

2004 IFMSS Meeting – Charleston, South Carolina

Monday, March 15, 2004

SESSION I: DIAPHRAGMATIC HERNIA (8:00 – 10:00 AM)

Moderators: Michael Harrision and Umberto Nicolini

8:00 – 8:10 AM (#1)

Sonic hedgehog signaling in the formation of congenital diaphragmatic hernia and pulmonary hypoplasia

Wei Cheng, Erica Nieuwenhuis, Rong Mo, Chi-chung Hui, Peter CW Kim
Department of Surgery, Program in Developmental Biology, Division of General Surgery,
University of Toronto, Toronto, Canada

8:10 – 8:20 AM (#2)

Long-term analysis of congenital diaphragmatic hernia patients treated with prenatal and postnatal interventions

*Raul A Cortes, Roberta Keller, Tiffany Townsend, Michael Harrison, Hanmin Lee, Diana Farmer, Robert Piecuch, Carol Leonard, Maria Heatherton, Robert Ball, Kerilyn Nobuhara
Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA

8:20 – 8:30 AM (#3)

Update on percutaneous fetoscopic endotracheal occlusion for severe congenital diaphragmatic hernia - An European multicenter trial

Jan Deprest, Eduardo Gratacos, Hilde Vandecruys, Jacques Jani, Salvador Salcedo, Anna Greenough, Michael Davenport, Toni Lerut, Vincenc Martinez-Ibanez, Alexandra Benachi, Yves Ville, Dominique Van Schoubroeck, Hugo Devlieger, Kypros Nicolaides
Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Vall d'Hebron, Barcelona, Spain; and Kings College Hospital, London, United Kingdom

8:30 – 8:40 AM (#4)

Predictors of survival for congenital diaphragmatic hernia: comparison of lung-head ratio (LHR) to the congenital diaphragmatic hernia study group equation

*Tiffany Townsend, Raul A Cortes, Diana Farmer, Roberta Keller, Michael Harrison, Hanmin Lee, Kerilyn Nobuhara
Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA

8:40 – 8:50 AM (#5)

Comparison of pre-term to term infants with congenital diaphragmatic hernia: neonatal support, early outcomes, and recurrence

*Tiffany Townsend, Raul A Cortes, Kerilyn Nobuhara, Karen Skjei, Roberta Keller, Michael Harrison, Diana Farmer, Hanmin Lee
Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA

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8:50 – 9:00 AM (#6)

EXIT with trial of ventilation for high risk congenital diaphragmatic hernia

Russell Jennings, L Nemes, Louise Wilkins-Haug, Linda Bulich, Ian Grable, Nancy Craig, Jay Wilson

Advanced Fetal Care Center, Children's Hospital Boston; Departments of Radiology, Surgery and Plastic Surgery, Beth Israel Deaconess Medical Center; Department of Radiology; Boston, Massachusetts, USA

9:00 – 9:10 AM (#7)

Albumin-based hyperoncotic enhancement of pulmonary growth after fetal tracheal occlusion

Shaun M Kunisaki, Steven Andreoli, Robert Chang, Russell Jennings, Dario Fauza

Advanced Fetal Care Center, Children's Hospital Boston, Boston, Massachusetts, USA

9:10 – 9:20 AM (#8)

Injectable polymerizing hydrogel as a stand alone method of fetal tracheal occlusion

Robert Chang, Steven Andreoli, Dario Fauza, Jay Wilson

Advanced Fetal Care Center, Children's Hospital Boston, Boston, Massachusetts, USA

9:20 – 9:30 AM (#9)

Pulmonary surfactant protein expression (mRNA and protein), and alveolar epithelial type-2 density are increased in fetal sheep with severe diaphragmatic hernia

Marcus G Davey, Jean-Marc Biard, Uwe Schwarz, Enrico Danzer, Lauren Robinson, N Scott Adzick, Alan W Flake, Holly Hedrick

Children's Institute for Surgical Science, Division of Pediatric General, Thoracic, and Fetal Surgery, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

9:30 – 9:40 AM (#10)

Congenital diaphragmatic hernia: the next step

Michael Harrison, Diana Farmer, Hanmin Lee, Kerilyn Nobuhara, Raul A Cortes, Tiffany Townsend

Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA

9:40 – 9:50 AM (#11)

Late tracheal occlusion reverses peripheric muscularization of pulmonary vessels in a rabbit model of diaphragmatic hernia

Xenia Roubliova, Jan Deprest, L Lewi, Jun Wu, Pascal Vaast, Erik Verbeken

Centre Surgical Technologies, Faculty of Medicine, Leuven, Belgium; Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals, Vall d'Hebron, Barcelona, Spain and Kings College Hospital, London, United Kingdom

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9:50 – 10:00 AM (#12)

Comparing fetal lung volume estimation by three-dimensional ultrasonography to the real post-mortem measurements

Rodrigo Ruano, Jelena Martinovic, Alexandra Benachi, Laurence Joubin, Marie-Cecile Aubry, Jean-Christophe Thalabard, Yves Dumez, Marc Dommergues
Maternite Hopital Necker-Enfants Malades rue de Sevres, Paris Cedex, France, Service de Foetopathologie, Unite de Recherche Clinique, Paris, France

