

# 16<sup>TH</sup> WORLD CONGRESS IN FETAL MEDICINE

25-29 June 2017

Ljubljana, Slovenia

## Sunday 25<sup>th</sup> June 2017: Joint session with Eurofoetus

<b>08:00 - 09:00</b>	<b>Registration</b>	
09:00 - 09:10	Welcome	Kypros Nicolaides (UK)
<b>09:10 - 11:00</b>	<b>Lung abnormalities</b>	
	Discussants: Jan Deprest (Belgium), Greg Ryan (Canada)	
09:10 - 09:25	CDH: natural history	Greg Ryan (Canada)
09:25 - 09:32	CDH: stomach in contact with the bladder	Cesar Meller (Argentina)
09:32 - 09:39	CDH: prenatal prediction of outcome by LHR in the USA	Anthony Johnson (USA)
09:39 - 09:46	CDH: prenatal prediction of pulmonary hypertension	Francesca Russo (Belgium)
09:46 - 09:53	CDH: prenatal prediction of morbidity in first 8 years of life	Patrice Eastwood (Belgium)
09:53 - 10:03	CDH: TOTAL trial	Jan Deprest (Belgium)
10:03 - 10:10	CDH: prenatal removal of the balloon after FETO	Jan Deprest (Belgium)
10:10 - 10:17	CDH: trans-placental sildenafil as an adjunct to FETO	Francesca Russo (Belgium)
10:17 - 10:24	CDH: Extracellular vesicles in the tracheal fluid after FETO	Nicola Persico (Italy)
10:24 - 10:34	Bronchopulmonary sequestration: intrafetal laser	Rogelio Cruz- Martínez (Mexico)
10:34 - 10:41	Bronchopulmonary sequestration: intrafetal laser	Brigitte Strizek (Germany)
10:41 - 10:48	Use of new intrauterine shunt	Lone Nikoline Nørgaard (Denmark)
10:48 - 11:00	Discussion	
<b>11:00 - 11:30</b>	<b>Coffee break</b>	
<b>11:30 - 12:20</b>	<b>Brain abnormalities</b>	
	Discussant: Yves Ville (France), Elisenda Eixarch (Spain)	
11:30 - 11:45	Ventriculomegaly: natural history	DominicThompson (UK)
11:45 - 12:00	Ventriculomegaly: prenatal diagnosis and management	Elisenda Eixarch (Spain)
12:00 - 12:10	Ventriculomegaly: prenatal assessment and outcome	Eldad Katorza (Israel)
12:10 - 12:17	Ventriculomegaly: <i>in utero</i> ventriculostomy	Yves Ville (France)
12:17 - 12:24	Mnemonic aid in assessment of anterior complex	Angela Ranzini (USA)
12:24 - 12:40	Special findings in neurosonography	Ritsuko Pooh (Japan)
<b>12:40 - 13:00</b>	<b>Special lecture: the artificial placenta</b>	Alan Flake (USA)
<b>13:00 - 14:30</b>	<b>Lunch break</b>	
<b>14:30 - 16:15</b>	<b>Open spina bifida (OSB)</b>	
	Discussants: Jan Deprest (Belgium), Dominic Thompson (UK)	
14:30 - 14:45	OSB: neurosurgical goals of spina bifida repair	Dominic Thompson (UK)
14:45 - 14:53	OSB: need for leak-proof repair	Luc Joyeux (Belgium)
14:53 - 15:00	OSB: Swiss experience with open fetal surgery	Martin Meuli (Switzerland)
15:00 - 15:07	OSB: prenatal prediction of postnatal shunting after fetal surgery	Ladina Vonzun (Switzerland)
15:07 - 15:17	OSB: long term outcome after open fetal surgery	Alan Flake (USA)
15:17 - 15:27	OSB: perinatal and motor outcome after fetoscopic surgery	Denise Pedreira (Brazil)
15:27 - 15:37	OSB: outcome after fetoscopic surgery	Michael Belfort (USA)
15:37 - 15:43	OSB: cerebellar Doppler velocimetry in fetal rats	Enrique Gil Guevara (USA)
15:43 - 16:00	OSB: distinction from limited dorsal myeloschisis	Jean-Marie Jouannic (France)
16:00 - 16:07	OSB: Ultrasound based 3D model printing for training purposes	Ahmet Baschat (USA)
16:07 - 16:15	Discussion	
<b>16:15 - 17:00</b>	<b>Fetal anemia</b>	
	Discussant: Kypros Nicolaides (UK)	
16:15 - 16:19	Background to treatment	Kypros Nicolaides (UK)
16:19 - 16:29	Postponing early fetal transfusion with IVIG	Carolien Zwiers (Netherlands)
16:29 - 16:36	MRI of umbilical vein in prediction of fetal anemia	Dirte Jørgensen (Denmark)
16:36 - 16:43	Timing for sequential intrauterine transfusion	Jesus Rodriguez Calvo (Spain)
16:43 - 17:00	Discussion	
<b>17:00 - 18:00</b>	<b>Coffee break</b>	

