1st International Congress on Maternal Hemodynamics
Hasselt, Belgium 16-18 October 2014
Programme
www.uhasselt.be/Maternal-Hemodynamics
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We welcome you to Hasselt for this First International Congress on Maternal Hemodynamics and are delighted to have attracted such excellent speakers and motivated delegates in the intimate surroundings of the old jail house. This group started its life in Cambridge 3 years ago and since then informal workshops have been held in Rome, Rotterdam and London. Interest in cardiovascular adaptation in pregnancy has grown enormously and is now truly multiprofessional involving cardiologists, physiologists, midwives, pharmacologists, physicians, obstetricians, fetal and maternal medicine specialists.

The congress programme is a packed one but with hotels, shops and the Congress venue all within easy walking distance we hope that you will not only learn a lot but also have time to relax walking through the cobbled streets and picturesque centre of Hasselt. There is an interesting social programme so please do not miss the opening presentations on Thursday evening, tasting of local delicacies and Congress dinner on Friday night.

Christoph Lees
Imperial College
London

Wilfried Gyselaers
Ziekenhuis Oost-Limburg
Hasselt University
THE INTERNATIONAL WORKING GROUP ON MATERNAL HEMODYNAMICS

is an international association of research groups with special interest for the normal and abnormal functioning of a pregnant woman’s cardiovascular system and its relation to both maternal and fetal outcome. This working group has met on a regular basis since 2011 (Cambridge, Rome, Cambridge, Rotterdam, London) to discuss new evolutions in the field and share thoughts on study results.

Congress Convenors
C. Lees, London UK
W. Gyselaers, Genk B

Organizing committee
I. Wilkinson, Cambridge UK
C. McEniery, Cambridge UK
H. Valensise, Rome IT
A. Khalil, London UK
B. Thilaganathan, London UK
J. Cornette, Rotterdam NL
H. Duvekot, Rotterdam NL
J. Cockcroft, Cardiff UK
E. Ferrazzi, Milan IT
D. Timmerman, Leuven B

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International Congress on Maternal Hemodynamics

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CONGRESS VENUE

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Hasselt is the capital of the Belgian province Limburg, and is situated about one hour driving from cities such as Brussels, Antwerp and Aachen (Germany), and is very near to Liège and Maastricht (the Netherlands).

Hasselt University (Dutch: Universiteit Hasselt) is a university with campuses in Hasselt and Diepenbeek, Belgium. It was officially established in 1971, as the Limburgs Universitair Centrum (LUC). However, it was not until 1973 that the university - literally - opened its doors and welcomed its first students. On June 15, 2005 the university changed its name to Hasselt University. The university consists of 6 faculties:

• The Faculty of Law
• The Faculty of Sciences (Mathematics, Physics, Computer Science, Biology and Chemistry);
• The Faculty of Business Economics (Applied Economics and Commercial Engineering)
• The Faculty of Medicine and Life Sciences (Medicine, Biomedical Sciences and rehabilitation Sciences & physiotherapy)
• The Faculty of Industrial Engineering
• The Faculty of Arts and Architecture

The ‘city campus’ in Hasselt was inaugurated in September 2012. The complex consists of three buildings, located near each other: the Vice Chancellor’s Office Building, the Faculty of Law and the ‘Oude Gevangenis’ (the renovated ‘Old Prison’). The former prison provides a new home to primarily law students, with several study rooms and two auditoriums. The several old prison cells are rebuilt into small study rooms, which can give place for 3 students. The Student Service Center, where enrollment of new students takes place, is also located in the ‘Oude Gevangenis’.