10:00 – 10:30 AM

Group Photo/Coffee break

Monday, March 15, 2004

SESSION II: GI/ABDOMEN/MEMBRANES (10:30 – 12:00 AM)

Moderators: Jan Deprest and Anthony Johnson

10:30 – 10:40 AM (#13)

New surgical strategy in gastroschisis: treatment simplification according to its physiopathology

JL Peiro, S Guindos, J Lloret, C Marhuenda, N Toran, F Castillo, E Gratacos, E Carreras, Vincenc Martinez-Ibanez

Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Kings College Hospital, London, United Kingdom; Fetal Surgery Program. Neonatal Surgery Unit, Pediatric Surgery Department, Hospital Vall d'Hebron. Barcelona, Spain

10:40 – 10:50 AM (#14)

Serial amnioexchange in the treatment of fetal gastroschisis

Joseph Bruner, Mary Dabrowiak

Department of Obstetrics and Gynecology, Vanderbilt University Medical Center, Nashville, Tennessee, USA

10:50 – 11:00 AM (#15)

The fate of prenatally diagnosed unknown abdominal cysts

L Wall, EA Fialkowski, L Chen, S. McLean, D Gray, GB Mychaliska

Department of Obstetrics and Gynecology, Division of Pediatric Surgery, St. Louis Children's Hospital and Washington University School of Medicine, St. Louis, Missouri, USA

11:00 – 11:10 AM (#16)

Neonatal ovarian malignancy: Lessons learned

*Nikki Allmendinger, Russell Jennings, Edmund Yang

Department of Surgery, Children's Hospital Boston, Boston, Massachusetts, USA; Department of Surgery, Vanderbilt University, Nashville, Tennessee, USA

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11:10 – 11:20 AM (#17)

A porcine model for prevention of preterm membrane separation in fetal surgery

Raul A Cortes, Tiffany Townsend, Hanmin Lee, Diana Farmer, Kerilyn Nobuhara, Michael Harrison

Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA

11:20 – 11:30 AM (#18)

Human amnion cells in three -dimensional collagen I and fibrin matrices

*Grozdana Bilic, H Hall, P Schar-Zammaretti, N Ochsenbein-Koelble, R Huch, R Zimmerman
Department of Obstetrics, University Hospital; Institute for Biomedical Engineering, ETH and University of Zurich, Moussonstr, Zurich, Switzerland

11:30 – 11:40 AM (#19)

Amniocytes engineering: A new perspective in fetal membrane healing after intrauterine surgery?

Nikolaos A Papadopoulos, Susanne Klotz, Andreas Raith, Matthias Foehn, Ulrike Schillinger, Julia Henke, Raymund E Horch, Edgar Biemer

Department of Plastic and Hand Surgery, Albert-Ludwigs-University of Freiburg; Department of Plastic and Hand Surgery, Friedrich-Alexander-University of Erlangen-Nuernberg; Department of Plastic and Reconstructive Surgery, Technical University of Munich; Institute of Experimental Oncology and Therapy Research, Technical University of Munich, Germany

11:40 – 11:50 AM (#20)

The closure of iatrogenic membrane defects after amniocentesis and endoscopic intrauterine procedures

Bruce K Young, Ashley S Roman, Andrew P Mackenzie, Courtney D Stephenson, Victoria Minor, A Rebarber, Ilan Timor-Tritsch

Fetal Therapy Program, Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, New York University School of Medicine and Medical Center, New York, New York, USA

11:50 – 12:00 PM (#21)

Elastic properties of pre-term and term amnion membranes

*J J Benson-Martin, P S Zammaretti, Grozdana Bilic, C B Portmann-Lanz, T Schweizer, R Zimmermann, N Ochsenbein-Kolble

Department of Obstetrics, University Hospital; Institute for Biomedical Engineering, ETH and University of Zurich, Moussonstr; Institute of Polymers, Polymer Technology, Unit of Perinatal Physiology, Department of Obstetrics, Frauenklinikstr, Zurich, Switzerland

12:00 – 1:00 PM

Lunch

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SESSION III: OUTCOME/IMAGING/OTHER DISEASES (1:00 – 3:00 PM)

Moderators: Connie Jorgensen and Ross Welch

1:00 – 1:10 PM (#22)

Maternal morbidity after fetal surgery

Kirsten Golombeck, Robert H Ball, Volker R. Jacobs, Hanmin Lee, Jody A Farrell, Diana Farmer, Mark A Rosen, Roy A Filly, Michael Harrison

Department of Obstetrics and Gynecology, Frauenklinik, Christian-Albrechts-university, Kiel, Germany; Department of Radiology Department of Surgery, Division of Pediatric Surgery, The Fetal Treatment Center, University of California, San Francisco, California, USA

1:10 – 1:20 PM (#23)

Maternal reproductive outcomes in subsequent pregnancies following open fetal therapy

Doug Wilson, MP Johnson, Alan W Flake, HL Hedrick, T M Cromblehome, N Scott Adzick
Division of Pediatric General, Thoracic, and Fetal Surgery, The Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

1:20 – 1:30 PM (#24)