**18:00 - 20:00 Fetal growth restriction**  
Discussants: Gerry Visser (Netherlands), Zarko Alfirevic (UK)

18:00 - 18:10	Fetal growth charts: WHO
18:10 - 18:20	Fetal growth charts: which ones to use
18:20 - 18:35	Assessment of fetal growth by MRI
18:35 - 18:45	FGR: cause of disease in adulthood
18:45 - 18:52	FGR: relation to renal dysfunction in adulthood
18:52 - 19:00	FGR: volumetric MRI of fetal brain
19:00 - 19:07	FGR: screening by 1st trimester growth
19:07 - 19:14	Early FGR: effect of pravastatin on fetal and uterine Doppler
19:14 - 19:30	Early FGR: RCT on sildenafil therapy
19:30 - 19:45	Early FGR: management
19:40 - 20:00	Discussion

Kurt Hecher (Germany)  
Gerry Visser (Netherlands)  
Jacques Jani (Belgium)  
Gerry Visser (Netherlands)  
Janaina Senra (Brazil)  
Eldad Katorza (Israel)  
Mauro Parra-Cordero (Chile)  
Stamatios Petousis (Greece)  
Zarko Alfirevic (UK)  
Ahmet Baschat (USA)

**21:00 - 01:00 Welcome party**

**Monday 26<sup>th</sup> June 2017: Joint session with Eurofoetus**

**09:00 - 09:40 Placental abnormalities**  
Discussants: Jan Deprest (Belgium), Michael Belfort (USA)

09:00 - 09:10	Placenta accreta: screening by ultrasound at 11-13 weeks
09:10 - 09:25	Placenta accreta: medical and surgical treatment
09:25 - 09:40	Vasa previa

Jeni Panaiotova (UK)  
Michael Belfort (USA)  
George Attilakos (UK)

**09:40 - 13:00 Complications in twins**  
Discussants: Yves Ville (France), Liesbeth Lewi (Belgium)

09:40 - 09:55	Video demonstration: training for fetoscopic laser surgery
09:55 - 10:10	Video demonstration: placental perfusion studies
10:10 - 10:17	TTTS: prediction from site of placental cord insertion
10:17 - 10:24	MC twins: significance of placental cord insertion
10:24 - 10:31	TAPS: quantification of discordant placental echogenicity
10:31 - 10:41	TAPS: management
10:41 - 10:48	sFGR: definition and outcome
10:48 - 10:55	sFGR: placental microRNA 199a
10:55 - 11:00	Discussion

Roland Devlieger (Belgium)  
Liesbeth Lewi (Belgium)  
Nada Mourad Tawfic (Belgium)  
Asma Khalil (UK)  
Christian Bamberg (Germany)  
Yves Ville (France)  
Asma Khalil (UK)  
Tak Yeung Leung (Hong Kong)

