
*Y. Ville (France)*
- 16:40 CMV: what is new in immunoglobulin therapy  
*K.O. Kagan (Germany)*
- 17:00 Update on toxoplasmosis  
*M. Meyer-Wittkopf (Germany)*
- 17:20 Discussion

# Hubs

## HUB 1

08:15-09:15

## HUB 2

### Interactive

Train the Basic Training trainer: how to teach the trainee to perform the gynecological ultrasound scan

*Chair: R. Abu-Rustum (United States)*

Objectives: To offer tools to understand basic elements of fetal anatomy (brain), focusing on the practical aspect of the exam

09:40-10:20

### Poster discussion (P)

P09: First, second and third trimester screening

*Chairs: E.A. Hernandez-Andrade (United States);*

*H. Shah (United Kingdom)*

### Interactive

Improving perinatal outcomes

*Chair: A. Khurana (India)*

Objectives: To be familiar with newer ultrasound protocols that stratify pregnancies to routine and high-risk care

10:45-11:45

### Interactive

In conversation with *A. Khalil*: medico-legal cases

Objectives: To address common themes of ultrasound-related litigation, share experiences with medico-legal cases and measure how to avoid litigation

### Interactive

In conversation with *G. Malinger*: why do I (NOT) need MRI?

Objectives: To discuss why attendees do (not) need MRI for the fetal brain imaging certificate

12:10-12:50

### Poster discussion (P)

P12: Fetal interventions and therapy: complicated monochorionic pregnancy, spina bifida and other conditions

*Chairs: A. Johnson (United States); C. Wohlmuth (Austria)*

### Poster discussion (P)

P13: Hypertension in pregnancy

*Chairs: L. Poon (Hong Kong); M. Gil (Spain)*

Please see the app for further details of the Hub programs



FOYER 3 *JOIN THE BUZZ***HUB 3****Interactive**

A practical guide for 3D imaging in routine gynecological practice

*Chair: S. Meagher (Australia)*

Objectives: To gain understanding of the value of 3D in routine screening in gynecology and learn how to implement basic 3D manoeuvres in day-to-day practice

**Poster discussion (P)**

P10: Using ultrasound to evaluate women with pelvic pain and possible endometriosis

*Chairs: G. Condous (Australia); C. Exacoustos (Italy)*

**HUB 4****Poster discussion (P)**

P11: Multiple pregnancy

*Chairs: A. Gagnon (Canada); E. Kalafat (Turkey)*

**Interactive**

In conversation with *K.O. Kagan*: fetal anomaly screening in the first trimester

*Chairs: S. Meagher (Australia); P. Acharya (India)*

Objectives: To understand the key role of practice protocols in screening for first trimester fetal malformation

**Poster discussion (P)**

P14: Managing early pregnancy complications

*Chairs: E. Kirk; S. Bobdiwala (United Kingdom)*

**Poster discussion (P)**

P15: Fetal growth: Doppler and other functional assessment

*Chairs: J. Hyett (Australia); K. Marszał (Sweden)*

**Please see the app for further details of the Hub programs**

## HUB 1

14:15-15:15

### Guidelines

Russian

*Chair: F. Ushakov (United Kingdom)*

Objectives: To review ISUOG guidelines, recommend improvements and have a creative discussion between Russian-speaking specialists on the translation and application of these guidelines in their country

15:20-16:20

### Interactive

Meet and greet: PSUOG meets ISUOG

*Chair: N.C. Pangilinan (Philippines)*

Objectives: To meet and greet to encourage information dissemination regarding activities and projects towards continuing professional growth of the Filipino members

16:25-17:25

### Interactive

Techniques for avoiding musculoskeletal and back injuries whilst scanning: ergonomics for sonologists and sonographers

*Chairs: S.C. Westerway; D. Nicholls (Australia)*

Objectives: To explore techniques to assist delegates in avoiding musculoskeletal scanning injuries

17:30-18:00

### New for 2019!

Key messages from Tuesday: Convention Hall IC

*Chairs: E. Eixarch (Spain); C. Wohlmuth (Austria)*

Objectives: To summarise the scientific content of Convention Hall II and explore the main themes

## HUB 2

### Guidelines

Spanish

*Chair: E. Pianigiani (Spain)*

Objectives: To publicise this clinical resource and indicate how to access it, and create a dynamic atmosphere between colleagues to discuss uses and experiences

### Interactive

Hellenic Society: education on ultrasound in obstetrics and gynecology

*Chairs: A. Athanasiadis; G. Daskalakis; N. Papantoniou (Greece)*

Objectives: To explore training with stimulators

### Interactive

Pitfalls and pearls of sonohysterography

*Chair: S.R. Goldstein (United States)*

Objectives: To explore techniques that inhibit or enhance the performance of sonohysterography, in order to improve patient care, and present/discuss situations that healthcare providers may encounter that diminish SIS/GIS's usefulness

### New for 2019!

Key messages from Tuesday: Convention Hall II

*Chairs: J. Karim (United Kingdom); A. Dall'Asta (Italy)*

Objectives: To summarise the scientific content of Convention Hall ID and explore the main themes

Please see the app for further details of the Hub programs

## HUB 3

### Interactive

Ultrasound images from around the world  
*Chair: A. Sigue (Philippines)*

Objectives: To share images of rare, interesting or challenging cases which are more prevalent or encountered in certain countries

### Interactive

Debate: should methotrexate be given to treat ectopic pregnancy?  
*Chair: A. Cameron (United Kingdom)*

### Interactive

Translational research for clinicians' work in gynecological ultrasound  
*Chairs: S. Bobdiwala; C. Kyriacou (United Kingdom)*

Objectives: To identify false-positive images during the mid-term scan, following French guidelines

## HUB 4

### Interactive

New insights in the field of miscarriage and genomics  
*Chairs: T. Bourne; P. Bennett (United Kingdom)*

Objectives: To hear from experts and discuss next generation sequencing in miscarriage and cell-free DNA tests in early pregnancy loss and the economic impact of this model

### Interactive

Romanian Society of Obstetrics and Gynecology  
*Chairs: R. Vladareanu; D. Muresan (Romania)*

Objectives: To explore and recognise the most important fetal brain and heart anomalies in first and second trimester, learning about the management of these findings

### Interactive

False-positive images at the mid-term scan  
*Chair: P. Boukobza (France)*

Objectives: To identify false-positive images during the mid-term scan, following French guidelines

### New for 2019!

Key messages from Tuesday: Estrel Hall AB  
*Chairs: F. Bardi (Netherlands); D.L. Rolnik (Australia)*

Objectives: To summarise the scientific content of Estrel Hall AB and explore the main themes

Please see the app for further details of the Hub programs

# OP - Tuesday 15.10.2019

## OP09: Neuroimaging

## Convention Hall IC

*Chairs: F. Kainer (Germany); G. Kasprlan (Austria)*

Is MRI better than neurosonogram for fetal central nervous system abnormalities? <i>J. Chen (China)</i>	OP09.01
The concordance between the prenatal imaging and neuropathological diagnosis of fetuses presenting cerebral abnormalities during the second and third trimester of pregnancy <i>S. Wavrant (Canada)</i>	OP09.02
Prevalence of severe CNS abnormalities assessed by fetal MR among candidates for spina bifida prenatal surgery <i>L. Trigo (Spain)</i>	OP09.03
Volumetric MRI study of the brain in fetuses with intrauterine CMV infection and its correlation to neurodevelopmental outcome <i>E. Katorza (Israel)</i>	OP09.04
Fetal neuroimaging findings, early neonatal outcomes and motor impairment in children with congenital Zika syndrome <i>A.O. Melo (Brazil)</i>	OP09.05
Subtle findings on fetal brain imaging in CMV-infected patients: what is the clinical significance? <i>R. Birnbaum (Israel)</i>	OP09.06
3D multiplanar neurosonography in fetuses with abnormalities of the posterior fossa <i>M. Spinelli (Switzerland)</i>	OP09.07
3D neurosonography in fetal syndromes associated with brain abnormalities <i>E. Merz (Germany)</i>	OP09.08
Normal intracranial structure volume analysis between 11 and 20 weeks of gestation by transvaginal 3D neurosonography <i>R.K. Pooh (Japan)</i>	OP09.09
Two-dimensional visualisation of optic chiasma in fetus <i>B.M. Chauhan (India)</i>	OP09.10

## OP10: IUGR: basic science

## Convention Hall II

*Chairs: A. Odibo (United States); D. Schlembach (Germany)*

Alpha-1 microglobulin involvement in maternal and fetal blood in pre-eclampsia and/or fetal growth restriction <i>L. Youssef (Spain)</i>	OP10.01
Brain reorganisation at neonatal period in a rabbit model of IUGR <i>M. Illa (Spain)</i>	OP10.02
Using sFlt-1/PIGF in IUGR <i>I. Herraiz (Spain)</i>	OP10.03, OP10.04 & OP10.05
Cardiovascular function in IUGR <i>O. Graupner (Germany)</i>	OP10.06 & OP10.07
Automatic detection of biparietal diameter from ultrasound images using deep learning <i>Y. Nagayasu (Japan)</i>	OP10.08
Patterns of cortical development assessed by neurosonography in pregnancies complicated by pre-eclampsia with or without fetal growth restriction <i>F. Crovetto (Spain)</i>	OP10.09
Time interval analysis of flow velocity waveforms of ductus venosus in fetal growth restriction in correlation with pH of umbilical artery <i>T. Suekane (Japan)</i>	OP10.10

Placental perfusion assessed by MR IVIM model and its correlation with placental volume in pregnancies at term complicated by fetal growth restriction OP10.11  
*F. Crovetto (Spain)*

Early nutrition including fetal period in children with critical congenital heart defects plays crucial role in their long-term growth OP10.12  
*E. Klásková (Czech Republic)*

## OP11: Evaluation of the intrinsic function of the fetal heart

**Estrel Hall AB**

*Chairs: J. Rychik (United States); F. Crispi (Spain)*

Can combined use of M-mode and colour TDI reduce variability of fetal cardiac measurements? OP11.01  
*E. Sinkovskaya (United States)*

Smart-planes fetal heart automatically generate fetal ventricular outflow tract views and to quantitate fetal aortic and pulmonary artery dimensions OP11.02  
*B. Zhao (China)*

Semiautomatic assessment of fetal cardiac axis using FINE method: one step further for optimised detection of congenital heart disease OP11.03  
*J. Weichert (Germany)*

Fetal speckle-tracking echocardiography: a comparison between two-dimensional and electronic spatiotemporal image correlation (e-STIC) technique OP11.04  
*M. Dodaro (Italy)*

A preliminary study of fetal left ventricular systolic function in normal fetuses by automated cardiac motion quantitation (aCMQ) OP11.05  
*B. Zhao (China)*

Semi-automatic assessment of the fetal cardiac axis in fetuses affected by congenital heart disease using fetal intelligent navigation echocardiography (FINE) OP11.06  
*A. Weichert (Germany)*

Application of z-score combined with cardiovascular diameter ratio in fetal coarctation of the aorta OP11.07  
*J.X. Qin (China)*

Quantification of fetal myocardial function in pregnant women with diabetic diseases and in normal controls using speckle-tracking echocardiography (STE) OP11.08  
*K. Hammer (Germany)*

Evaluation of diastolic dysfunction in fetal growth restriction with intraventricular pressure difference OP11.09  
*Y. Yamamoto (Japan)*

Cardiac function of monochorionic twins complicated by selective fetal growth restriction evaluated by myocardial performance index OP11.10  
*J.U. Ortiz (Germany)*

Spectrum of disorders of fetal cardiac rate and rhythm in anti-Rho-positive mothers: a single centre experience over one year OP11.11  
*J.J. Chawla (India)*

## OP12: Multiple pregnancy

**Convention Hall IC**

*Chairs: R. Abu-Rustum (United States); A. Geipel (Germany)*

Simulation of acute fetofetal transfusion in basic clinical subtypes of monochorionic twins OP12.01  
*L. Haslik (Czech Republic)*

Mapping of the placental angioarchitecture in monochorionic twin pregnancies using different colour Doppler filters OP12.02  
*S. Girardelli (United Kingdom)*

3D high-definition flow combined with tomographic ultrasound imaging in observation of placental vascular anastomoses in monochorionic twins OP12.03  
*W. Sun (China)*

Umbilical vein blood flow in monochorionic twin pregnancies affected by selective fetal growth restriction OP12.04  
*R. Pock (Czech Republic)*

Stage-based perinatal outcome in 1,020 pregnancies after fetoscopic laser surgery in Twin–twin transfusion syndrome <i>C. Bamberg (Germany)</i>	OP12.05
Umbilical artery Doppler patterns, but not Quintero stage, are associated with infant survival in Twin–twin transfusion syndrome <i>J. Espinoza (United States)</i>	OP12.06
Consensus diagnostic criteria and management of twin anemia polycythaemia sequence: a Delphi procedure <i>A. Khalil (United Kingdom)</i>	OP12.07
Role of progesterone, cerclage and pessary in preventing preterm birth in twin pregnancies: a systematic review and network meta-analysis <i>A. Khalil (United Kingdom)</i>	OP12.08
Collective utility of NIPT zygosity determination and chorionicity assignment <i>S. Leonard (United States)</i>	OP12.09
Pregnancy loss following chorionic villus sampling or amniocentesis in twin pregnancies: two decades in a UK tertiary fetal medicine centre <i>A. Sharp (United Kingdom)</i>	OP12.10

**OP13: Fetal anomalies: infections****Convention Hall II**

*Chairs: A. Sotiriadis (Greece); M. Meyer-Wittkopf (Germany)*

Placental infection by Zika virus: pathological and imaging findings in infected and exposed placentas <i>L. Pomar (Switzerland)</i>	OP13.01
Ultrasound findings in pregnant women under Zika virus ambulatory care in Manaus (Amazon) <i>M.F. Brock (Brazil)</i>	OP13.02
Maternal determinants of congenital Zika virus infection <i>L. Pomar (Switzerland)</i>	OP13.03
MRI in fetal CMV infection: is it really necessary? <i>T. Elkan Miller (Israel)</i>	OP13.04
Serial assessment in fetuses infected with cytomegalovirus in the first trimester of pregnancy <i>Y. Ville (France)</i>	OP13.05
The poor performance of prenatal ultrasound screening for congenital CMV infection is a missed opportunity calling for maternal serological screening in the first trimester <i>Y. Ville (France)</i>	OP13.06
Prenatal assessment of fetal conus medullaris in cases with closed spinal dysraphism <i>S. Lakshmy (India)</i>	OP13.07
Fetal talipes: a systematic review and meta-analysis <i>G. Rizzo (Italy)</i>	OP13.08
The femur too short? Analysis of 1,373 fetuses during second trimester screening <i>U. Friebe-Hoffmann (Germany)</i>	OP13.09
The new fetal screening method, the retro-tracheal arterial flow for the PA sling and vascular ring <i>M. Kawataki (Japan)</i>	OP13.10