Fertility and later pregnancy outcome after fetoscopic surgery

L Lewi, Griet Vandenberghe, Jan Deprest

Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Vall d'Hebron, Barcelona, Spain; and Kings College Hospital, London, United Kingdom

1:30 – 1:40 PM (#25)

The impact of hemodynamic monitoring on the conduct of open fetal surgery

S G Keswani, T M Cromblehome, J Rychik, Tippi C MacKenzie, MP Johnson, RD Wilson, Alan W Flake, HL Hedrick, LJ Howell, N Scott Adzick

Division of Pediatric General, Thoracic, and Fetal Surgery, The Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

1:40 – 1:50 PM (#26)

Accuracy of magnetic resonance imaging in measuring fetal lung lungs and organs

J Janil, L Breysem, F Maes, X Roublioval, M Tchirikov, K Hecher, Jean-Marc Biard, G Marchal, Jan Deprest

Center Surgical Technologies, Faculty of Medicine, Leuven, Belgium; Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA; Department of Obstetrics and Gynaecology, Uniklinik Eppendorf Hamburg, Germany; Department of Radiology, University Hospital Gasthuisberg Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Vall d'Hebron, Barcelona, Spain; and Kings College Hospital, London, United Kingdom.

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1:50 – 2:00 PM (#27)

Safety of magnetic resonance for the human fetus during the third trimester of pregnancy

RD Kok, a De Vries, A Heerschap, P P van den berg

Department of Obstetrics and Gynecology, Department of Radiology, University Medical Centre, Nijmegen, The Netherlands

2:00 – 2:10 PM (#28)

3D-CT maxillary growth evaluation following intrauterine repair of cleft-like defects in the sheep fetus

Nikolaos A Papadopoulos, Moschos A Papadopoulos, Christina Jannowitz, Julia Henke, Peter Böttcher, Hans-Florian Zeilhofer, Laszlo Kovacs, Edgar Biemer

Department of Maxillofacial Surgery, University of Basel, Switzerland; Department of Orthodontics, Aristotle University of Thessaloniki, Greece; Department of Plastic and Reconstructive Surgery; Technical University of Munich, Department of Small Animal Surgery and Institute of Veterinary Anatomy, Ludwig-Maximilians University, Institute of Experimental Oncology and Therapy Research, Technical University of Munich, Germany

2:10 – 2:20 PM (#29)

MRI of fetal cleft palate: Application of new techniques for accurate detection and characterization of fetal facial clefting

J Estroff, C Barnewolt, D Levine, C Robson, L Nemes, P Lawrence, R Jennings, J Mulliken

Children's Hospital Boston and the Advanced Fetal Care Center, Departments of Radiology, Surgery and Plastic Surgery, Beth Israel Deaconess Medical Center, Boston, Massachusetts, USA

2:20 – 2:30 PM (#30)

A technological innovation for study the fetal hemodynamics using MRI: Is Doppler velocimetry enough?

Toshio Chiba, Nobuhiko Hata, Haruhiko Sago, Michihiro Kitagawa, Yoshiyuki Okada

The National Center for Child Health and Development, The Tokyo University Graduate School of Information Science and Technology, Tokyo, Japan

2:30 – 2:40 PM (#31)

Differences in fetal vascular endothelial response at difference periods in gestation

Oluyinka Olutoye, Xi Zhu, Darrell Cass, C Wayne Smith

Texas Children's Hospital Center for Fetal Surgery and the Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, Texas, USA

2:40 – 2:50 PM (#32)

Graves' disease and pregnancy: a prenatal approach of fetal dysthyroidism

Dominique Luton, Michel Polak, Isabelle Legac, Edith Vuillard, Jean Guibourdenche, Chan Huel, Anne Marie Madec, Marie Elisabeth Toubert, Michele Noel, Julianne Leger, Paul Czernichow, Oury Jean Francois

Departement de Perinatologie, Hopital Robert Debre, Paris, France

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2:50 – 3:00 PM (#33)

Cytomegalovirus intrauterine infection: pharmacokinetics of valacyclovir administration to the mother and changes in DNA viral load in amniotic fluid and fetal blood

F Jacquemard, O Picone, J-M Costa, S. Romand, E Jaqz-Aigrain, F Daffos, Yves Ville
Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Vall d'Hebron, Barcelona; and Kings College Hospital, London, United Kingdom; Service de Biologie Moleculaire Marcel Dassault. American Hospital of Paris, Neuilly, France; Service de Gynecologie Obstetrique de Poissy-St-Germain, France; Service de medecine fetale, Institut de Puericulture de Paris, Service de Pharmacologie. Hopital R. Debre, Paris, France

3:00 – 3:30 PM

Coffee Break

Monday, March 15, 2004

SESSION IV: HEMATOLOGY (3:30 – 5:00 PM)

Moderators: Kenneth Moise and Charles Rodeck

3:30 – 3:40 PM (#34)

Does antenatal maternal administration of phenobarbital prevent exchange transfusion in neonates with hemolytic disease of the fetus and newborn?

*Thomas N. Trevett, Jr., Karen Dorman, Georgine Lamvu, Kenneth J Moise, Jr.