**11:00 - 11:30 Coffee break**

11:30 - 11:37	ROM after fetoscopy: predictors
11:37 - 11:44	ROM after fetoscopy at <26 w: predictors of outcome
11:44 - 11:51	DC twins: outcome after PROM in one sac at <20 w
11:51 - 11:58	Short cervix at laser therapy: cerclage
11:58 - 12:05	Short cervix at laser therapy: pessary
12:05 - 12:12	Selective fetocide in MC twins: radiofrequency
12:12 - 12:19	Selective fetocide in MC twins: bipolar coagulation
12:19 - 12:26	Embryo reduction in MC triplets: intrafetal laser
12:26 - 12:33	MC twins: MCA PSV in survivor after selective cord occlusion
12:33 - 12:45	Discussion

Yves Ville (France)  
Alexander Engels (Belgium)  
Shlomo Lipitz (Israel)  
Anthony Johnson (USA)  
Elena Carreras (Spain)  
Greg Ryan (Canada)  
Kurt Hecher (Germany)  
Petya Chaveeva (Bulgaria)  
Katrine Vasehus Schou (Denmark)

**12:45 - 13:00 Special lecture: long term outcome in complicated MC twins** Enrico Lopriore (Netherlands)

**13:00 - 14:30 Lunch break**

**14:30 - 15:00 Lower urinary tract obstruction**  
Discussants: Jan Deprest (Belgium), Greg Ryan (Canada)

14:30 - 14:45	Fetal surgery
14:45 - 14:52	Fetal cystoscopy
14:52 - 14:59	Urethroplasty with a coronary angioplasty balloon catheter

Greg Ryan (Canada)  
Yves Ville (France)  
Marzena Debska (Poland)

## 15:00 - 17:00 Screening and diagnosis of chromosomal abnormalities

Discussants: Kypros Nicolaides (UK), Mark Evans (USA)

15:00 - 15:10	Introduction	Kypros Nicolaides (UK)
15:10 - 15:20	Invasive testing for all pregnancies	Mark Evans (USA)
15:20 - 15:27	cfDNA: meta-analysis on performance of screening	Mar Gil (Spain)
	cfDNA: test failure	
15:27 - 15:34	importance of measuring fetal fraction	Maximilian Schmid (Austria)
15:34 - 15:41	implication of failed result due to low fetal fraction	Peter Benn (USA)
15:41 - 15:51	accounting for and reducing test failures	Howard Cuckle (Israel)
15:51 - 16:00	Discussion	
16:00 - 16:07	RCT: 1 <sup>st</sup> trimester combined test vs. ultrasound and cfDNA	Oliver Kagan (Germany)
16:07 - 16:14	cfDNA: screening strategies	Francesca Grati (Italy)
16:14 - 16:21	cfDNA: effect on detected major chromosomal aberrations	Pavel Calda (Czechia)
	cfDNA: screening beyond trisomies 21, 18, 13	
16:21 - 16:28	sex chromosome aneuploidies	Francesca Grati (Italy)
16:28 - 16:35	rare autosomal trisomies	Peter Benn (USA)
16:35 - 16:42	diagnosis of spinal muscular atrophy	Min Chen (China)
16:42 - 17:00	Discussion	

## 17:00 - 18:00 Coffee break

## 18:00 - 18:10 Special lecture: fetal cells in maternal blood

Mark Evans (USA)

## 18:10 - 20:00 Clinical genetics and fetal medicine

Discussants: Tessa Homfray (UK), Rabih Chaoui (Germany)

18:10 - 18:20	Introduction	Tessa Homfray (UK)
18:20 - 18:27	Whole genome sequencing: detection of pathogenic CNVs	Richard Choy (Hong Kong)
18:27 - 18:34	Whole exome sequencing: fetal brain defects	Liran Hirsch (Israel)
18:34 - 18:41	Whole exome sequencing: fetal akinesia syndrome	Theresa Reischer (Austria)
18:41 - 19:10	Presentation of cases	Tessa Homfray (UK)
18:10 - 19:20	Guidance from an anomaly to a syndrome by GPS	Julien Stirnemann (France)
19:20 - 20:00	Ultrasound diagnosis of genetic syndromes	Rabih Chaoui (Germany)