**OP14: Using ultrasound to evaluate women with pelvic pain and possible endometriosis****Convention Hall ID**

*Chairs: S. Guerriero; S. Ferrero (Italy)*

Current state of pelvic ultrasound for endometriosis: results of an international survey <i>M. Leonardi (Australia)</i>	OP14.01
Changes in the volume of rectosigmoid endometriotic nodules during 24-month treatment with dienogest: prospective cohort study <i>S. Ferrero (Italy)</i>	OP14.02

The inter- and intraobserver reproducibility of transvaginal ultrasound for pelvic endometriosis <i>E. Bean (United Kingdom)</i>	OP14.03
Endometriosis in adolescents: ultrasound findings <i>C. Exacoustos (Italy)</i>	OP14.04
Deep endometriosis transvaginal ultrasound in the work-up of patients with signs and symptoms of endometriosis: a cost analysis <i>M. Leonardi (Australia)</i>	OP14.05
Learning curve for detection of ureters by transvaginal sonography (TVS): a feasibility study <i>K. Aas-Eng (Austria)</i>	OP14.06
Expectant management of deep pelvic endometriosis (DE): an ultrasound study <i>E. Bean (United Kingdom)</i>	OP14.07
Magnetic resonance-transvaginal ultrasound (MRI-TVUS) fusion imaging for the assessment of deep endometriosis <i>C. Exacoustos (Italy)</i>	OP14.08
Symptoms and sonographic findings of women with bladder endometriosis <i>C. de Guirior (Spain)</i>	OP14.09
External and temporal validation of the ultrasound-based endometriosis staging system (UBESS): a diagnostic accuracy study <i>M. Espada (Australia)</i>	OP14.10

## OP15: Screening for and diagnosis of congenital heart defects

Estrel Hall AB

*Chairs: H. Gardiner (United States); M. Cruz-Lemini (Spain)*

WITHDRAWN	OP15.01
Accuracy of the first trimester ultrasound exam to detect congenital heart defects <i>M. Medina Castellano (Spain)</i>	OP15.02
Prenatal and newborn screening for congenital heart disease <i>L. Cao (China)</i>	OP15.03
Novel AI-guided ultrasound screening system for fetal heart can demonstrate findings in timeline diagram <i>R. Komatsu (Japan)</i>	OP15.04
Risk of spontaneous and iatrogenic preterm birth in pregnancies with prenatal diagnosis of major congenital heart disease <i>V. Giorgione (United Kingdom)</i>	OP15.05
Application value of anatomical database in accurate prenatal diagnosis of fetal anomalous pulmonary venous connection <i>Q. Pei (China)</i>	OP15.06
Prenatal echocardiography characteristic in transposition of the great arteries with intact ventricular septum <i>L. Liu (China)</i>	OP15.07
Subtle findings at third trimester lead to the antenatal diagnosis of LEOPARD syndrome <i>H. Bakry (Israel)</i>	OP15.08
The clinical value of echocardiography in diagnosis of fetal coronary artery compensatory dilatation <i>Y. Guo (China)</i>	OP15.09
Is persistent left superior vena cava (PLSVC) a benign finding? Analysis of 27 cases from fetal cardiology centre <i>M.A. Sajnach-Menke (United Kingdom)</i>	OP15.10
Perinatal outcome and survival at one year of age of fetus with hypoplastic left heart syndrome (HLHS): experience of 10 years in Chile 2008–2018 <i>D.P. Cisternas (Chile)</i>	OP15.11

# P - Tuesday 15.10.2019

## P09: First, second and third trimester screening

*Chairs: E.A. Hernandez-Andrade (United States); H. Shah (United Kingdom)*

	<b>Foyer 3 Hub 1</b>
Circulating placental growth factor concentration in pregnant women with and without endometriosis <i>S. Ferrero (Italy)</i>	P09.01
Targeted CMV testing is comparable to universal screening <i>J. Pardo (Israel)</i>	P09.02
Measurement of fetal urine production using three-dimensional ultrasonography rotational technique in normal pregnancy <i>A. Rossi (Italy)</i>	P09.03
Doppler assessment of the fetal pulmonary artery as a predictor of neonatal respiratory distress syndrome in diabetic mothers: a prospective observational study <i>S. Nayak (India)</i>	P09.04
Abnormal cord insertion at first trimester can predict the adverse outcome in monochorionic twin pregnancy <i>M. Saito (Japan)</i>	P09.05
The role of fetal cerebral Doppler in the diagnosis of fetomaternal hemorrhage in women with decreased perception of fetal movements <i>G. Salsi (Italy)</i>	P09.06
Cell-free fetal DNA as a marker of adverse perinatal outcome <i>G. Albaiges (Spain)</i>	P09.07
First trimester low PAPP-A ( $\leq 0.2$ MoM) and risk of structural abnormalities in euploid fetuses: a prospective study <i>C. Votino (Italy)</i>	P09.08
The validation of the Fetal Medicine Foundation screening algorithm for small-for-gestational-age neonates in Russian population <i>T.A. Yarygina (Russian Federation)</i>	P09.09
Cerebroplacental ratio at 35–37 weeks of gestation in the prediction of adverse perinatal outcome in non-SGA fetuses <i>M. Tokunaka (Japan)</i>	P09.10
The influence of fetal gender on the size of various portions of cerebral lateral ventricles <i>F. Correa (Spain)</i>	P09.11

## P10: Using ultrasound to evaluate women with pelvic pain and possible endometriosis

*Chairs: G. Condous (Australia); C. Exacoustos (Italy)*

	<b>Foyer 3 Hub 3</b>
Learning curve for the detection of pouch of Douglas obliteration and deep endometriosis of the rectum in gynecological sonology trainees <i>M. Leonardi (Australia)</i>	P10.01
Abdominal wall endometriosis: an up-to-date perspective <i>C.V. Stefanescu (Romania)</i>	P10.02
Ultrasound-guided aspiration and sclerotherapy with absolute alcohol in treatment of hydrosalpinx <i>L. Wang (China)</i>	P10.03
How common is endometrioma decidualisation in pregnancy? Insights from IVF cycles <i>F. Filippi (Italy)</i>	P10.04



Integrated Enzian classification: a new proposal for sonographic pelvic endometriosis staging – feasibility and interobserver reproducibility <i>C. Exacoustos (Italy)</i>	P10.05
Pelvic floor morphometry at 3D/4D transperineal ultrasound in women with endometriosis and dyspareunia before and after pelvic floor physiotherapy <i>S. Del Forno (Italy)</i>	P10.06
Hormonal treatment effect on dysmenorrhea in women with and without endometriosis <i>P. Sladkevicius (Sweden)</i>	P10.07
A feedback protocol improves the diagnostic performance of ultrasound scan in patients with endometriosis <i>S. Tudorache (Romania)</i>	P10.08
WITHDRAWN	P10.09
Rectal-water contrast-transvaginal ultrasonography (2D-RWC-TVS) versus 3D-RWC-TVS in the diagnosis of rectosigmoid endometriosis <i>S. Ferrero (Italy)</i>	P10.10
Prevalence of endometriosis in MRI among adolescent presenting dysmenorrhea: preliminary results <i>A.E. Millischer (France)</i>	P10.11

## P11: Multiple pregnancy

## Foyer 3 Hub 4

*Chairs: A. Gagnon (Canada); E. Kalafat (Turkey)*

<i>In vitro</i> fertilisation and monochorionic pregnancies: the Yale experience <i>R.X. Calix (United States)</i>	P11.01
Comparison of CRL discordance (>5mm) and abnormal cord insertion as first trimester predictors of poor outcome in monochorionic diamniotic twin pregnancies <i>Y. Ville (France)</i>	P11.02
Predictors of TTTS and SIUGR in monochorionic diamniotic twin pregnancies <i>N. Ghaffari (United States)</i>	P11.03
The prediction of Twin–twin transfusion syndrome using velocity-time integrals of ductus venosus flow <i>M. Takano (Japan)</i>	P11.04
Outcome of equatorial dichorionisation by fetoscopic laser photocoagulation for early onset twin anemia polycythemia sequence <i>K. Ishii (Japan)</i>	P11.05
Significance of pre- and post-laser cervical length assessment in TTTS-afflicted monochorionic pregnancies <i>Y. Ville (France)</i>	P11.06
Twin pregnancies: can sonographic measurements and changes in cervical length during pregnancy predict preterm labour? <i>O. Markovitch (Israel)</i>	P11.07
Prospective risk of stillbirth and neonatal complications for monochorionic and dichorionic twins after 24 weeks of gestation <i>K. Leung (Hong Kong)</i>	P11.08
Relation between uterine arteries pulsatility index and the occurrence of gestational hypertension, pre-eclampsia and hypotrophy in twin pregnancies <i>D. Filipecka-Tyczka (Poland)</i>	P11.09
A core outcome set for studies investigating the management of selective fetal growth restriction in twins <i>A. Khalil (United Kingdom)</i>	P11.10

## P12: Fetal interventions and therapy: complicated monochorionic pregnancy, spina bifida and other conditions

*Chairs: A. Johnson (United States); C. Wohlmuth (Austria)*

Latrogenic monoamnicnity after laser treatment for Twin–twin transfusion syndrome: risk factors, prognosis and outcome <i>M. Lanna (Italy)</i>	P12.01
Selective reduction in complicated monochorionic twins by radiofrequency ablation: 220 consecutive cases in a single centre <i>Y. Miao (China)</i>	P12.02
Selective reduction of triplet pregnancies in the first trimester: six years' experience in a single referral centre in China <i>M. Chen (China)</i>	P12.03
Feasibility of fetal myelomeningocele repair through a 1.5–2.5cm mini hysterotomy <i>R. Cruz-Martinez (Mexico)</i>	P12.04
Doppler changes in umbilical artery, middle cerebral artery and ductus venosus during fetal myelomeningocele repair through a mini hysterotomy <i>R. Cruz-Martinez (Mexico)</i>	P12.05
Prenatal myelomeningocele repair: predictors of the severity and evolution of chorioamniotic membrane separation <i>R. Corroenne (United States/France)</i>	P12.06
Evaluation of adverse events of amniocentesis during transabdominal amnioinfusion <i>R. Nagai (Japan)</i>	P12.07
Effects of oral nifedipine as a tocolytic on the maternal and fetal hemodynamics <i>S.L. Suplido (Philippines)</i>	P12.08
Hypoplastic left heart syndrome and fetal valvuloplasty in Mexico <i>M. Cruz Lemini (Mexico)</i>	P12.09
Perinatal outcome of pregnancies complicated by placental chorioangioma: a systematic review and meta-analysis <i>D. Buca (Italy)</i>	P12.10

## Foyer 3 Hub 1

## P13: Hypertension in pregnancy

*Chairs: L. Poon (Hong Kong); M. Gil (Spain)*

Predictive value of sFlt-1/PIGF ratio and fetomaternal Doppler for adverse perinatal outcome in late onset pre-eclampsia <i>O. Graupner (Germany)</i>	P13.01
Maternal blood pressure trends throughout pregnancy in women at high risk for pre-eclampsia under aspirin <i>L.C. Ferreira (Portugal)</i>	P13.02
sFlt-1/PIGF ratio in clinical practice: cut-off values for predicting pre-eclampsia in our cohort of patients <i>A. Dudova (Czech Republic)</i>	P13.03
A combination of ultrasound features and maternal biochemistry can predict pre-eclampsia prior to 11 weeks of gestation <i>T.J. Taylor (Australia)</i>	P13.04
Correlation between placental mass, sFlt-1 and PIGF level and Doppler examinations of the uterine and umbilical arteries in PE, IUGR and controls <i>S. Verlohren (Germany)</i>	P13.05
First trimester assessment of the uterine arteries Doppler velocimetry and its association with obstetric complications <i>M. Bermudez Rojas (Mexico)</i>	P13.06

## Foyer 3 Hub 2

A pre-eclampsia risk prediction model based on maternal characteristics and serum markers in twin pregnancy <i>Y. Kim (Republic of Korea)</i>	P13.07
Changes in endothelial glycocalyx during pregnancy as a marker for uteroplacental adaptation: a longitudinal pilot study <i>V. Schiffer (Netherlands)</i>	P13.08
Which uteroplacental Doppler compartment is related to a worse neonatal outcome and placenta pathology? <i>V. Schiffer (Netherlands)</i>	P13.09
Peripheral blood flow in maternal kidneys in the third trimester of pregnancy <i>T.M. Eggebø (Norway)</i>	P13.10
Maternal serum levels of PIGF and sFlt-1 in a low-risk population of pregnant women in the third trimester in predicting pre-eclampsia <i>M. Lubusky (Czech Republic)</i>	P13.11
The association of cardiovascular assessment with development of pre-eclampsia and adverse outcomes: a prospective cohort study <i>E. Kalafat (Turkey/United Kingdom)</i>	P13.12

## P14: Managing early pregnancy complications

*Chairs: E. Kirk; S. Bobdiwala (United Kingdom)*

## Foyer 3 Hub 3

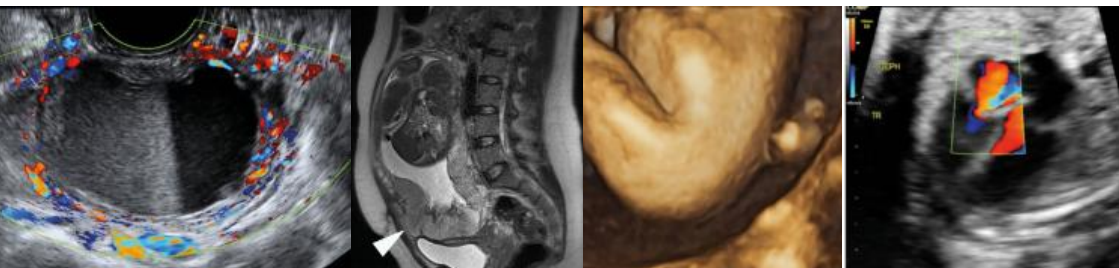
Adenomyosis is significantly associated with recurrent miscarriage <i>E. Kalafat (Turkey)</i>	P14.01
Does endometrial thickness and appearance at transvaginal ultrasound scan assist in triaging women with pregnancy of unknown location? <i>A. Ramachandran (Australia)</i>	P14.02
Heterotopic Caesarean scar pregnancy: an analysis of 20 cases following <i>in vitro</i> fertilisation-embryo transfer <i>P. Cai (China)</i>	P14.03
Laparoscopic treatment of ectopic tubal pregnancy: an old fashion approach? <i>E. Domali (Greece)</i>	P14.04
Psychological impact associated with medical waiting periods in early pregnancy: a systematic review <i>K. Lawson (United Kingdom)</i>	P14.05
Caesarean scar pregnancy: a challenging early pregnancy dilemma <i>F.M. Alhajeri (United Arab Emirates)</i>	P14.06
First trimester alpha-fetoprotein levels and ultrasound measurements of the yolk sac in women who miscarry compared to those that continue to a term pregnancy <i>H. Fourie (United Kingdom)</i>	P14.07
Ultrasound diagnosis and management of interstitial ectopic pregnancy <i>P.L. Thummalakunta (India)</i>	P14.08
Pregnancy outcome of mid-cavity implantation of intrauterine pregnancy <i>N. Rodrigo (Sri Lanka)</i>	P14.09
The effect of different morphological types of extrauterine ectopic pregnancies on the accuracy of ultrasound diagnosis <i>W. Dooley (United Kingdom)</i>	P14.10