University of North Carolina at Chapel Hill, Department of Obstetrics and Gynecology, Division of Advanced Laparoscopy and Pelvic Pain, Division of Maternal-Fetal Medicine, Chapel Hill, North Carolina, USA

3:40 – 3:50 PM (#35)

The management of Kell isoimmunization - evaluation of conventional protocol and introduction of an MCA-PSV-guided approach

Eli Rimon, Shimha Yagel, Rivka Peltz, Reuven Achiron, Shlomo Lipitz

Department of Obstetrics and Gynecology, Chaim Sheba Medical Center and the Sackler Faculty of Medicine, Tel-Aviv University, Tel-Hashomer, Israel

3:50 – 4:00 PM (#36)

Endothelial cell damage and vasculitis as an etiology for hemorrhage and intrauterine growth restriction (IUGR) in neonatal alloimmune thrombocytopenia (NAIT)

*Janyne Althaus, Edward G Weir, Fred Askin, Thomas S Kickler, Karin Blakemore

Johns Hopkins Hospital, Baltimore, Maryland, USA

4:00 – 4:10 PM (#37)

Fetal renal artery blood flow increases after an intrauterine transfusion in isoimmunized pregnancies

Asha Rijhsinghani, Ravi Bhatia, Jerome Yankowitz

Department of Obstetrics and Gynecology, University of Iowa Hospitals and Clinics, Iowa City, Iowa, USA

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4:10 – 4:20 PM (#38)

Fetal sex and rhesus D status determination in maternal blood

Alexandra Benachi, E Gautier, Yves Dumez, J-M Costa

Centre de Diagnostic Prenatal, Hospital American de Paris, Neuilly, France; Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven, Belgium; Vall d'Hebron, Barcelona; and Kings College Hospital, London, United Kingdom; Maternite Hospital Necker-Enfants Malades rue de Sevres, Paris Cedex, France; Service de Biologie Moleculaire Marcel Dassault, American Hospital of Paris, Neuilly, France

4:20 – 4:30 PM (#39)

Conventional PCR analysis of maternal plasma for fetal RhD genotyping

Isabela Nelly Machado, Ricardo Barini, Lilian Castilho, Jordao Pellegrino, Jr.

Fetal Medicine Unit, Departamento de Tocoginecologia, Department of Gynecology and Obstetrics, Hemocentro, Universidade Estadual de Campinas (Unicamp), Campinas, Brazil

4:30 – 4:40 PM (#40)

Efficacy of misoprostol for labor induction in preeclampsia

Wolfgang Holzgreve, Patrizia Weber, Olav Lapaire, Irene Hoesli, Daniel Surbek.

Tuesday, March 16, 2004

SESSION V: NEURAL TUBE DEFECTS (8:00 – 10:00 AM)

Moderators: Scott Adzick and Joseph Bruner

8:00 – 8:10 AM (#41)

In utero repair of an experimental neural tube defect in a chronic sheep model using biomatrices

*A J Eggink, L A J Roelofs, W F J Feitz, R M H Wijnen, R A Mullaart, J A Grotenhuis, A H M van Kuppevelt, M M Y Lammens, A J Crevels, A Hanssen, P P van den berg
Central Animal Laboratory, Department of Biochemistry, Department of Neurosurgery, Department of Obstetrics and Gynecology, Department of Pathology, Department of Pediatric Neurology, Department of Pediatric Surgery, Department of Urology, University Medical Center Nijmegen, The Netherlands

8:10 – 8:20 AM (#42)

Retinoic acid-induced myelomeningocele-like defects: a fetal rat model

*E Danzer, U Schwarz, A Ratu, N Scott Adzick, Alan W Flake

Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

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8:20 – 8:30 AM (#42)

The patient screening process in the management of meningomyelocele (MOMS) trial

N Scott Adzick, J Bruner, M Harrison, Nancy Chescheir

Department of Obstetrics and Gynecology, Vanderbilt University Medical Center, Nashville, Tennessee, USA; Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA; Fetal Treatment Center, Department of Surgery, University of California, San Francisco, California, USA; The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

8:30 – 8:40 AM (#43)

Treatment of fetal myelomeningocele with neural stem cells: preliminary functional analysis in a short term ovine model

Dario Fauza, Russell Jennings, Evan Snyder

Advanced Fetal Care Center, Children's Hospital Boston, Boston, Massachusetts, USA

8:40 – 8:50 AM (#44)

Upper level of the spina bifida defect - how good are we?