## Tuesday 27<sup>th</sup> June 2017

## 09:00 - 11:00 Prediction and prevention of preterm birth

Discussants: Robert Romero (USA), Zarko Alfirevic (UK)

09:00 - 09:06	Spontaneous preterm birth in IVF pregnancies: meta-analysis	Paolo Cavoretto (Italy)
09:06 - 09:12	Relation between vaginal microbiome and amniotic fluid 'sludge'	Alan Hatanaka (Brazil)
09:12 - 09:18	Need for amniocentesis prior to cerclage	Jiri Vojtech (Czechia)
09:18 - 09:24	Usefulness of antenatal corticosteroids	Gerry Visser (Netherlands)
09:24 - 09:30	Preterm labor arrest: meta-analysis of maintenance tocolysis	Alexandros Sotiriadis (Greece)
09:30 - 09:40	Discussion	
09:40 - 09:46	PPROM at <24w: expectant management	Oliver Kagan (Germany)
09:46 - 09:52	PPROM at 16-24w: PPRMEXIL-III trial on amnioinfusion	Annemijn de Ruigh (Netherlands)
09:52 - 09:58	PPROM at 34-36w: IPD meta-analysis of delivery vs. expectant management	Annemijn de Ruigh (Netherlands)
09:58 - 10:08	PPROM: discussion	
10:08 - 10:15	Cervix $\leq 15$ mm: observational study of cerclage vs. vaginal progesterone	Athena Souka (Greece)
10:15 - 10:25	Cervix $\leq 25$ mm: PESAPRO trial of cervical pessary vs. vaginal progesterone	Sara Cruz-Melguizo (Spain)
10:25 - 10:45	Cervix $\leq 25$ mm: IPD meta-analysis of vaginal progesterone in singletons & twins	Roberto Romero (USA)
10:45 - 11:00	Discussion	

## 11:00 - 11:30 Coffee break

## 11:30 - 13:00 Congenital heart defects

Discussants: Vita Zidere (UK), Marietta Charakida (UK)

11:30 - 11:50	Tetralogy of Fallot	Vita Zidere (UK)
11:50 - 12:10	Coarctation of the aorta	Marietta Charakida (UK)
12:10 - 12:50	CHD: discussion of cases	Zidere, Charakida, Chaoui
12:50 - 13:00	Anomalies of aortic arch - fetal US and postnatal MRI/CT	Reuven Achiron (Israel)

## 13:00 - 14:30 Lunch break

14:30 - 14:37	CHD: absent pulmonary valve syndrome	Roland Axt-Fliedner (Germany)
14:37 - 14:44	CHD: pulmonary atresia - prediction of outcome	Jesus Rodriguez Calvo (Spain)
14:44 - 14:51	CHD: X and V signs in 1st trimester screening	Anitha Shettikeri (India)
14:51 - 14:58	CHD: cardiac axis and V sign angle in 1st trimester screening	Mingming Zheng (China)
14:58 - 15:05	CHD: 1st trimester screening by simplified examination	Carmela Votino (Italy)
15:05 - 15:12	CHD: incidence in IVF/ICSI pregnancy	Paolo Cavoretto (Italy)
15:12 - 15:22	CHD: head growth and Doppler	Roland Axt-Fliedner (Germany)
15:22 - 15:29	CHD: fetal growth and placental perfusion	Paolo Cavoretto (Italy)
15:29 - 15:36	CHD: placental epigenetic biomarkers of isolated VSD	Ray Bahado-Singh (USA)
15:36 - 15:43	CHD: submicroscopic chromosomal aberrations	Zhu Zhang (China)
15:43 - 16:00	CHD: technical aspects of fetal cardiac interventions	Marzena Debska (Poland)
16:00 - 16:07	Fetoscopic transesophageal atrial placing in tachyarrhythmia	Julien Stirnemann (France)
16:07 - 16:20	CHD: discussion	