**P15: Fetal growth: Doppler and other functional assessment****Foyer 3 Hub 4***Chairs: J. Hyett (Australia); K. Marsál (Sweden)*

Correlation between pre- and postnatal brain hemodynamics: a prospective longitudinal study <i>D. Buca (Italy)</i>	P15.01
Maternal serum levels of PlGF and sFlt-1 in a low-risk population of pregnant women in the third trimester in predicting fetal growth restriction <i>M. Lubusky (Czech Republic)</i>	P15.02
Reference ranges for fetal cardiovascular function measurements in third trimester normally grown fetuses <i>S.M. Lobmaier (Germany)</i>	P15.03
Maternal proteomics reveals the involvement of complement and coagulation cascades in early onset pre-eclampsia <i>L. Youssef (Spain)</i>	P15.04
A prospective study of aortic isthmus Doppler changes in appropriately-grown and small-for-gestational-age fetuses and establishing the threshold of aortic isthmus values for prediction of adverse perinatal outcome: a prospective cohort study <i>A. Sharma (India)</i>	P15.05
Evaluation of perinatal outcome and one-year blood pressure in late onset small-for-gestational-age fetuses: an interim analysis <i>S.M. Lobmaier (Germany)</i>	P15.07
The association between the medical diagnosis of fetal growth restriction and maternal antenatal stress: a prospective cohort study <i>J. Miranda (Spain)</i>	P15.08
Acquired portosystemic as a salvage of fetal growth restriction and oligohydramnios <i>Y. Gilboa (Israel)</i>	P15.09
Targeted lipidomic profiling of paired maternal and fetal plasma in pre-eclampsia and fetal growth restriction <i>L. Youssef (Spain)</i>	P15.10
WITHDRAWN	P15.11



Visit VISUOG, ISUOG's biggest learning resource. VISUOG is an online, visual encyclopedia, providing up-to-date information on the clinical use of ultrasound in obstetrics and gynecology, and image-based guidance on making accurate sonographic diagnoses.



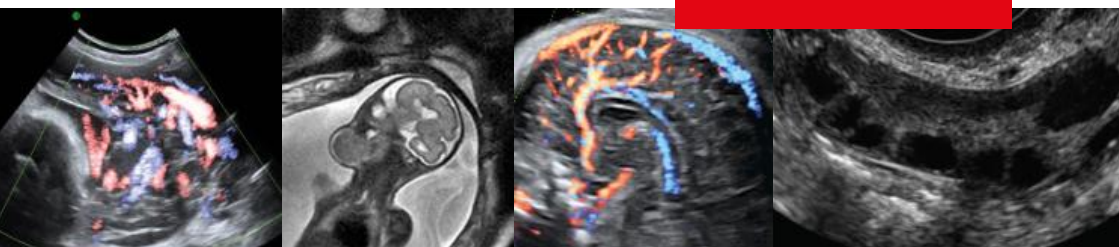
## Get involved

VISUOG is an **entirely member-driven** learning resource and is constantly expanding. You can get involved by contributing images and video clips, reviewing chapters or publishing your own chapter.

Find out more  
and meet the Task  
Force at the ISUOG  
Lounge:

**16 October**

**13:15 - 13:45**



Start exploring at [www.isuog.org/education](http://www.isuog.org/education) or contact [education@isuog.org](mailto:education@isuog.org) to find out how to get involved



## MEMBERSHIP

# 15,700+

members in

## 140 countries

200+ international partnerships



Impact  
Factor  
**5.65**

UOG

# 3 million+

downloads (+513,438)

## 168k+

 App page views

## 28<sup>TH</sup> WORLD CONGRESS SINGAPORE

# 2,125

delegates

# 6

travel  
grants

# 164

delegates  
from HINARI  
countries

99% would  
recommend the Congress

## ISUOG IN 2018

Highest  
satisfaction  
score **6.07/7**



## BASIC TRAINING

# 1,410

delegates  
from 60 countries

# 532

in Hinari  
countries

## EDUCATION

# 2,638

delegates  
in 80 countries



## INTENSIVE COURSES

# 443

Live stream

# 785

Live delegates

# 6-6.4

out of 7  
satisfaction

# 970+

online lectures

## ONLINE LEARNING

# 60,000+

 On Demand views

52,454 online learning module views

31,982 Basic Training module views

3,451 CME online completions



## INTERNATIONAL DEVELOPMENT

### OUTREACH

# 6

trips: Sudan (2),  
Oman (2), Haiti,  
Papua New Guinea

# 80

trainees

### APPROVED COURSES

# 63

in 27 different  
countries

### GUIDELINES

# 18

different  
languages

# SCIENTIFIC PROGRAM

**Wednesday 16 October 2019**



**February 2019**

3D reconstruction of faces of monozygotic twins at 32 weeks' gestation.  
*Youssef A. Ultrasound Obstet Gynecol 2019; 53: 279–280.*

# Wednesday 16.10.2019

## CONVENTION HALL IC

07:30-08:10

### Masterclass

First trimester fetal anatomy scan: the basics and beyond  
*S. Meagher (Australia)*

08:15-09:35

### Improvements in the diagnosis of congenital heart defects

*Chairs: W. Lee (United States); C. Berg (Germany)*

- 08:15 **LIVE SCAN:** The fetal heart [industry supported\*]  
*W. Lee (United States)*
- 08:31 **OC26.01** Feasibility and accuracy of early fetal echocardiography performed at 13–13+6 weeks in a population with high body mass index  
*M. Medina Castellano (Spain)*
- 08:36 Discussion
- 08:39 **OC26.02** Second trimester aortic valve diameter in fetuses with bicuspid aortic valve: a substudy from the Copenhagen Baby Heart Study  
*C. Vedel (Denmark)*
- 08:44 Discussion
- 08:47 **OC26.03** A novel simple method for the sonographic detection of fetal aberrant right subclavian artery: a prospective study  
*E. Kassif (Israel)*
- 08:52 Discussion
- 08:55 **OC26.04** It's the angle: improved identification of fetal aortic coarctation  
*C. Haxel (United States)*
- 09:00 Discussion
- 09:03 **OC26.05** Amongst fetuses with conotruncal anomalies, how good is ultrasound measurement of the thymic-thoracic ratio at identifying those with micro-deletion 22q11?  
*C. Pylpyjuk (Canada)*
- 09:08 Discussion
- 09:11 **OC26.06** A new diagnostic way in fetuses with tetralogy of Fallot based on the normal fetal quantile score data model  
*Y. He (China)*
- 09:16 Discussion
- 09:19 **OC26.07** Prenatal echocardiographic classification and prognostic evaluation strategy in fetal pulmonary atresia with intact ventricular septum  
*L. Liu (China)*
- 09:24 Discussion
- 09:27 **OC26.08** Prediction for biventricular outcome in prenatally diagnosed pulmonary atresia with intact ventricular septum/critical pulmonary stenosis  
*A. Wolter (Germany)*
- 09:32 Discussion



## CONVENTION HALL ID

### Masterclass

Recognising different types of ovarian tumours from metastatic lesions to immature teratomas: features and case examples  
*A.C. Testa (Italy)*

### Assessing women with urinary incontinence with ultrasound

*Chairs: S. Yagel; V.H. Eisenberg (Israel)*

- 08:15 **INVITED:** Urinary incontinence and symptomatic corre-lation  
*V.H. Eisenberg (Israel)*
- 08:35 **OC27.01** A randomised controlled trial of the effect of pelvic floor exercise on contraction, anatomy and symptoms in women scheduled for prolapse surgery *M.Ø. Nyhus (Norway)*
- 08:40 Discussion
- 08:43 **OC27.02** Effect on bladder prolapse of individualised Kegel exercise supervised by ultrasound *X. Gu (China)*
- 08:48 Discussion
- 08:51 **OC27.03** Prevalence of anal sphincter defects and association with anal incontinence in a urogynecological population  
*S. Mathew (Norway)*
- 08:56 Discussion
- 08:59 **OC27.04** Does urethral kinking affect the association between urethral closure pressure and SUI? *K. Shek (Australia)*
- 09:04 Discussion
- 09:07 **OC27.05** Reliability study of transperineal ultrasound for assessment of pelvic floor contraction *M.Ø. Nyhus (Norway)*
- 09:12 Discussion
- 09:15 **OC27.06** Association between St Mark's continence score and anal and/or pelvic floor defects following obstetric anal sphincter injury  
*L. de Jong-Speksnijder (Netherlands)*
- 09:20 Discussion
- 09:23 **OC27.07** Translabial ultrasound for localisation of midurethral sling mesh  
*C. Stewart (United Kingdom)*
- 09:28 Discussion

## ESTREL HALL AB

### Masterclass

All you need to know about multiple pregnancy  
*K. Hecher (Germany)*

### Hypertension in pregnancy and maternal hemodynamics

*Chairs: H. Valensise (Italy); N. Vrachnis (Greece)*

- 08:15 **INVITED:** Implementation of first trimester pre-eclampsia screening in clinical practice: a global perspective  
*F. da Silva Costa (Brazil)*
- 08:35 **OC28.01** Reference ranges for placental perfusion using dynamic contrast enhancement magnetic resonance imaging  
*L.J. Salomon (France)*
- 08:40 Discussion
- 08:43 **OC28.02 & OC28.03** Home blood pressure monitoring in pregnancy  
*E. Kalafat (Turkey/United Kingdom)*
- 08:51 Discussion
- 08:54 **OC28.04** Maternal cardiac hemodynamic may predict progression from mild to severe pre-eclampsia  
*E. di Pasquo (Italy)*
- 08:59 Discussion
- 09:02 **OC28.05** Early and late pregnancy complications in chronic hypertension are linked to different hemodynamic states before and during gestation  
*B. Vasapollo (Italy)*
- 09:07 Discussion
- 09:10 **OC28.06** Pregnancy complicated by type 1 diabetes, type 2 diabetes and gestational diabetes: maternal hemodynamic assessment and subsequent complications  
*I. Pisani (Italy)*
- 09:15 Discussion
- 09:18 **OC28.07** Validation of screening performance of first trimester prediction algorithm for pre-eclampsia in an Asian population  
*L. Poon (Hong Kong)*
- 09:23 Discussion

## CONVENTION HALL IC

09:40-10:20

### Short oral presentation (OP)

**OP16** IUGR: clinical studies

*Chairs: S. Yeo (Singapore); F. Figueras (Spain)*

10:15-10:45

### Coffee and e-poster viewing

10:45-12:05

### Using ultrasound in reproductive medicine: the diagnosis of PCO and uterine abnormalities

*Chairs: N. Raine-Fenning (United Kingdom) C. Brezinka (Austria)*

- 10:45 **INVITED:** The new ESHRE consensus: do we need another guideline telling us how to diagnose PCO? *N. Raine-Fenning (United Kingdom)*
- 11:05 **OC29.01** Definitions, diagnosis, prevalence, clinical implications and treatment of t-shaped uterus: a systematic review *M.A. Coelho Neto (Brazil)*
- 11:10 Discussion
- 11:13 **OC29.02** How to diagnose a t-shaped uterus by 3D-TVS criteria: a comparative study *F.P.G. Leone (Italy)*
- 11:18 Discussion
- 11:21 **OC29.03 & OC29.04** T-shaped uterus by Congenital Uterine Malformation by Experts (CUME): suggested definition based on three criteria and subjective agreement by experts *W.P. Martins (Brazil)*
- 11:26 Discussion
- 11:29 **OC29.05** A comparison of the pregnancy outcomes between women with a didelphus uterus and a unicornuate uterus after *in vitro* fertilisation-embryo transfer *P. Cai (China)*
- 11:34 Discussion
- 11:37 **OC29.06** 3D-TVS evaluation of partial uterine septum according to different classifications and correlation with reproductive outcomes: a study of 664 cases *C. Exacoustos (Italy)*
- 11:42 Discussion
- 11:45 **OC29.07** Diagnosis of functional cavity in the hemi-uterus by 3D-US using the ESHRE–ESGE consensus on classification of congenital anomalies in the female genital tract *B. Graupera (Spain)*
- 11:50 Discussion
- 11:53 **OC29.08** Reproductive outcome after hysteroscopic metroplasty for t-shaped uterus *F.P.G. Leone (Italy)*
- 11:58 Discussion

## CONVENTION HALL ID

**Workshop**  
**Evaluating myometrial pathology and fibroids**

*Chairs: J. Huijme (Netherlands); L. Valentin (Sweden)*

- 09:40 Diagnostic features and clinical relevance of adenomyosis on ultrasound *T. Van den Bosch (Belgium)*
- 09:50 Evaluating submucous fibroids with ultrasound prior to surgery *F.P.G. Leone (Italy)*
- 10:00 The ultrasound features of sarcoma *A.C. Testa (Italy)*
- 10:10 Can we still perform laparoscopic myomectomy given the risk of sarcoma?  
*D. Timmerman (Belgium)*

## Coffee and e-poster viewing

**Placenta accreta spectrum**

*Chairs: F. D'Antonio (Norway); A.E. Millischer (France)*

- 10:45 **INVITED:** How to summarise the heterogeneity of the literature on placenta accreta  
*F. D'Antonio (Norway)*
- 11:05 **OC30.01 & OC30.02** Placenta accreta spectrum: lessons from the ADoPAD study *F. Prefumo (Italy)*
- 11:17 Discussion
- 11:20 **OC30.03** Diagnostic performance of ultrasound in prenatal diagnosis of placenta accreta in women without previous Caesarean section (ADoPAD study) *A. Fichera (Italy)*
- 11:25 Discussion
- 11:28 **OC30.04** Performance of transvaginal ultrasound between 11–14 weeks in women with prior Caesarean delivery for early prediction of placenta accreta spectrum *G. Doulaveris (United States)*
- 11:33 Discussion
- 11:36 **OC30.05** Placental location and risk of retained placenta in women previously delivered by Caesarean section: a population-based cohort study *M. Granfors (Sweden)*
- 11:41 Discussion
- 11:44 **OC30.06** Proposal for ultrasound staging of placenta accreta spectrum disorders  
*F. D'Antonio (Norway)*
- 11:49 Discussion
- 11:52 **OC30.07** Comparison of the diagnostic value of sonography and MRI in patients with abnormally invasive placenta *T. Makukhina (Russian Federation)*
- 11:57 Discussion