Joseph Bruner, Noel Tulipan, Mary Dabrowiak, Karla Luker, Kevin Walters, Pam Burns, George Reed

Department of Obstetrics and Gynecology, Department of Pediatric Neurosurgery, Department of Radiology, Vanderbilt University Medical Center, Nashville, Tennessee, USA; Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School, Worcester, Massachusetts, USA

8:50 – 9:00 AM (#45)

Abruptio placenta during intrauterine meningomyelocele correction

Ricardo Barini, Kleber Cursino, Elder Lessa Zambelli, Isabela Nelly Machado, Maria Webber Gyimaraes Barreto, Adilson Prando E Lourenco Sbraia

Fetal Medicine Unit, Departamento de Tocoginecologia, Unicamp, Brazil

9:00 – 9:10 AM (#46)

Amniotic fluid digestive enzymes in spina bifida: a prognostic factor and potential marker for the effectiveness of in utero surgery

Hana Talabani, Dominique Luton, Sophie Dubouch, Gersende Flament, Sophie Grenier, Sophie Dreux, Jean Guibourdenche, Oury Jean Francois, Francoise Muller

Departement de Perinatologie, Hopital Robert Debre, Paris, France

9:10 – 9:20 AM (#47)

Antenatal evaluation of fetal hindbrain herniation: MRI vs. ultrasound

George Davis, Katherine Haney, Joseph Bruner, Noel Tulipan, Marta Hernanz-Schulman, Karla Luker, Mary Dabrowiak, George Reed

Department of Obstetrics and Gynecology, Department of Pediatric Neurosurgery, Department of Radiology, Vanderbilt University Medical Center, Nashville, Tennessee, USA; Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School, Worcester, Massachusetts, USA

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9:20 – 9:30 AM (#48)

Minimization of bias in the management of myelomeningocele study

Elizabeth Thom

NICHD Maternal-Fetal Surgery Units Group, Bethesda, Maryland, USA

9:30 – 9:40 AM (#49)

Arnold-Chiari malformation in dysraphim (myelomeningocele) rat model

Maria Weber Guimaraes Barreto, Ricardo Barini, Daniel Bittencourt, Luis Violin

Fetal Medicine Unit, Departamento de Tocoginecologia, Unicamp, Brazil

9:40 – 9:50 AM (#50)

Feasibility of magnetic resonance spectroscopic imaging of the fetal brain in rhesus monkeys

R D Kok, DW Klomp, AJ van den Bergh, A Heerschap, P P van den berg

Department of Obstetrics and Gynecology, Department of Radiology, University Medical Center Nijmegen, The Netherlands

9:50 – 10:30 AM

Coffee break

Tuesday, March 16, 2004

SESSION VI: RANDOMIZED TRIAL CONCEPTS (10:30 AM – 12:00 PM)

Moderators: Kevin Pringle and Elizabeth Thom

10:30 – 10:45 AM (#51)

A trial of cervical plugging for previable PROM

John M O'Brien, John R Barton, Douglas A Milligan

Central Baptist Hospital, Lexington, Kentucky, USA

10:45 – 11:00 AM (#52)

Can amniodrainage in twin-twin transfusion syndrome cause fetal brain damage?

Charles Rodeck

Department of Obstetrics and Gynaecology, Royal Free and University College Medical School, University College of London, United Kingdom

11:00 – 11:15 AM (#53)

The evolution of technology: bringing methods into and out of use

Mark Evans

Institute of Genetics and Fetal Medicine, MCP Hahnemann University, New York, New York, USA

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11:15 – 11:30 AM (#54)

A randomized trial of serial amnioexchange in the treatment of fetal gastroschisis

Joseph Bruner, Dominique Luton, Nancy Chescheir

Departement de Perinatologie, Hopital Robert Debre, Paris, France; Department of Obstetrics and Gynecology, Vanderbilt University Medical Center, Nashville, Tennessee, USA; Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA

11:30 – 11:45 AM (#55)

Antenatal maternal administration of phenobarbital to exchange transfusion in neonates with hemolytic disease of the fetus and newborn?

Thomas N Trevett, Jr, Karen Dorman, Georgine Lamvu, Kenneth J Moise, Jr.

University of North Carolina at Chapel Hill, Department of Obstetrics and Gynecology, Division of Advanced Laparoscopy and Pelvic Pain, Division of Maternal-Fetal Medicine, Chapel Hill, North Carolina, USA

11:45 – 1:00 PM

Lunch

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SESSION VII: PRENATAL DIAGNOSIS/GENE THERAPY (1:00 – 3:00 PM)

Moderators: Mark Evans and Wolfgang Holzgreve

1:00 – 1:10 PM (#56)

The 11-14 weeks scan. Screening for structural and chromosomal fetal defects

A Borrell, A Fortuny, A Gonce, V Cararach

Prenatal Diagnosis Unit, Institute of Gynecology, Obstetrics, and Neonatology, Hospital Clinic-Campus Maternitat, Barcelona, Catalonia, Spain

1:10 – 1:20 PM (#57)

First trimester screening for Down syndrome in twins using nuchal translucency and the combined test

A Gonce, L Lewi, M A Martinez, I Mercade, E Casals, A Fortuny, V Cararach

Institut Clinic de Ginecologica Obstetricia I Neonatologica, Hospital Clinic, Barcelona, Spain; Prenatal Diagnosis Unit, Institute of Gynecology, Obstetrics, and Neonatology, Hospital Clinic-Campus Maternitat Barcelona., Catalonia, Spain; University Hospital Gasthuisberg, Leuven, Belgium

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1:20 – 1:30 PM (#58)

Ultrasound-guided access to the early gestation fetal sheep gut for prenatal treatment of disease using gene therapy