**16:20 - 16:30 Special lecture: fetal bowel dilation**

Reuven Achiron (Israel)

**16:30 - 17:30 Coffee break**

**17:30 - 19:00 First trimester scan**

Discussants: Katia Bilardo (Netherlands), Rabih Chaoui (Germany)

17:30 - 17:37	11-13 w scan: hypoplasia / aplasia of the vermis	Reinhard Altmann (Austria)
17:37 - 17:44	11-13 w scan: maxillary gap and facial cleft	Robert Lachmann (Germany)
17:44 - 18:05	11-13 w scan: discussion of cases	Oliver Kagan (Germany)
18:05 - 18:20	Role of ultrasound in the era of cfDNA testing	Katia Bilardo (Netherlands)
18:20 - 19:00	1 <sup>st</sup> trimester ultrasound diagnosis of fetal defects	Rabih Chaoui (Germany)

**21:00 - 02:00 Dinner party**

**Wednesday 28<sup>th</sup> June 2017**

**10:00 - 20:00 Prediction and prevention of preeclampsia**

Discussants: John Hyett (Australia), Ahmet Baschat (USA)  
Gerry Visser (Netherlands), Kypros Nicolaidis (UK)

10:00 - 10:07	1 <sup>st</sup> trimester: prediction of PE by the combined test	Neil O'Gorman (France)
10:07 - 10:14	1 <sup>st</sup> trimester: prediction of PE by the combined test	Jiri Sonek (USA)
10:14 - 10:21	1 <sup>st</sup> trimester: prediction of PE/FGR/IUD by the combined test	Emmanuel Bujold (Canada)
10:21 - 10:28	1 <sup>st</sup> trimester: prediction of PE/FGR/IUD by serum AFP	Ebru Celik (Turkey)
10:28 - 10:35	1 <sup>st</sup> trimester: quality assessment of uterine artery Doppler	Daniel Rolnik (Australia)
10:35 - 10:45	1 <sup>st</sup> trimester: new technique for uterine artery Doppler	Olivier Drouin (Canada) / Liona Poon (HK)
10:45 - 10:52	1 <sup>st</sup> trimester: prediction of PE in twins	Zsofia Benko (UK)
10:52 - 11:00	Discussion	

**11:00 - 11:30 Coffee break**

11:30 - 11:40	1 <sup>st</sup> and 3 <sup>rd</sup> trimester: prediction of PE by proteomics and metabolomics	Ray Bahado-Singh (USA)
11:40 - 11:47	1 <sup>st</sup> and 3 <sup>rd</sup> trimester: prediction of PE by serum GDF15 and HtrA3	Fabricio Costa (Australia)
11:47 - 11:54	2 <sup>nd</sup> trimester: prediction of PE by NICE, ACOG, FMF	Fabricio Costa (Australia)
11:54 - 12:01	2 <sup>nd</sup> trimester: stratification of care based on prediction of PE	Magdalena Litwinska (UK)
12:01 - 12:11	3 <sup>rd</sup> trimester: prediction and diagnosis of PE by sFLT-1 to PLGF ratio	Stefan Verlohren (Germany)
12:11 - 12:18	3 <sup>rd</sup> trimester: prediction of PE by serum MR-proANP	Cahit Birdir (Germany)
12:18 - 12:30	Pregnancy hypertension: maternal cardiac function	Basky Thilaganathan (UK)
12:30 - 12:38	Pregnancy hypertension: angiogenic and cardiovascular markers	Stefan Verlohren (Germany)
12:38 - 12:45	Diagnosis of PE: value of urine PCR	Eran Ashwal (Israel)
12:45 - 12:52	Diagnosis of PE: effect of race on urine PCR	Nikos Kametas (UK)
12:52 - 13:00	Diagnosis of PE: need for validated blood pressure monitor	Diane Nzelu (UK)