## ESTREL HALL AB

**Short oral presentation (OP)**

**OP17** Fetal surgery  
*Chairs: K. Hecher (Germany); Y. Ville (France)*

## Coffee and e-poster viewing

**Fetal anomalies: lungs and infections**

*Chairs: M. Herrera (Colombia); R. Cruz-Martinez (Mexico)*

- 10:45 **INVITED:** Diagnosis and management of fetal lung anomalies *C. Berg (Germany)*
- 11:05 **OC31.01** Measurement of pulmonary vascular volume using virtual reality three-dimensional ultrasound in fetuses with left-sided congenital diaphragmatic hernia *N. Peters (Netherlands)*
- 11:10 Discussion
- 11:13 **OC31.02** Evaluation of cortical development by fetal MRI in fetuses with congenital diaphragmatic hernia between 26–29 weeks of gestation *M. Aertsen (Belgium)*
- 11:18 Discussion
- 11:21 **OC31.03** Prediction of postnatal outcome in fetuses with a congenital lung malformation: a two-year follow-up study *N. Peters (Netherlands)*
- 11:26 Discussion
- 11:29 **OC31.04** The utility of fetal MRI for the screening of functional pulmonary hypoplasia *J. Sakuma (Japan)*
- 11:34 Discussion
- 11:37 **OC31.05** Fetal liver volume assessment using magnetic resonance imaging in fetuses with CMV infection *A. Hawkins (Spain)*
- 11:42 Discussion
- 11:45 **OC31.06** A multicentre study to predict neonatal survival according to lung-to-head ratio and liver herniation in fetuses with left congenital diaphragmatic hernia: hidden mortality from the Latin American CDH Study Group Registry *R. Cruz-Martinez (Mexico)*
- 11:50 Discussion
- 11:53 **OC31.07** Influence of maternal HIV-infection on fetal thymus size *M. Falkenberg (Germany)*
- 11:58 Discussion

## CONVENTION HALL IC

12:10-12:50

### Short oral presentation (OP)

**OP18** Ultrasound in early pregnancy and reproductive medicine (12:10-13:00)

*Chairs: C. Brezinka (Austria); M. Al-Memar (United Kingdom)*

**LIVE SCAN:** The baseline fertility scan [industry supported\*]

*N. Raine-Fenning (United Kingdom)*

12:45-14:15

### Lunch and e-poster viewing

13:00-14:00

### Industry sponsored satellite symposia\*\*

14:15-15:45

### Workshop

### Abnormally invasive placenta

*Chairs: F. Chantraine (Belgium); W. Henrich (Germany)*

14:15 **LIVE SCAN:** Abnormally invasive placenta [industry supported\*]

*W. Henrich (Germany)*

14:30 Epidemiology and basics

*F. Chantraine (Belgium)*

14:45 Screening in the first trimester?

*F. D'Antonio (Norway)*

15:00 Correct staging by ultrasound is feasible

*G. Cali (Italy)*

15:15 Evidence-based clinical management

*S. Collins (United Kingdom)*

15:30 Conservative management: from the past to the future

*L. Sentilhes (France)*

15:50-17:00

### Closing plenary

### The power of ultrasound

*Chairs: C.M. Bilardo (Netherlands); A. Cameron (United Kingdom)*

15:50 **INVITED:** The power of ultrasound in animals

*T. Hildebrandt (Germany)*

16:15 Awards presentation: top abstract, Young Investigator and best in category

*L.J. Salomon (France); D. Timmerman (Belgium)*

16:25 The power of ultrasound: challenge the 2018 champion – top images from top experts

*S. Meagher (Australia); H. Werner (Brazil); H. Shah (United Kingdom); J. Bault (France); L. Savelli (Italy)*

16:50 Discussion and voting

\* Scientific content of sessions is defined by the Scientific Committee; ultrasound systems and technical support are provided by sponsors.

\*\*Lunchtime satellite symposia are brought to you by our sponsors and are not part of the ISUOG CME program. ISUOG takes no responsibility for scientific or clinical content. Please see page 128 for our satellite program.

**CONVENTION HALL ID****Short oral presentation (OP)****OP19** Placenta accreta spectrum*Chairs: J. Hyett (Australia); F. Chantraine (Belgium)***Lunch and e-poster viewing****Industry sponsored satellite symposia\*\*****Workshop****Case discussions: using ultrasound to manage oncology patients***Chairs: A.C. Testa (Italy); W. Froyman (Belgium)*

- 14:15 Surgeons  
*J. Sehouli (Germany); C. Fotopoulou (United Kingdom)*
- 14:35 Ultrasound  
*D. Fischerová (Czech Republic); E. Epstein (Sweden)*
- 14:55 Case presentations  
*A.C. Testa (Italy); W. Froyman (Belgium)*
- 15:25 Discussion

**ESTREL HALL AB****Short oral presentation (OP)****OP20** Diagnosis of fetal abnormalities*Chairs: J.A. Copel (United States); C. von Kaisenberg (Germany)***Lunch and e-poster viewing****Industry sponsored satellite symposia\*\*****Workshop****Late FGR and stillbirth**

- 14:15 *Chairs: C. Lees (United Kingdom); K. Hecher (Germany)*
- 14:35 Distinguishing FGR from SGA at term  
*F. Figueras (Spain)*
- 14:55 Evidence-based management of late FGR  
*T. Stampalija (Italy)*
- 15:15 Late FGR and stillbirth: how strong is the relationship?  
*L. Poon (Hong Kong)*
- 15:35 Cerebral redistribution: data from the TRUFFLE 2 feasibility study  
*C. Lees (United Kingdom)*
- Discussion

# Hubs

## HUB 1

08:15-09:15

09:40-10:20

### Poster discussion (P)

P16: Novel technology, training and safety  
*Chairs: A. Gagnon (Canada); H. Feltovich (United States)*

10:45-11:45

### Interactive

In conversation with *C. Lees*: bring your own challenging Doppler cases – interpretation and management

Objectives: To explore different management plans for cases where Doppler interpretation is difficult and build consensus in how to manage common conditions where Doppler interpretation plays a part

10:45-12:45

12:10-12:50

### Poster discussion (P)

P19: Preterm birth and the placenta  
*Chairs: A. Sotiriadis (Greece); H. Feltovich (United States)*

## HUB 2

### Interactive

Train the Basic Training trainee: how to prepare and counsel the patient  
*Chair: L. Hanson (United States)*

Objectives: To offer tools to understand basic elements of fetal anatomy (20+2 planes), focusing on the practical aspect of the exam

### Poster discussion (P)

P17: Fetal disease III  
*Chairs: G.E. Chalouhi (France); E. Contro (Italy)*

### Interactive

Russian-speaking ultrasound specialists community  
*Chairs: F. Ushakov (United Kingdom); E. Andreeva (Russian Federation)*

Objectives: To widely and creatively explore the current and future role of ISUOG guidelines and other training activities in different Eastern European and Central Asian countries

### Poster discussion (P)

P20: Rare and interesting cases of congenital heart defects  
*Chairs: P. Acharya (India); J. Ochoa (Argentina)*

Please see the app for further details of the Hub programs

**HUB 3****Interactive**

In conversation with *F. Ushakov*: early neurosonography – fetal CNS at 11–13 weeks

Objectives: To explore the techniques of fetal neurosonography at 11–13 weeks, identify five axial views of the early fetal brain, recognise patterns of ultrasound findings in common brain anomalies and manage cases with suspicious intracranial findings

**Poster discussion (P)**

P18: MRI and neurosonography

*Chairs: D. Pugash (Canada); G. Kasprian (Austria)*

**HUB 4****Interactive**

In conversation with *F. da Silva Costa*: how to set up a first trimester screening for pre-eclampsia – a global perspective

Objectives: To hear from experts who will teach the best way to introduce first trimester pre-eclampsia screening in different settings

**Interactive**

Presence of ENTOG & WATOG in ISUOG: MFM education

*Chair: A. Horala (Poland)*

Objectives: To share different learning methods that are used in different hospitals with MFM residencies globally

# OP - Wednesday 16.10.2019

## OP16: IUGR: clinical studies

## Convention Hall IC

*Chairs: S. Yeo (Singapore); F. Figueras (Spain)*

- Embryonic body posture: an analysis of preference, symmetry and lateralisation – an observational cohort study  
*M. Rousian (Netherlands)* OP16.01
- Positive effect of low-dose vitamin D supplementation on growth of fetal bones: a randomised prospective study  
*H. Vajfai (Islamic Republic of Iran)* OP16.02
- Management of very early onset IUGR: single centre experience 1998–2015  
*J. Brodzki (Sweden)* OP16.03
- Effect of metformin in addition to an antenatal diet and lifestyle intervention on fetal growth and adiposity: the GROW randomised trial  
*A.J. Poprzeczny (Australia)* OP16.04
- Ductus venous Doppler waveform pattern in fetuses with early growth restriction  
*F. Prefumo (Italy)* OP16.05
- Cerebropoplacental ratio and risk of operative delivery for intrapartum fetal compromise at term: does gestational age play a role?  
*J.U. Ortiz (Germany)* OP16.06
- Angiogenic factors and fetoplacental Doppler for the prediction of adverse perinatal outcome among suspected small-for-gestational-age fetuses  
*F. Crovetto (Spain)* OP16.07
- Prediction of small for gestational age: added contribution of second to third trimester growth velocity  
*R.J. Martinez-Portilla (Spain)* OP16.08
- Cardiac output and placental perfusion in growth-restricted fetuses with cerebral blood flow redistribution  
*S. Miyashita (Japan)* OP16.09
- Validation of fetal weight estimation using automated fractional limb volume  
*W. Lee (United States)* OP16.10
- Variability of adopted reference charts among tertiary referral centres in Italy  
*T. Stampalija (Italy)* OP16.11
- Important differences between closer MCA and distal MCA measurements in fetuses at 20–38 weeks of gestation  
*M. Calomfirescu (Romania)* OP16.12

## OP17: Fetal surgery

## Estrel Hall AB

*Chairs: K. Hecher (Germany); Y. Ville (France)*

- Perinatal morbidity after umbilical cord occlusion in monochorionic twin pregnancies  
*E. Antolin (Spain)* OP17.01
- Twin reversed arterial perfusion sequence: first trimester intervention  
*M. Tavares de Sousa (Germany)* OP17.02
- Mirror syndrome is an important complication following intrauterine interventions for severe TTTS  
*P. Greimel (Austria)* OP17.03
- Management of Rh isoimmunisation: the challenge continues  
*A. Sharma (India)* OP17.04
- Second systolic peak in middle cerebral artery Doppler: a sign of hypoxemia induced fetal pulse wave reflection after intrauterine transfusion  
*M. Gonser (Germany)* OP17.05



Comparison of two fetoscopic open neural tube defect repairs: single-layer versus three-layer spinal closure <i>M. Sanz Cortes (United States)</i>	OP17.06
Prenatal myelomeningocele repair: risk factors for developing chorioamniotic membrane separation <i>R. Carroenne (United States)</i>	OP17.07
Optimal full matching for survival outcomes in severe left diaphragmatic hernia with and without fetoscopic tracheal occlusion <i>R. Cruz-Martinez (Mexico)</i>	OP17.08
National registration of thoracoamniotic shunting by double-basket catheter: a successful report of post-marketing surveillance <i>Y. Takahashi (Japan)</i>	OP17.09
Biometric and morphological features of the fetal bladder in lower urinary tract obstruction (LUTO) on MRI: new perspectives for fetal cystoscopy <i>Y. Ville (France)</i>	OP17.10
Modified sequential method combined with Solomon technique is useful to prevent fetal demise of donor twins of TTTS and larger twins for sIUGR <i>S. Nagasaki (Japan)</i>	OP17.11

## OP18: Ultrasound in early pregnancy and reproductive medicine

Convention Hall IC

*Chairs: C. Brezinka (Austria); M. Al-Memar (United Kingdom)*

Fetal anomalies: ART pregnancies <i>P.L. Thummalakunta (India)</i>	OP18.01
Hysterosalpingo-contrast-sonography for tubal patency assessment in patients with endometriosis <i>S. Ferrero (Italy)</i>	OP18.02
Septate uterus by updated ESHRE/ESGE, ASRM and CUME definitions: warnings for healthcare systems and associated cost analysis <i>M.A. Coelho Neto (Brazil)</i>	OP18.03
First Caesarean section and subsequent infertility <i>M. Barati (Islamic Republic of Iran)</i>	OP18.04
A systematic review and meta-analysis on cardiovascular changes of women undergoing IVF treatment <i>R. Jaspal (United Kingdom)</i>	OP18.05
First trimester ultrasound features associated with subsequent miscarriage: a prospective study <i>T.J. Taylor (Australia)</i>	OP18.07
Predictors of complete miscarriage after misoprostol treatment and expectant management of early miscarriage in patients with vaginal bleeding <i>A. Fernlund (Sweden)</i>	OP18.08
Lactobacillus deplete vaginal microbiota composition is associated with chromosomally normal miscarriage <i>K. Grewal (United Kingdom)</i>	OP18.09

## OP19: Placenta accreta spectrum

Convention Hall ID

*Chairs: J. Hyett (Australia); F. Chantraine (Belgium)*

Magnetic resonance imaging of placenta accreta spectrum disorders: radiomics analysis correlates to surgical and pathological outcome <i>Q.N. Do (United States)</i>	OP19.01
Comparison of diagnostic performance between obstetric ultrasound and magnetic resonance imaging for antenatal diagnosis of placenta accreta spectrum disorders <i>A. Fichera (Italy)</i>	OP19.02

Evaluation of the risk of intraoperative complications in women with placenta previa using the PAS staging system: an external validation study <i>A. Dall'Asta (United Kingdom/Italy)</i>	OP19.03
Interest of MRI sonography fusion for the diagnosis of placenta accreta <i>S. Guillon (France)</i>	OP19.04
Concordance between obstetric ultrasound and magnetic resonance in antenatal diagnosis of placenta accreta spectrum disorders <i>F. Prefumo (Italy)</i>	OP19.05
All pregnancies after Caesarean deliveries should have a 5–7 week transvaginal ultrasound scan to locate placenta and gestational sac <i>I.E. Timor-Tritsch (United States)</i>	OP19.06
A multidisciplinary team as an intervention to improve maternal and perinatal outcomes in placenta accreta spectrum (PAS) <i>J.E. Tolosa (United States/Columbia)</i>	OP19.07
Evaluation of the tramline sign in the prediction of perioperative outcomes in anterior placenta previa <i>A. Dall'Asta (United Kingdom/Italy)</i>	OP19.08
Intracervical lakes as a sonographic marker of placenta accreta spectrum (PAS) in patients with placenta previa <i>E. di Pasquo (Italy)</i>	OP19.09
Hypogastric artery ligation in the management of postpartum hemorrhage <i>P. Hanulíková (Czech Republic)</i>	OP19.10