*Anna L David, Donald Peebles, Lisa Gregory, Boaz Weisz, Dany Perocheau, Mike Themis, Megha Nivsarkar, Terry Cook, Charles Coutelle, Charles Rodeck
Department of Histopathology, Imperial College; Department of Obstetrics and Gynaecology, Royal Free and University College Medical School, University College of London; Gene Therapy Research Group, Section of Molecular Genetics, Imperial College School of Medicine, London, United Kingdom

1:30 – 1:40 PM (#59)

First and second trimester evaluation of risk of aneuploidy in multiple gestations

Melissa Bush, Yara Kharbutli, Joanne Stone, Meredith Rochon, Richard Berkowitz, Keith Eddleman
Columbia University, Obstetrics and Gynecology; Mount Sinai School of Medicine, Human Genetics, Obstetrics, Gynecology and Reproductive Science, New York, New York, USA

1:40 – 1:50 PM (#60)

The impact of pediatric surgical counseling on pregnancy termination and neonatal outcome

L Nemes, C Barnewolt, J Estroff, Patricia Lawrence, Dario Fauza, Cathy Furlong, Donna Morash, Russell Jennings
Advanced Fetal Care Center, Department of Surgery, Children's Hospital Boston; Departments of Radiology, Surgery and Plastic Surgery, Beth Israel Deaconess Medical Center, Boston, Massachusetts, USA

1:50 – 2:00 PM (#61)

Comparison of multifetal pregnancy reduction with and without chorionic villus sampling on pregnancy outcomes

*Julie S Moldenhauer, A Gilbert, Betsy Beyer, Patricia Devers, R Beth Dugan, Lara Gardner, Michael Mahoney, R Rae Cherng, Wontika Smith, Saleh Ebrahim, Anthony Johnson
Department of Obstetrics and Gynecology, Wayne State University, Detroit, Michigan, USA; Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA

2:00 – 2:10 PM (#62)

Neural differentiation of human fetal mesenchymal stem cells

Nigel Kennea, Keelin O' Donoghue, Jerry Chan, Simon Waddington, Michael Themis, Nicholas Fisk, Huseyin Mehmet
Department of Gene Therapy, Institute of Reproductive and Developmental Biology and Centre of Fetal Care, Imperial College London, Queen Charlotte and Chelsea Hospital, London, United Kingdom

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2:10 – 2:20 PM (#63)

Gene transfection into fetal sheep airways in utero using guanidinium-cholesterol cationic lipids. Future perspective for treatment of congenital diaphragmatic hernia?

Julien Saada, Noufissa Oudrhiri, Pascal de Lagausie, Abderrahim Aissaoui, Michelle Hauchecorne, Sebastien Julia, Oury Jean Francois, Yves Aigrain, Michel Peuchmaur, Jean-Pierre Vigneron, Jean-Marie Lehn, Pierre Lehn, Dominique Luton

Departement de Perinatologie, Hopital Robert Debre, Paris, France

2:20 - 2:30 PM (#64)

Early fetal blood sampling - a novel method for harvesting fetal blood mesenchymal stem cells

*Jerry Chan, Sailesh Kumar, Nicholas Fisk

Institute of Reproductive and Developmental Biology and Centre of Fetal Care, Imperial College London, Queen Charlotte and Chelsea Hospital, London, United Kingdom

2:30 – 2:40 PM (#65)

Human fetal mesenchymal stem cells for intrauterine therapy of muscular dystrophy

*Jerry Chan, Keelin O' Donoghue, Josu de la Fuente, Nigel Kennea, Diana Watt, Simon Waddington, Michael Themis, Huseyin Mehmet, Jennifer Morgan, Nicholas Fisk

Department of Anatomy, University of Brighton and Sussex, Brighton; Department of Gene Therapy, Department of Haematology, Institute of Reproductive and Developmental Biology and Centre of Fetal Care, Imperial College London, Queen Charlotte and Chelsea Hospital, London, United Kingdom

2:40 – 2:50 PM (#66)

Long-term expression of Factor IX after in utero injection of adeno-associated viral vectors in hemophilia B mice

*Tippi C MacKenzie, Denise E Sabatino, Cesare Campagnoli, Yi-Lin Liu, Alan W Flake, Katherine A High

Department of Hematology, Division of Pediatric General, Thoracic, and Fetal Surgery, The Center for Fetal Diagnosis and Treatment, The Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

2:50 – 3:00 PM (#67)

Sustained factor VIII expression after in utero gene therapy in Hemophilia A mice

*Aziz Merchant, Philip Zoltick, Renee Tetreault, Rita Sarkar, Alan W Flake

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3:00 – 3:10 PM (#68)

Intraplacental gene transfer of IGF-1 corrects intrauterine growth restriction in the rabbit model

S G Keswani, A . Katz, ED. Kozin, PW Zoltick, TM Cromblehome
The Center for Fetal Diagnosis and Treatment, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

3:10 – 3:30 PM

Coffee break

Tuesday, March 16, 2004

SESSION VIII: NECK/CHEST MASSES/HEART (3:30 – 5:30 PM)

Moderators: Jean-Martin Laberge and Douglas Wilson

3:30 – 3:40 PM (#69)