**13:00 - 14:30 Lunch break**

14:30 - 14:37 Implications of previous gestational hypertension  
14:37 - 14:44 Implications of maternal obesity  
14:44 - 14:51 Implications of chronic hypertension  
14:51 - 15:00 Discussion  
15:00 - 15:15 ASPRE trial: prevention of preterm PE  
15:15 - 15:25 ASPRE trial: effect on term PE  
15:25 - 15:40 ASPRE trial: implications  
15:40 - 15:50 Prevention of PE: going beyond aspirin  
15:50 - 16:00 Prevention of PE: omeprazole  
16:00 - 16:10 The Hawthorne effect  
16:10 - 16:25 Discussion

Dan Biris (UK)  
Argyro Syngelaki (UK)  
Anca Panaitescu (UK)

Liona Poon (UK)  
David Wright (UK)  
Kypros Nicolaides (UK)  
Ahmet Baschat (USA)  
John Hyett (Australia)  
Gerry Visser (Netherlands)

**16:25 - 16:40 Special lecture: Early screening tests – effect on healthcare costs**

Carl Weiner (USA)

**16:40 - 16:55 Special lecture: Intrapartum mortality and severe asphyxia**

Zarko Alfircic (UK)

## Thursday 29<sup>th</sup> June 2017

### 09:00 - 11:00 Maternal fetal disease

Discussants: Yves Ville (France), Gerry Visser (Netherlands)

09:00 - 09:07 CMV infection: role of HIG therapy  
09:07 - 09:14 CMV infection: role of antiretrovirals  
09:14 - 09:21 CMV infection: role of MRI  
09:21 - 09:28 Zika virus: exposure and consequences  
09:28 - 09:35 Zika virus: ultrasound abnormalities in affected fetuses  
09:35 - 09:42 Appendicitis: role of emergency MRI  
09:42 - 09:49 Bariatric surgery: effect on insulin resistance  
09:49 - 09:56 GDM: late preterm birth and neonatal morbidity  
09:56 - 10:10 Updates on diabetes mellitus and pregnancy  
10:10 - 10:30 Maternal autoantibodies and fetal defects  
10:30 - 11:00 Cases of maternal-fetal medicine

Oliver Kagan (Germany)  
Yves Ville (France)  
Shlomo Lipitz (Israel)  
Carlota Rodo (Spain)  
Carol Gisela Rueda (Colombia)  
Eldad Katorza (Israel)  
Tanya Maric (UK)  
Katja Bricelj (Slovenia)  
Gerry Visser (Netherlands)  
Anca Panaitescu (Romania)  
Surabhi Nanda (UK)

### 11:00 - 11:30 Coffee break

### 11:30 - 13:00 Labor and delivery

Discussants: Gerry Visser (Netherlands), Yves Ville (France)

11:30 - 11:37 Prediction of adverse outcome at 20 weeks  
11:37 - 11:47 Prediction of SGA with adverse outcome  
11:47 - 12:00 Cerebro-placental ratio: prediction of fetal distress in labor  
12:00 - 12:15 Fetal head size and labor outcome  
12:15 - 12:30 Re-engineering the interpretation of fetal monitoring  
12:30 - 12:37 Sonographic prediction of successful induction of labor  
12:37 - 12:44 Sonographic assessment of progression angle  
12:44 - 12:51 Intrapartum sonographic monitoring of progress of labor  
12:51 - 13:00 Discussion

George Papaioannou (Greece)  
Asma Khalil (UK)  
Ranjit Akolekar (UK)  
Simcha Yagel (Israel)  
Mark Evans (USA)  
Magdalena Fiolna (UK)  
Francesco Conversano (Italy)  
Alex Frick (UK)

### 13:00 - 14:30 Lunch break

### 15:00 - 19:00 Trip to Bled