## OP20: Diagnosis of fetal abnormalities

## Estrel Hall AB

*Chairs: J.A. Copel (United States); C. von Kaisenberg (Germany)*

Diagnostic performance of a single centre in prenatal diagnosis: analysis of sensibility and sensitivity of ultrasound 20 years after Eurofetus <i>E. Bertucci (Italy)</i>	OP20.01
The prenatal sonographic diagnosis and evaluation of the prognosis of fetal choledochal cysts <i>Q. Wu (China)</i>	OP20.02
Prenatal ultrasonographic findings of esophageal atresia: potential implication of the stomach shape <i>C. Chang (Republic of Korea)</i>	OP20.03
Fetal abdominal calcifications: prenatal diagnosis, management and outcome <i>I. Pelayo (Spain)</i>	OP20.04
Fetal tricuspid annular plane systolic excursion for monitoring cardiac function in cases of fetal intra-abdominal umbilical vein varix <i>I. Zilberman Ron (Israel)</i>	OP20.05
Added value of fetal magnetic resonance imaging in management of suspected bowel obstruction beyond the duodenum <i>L.J. Salomon (France)</i>	OP20.06
Esophageal atresia: prenatal detection rates in multiple versus singleton pregnancies <i>T. Weissbach (Israel)</i>	OP20.07
Non-immune fetal hydrops: etiology, evolution and outcomes according to time of diagnosis <i>A. Khalil (United Kingdom)</i>	OP20.08
Assessment of liver herniation by ultrasound imaging in fetuses with congenital diaphragmatic hernia <i>G. Grebinichenko (Ukraine)</i>	OP20.09
The validity of the viscerobdominal disproportion ratio for type of surgical closure in all foetuses with an omphalocele <i>N. Peters (Netherlands)</i>	OP20.10

# P - Wednesday 16.10.2019

## P16: Novel technology, training and safety

## Foyer 3 Hub 1

*Chairs: A. Gagnon (Canada); H. Feltovich (United States)*

- ISUOG Basic Training curriculum: a pilot study on its impact on residents' sonographic skills P16.01  
*R. Abu-Rustum (United Kingdom/United States)*
- The learning curve of medical students for ultrasound in the third trimester of pregnancy: a pilot study P16.02  
*P. Liana (Romania)*
- Analysis of interrater reliability between professionals and trainee students as assessors of fetal Doppler P16.03  
*A. Londero (Italy)*
- A study to evaluate the practice and training in obstetric ultrasound at accredited obstetric and gynecology training institutions in Nigeria P16.04  
*S.A. Igarumah (Nigeria)*
- 3D OmniView image of uterus is very informative to detect the location of gestational site in case of cervical ectopic pregnancy P16.05  
*M. Goto (Japan)*
- Self-made PEI cationic nanobubbles to enhance gene delivery by ultrasound *in vitro* P16.06  
*Y. Wang (China)*
- Between hope and fear: emotional experience of pregnant women in the context of invasive prenatal diagnostics P16.07  
*U. Friebe-Hoffmann (Germany)*
- In vivo* performance of microarray sensors for fetal hypoxia-acidosis monitoring P16.08  
*M. Illa (Spain)*
- Obstetric risk factors for levator avulsion: a meta-analysis and systematic review P16.09  
*K. Shek (Australia)*
- Practical challenges in 3D ultrasound evaluation of fetal cavum septi pellucidi and cavum vergae area in the median plane P16.10  
*S. Pashaj (Germany)*
- Reproducibility of second and third trimester three-dimensional placental measurements P16.11  
*I. Pelayo (Spain)*

## P17: Fetal disease III

## Foyer 3 Hub 2

*Chairs: G.E. Chalouhi (France); E. Contro (Italy)*

- Ultrasound differential diagnosis of toraco-abdominal fetal cystic masses P17.01  
*I. Pelayo (Spain)*
- Prenatal diagnosis of neuroblastoma: a report of seven cases and systematic review of literature P17.02  
*C.S. Contreras (Chile)*
- Ultrasound evaluation of the fetal hip: the BUDDHA study P17.03  
*E. Contro (Italy)*
- The role of ISUOG guidelines for performance of routine mid-trimester fetal ultrasound scan in predicting congenital cytomegalovirus infection P17.04  
*A. Livi (Italy)*
- Children born with club feet: accuracy of prenatal ultrasound and management strategy before birth P17.05  
*F. Fuchs (France)*
- Comparing fetal frontonasal angle in the 18–20 week scan in pregnant women with prosthetic heart valves using low-dose warfarin with a control group P17.06  
*S. Piri (Islamic Republic of Iran)*

Chorioangiomas with signs of fetal compromise on ultrasound evaluation: a case series <i>I. Hardy (Canada)</i>	P17.07
Fetus in fetu: prenatal ultrasonic characteristics and pathological analysis <i>X. Chen (China)</i>	P17.08
Impact of the delay between fetal death and delivery on the success of postmortem ultrasound following termination of pregnancy <i>X. Kang (Belgium)</i>	P17.09
Fetal hypospadias: association of its severity and prenatal diagnosis <i>T. Kaji (Japan)</i>	P17.10
The amniotic fluid index in polyhydramnios is a strong predictor of congenital anomalies and adverse fetal outcome <i>N. Mak (Netherlands)</i>	P17.11

### P18: MRI and neurosonography

*Chairs: D. Pugash (Canada); G. Kasprian (Austria)*

Joubert syndrome at 11–13 weeks: molar tooth sign and associated brain anomalies <i>F. Ushakov (United Kingdom)</i>	P18.01
Cavum veli interpositi: prenatal importance and postnatal outcome <i>I. Tsikhanenka (Belarus)</i>	P18.02
Influence of maceration on feasibility and reliability of DTI-tracking the germinal matrix, corticospinal tract and corpus callosum in fetal PM MR <i>M. Aertsen (Belgium)</i>	P18.03
The evolution of FA values in the fetal corticospinal tract, the corpus callosum and germinal matrix on fetal postmortem DTI <i>M. Aertsen (Belgium)</i>	P18.04
Neurodevelopmental outcome of fetal intracranial hemorrhage: MRI-based cohort study <i>E. Katorza (Israel)</i>	P18.05
Apparent diffusion coefficient levels and neurodevelopmental outcome in fetuses with brain magnetic resonance T2 hyper-intense signal <i>E. Katorza (Israel)</i>	P18.06
Pattern of cortical development in fetuses with isolated non-severe ventriculomegaly is associated with poorer neurodevelopmental performance at early infancy <i>N.M. Hahner (Spain)</i>	P18.07
Prenatal diagnosis of a new association of middle interhemispheric variant of holoprosencephaly with di-mes-rhombencephalosynapsis <i>Z. Leibovitz (Israel)</i>	P18.08
Added value of fetal brain magnetic resonance after a systematic neurosonography in congenital heart defects <i>E. Eixarch (Spain)</i>	P18.09
Imaging findings of congenital toxoplasmosis, cytomegalovirus and Zika virus infections <i>H. Werner (Brazil)</i>	P18.10

### Foyer 3 Hub 3

### P19: Preterm birth and the placenta

*Chairs: A. Sotiriadis (Greece); H. Feltovich (United States)*

The cervical elastography change after progesterone treatment is associated with adverse pregnancy outcome in women with short cervix <i>J. Kwon (Republic of Korea)</i>	P19.01
Utility of cervical elastography in the prediction of preterm birth at 16–24 weeks of gestation on singleton pregnancy <i>M.L. Malabanan (Philippines)</i>	P19.02

### Foyer 3 Hub 1

Evaluation of cervical elastography strain pattern to predict preterm birth <i>K. Hammer (Germany)</i>	P19.03
What is the cervical length measurement in pregnant women that best determines the risk for preterm birth? <i>A.F. Moron (Brazil)</i>	P19.05
Can the uterocervical angle predict spontaneous preterm birth in pregnant patients with a history of cervical conisation? <i>C.L. Conturie (United States)</i>	P19.06
Optimal preterm prevention screening in women with previous excisional treatment to the cervix <i>G.J. Waring (United Kingdom)</i>	P19.07
Emergency cerclage with no residual cervical length on ultrasound: when does it work? <i>V. Donadono (United Kingdom)</i>	P19.08
Novel 3D-extended field of view multiprobe ultrasound for placenta volumetry: feasibility and comparison with MRI <i>J. Matthew (United Kingdom)</i>	P19.09
Improving screening for low placentation in second trimester by accurate identification of the internal cervical os <i>P. Dar (United States)</i>	P19.10
Nomogram for prediction of preterm birth in symptomatic uterine contraction in twin pregnant women <i>S. Kim (Republic of Korea)</i>	P19.11
Is first trimester saliva progesterone level associated with spontaneous preterm delivery? <i>M. Parra-Cordero (Chile)</i>	P19.12

## P20: Rare and interesting cases of congenital heart defects

## Foyer 3 Hub 2

*Chairs: P. Acharya (India); J. Ochoa (Argentina)*

Bovine aortic arch variant T2BAA: association with cardiovascular pathologies and fetal structural abnormalities <i>A. Pinto (Italy)</i>	P20.01
Giant cardiac aneurism: an anomaly with difficult prenatal counselling <i>M. Medina Castellano (Spain)</i>	P20.02
Prenatal diagnosis of fetal primary cardiac fibroma: a case report <i>J.H. Ochoa (Argentina)</i>	P20.03
WITHDRAWN	P20.04
Prenatal diagnosis of inferior vena cava duplication <i>H. Bakry (Israel)</i>	P20.05
Agenesis of the ductus venosus: prenatal diagnosis, perinatal outcomes and systematic review of literature <i>A. Sepúlveda-Martínez (Chile)</i>	P20.06
Review of ultrasound markers in diagnosis of total and partial anomalous venous connection in mid and late gestation <i>S. Lakshmy (India)</i>	P20.07
Hypoplastic left heart syndrome with prenatally diagnosed foramen ovale restriction: diagnosis, management and outcome <i>M. Slodki (Poland)</i>	P20.08
Tetralogy of Fallot and malalignment ventricular septal defect detected at early echocardiography <i>T. Fanelli (Italy)</i>	P20.09
Prenatal diagnosis of dextro-transposition of the great arteries (d-TGA) associated with intracardiac total anomalous pulmonary venous return (TAPVR) <i>A.T. Farajov (Azerbaijan)</i>	P20.10

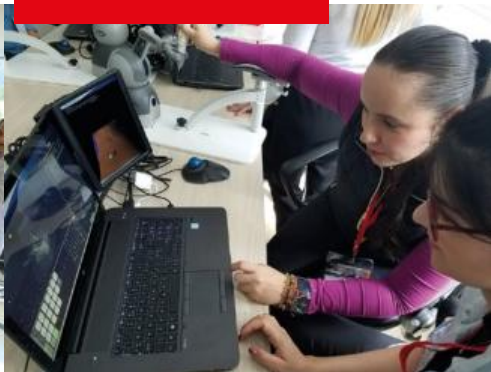
Introducing ISUOG's newest educational opportunity:

# Run an ISUOG Basic Training program

This new program makes accessing ISUOG Basic Training easier and more flexible than ever before. Any ISUOG member who belongs to a university department or similar training program can now request to run a Basic Training course independently from anywhere in the world, using their own faculty and facilities.

**ISUOG will provide all necessary curriculum and administrative support.**

**14 October  
13:15 - 13:45**



**Don't miss this exciting new ISUOG educational opportunity!**

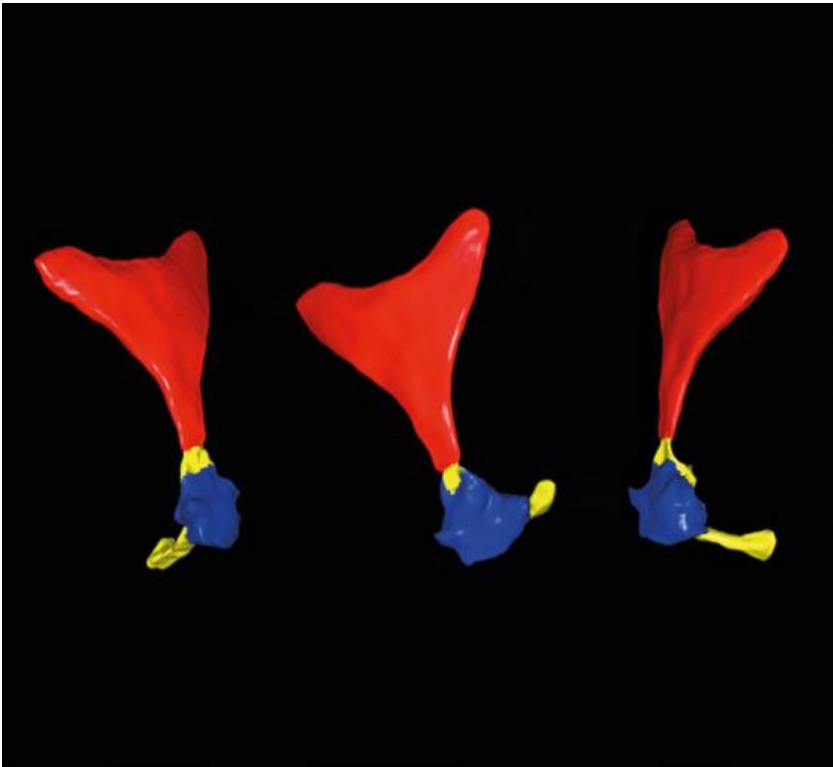
Find out how you can run your own Basic Training program and meet the Basic Training Task Force at the 'Run an ISUOG Basic Training program' session at the ISUOG Lounge.