Prenatal diagnosis and outcome of fetuses with giant neck masses

Darrell Cass, Christopher Cassady, Isabelle Wilkins, Mary O'Day, Lewis Coveler, Karolina Adam, Scott Adzick, Oluyinka Olutoye
Texas Children's Hospital Center for Fetal Surgery and the Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, Texas, USA; The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

3:40 – 3:50 PM (#70)

Balloon dilation of severe aortic stenosis in the fetus: potential for the prevention of hypoplastic left heart syndrome

Russell Jennings, Wayne Tworetzky, Louise Wilkins-Haug, Carol Benson, Audrey Marshall, Laura Myers, Linda Bulich, Ariella Mizrachi-Arnud, James E Lock
Advanced Fetal Care Center, Children's Hospital and Center for Fetal Medicine, Brigham and Women's Hospital, Department of Surgery, Children's Hospital Boston, Boston, Massachusetts, USA

3:50 – 3:55 PM (#71)

Resolution of fetal chylothorax with maternal blood patch

Amy Adelberg, Nancy Chescheir
Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA

3:55 – 4:00 PM (#72)

Ultrasound guided laser treatment of hydropic fetal lung lesions with a systemic arterial supply

D Oepkes, J Langer, F Alkazaleh, M Asch, G Seaward, R Windrim, P Shah, EN Kelly, F Klumper
Department of Pediatric Surgery, Hospital for Sick Children; University of Toronto, Fetal Medicine Unit, Mount Sinai Hospital, Toronto, Canada; Leiden University Medical Centre, The Netherlands

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4:00 – 4:10 PM (#73)

The EXIT procedure is for wimps

Francois Luks, Stephen Carr, Thomas F Tracy, Lewis P Rubin
Program in Fetal Medicine, Brown Medical School, Providence, Rhode Island, USA

4:10 – 4:20 PM (#74)

Semiology of fetal goiter. A series of thirty cases

Chan Huel, Edith Vuillard, Michel Polak, Isabelle Legac, Jean Guibourdenche, Oury Jean Francois, Dominique Luton
Departement de Perinatologie, Hopital Robert Debre, Endocrinologie Pediatrique, Hopital Necker Enfants Malades Paris, France

4:20 – 4:30 PM (#75)

Thoracoamniotic shunts for macrocyst CCAM treatment

Doug Wilson, MP Johnson, Alan W Flake, HL Hedrick, T M Cromblehome, N Scott Adzick
Division of Pediatric General, Thoracic, and Fetal Surgery, The Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

4:30 – 4:40 PM (#76)

Fetal ovarian cysts - to treat or not to treat?

Ariel Jaffa
Ultrasound Unit, Obstetrics and Gynecology Department, Sourasky Medical Center, Tel Aviv University, Tel Aviv, Israel

4:40 – 4:50 PM (#77)

Management of massive fetal mediastinal teratoma

*Aziz Merchant, Holly Hedrick, TM.Cromblehome, MP Johnson, RD Wilson, N Scott Adzick, Alan W Flake
Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

4:50 – 5:00 PM (#78)

Prenatal diagnosis and management of mainstem bronchial atresia

SG Keswani, TM Cromblehome, BR Pawel, MP Johnson, Alan W. Flake, HL Hedrick, LJ Howell, RD Wilson, GH Davis, N Scott Adzick
Children's Institute for Surgical Science, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

5:00 – 5:10 PM (#79)

Trans-hepatic ultrasound-guided fetal cardiac interventions in the fetal lamb

Jean-Marie Jouannic, Younes Boudjemline, Jean-Louis Benifla, Damien Bonnet
Service de Gynecologie-Obstetrique, Hopital Rothschild, Paris, France, Service de Cardio-pediatrie, Hopital Necker, Paris, France

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2004 IFMSS Meeting – Charleston, South Carolina

Wednesday, March 17, 2004

8:00 – 9:00 AM

Annual IFMSS Business Meeting

SESSION IX: TWINS (9:00 AM – 12:00 PM)

Moderators: Nicholas Fisk and Yves Ville

9:00 – 9:10 AM (#80)

Acute TTTS during birth in monochorionic twins without chronic TTTS: Preliminary results of a prospective study

*E Lopriore, FPHA Vandenbussche

Department of Neonatology, Department of Obstetrics, Leiden University Medical Center, Leiden, The Netherlands

9:10 – 9:20 AM (#81)

Preliminary model of a hydropic recipient twin in twin-twin transfusion syndrome (TTTS)

*Jeroen PHM van den Wijngaard, Asli Umur, Raymond Krediet, Michael Ross, Martin JC van Gemert

Laser Center and Department of Obstetrics and Gynecology, Department of Nephrology, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands; Department of Obstetrics and Gynecology, Harbor - UCLA School of Medicine, Torrance, California, USA

9:20 – 9:30 AM (#82)

Aetiology of paradoxical activation of the recipient fetoplacental renin-angiotensin system in twin-twin transfusion syndrome

*Olivia Barigye, Ling Y Wee, Pauline Galea, Mark Sullivan, Nicholas Fisk

Institute of Reproductive and Developmental Biology, Imperial College London and Centre for Fetal Care, Queen Charlotte's and Chelsea Hospital, London, United Kingdom

9:30 - 9:40 AM (#83)

High incidence of unexpected intrauterine death in monochorionic twins despite intensive fetal surveillance

*Olivia Barigye, Ling Y Wee, Pauline Galea, Tina Vanderheyden, Nicholas Fisk

Institute of Reproductive and Developmental Biology, Imperial College London and Centre for Fetal Care, Queen Charlotte's and Chelsea Hospital, London, United Kingdom; Institute of Reproductive and Developmental Biology and Centre of Fetal Care, Imperial College London, Queen Charlotte and Chelsea Hospital, London, United Kingdom

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9:40 – 9:50 AM (#84)

An update of the WSU/UNC experience with thermal vascular occlusion in the management of complicated monochorionic multifetal pregnancies

Anthony Johnson, A Gilbert, E Russell, Julie S Moldenhauer, S Hassan, V Buckholz, Amy Adelberg, Terry Harper, Nancy Chescheir

Department of Obstetrics and Gynecology, Wayne State University, Detroit, Michigan, USA;
Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA

9:50 – 10:00 AM (#85)

Twin reverse arterial perfusion: the collective IFMSS experience

Teresa C Harper, Anthony Johnson

Division of Maternal-Fetal Medicine, University of North Carolina, Chapel Hill, North Carolina, USA

10:00 – 10:10 AM (#86)

2D and 3D ultrasound guided endoscopic umbilical cord ligation with bipolar cautery in twin and triplet monochorionic gestations

BK Young, CD Stephenson, AP MacKenzie, A Roman, A Rebarber, V Minior, K Koklanaris, P Mayberry, I Timor-Tritsch

Fetal Therapy Program, Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, New York University School of Medicine and Medical Center, New York, New York, USA

10:10 – 10:20 AM (#87)

Increased cardiac output and decreased venous oxygen saturation in pump twins of acardiac twin pregnancies

Martin JC van Gemert, Asli Umur, Jeroen PHM van den Wijngaard, Ed VanBavel, Frank PHA Vandenbussche, Peter GJ Nikkels

Department of Medical Physics, Academic Medical Center, University of Amsterdam, Amsterdam;
Department of Obstetrics, Leiden University Medical Center, Leiden; Department of Pathology, University Medical Center, Utrecht, The Netherlands

10:20 – 10:30 AM (#88)

Ultrasound assessment of umbilical blood flow before and after laser therapy: An approach to the etiology of twin-twin transfusion syndrome

K Ishii, M. Nakata, JM Martinez, RH Chmait, RA Quintero

Florida Institute for Fetal Diagnosis and Therapy, Tampa, Florida, USA; University of California, San Diego, California, USA

10:30 – 10:40 AM (#89)

Net vascular cross-sectional area correlates with twin-to-twin transfusion

Michael Poch, Philip De Koninck, Francois Luks, Stephen Carr, Monique DePaepe
Program in Fetal Medicine, Brown Medical School, Providence, Rhode Island, USA

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10:40 – 10:50 AM (#90)

Bipolar cord coagulation in complicated monochorial twin pregnancy: Experience after 19 weeks of gestation of 30 cases

Masami Yamamoto, Romaine Robyr, Yves Ville

Department of Obstetrics and Gynecology, Paris-Ouest University, CHI Poissy-St-Germain, France; Department of Obstetrics and Gynecology, Paris-Ouest University, CHI Poissy-St-Germain, France; Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven; Vall d'Hebron, Barcelona; and Kings College Hospital, London, United Kingdom

10:50 – 11:00 AM (#91)

Permanent reversal of fetofetal transfusion: An unusual complication of endoscopic laser surgery in twin-to-twin transfusion syndrome

Romaine Robyr, Masami Yamamoto, J Nizard, Alain Paupe, Yves Ville

Department of Obstetrics and Gynecology, Paris-Ouest University, CHI Poissy-St-Germain, France; Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven; Vall d'Hebron, Barcelona; Kings College Hospital, London, United Kingdom

11:00 – 11:10 AM (#92)

MCA Vmax measurement in twin-to-twin transfusion syndrome (TTTS): a useful tool in follow-up of patients treated by laser coagulation of the intertwin anastomoses

Romaine Robyr, Masami Yamamoto, L El Murr, F Leuleu, L Ortqvist, Yves Ville

Department of Obstetrics and Gynecology, Paris-Ouest University, CHI Poissy-St-Germain, France; Departments of Obstetrics and Gynaecology, Neonatology and Surgery of the University Hospitals Leuven; Vall d'Hebron, Barcelona; Kings College Hospital, London, United Kingdom

11:10 – 11:20 AM (#93)

Modeling the influence of amnionicity on the severity of twin-twin transfusion syndrome

Jeroen PHM van den Wijngaard, Asli Umur, Michael Ross, Martin JC van Gemert

Department of Obstetrics and Gynecology, Harbor - UCLA School of Medicine, Torrance, California, USA; Laser Center and Department of Obstetrics and Gynecology, University Medical Center, University of Amsterdam, Amsterdam, The Netherlands

11:20 – 11:30 AM

Announcement of VandenBerghe-Storz Awards

11:30 AM

Adjourn meeting

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