Discover more at  
[isuog.org/education/basic-training.html](https://isuog.org/education/basic-training.html)



# EXHIBITION & SPONSORSHIP

## ISUOG 2019



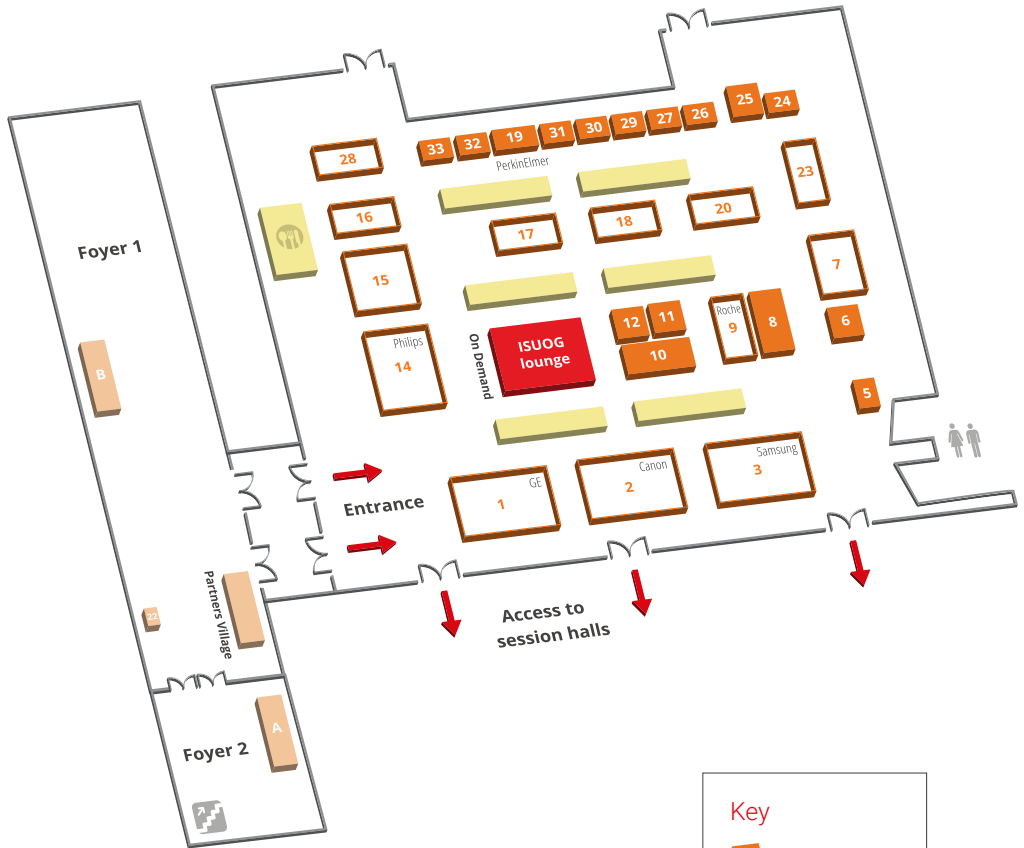
### January 2019

Volume estimation of uterine cavity (red), uterine niche (blue) and isthmus cavity with cervical canal (yellow), using 3D saline contrast sonohysterography with SonoHysteroAVC.

*Ludwin A, Martins WP, Ludwin I. Ultrasound Obstet Gynecol 2019; 53: 139–143.*

# Exhibition floor plan

## CONVENTIONAL HALL IAB





## Exhibitor listing

<b>Booth</b>	<b>Company</b>
32	3D Systems Symbionix
5	Accurate S.r.l.
17	ALPINION MEDICAL SYSTEMS Co., Ltd.
6	astraia software gmbh
2	Canon Medical Systems Corporation
1	GE Healthcare Austria GmbH & Co. OG
11	Germitec
7	Hitachi Medical Systems Europe
28	Illumina
Partners Village	International Society for Prenatal Diagnosis (ISPD)
<b>ISUOG Lounge</b>	International Society of Ultrasound in Obstetrics and Gynecology (ISUOG)
24	KARL STORZ SE & Co. KG
Partners Village	Korean Society of Ultrasound in Obstetrics and Gynecology (KSUOG)
20	MedaPhor Ltd.
23	Medge Platforms Inc.
27	Medialogic Solutions Pvt. Ltd.
25	MGZ - Medizinisch Genetisches Zentrum
15	Mindray Global
31	MWU DobreUSG Marcin Wiecheć, Agnieszka Nocuń Lekarze Spółka Partnerska
12	Natera
26	Parker Labs BV
19	PerkinElmer / Wallac Oy
14	Philips Ultrasound Inc.
33	QIAGEN GmbH
9	Roche Sequencing Solutions
3	Samsung
10	Society of Fetal Medicine (SFM)
30	Society for Maternal-Fetal Medicine (SMFM)
16	Trice Imaging
8	Tristel Solutions Ltd.
A	Verandbuchhandlung Stefan Schuldt
18	VINNO Technology (Suzhou) Co., Ltd.
29	VirtaMed AG
22	visitBerlin
Partners Village	World Association of Trainees in Obstetrics and Gynecology (WATOG)
B	Wisepress Ltd.

## 3D Systems Symbionix

Booth: 32

5381 South Alkire Circle, Littleton, CO 80127, USA  
+1 303 273 5344  
Galia Zilbershtein-Salant: [healthcare@3dsystems.com](mailto:healthcare@3dsystems.com)  
[www.symbionix.com](http://www.symbionix.com)

Experience the Symbionix U/S Mentor with a fully immersive VR training simulator experience. The U/S Mentor is known for its virtual reality clinical cases and focused clinical scenarios with real ultrasound scans for OB/GYN transabdominal and transvaginal scanning. Designated skill tasks, diverse diagnostic scenarios and captured metrics help learners to acquire and improve their sonography-related skills. Request a demo at your institution at [healthcare@3dsystems.com](mailto:healthcare@3dsystems.com) or more at [www.symbionix.com](http://www.symbionix.com).

## Accurate S.r.l.

Booth: 5

via Volturmo 61/A, Parma, PR 43125, Italy  
Massimo Giannessi: [info@accuratesolutions.it](mailto:info@accuratesolutions.it)  
[www.accuratesolutions.it/en](http://www.accuratesolutions.it/en)

Accurate S.r.l. consists of a professional team with unique expertise on international health scenario, capable of integrating scientific research, engineering design and implementation of innovative solutions in health and medical education. The deep medical simulation knowledge and the international expertise of the Accurate team allow the company to provide a 360° customer assistance for the developing and implementation of turnkey medical simulation centers. IUSIM is our unique sonography simulator for intrapartum ultrasound training.

## ALPINION MEDICAL SYSTEMS Co., Ltd. Booth: 17

77, Heungan-daero 81beon-gil, Dongan-gu  
Anyang-si, Gyeonggi-do, 14117, South Korea  
+82 70 7465 2446  
Selina Seo: [international@alpinion.com](mailto:international@alpinion.com)  
[www.alpinion.com](http://www.alpinion.com)

"We are ultrasound professionals." ALPINION MEDICAL SYSTEMS was established in 2007 as a true value innovator in the imaging technology field for: diagnostic ultrasound system, therapeutic ultrasound system (HIFU: high intensity focused ultrasound) and advanced piezoelectric and single crystal transducer technologies. With our acoustic engineering superiority, we strive to provide customers with consistent imaging performance and excellent clinical experience throughout the entire lifetime of the products.

## astraia software gmbh

Booth: 6

Occamstr. 20, 80802 Munich, Germany  
+49 89 1271 1470  
Roland Denk: [info@astraia.com](mailto:info@astraia.com)  
[www.astraia.com](http://www.astraia.com)

astraia software gmbh provides a software solution in obstetrics and gynaecology for structured documentation and reporting, for quality assurance as well as for scientific studies. The company was founded in 2000 and it is based in Munich, Germany. A dedicated team of about 30 employees serves more than 1,500 customers in over 75 countries. In many countries, astraia is also represented by local sales partners. astraia cooperates closely with leading experts around the world.

## Canon Medical Systems Corporation

Booth: 2

**Canon**  
CANON MEDICAL

70-1, Yanagi-cho, Saiwai-ku, Kawasaki-shi  
Kanagawa, 212-0015, Japan  
+81 36369 9676

Jeroen Uijttenhout: [jeroen1.ujttenhout@medical.canon](mailto:jeroen1.ujttenhout@medical.canon)  
[www.global.medical.canon](http://www.global.medical.canon)

Canon Medical offers a full range of diagnostic medical imaging solutions. In line with our continued Made for Life philosophy, patients are at the heart of everything we do. Our mission is to provide medical professionals with solutions that support their efforts in contributing to the health and wellbeing of patients worldwide so that together our industry-leading solutions deliver an enriched quality of life.

**Women's health solutions**  
**Made possible.**

*Made For life*



Delivering superior image quality lies at the heart of everything we do, because we believe that only the best images can give you the confidence to make the most critical decisions during early stage pregnancy and beyond.

From our unique SMI technology that reveals minute microvascular flow never seen before with ultrasound, to advanced 4D applications that add true clinical value to your diagnosis, we equip you with the best tools to help you see more.

Visit our educational sessions at ISUOG 2019 and learn about how our Women's Health solutions can support you in providing the best care for your patients.



## GE Healthcare Austria GmbH & Co. OG Booth: 1



GE Healthcare

Tiefenback 15, Zipf 4781, Austria  
+44 749 3440 403  
Heleen van Weel: [heleen.vanweel@ge.com](mailto:heleen.vanweel@ge.com)  
[www.gehealthcare.com](http://www.gehealthcare.com)

GE Healthcare is the \$19.8 billion healthcare business of GE (NYSE: GE). As a leading provider of medical imaging, monitoring, biomanufacturing, and cell and gene therapy technologies, GE Healthcare enables precision health in diagnostics, therapeutics and monitoring through intelligent devices, data analytics, applications and services. With over 100 years of experience in the healthcare industry and more than 50,000 employees globally, the company helps improve outcomes more efficiently for patients, healthcare providers, researchers and life sciences companies around the world. For more information visit our website [www.gehealthcare.com](http://www.gehealthcare.com).

## Germitec

Booth: 11

3-5 allée de la seine, Ivry Sur Seine  
Ile de France, 94200, France  
+33 01 4987 1800  
Christophe Hammer: [contact@germitec.com](mailto:contact@germitec.com)  
[www.germitec.com](http://www.germitec.com)

Germitec offers a radical solution to healthcare professionals who were experiencing considerable difficulty in disinfecting their ultrasound probes. The Company has developed a UV-C based high-level disinfection (HLD) platform named "ANTIGERMIX" that already gave birth to two different products dedicated to ultrasound probes: AS1 disinfects external, vaginal and rectal probes; AE1 disinfects TEE probes. Antigermix is an alternative to chemical soaking. During ISUOG 2019, Germitec will reveal its latest product: Hypernova Chronos.

## Hitachi Medical Systems Europe Booth: 7

Sumpfstrasse 13, CH-6312 Steinhausen, Switzerland  
+41 41 748 63 33  
[welcome@hitachi-medical-systems.com](mailto:welcome@hitachi-medical-systems.com)  
[www.hitachi-medical-systems.eu](http://www.hitachi-medical-systems.eu)

Hitachi Medical Systems Europe, part of Hitachi Healthcare Business Unit, Tokyo, Japan, delivers innovations that answer society's challenges. We support accurate diagnosis throughout pregnancy by sophisticated ultrasound solutions. Advanced features with artificial intelligence solutions for 3D/4D, fetal heart with functional assessment, early pregnancy, CNS, or fusion imaging take your practice one step ahead. Specialized transducers facilitate treatment of infertility, gynaecological diseases and for therapy. Let's talk and discover your next level in women's health!

## illumina

Booth: 28

The Illumina Centre, 19 Granta Park  
Cambridge, CB21 6DF, UK  
+44 12 2382 4882  
Valeria Affannato: [vaffannato@illumina.com](mailto:vaffannato@illumina.com)  
[www.illumina.com](http://www.illumina.com)

Think you know everything about non-invasive prenatal testing (NIPT)? Think again. Non-invasive testing using cell free DNA provides high-detection rates, low false-positive results and no risk to mother and baby. Visit us at ISUOG to gain insights about the value of NIPT in the prenatal care pathway. You'll also discover how Illumina is expanding NIPT screening capabilities to provide the most comprehensive best menu among IVD NIPT products and making our innovative technology easily accessible to clinical labs. [www.illumina.com](http://www.illumina.com)



# Voluson™

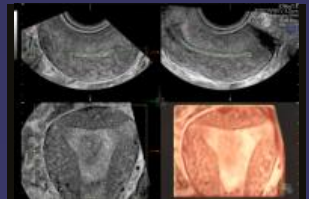
## A HEALTHIER FUTURE FOR WOMEN

Expect the best for your patients. That's why Voluson is the only choice.

At GE Women's Health Ultrasound, we're committed to creating a healthier future for women.

This commitment is why we work relentlessly to break new ground, advance innovation and develop clinically relevant applications that enhance the relationship between you and your patients. Voluson ultrasound solutions empower you to provide the kind of exceptional care that will exponentially improve women's lives, and ensure better health for generations.

Choose Voluson and take your practice and your patients confidently into the future with the partner that's as committed to Women's Health as you are.



[www.voluson.com](http://www.voluson.com)

Voluson is a trademark of General Electric Company.  
JB68756XX

## ISPD

154, Hansen Road, Suite 201, Charlottesville  
VA 22911, USA  
+1 434 979 4773  
Lynne Valentic: [info@ispdhome.org](mailto:info@ispdhome.org)  
[www.ispdhome.org](http://www.ispdhome.org)

ISPD began as a group of internationally recognized experts and has gradually grown to a global society of professionals from multiple disciplines such as prenatal and perinatal care, medical genetics, basic and translational science, genetic counselling, laboratory management, fetal therapy, ultrasonography and ethics. While ISPD engages with all areas relevant to prenatal diagnosis and therapy, it has a unique focus and expertise on reproductive and prenatal genetic screening and how this aspect of care integrates with other disciplines.

## ISUOG



122 Freston Road, London, W10 6TR, UK  
+44 020 7471 9955  
[info@isuog.org](mailto:info@isuog.org)  
[www.isuog.org](http://www.isuog.org)

ISUOG is a charity and membership association encouraging exceptional research and education in ultrasound and related imaging within the field of obstetrics and gynecology. ISUOG has been in existence since 1991 and, with over 15,700 members in 140 countries, it is the leading international society representing professionals in ultrasound for obstetrics and gynecology. ISUOG's official journal, *Ultrasound in Obstetrics & Gynecology (UOG)*, also known as the White Journal, is recognised as the leading peer-reviewed journal on imaging within the field of obstetrics and gynecology, with an impact factor of 5.59 and more than 3 million article downloads each year. All ISUOG members registering for the Congress or for one of the pre-Congress courses will receive basic membership. Non-members will receive a one-year ISUOG basic membership from the time of Congress. Benefits include access to over 650+ online presentations via On Demand (platform to view recordings and lectures from our World Congresses, 2010-2018) and 320+ online lectures categorised into 35 learning modules. Visit the ISUOG Lounge to find out more about membership and browse your benefits.

## Partners Village

## KARL STORZ SE & Co. KG

Dr-Karl-Storz-Strasse 34, Tuttlingen, BW  
78532, Germany  
+49 7461 708 8746  
Yannick Weber: [Yannick.Weber@karlstorz.com](mailto:Yannick.Weber@karlstorz.com)  
[www.karlstorz.com](http://www.karlstorz.com)

Booth: 24

KARL STORZ is a renowned manufacturer that is well established in all fields of endoscopy. The still family held company has grown to one with a worldwide presence and 7500 employees. KARL STORZ offers a range of both rigid and flexible endoscopes for a broad variety of applications.

## KSUOG

## Partners Village

CHA Gangnam Medical Center, 569 Nonhyon-ro,  
Gangnam-gu, Seoul, 06135, Korea  
+82 3468 2671  
Professor Ja Young Kwon: [office@ksuog.or.kr](mailto:office@ksuog.or.kr)  
[www.ksuog.or.kr](http://www.ksuog.or.kr)

The Korean Society of Ultrasound in Obstetrics and Gynecology (KSUOG) is a membership association founded in 1997 connecting 1700 members, 38 universities, and 650 OBGYN hospitals in Korea. We strive in promoting integrative research development of theory and practice of ultrasound and mutual fellowship among its members. We are delighted that the 31<sup>st</sup> ISUOG World Congress is coming to Seoul, Korea, in 2021. The beauty and excitement of Seoul awaits you!

## MedaPhor Ltd.

Cardiff Medicentre, Heath Park, Cardiff  
CF14 4UJ, Wales  
+44 29 2075 6534  
Sandy Fox: [hello@intelligentultrasound.com](mailto:hello@intelligentultrasound.com)  
[www.intelligentultrasound.com](http://www.intelligentultrasound.com)

Booth: 20

ScanTrainer teaches basic and advanced ultrasound scanning skills, allowing trainees to learn in their own time and at their own pace in a low-pressure, non-clinical environment. The only simulation system to offer curriculum-based teaching using real patient scans, haptic feedback, real-time assisted guidance and comprehensive metric-based assessment in one.

**Medge Platforms Inc.****Booth: 23**

100 Park Avenue, Suite 1600, New York,  
NY 10017, USA  
+1 212 351 5029  
Federico Abella: [info@medgeplatforms.com](mailto:info@medgeplatforms.com)  
[www.medgeplatforms.com](http://www.medgeplatforms.com)

Medge Platforms Inc. (MPI) is a scientific software company established in 2001, in New York City, USA. Throughout these years, as OEM, it has developed numerous ultrasound software products with clinical applications. Now is currently presenting the latest development: Volutracer OPUS ®, an ultrasound education and training system. It is a disruptive technology, unique with an exclusive optical positioning simulation system. It uses real ultrasound cases and allows the 6 degrees of freedom of the hand.

**Medialogic Solutions Pvt. Ltd.****Booth: 27**

197, Dr.Natesan Road, Mylapore, Chennai  
600004, India  
+91 90 9483 3449  
Rajagopalan Ramanujam: [rajagopalan@medialogicindia.com](mailto:rajagopalan@medialogicindia.com)  
[www.medialogicindia.com](http://www.medialogicindia.com)

Medialogic Solutions (Pvt.) Ltd. is a leading provider of IT products and solutions for the healthcare industry. We enable clinicians to make better, faster decisions in today's rapidly changing environment. Our flagship product SONOCARE is an ultrasound workflow and reporting software which supports clinical, administrative, educational and research requirements of ultrasound practices.

**MGZ - Medizinisch Genetisches Zentrum****Booth: 25**

Bayerstrasse, 3-5, Munich, D-80355, Germany  
+49 89 3090886 811  
Johannes Wabnitz: [marketing@mgz-muenchen.de](mailto:marketing@mgz-muenchen.de)  
[www.mgz-muenchen.com](http://www.mgz-muenchen.com)

The MGZ - Medical Genetics Center is a full service provider for genetic diagnostics. As a multidisciplinary team of clinical geneticists and scientists, we offer high quality genetic analyses and actionable reports to assist clinicians in providing optimal patient care. Genetic testing is performed in our accredited medical genetics lab in Munich, Germany. Over 15 years of experience, especially in prenatal diagnostics, makes us a qualified partner for your genetic testing needs.

**Mindray Global****Booth: 15**

Mindray Building, Keji 12th Road South, High-tech  
Industrial Park, Nanshan, Shenzhen 518057, China  
+86 755 81887663  
Ellen Mok: [ellen.hm@mindray.com](mailto:ellen.hm@mindray.com)  
[www.mindray.com](http://www.mindray.com)

Founded in 1991, Mindray is one of the leading global providers of medical devices and solutions. Firmly committed to our mission of "advance medical technologies to make healthcare more accessible", we are dedicated to innovation in ultrasound imaging. Mindray possesses a sound global R&D, marketing and service network. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation, bringing healthcare within reach.

**MWU DobreUSG Marcin Wiecheć, Agnieszka Nocun Lekarze Spółka Partnerska****Booth: 31**

31-209 Kraków, ul. Fieldorfa-Nila, 14/JU3, Poland  
+48 666 707 264  
Marcin Wiecheć: [info@malopolskieusg.pl](mailto:info@malopolskieusg.pl)  
[www.ultrasoundcracow.com](http://www.ultrasoundcracow.com) [www.mwu.edu.pl](http://www.mwu.edu.pl)

The MWU Group is an educational project created for physicians interested in developing their ultrasound skills in a practical and theoretical aspect. First branch courses concentrate on workshops in fetal and pelvic sonography providing live scans by Prof. Marcin Wiecheć, ISUOG accredited speaker, and Dr Agnieszka Nocun, and hands-on sessions. Following branches: 3D models and medical software produce teaching tools: 3D cardiac models, VR application for fetal echo, uterine models for hysteroscopy and educational posters.

**Natera****Booth: 12**

201 Industrial Road, Suite 410, San Carlos,  
CA 94070, USA  
+1 249 249 9090  
Lindy Nuynh: [corporateevents@natera.com](mailto:corporateevents@natera.com)  
[www.natera.com](http://www.natera.com)

Natera is a global leader in cell-free DNA testing. The mission of the company is to change the management of disease worldwide by harnessing the power of DNA from a single blood sample to improve the management of reproductive health, oncology and organ transplantation. Natera offers a host of proprietary genetic testing services to inform physicians who care for pregnant women, oncologists and cancer researchers, including biopharmaceutical companies and genetic laboratories through its cloud-based software platform.

# PHILIPS

Ultrasound



## Superb resolution and penetration. See more to diagnose earlier.

Pregnancy is a special time for a mother-to-be as she begins to bond with her baby. It is also a critical time for physicians to evaluate the baby's development and health.

The Philips OB Solution for earlier diagnosis presents new and innovative tools tailored to the unique demands of OB/GYN scans, helping to enhance the experience of both physician and mother-to-be.

- Leading-edge image quality and ergonomics with the eL18-4 and V9-2 transducers
- TrueVue for lifelike 3D imaging
- Anatomical Intelligence for Ultrasound to simplify the process of gathering measurements and saving time

There's always a way to make life better.

innovation  you

See the OB solution video at [www.philips.com/obgyn](http://www.philips.com/obgyn)





**Parker Labs BV****Booth: 26**

Bedrijvenpark Twente 305, 7602, KL, Netherlands  
 +31 546 549 105  
 Dennis Wessels: DterWaarbeek@parkerlabs.com  
[www.parkerlabs.com](http://www.parkerlabs.com)

Parker Laboratories is a leading global medical products company that develops, manufactures and sells ultrasound and electromedical contact media, as well as leading lines of institutional cleaners and disinfectants. We are focused on consistently providing products that meet or exceed industry standards and customer expectations.

**PerkinElmer / Wallac Oy****Booth: 19**

Mustionkatu 6, Turku, 20750, Finland  
 +358 400016946  
 Nina Alankoja: nina.alankoja@perkinelmer.com  
[www.perkinelmer.com](http://www.perkinelmer.com)

PerkinElmer is a global leader committed to innovating for a healthier world. We offer complete screening solutions in fetal/maternal healthcare, supplying instrumentation, reagents and risk calculation software for early detection of pregnancy related anomalies. This includes pre-eclampsia risk assessment in all trimesters of pregnancy and markers for Down's syndrome screening. The new Vanadis NIPT system – non-sequencing, non-PCR based solution for cfDNA analysis – provides simplified, cost-effective, high-throughput testing facilitating wider access to NIPT for pregnant women.

**Philips Ultrasound Inc.****Booth: 14****PHILIPS**

22100 Bothell Everett Highway, Bothell  
 Washington, 98021, USA  
[www.philips.com](http://www.philips.com)

At Philips, we look beyond technology to the experiences of consumers, patients, providers and caregivers across the health continuum – from healthy living and prevention to diagnosis, treatment and home care. We unlock insights leading to innovative solutions that address the quadruple aim: improved patient experience, better health outcomes, improved staff experience and lower cost of care. With leading research, design and innovation capabilities, we partner with our customers to transform the delivery of healthcare.

**QIAGEN GmbH****Booth: 33**

Qiagen Strasse 1, 40724 Hilden, NRW, Germany  
 +49 1622091393  
 Derya Bercin: derya.bercin@qiagen.com  
[www.herqialabs.com](http://www.herqialabs.com)

QIAGEN is the leading global provider of Sample to Insight solutions that enable cus-tomers to gain valuable molecular insights from samples containing the building blocks of life. QIAGEN provides solutions around the world in Molecular Diagnostics, Applied Testing, Pharma and Academia. QIAGEN's Sexual and Reproductive Health portfolio is comprehensive, including the PartoSure and AmniSure Test, two highly synergistic, biomarker targeted diagnostics for assessing the risk of ROM and PTL; differentiated core technologies and bioinformatics solutions for NIPT; and the "gold standard" digene HC2 HPV Test to screen for HPV and protect women from cervical cancer.

**Roche Sequencing Solutions****Booth: 9**

4300 Hacienda Drive, Pleasanton CA, 94588, USA  
 +1 9256999173  
 Marissa Pelagio: marissa.pelagio@roche.com  
[www.harmonytest.com](http://www.harmonytest.com)

Roche is a global pioneer in pharmaceuticals and diagnostics focused on advancing science to improve people's lives. Roche Sequencing Solutions is focused on developing novel technologies and products to support innovation in clinical research applications. Part of Roche Sequencing Solutions, the Harmony® prenatal test is a non-invasive screening test for pregnant women that can be used as early as 10 weeks of pregnancy. By evaluating fetal cell-free DNA found in maternal blood, including accurate measurement of the fetal fraction of cfDNA, the test assesses the probability of Trisomy 21 (Down's syndrome) and other common fetal chromosomal conditions. The results are intended for prenatal screening and are not intended to be the sole basis for diagnosis. The Harmony® prenatal test has been used to guide clinical care in over 1,400,000 pregnancies worldwide. For more information, visit [www.harmonytest.com](http://www.harmonytest.com).

**Samsung**

**Booth: 3**

## SAMSUNG

145, Pangyo-eok-ro, Bundang-gu, Seongnam-si  
Gyeonggi-do, 13530, South Korea  
+82 2 2194 1131  
Pia Park: hm11.park@samsungmedison.com  
[www.samsunghealthcare.com](http://www.samsunghealthcare.com)

Samsung is committed to create a new future for medical professionals and patients with a mission to bring health and wellbeing to people's lives. Integrating its leading expertise in display, IT, mobile and electronics, our vision is to bring confident diagnosis, cost effective solutions and improved workflow to customers. Samsung's innovation in healthcare is led by Samsung Electronics' Health & Medical Equipment Business and Samsung Medison, with more than 1,600 employees worldwide.

**SFM**

**Booth: 10**

C 584, Defence Colony, New Delhi, 110024, India  
+91 93 1222 7181  
Ashok Khurana: sfmsecretariat2017@gmail.com  
[www.societyoffetalmedicine.org](http://www.societyoffetalmedicine.org)

The Society of Fetal Medicine is a global forum of Indian origin that envisions offering every fetus an optimal outcome. The Society has a mission of opening minds to fetal needs and is a continuously evolving multidisciplinary organisation. The Society's primary objectives are to promote and expand education and research in fetal medicine, enunciate practice guidelines and facilitate rapid translation of research findings into clinical application.

**SMFM**

**Booth: 30**

409, 12th Street, SW, Suite 601, Washington DC  
20024, USA  
+1 202 517 6585  
smfm@smfm.org  
[www.smfm.org](http://www.smfm.org)

Established in 1977, the Society for Maternal-Fetal Medicine (SMFM) is a non-profit, membership organization based in Washington DC. With more than 3,500 physicians, scientists and women's health professionals around the world, the Society supports the clinical practice of maternal-fetal medicine by providing education, promoting research and engaging in advocacy to optimize the health of high-risk pregnant women and their babies.

**Trice Imaging**

**Booth: 16**

1343 Stratford Court, Del Mar, CA 92014, USA  
+49 17 5223 4710  
Bernd Nuber: info@triceimaging.com  
[www.triceimaging.com](http://www.triceimaging.com)

Trice provides an innovative cloud-based communication, image management and documentation solution called Tricefy for medical professionals. With Tricefy you can replace your printer and share images, clips and volumes directly from your ultrasound scanner with patients and colleagues.

**Tristel Solutions Ltd.**

**Booth: 8**

Lynx Business Park, Fordham Road  
Snailwell, CB8 7NY, UK  
+44 16 3872 1500  
Dana Kottysch: mail@tristel.com  
[www.tristel.com](http://www.tristel.com)

Tristel is the only company in the world to combine its proprietary chlorine dioxide formulation with innovative packaging for the high-performance disinfection of medical instruments. Tristel Duo ULT is the only high-level disinfectant that treats all parts of an ultrasound unit the same – from holder, to cable, to probe. Tristel Duo ULT is proven effective in 30 seconds against organisms of concern including HPV, making it the fastest and most effective high-level disinfectant for ultrasound probes on the market.

SAMSUNG

# HERA

## Ultrasound Reimagined

New

HERA W9



HERA I10



HERA W10



Enhanced  
Image Quality



Advanced  
Intelligence



Comfortable  
Design

## Visit us and experience the differences

**Satellite Symposium**

Sunday, 13 October  
12:30 - 13:30 / Convention Hall I (C)

**Hospitality Suite**

13 - 16 October  
Coffee Break / Room 4

## Verandbuchhandlung Stefan Schuldt

A

Dorfstrasse 17L, Flintbek, Germany  
+49 4347 74706  
Stefan Schuldt: [info@versandbuchhandlung-schuldt.de](mailto:info@versandbuchhandlung-schuldt.de)

---

## VINNO Technology (Suzhou) Co., Ltd. Booth: 18

5F, A Building, No. 27 Xinfu Rd  
Suzhou Industrial Park, 215213, China  
+86 512 6287 3806  
Owen Tian: [owen.tian@vinno.com](mailto:owen.tian@vinno.com)  
[www.vinno.com](http://www.vinno.com)

Vinno is a provider of professional digitised colour Doppler ultrasound equipment and medical information solutions that is committed to creating a famous national medical brand through continuous innovation. Vinno provides medical institutions with professional ultrasound technologies and services including precise diagnoses, micro-magnetic guidance and remote diagnosis with personalised design and craftsmen level performance, promoting technological development and elevating the experience of medical treatment.

---

## VirtaMed AG

Booth: 29

Ruetistrasse 12, Schlieren, Zurich, 8952, Switzerland  
+41 44 500 9690  
[info@virtamed.com](mailto:info@virtamed.com) / [sales@virtamed.com](mailto:sales@virtamed.com)  
[www.virtamed.com](http://www.virtamed.com)

The origins of VirtaMed date back to 2001 when a hysteroscopy simulator project in the frame of the NCCR CO-ME of the Swiss National Science Foundation, involving 16 PhD students, was started. Now VirtaMed is a thriving company creating simulators in three different disciplines for both surgical and non-surgical interventions.

---

## visitBerlin

22

Am Karlsbad 11, 10785 Berlin, Germany  
+49 30 25 00 23 33  
[hallo@visitBerlin.de](mailto:hallo@visitBerlin.de)  
[www.visitberlin.de/en](http://www.visitberlin.de/en)

As Berlin's official promotional organisation for tourism and conventions *visitBerlin* produces creative ideas and marketing campaigns for Berlin delivered around the world. We also provide support services for all those joining us in actively promoting Berlin as a world city. *visitBerlin* also functions as a travel agency offering hotel accommodation and tickets, and the Berlin WelcomeCard, Berlin's official sightseeing pass. In addition, it operates the Berlin Tourist Info Centers and the Berlin Service Center.

---

## WATOG

Partners Village

35 Rue Berger, Paris, 75001, France  
[executive@watog.org](mailto:executive@watog.org)  
[www.watog.org](http://www.watog.org)

Founded in 2012, the World Association of Trainees in Obstetrics & Gynecology (WATOG) is the first non-profit organisation representing young obstetricians and gynecologists across the world. In 2019 its network is present in 90 countries.

The association aims to contribute to the improvement OBGYN training worldwide. In cooperation with national and large-scale senior societies, WATOG wishes to facilitate local and international networking and experience sharing by organising events and disseminating free online educational contents dedicated for young OB/GYN doctors.


---

## Wisepress Ltd.

B

15 Lyon Road, Merton, London, SW19 2RL, UK  
+44 20 8715 1812  
Olivia Thomas: [Olivia.Thomas@wisepress.com](mailto:Olivia.Thomas@wisepress.com)  
[www.wisepress.com](http://www.wisepress.com)

Wisepress.com, Europe's leading conference bookseller, has a complete range of books and journals relevant to the themes of the meeting. Books can be purchased at the stand or, if you would rather not carry them, posted to you – Wisepress will deliver worldwide. In addition to attending 200 conferences per year, Wisepress has a comprehensive medical and scientific bookshop online with great offers.



>99% ACCURACY<sup>1</sup>  
FOR TRISOMIES 21, 18, AND 13  
AS EARLY AS WEEK 10

IT'S TIME FOR  
**NIPT**

Join us to learn more about noninvasive prenatal testing (NIPT), also known as cell-free DNA (cfDNA) prenatal testing, and find out how to offer your patients the highest reported detection rate and lowest reported false positive rate of any prenatal screening test.

Visit us at booth 28

[www.illumina.com](http://www.illumina.com)

© 2019 Illumina, Inc. All rights reserved. QB 8263

1. Data on file. Illumina, Inc. 2019

NIPT is a screening test. Results should be confirmed by diagnostic testing prior to making any pregnancy management decisions.

**illumina**<sup>®</sup>

# Hospitality and education suites

## ROOM V



### Sunday

- 12:30-13:30** From 1st to 2nd trimester: using SMI for fetal heart examination  
*J. Cruz (Portugal)*  
Potential of SMI for fetal heart pathologies in 1st trimester (inc. LIVE SCAN)  
*M. Massoud (France)*
- 15:15-15:45** Systematic approach to the venous system (inc. LIVE SCAN)  
*J.S. Carvalho (United Kingdom)*

### Monday

- 10:15-10:45** Applications of obstetrical imaging with novel tools: a glimpse into the future  
*E. Sinkovskaya (United States)*
- 13:00-14:00** Prenatal sonographic approach of bilateral echogenic kidneys  
*L. Guibaud (France)*  
Fetal brain evaluation: anatomic landmarks (inc. LIVE SCAN)  
*M. Branco (Portugal)*
- 15:35-16:00** Utilising SMI during 1<sup>st</sup> trimester anomaly scan (inc. LIVE SCAN)  
*M. Krapp (Germany)*

### Tuesday

- The "equal sign" in the diagnosis of fetal facial clefts (inc. LIVE SCAN)  
*L. Wilhem (Germany)*  
(10:25-11:00)
- Systematic approach to examination of the outflow tracts  
*J. Simpson (United Kingdom)*
- Assessment of fetal cardiac function using speckle-tracking  
*J. Yoshimatsu (Japan)*
- Advanced placenta evaluation  
*J. Hasegawa (Japan)*

### Wednesday

- The increasing impact of modern UL technologies in reproductive medicine and early pregnancy assessment  
*B. Smith (United Kingdom)*
- Ovarian masses during pregnancy  
*A.C. Testa (Italy)*
- Tips and tricks for using ultrasound during surgery  
*I. De Blasius (Italy)*

## VOLUSON CLUB LOUNGE & ROOM I-II

### Sunday - Wednesday



Please visit GE Healthcare at Stand 1 for more details.

## LYON ROOM



### Monday

- 13:00-13:45** Advances on fetal heart examination and fetal cardiac function assessment  
Live demo: new insight on fetal heart assessment and cardiac function analysis  
*J.S. Carvalho (United Kingdom)*

## ROOM III

PHILIPS

**Sunday**

- 10:25-11:00** Gynecology clinical cases quiz *M. Hoopmann (Germany)*
- 12:30-13:30** Contrast in gynecological oncology: study outcomes and clinical cases  
*E. Epstein (Sweden); A.C. Testa (Italy)*
- 15:15-15:45** Application of pelvic floor ultrasound in anterior compartment *X. Zhang (China)*

**Monday**

- 10:15-10:45** Fetal strain: outcomes of a clinical study, followed by live scan session  
*R. Schmitz (Germany)*

- 13:00-14:00** New image modalities in fetal echocardiography: fetal heart navigation, lighting and aCMQ  
*B. Zhao (China)*
- Prediction of biventricular outcome in left heart disease  
*R. Axt-Fliedner (Germany)*

- 15:35-16:00** Clinical application of high-frequency linear probe in the diagnosis of fetuses with congenital anomalies of the kidney and urinary tract  
*N. Shang (China)*

- 17:30-18:00** All you ever wanted to know about the fetal heart: the pediatric cardiologist's view vs the obstetric fetal echo expert's view  
*J. Dangel (Poland); F. Berg (Germany)*

**Tuesday**

- Twins and triplets management: tips and tricks for twins and triplets scan  
*F. Bahlmann (Germany)*

- Innovation in perinatal ultrasound: using advanced technology to improve diagnosis  
*M. Ruma (United States)*

- Prenatal ultrasound diagnosis and different diagnosis of fetal congenital malformation  
*Q. Pei (China)*

- Ultrasound during labour and delivery: how Lumify makes a difference  
*L. Hinkson (Germany)*

**Wednesday**

- Volume imaging: clinical cases quiz, followed by live scan – all you wanted to know about high frequency and volume imaging scans  
*M. Ruma (United States)*

## ROOM IV

SAMSUNG

**Sunday**

- 15:15-15:45** Morphological IOTA categories and the application of IOTA models  
*A.C. Testa (Italy)*

**Monday**

- 10:15-10:45** CHD diagnosis using FINE (fetal intelligent navigation echocardiography)  
*J. Weichert (Germany)*

- 15:35-16:00** Placenta and fetal Doppler with MV-flow™ and LumiFlow™  
*G. Rizzo (Italy)*

**Tuesday**

- Updates in the clinical use of E-Cervix™ elastography  
*H. S. Park (Korea)*

- The value of 3D colour Doppler in the evaluation of fibroids  
*J. Huirne (Netherlands)*

**Wednesday**

- Advances in intrapartum ultrasonography  
*T. Ghi (Italy)*

## Satellite symposia

---

**Sunday**

**12:30-13:30**

**CONVENTION  
HALL IC**

**HERA W10 novel imaging technology**

*A. Weichert (Germany)*

*M. Chavez (United States)*

*G. Rizzo (Italy)*

New technologies in fetal heart assessment

Next generation colour Doppler imaging for patient care

Placenta and fetal Doppler with MV-Flow™ & LumiFlow™

**SAMSUNG**

**Sunday**

**12:30-13:30**

**CONVENTION  
HALL ID**

**Germitec**

*D.J. Weber (United States)*

The need for high-level disinfection of ultrasound probes



**Monday**

**13:00-14:00**

**CONVENTION  
HALL IC**

**Please see GE at booth 1 for more details**

*B. Benoit (France)*

*R. Chaoui (Germany)*

*W. Froyman (Belgium)*



**Tuesday**

**13:00-14:00**

**CONVENTION  
HALL ID**

**Ultrasound and NIPT: synergistic strategies for your practice**

*L. Kunz (United States)*

*K.O. Kagan (Germany)*

*R. Chaoui (Germany)*

Combining ultrasound and cfDNA: the best of both worlds

22q11.2 deletion syndrome: ultrasound features and opportunities for screening using cfDNA



**Wednesday**

**13:00-14:00**

**CONVENTION  
HALL ID**

**Clinical results of the Vanadis® NIPT system: a high-precision and cost-effective cell-free DNA testing platform designed for automated screening**

*J. Jani (Belgium)*

*E. Viora (Italy)*

Non-invasive prenatal testing (NIPT) implementation in Belgium and clinical experience with the Vanadis® NIPT system

The role of a cost-effective NIPT in a prenatal screening program

Added value of fetal fraction measurements in NIPT screening





## Industry acknowledgements

ISUOG gratefully acknowledges the following industry support for the Pre-Congress course:



GE Healthcare

<b>Saturday</b>	<b>08:25-17:00</b>	Fetal anomalies: heart and central nervous system	Room I
	<b>09:00-17:45</b>	Endometriosis: diagnostic challenges and surgical planning	Estrel Hall B

ISUOG gratefully acknowledges the following industry support for our simulation workshops:



<b>Sunday</b>	<b>08:00-13:00</b>	Basic Training simulation workshop	Hall Europa A
---------------	--------------------	------------------------------------	---------------



<b>Tuesday</b>	<b>08:00-12:00</b>	Fetal heart simulation workshop	Hall Europa A
----------------	--------------------	---------------------------------	---------------

ISUOG gratefully acknowledges the following industry support for our live scan sessions:\*



GE Healthcare

<b>Tuesday</b>	<b>08:15</b>	Fetal growth: the bigger picture	Convention Hall II
	<b>16:00</b>	Ultrasound in the labour ward: why and how	Convention Hall II
<b>Wednesday</b>	<b>12:10</b>	Ultrasound in early pregnancy and reproductive medicine	Convention Hall IC



<b>Monday</b>	<b>08:15</b>	Cerebellum and posterior fossa	Convention Hall II
	<b>14:15</b>	Fetal anomalies: head and spine	Convention Hall II
<b>Wednesday</b>	<b>14:15</b>	Abnormally invasive placenta	Convention Hall IC



<b>Wednesday</b>	<b>08:15</b>	Improvements in the diagnosis of congenital heart defects	Convention Hall IC
------------------	--------------	---	--------------------



<b>Monday</b>	<b>16:00</b>	Abnormalities of situs and the venous system	Convention Hall II
	<b>Tuesday</b>	<b>14:15</b>	Fetal anomalies in the second trimester

ISUOG gratefully acknowledges the following industry support for the following Hub:



<b>Tuesday</b>	<b>16:25</b>	<b>Interactive</b> Techniques for avoiding musculoskeletal and back injuries whilst scanning: ergonomics for sonologists and sonographers	Foyer 3 Hub I
----------------	--------------	---	---------------

## ISUOG Trustees and Committee meetings

Date	Start	End	Meeting	Room
<b>Saturday</b>	09:00	10:00	VISUOG Task Force	Estrel C1
	11:00	12:00	WFUMB Focus Group	Estrel C1
	11:00	12:00	Clinical Standards Committee	Estrel C5
	12:00	13:00	Honours Committee	Estrel C5
	13:45	14:45	Validation Task Force	Estrel C1
	16:00	17:00	Nominations Committee	Estrel C1
	16:00	17:00	MUSA meeting	Estrel C5
	17:45	18:45	IDEA meeting	Estrel C5
<b>Sunday</b>	08:30	09:30	Patient Information Task Force	Estrel C1
	09:50	10:25	AGM ( <i>ISUOG achievements 2018</i> )	Convention Hall II
	10:30	11:45	Online Education Content Task Force	Estrel C1
	10:30	12:30	Journal Editors	Estrel C5
	12:15	13:45	Advisory Members' lunch	Hall Europa B
	13:30	15:00	Basic Training Task Force	Estrel C1
	<b>Monday</b>	08:15	09:15	Fetal Heart Special Interest Group
08:30		09:30	CME Task Force	Estrel C1
08:45		09:45	Chinese Task Force Working Group	Estrel C5
09:30		10:45	Courses Task Force	Estrel C1
11:00		12:00	Gold Medal Awards Committee	Estrel C1
12:15		13:35	Outreach Committee	Estrel C1
12:45		14:15	Editorial Board	Estrel C5
16:00		17:00	Safety Committee	Estrel C5
16:00		17:30	Education Committee	Estrel C1
17:30		18:30	Open Access Strategy meeting	Estrel C5
17:30		19:30	IOTA meeting	Hall Europa B
<b>Tuesday</b>	08:15	09:15	Doppler Special Interest Group	Estrel C5
	08:45	11:00	Bids Committee	Estrel C1
	13:00	14:15	Young Investigators' lunch	Hall Europa B
	14:15	15:15	3D Special Interest Group	Estrel C5
	14:40	15:10	Glasgow Local Organising Committee	Estrel C1
	15:15	16:45	Scientific Committee	Estrel C1
	15:30	16:45	Basic Training and Outreach meeting	Estrel C5
	17:00	18:30	IETA meeting	Hall Europa B
	<b>Wednesday</b>	08:00	09:00	Future engagement roundtable
08:15		10:15	ISUOG Trustees (meeting II)	Estrel C1
11:45		12:45	Exhibitors' closing meeting	Estrel C1
11:45		12:45	Fetal MRI Special Interest Group	Estrel C5
12:45		14:15	Ambassadors' lunch	Estrel C5





# 30<sup>th</sup> World Congress on Ultrasound in Obstetrics and Gynecology

17-21 October 2020, Glasgow, UK

*Celebrating 30 years*

Join us in Glasgow at the leading event in  
obstetric and gynecological ultrasound.

## Critical dates 2020

<b>January</b>	Registration opens*
<b>1 April</b>	Abstract submission and presenter registration deadline
<b>17 August</b>	Early bird registration deadline
<b>17 October</b>	Pre-Congress courses and Basic Training
<b>18 October</b>	Congress opens

**Travel Grants available for abstract submitters**

[congress@isuog.org](mailto:congress@isuog.org) | +44 (0)20 7471 9955

\* Discounts apply to ISUOG members, trainees and sonographers

Organised by the International Society of Ultrasound in Obstetrics and Gynecology.

Visit [isuog.org/events/world-congress-2020.html](https://isuog.org/events/world-congress-2020.html) for full details

#ISUOG2020    

 **isuog**.org

ISUOG would like to thank the following industry partners for their support of the 29<sup>th</sup> World Congress:

Diamond



Platinum



Bronze



**ISUOG**

122 Freston Road, London W10 6TR, UK  
+44 (0)20 7471 9955 | [congress@isuog.org](mailto:congress@isuog.org)