Access to Hasselt University is easy by car and public transport:
http://www.uhasselt.be/contact_and_map
13.00 h  Registration and welcome drink

**Opening Session 1: Cardiovascular physiology**
(*Chairs W Gyselaers/C. Lees*)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>14.00 h</td>
<td>Welcome</td>
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<tr>
<td></td>
<td><em>Christoph Lees</em></td>
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<tr>
<td>14.10 h</td>
<td>Cardiovascular physiology: what have we learnt in the last 20 years?</td>
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<td><em>L. Peeters</em></td>
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<td>14.30 h</td>
<td>Arterial function &amp; normal pregnancy</td>
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<td><em>C. McEniery</em></td>
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<td>14.50 h</td>
<td>Cardiac function &amp; normal pregnancy</td>
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<td><em>H. Valensise</em></td>
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<tr>
<td>15.10 h</td>
<td>Discussion</td>
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<tr>
<td>15.30 h</td>
<td>The venous compartment &amp; normal pregnancy</td>
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<td><em>W. Gyselaers</em></td>
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<tr>
<td>15.50 h</td>
<td>The microcirculation &amp; normal pregnancy</td>
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<td><em>J. Cornette</em></td>
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<tr>
<td>16.10 h</td>
<td>Periconceptional cardiovascular health and pregnancy outcome</td>
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<td><em>B. van Rijn</em></td>
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<tr>
<td>16.30 h</td>
<td>Discussion</td>
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<tr>
<td>16.50 h</td>
<td>Coffee break</td>
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**Opening session 2: Controversies: The placenta**
(*Chairs D. Timmermans/ H. Duvekot*)

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>17.20 h</td>
<td>The placenta: villain or victim?</td>
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<td><em>C. Lees</em></td>
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<td>17.40 h</td>
<td>The placenta and cardiovascular dysfunction: an integrated model</td>
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<td><em>B. Thilaganathan</em></td>
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<tr>
<td>18.00 h</td>
<td>Discussion</td>
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<tr>
<td>18.30 h</td>
<td>Opening ceremony &amp; reception at congress venue</td>
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Presentation “Vesalius 500 years”: Dr. J. Van Robays, pathologist Genk Belgium
Musical act: Festria, winner at European Music Festival for Youth 2014, Neerpelt Belgium

20.30 h  Speaker’s dinner
08.00h  Registration and welcome drink

Morning session: PET and/or IUGR: revisiting the theories
(Chairs: H. Valensise/M. Spaanderman)

09.00 h  Early and late pre-eclampsia: apples and pears
H. Valensise

09.20 h  The evidence for ‘maternogenic’ late onset pre-eclampsia
E. Ferrazzi

09.40 h  Plasma volume and pre-eclampsia
M. Spaanderman

10.00 h  Coffee break

10.20 h  Venous function and pre-eclampsia
W. Gyselaers

10.40 h  Retinal microvascular changes and preeclampsia
A. Bruckmann

11.00 h  Discussion

11.20 h  “The practice of” arterial function assessment
C. McEniery & B. Thilaganathan

12.30 h  Lunch & Satellite symposium

13.30 h  Free communications

Afternoon session 1: screening for preeclampsia
(chairs: A. Khalil/I. Wilkinson)

14.30 h  Placental markers & arterial function in screening for PET & IUGR
A. Khalil

14.50 h  The concept of a pre-pregnancy exercise challenge for PET
J. Cockcroft

15.10 h  Discussion

15.30 h  “The practice of” non-invasive measurement of cardiac output
H. Valensise & W. Gyselaers

16.30 h  Coffee break
Afternoon session 2 Physiology and Pharmacology
(chairs: J. Cockcroft/D. Williams)

17.00 h Ventricular function and pre-eclampsia
K. Melchiorre

17.20 h Pre-eclampsia or cardiac dysfunction: which comes first?
G. Novelli

17.40 h The heart & pharmacology of antihypertensives in pregnancy
I. Wilkinson

18.00 h Cardiovascular function after pre-eclamptic pregnancy
K. Melchiorre

18.20 h Discussion

18.40 h Free communications

20.30 h Congress dinner
08.00h Registration and welcome drink

9.00 h "The practice of" measuring plasma volume and body fluids
   A. Staelens & M. Spaanderman

Morning session: PET and IUGR: therapy
(chairs: C. McEniery/H. Duvekot)
10.00 h Coffee break
10.30 h Therapeutic Manipulation of vascular resistance in IUGR and pre-eclampsia
   H. Valensise
10.50 h VEGF gene therapy for severe IUGR
   A. David
11.10 h NO donors in treatment of PET
   C. Lees
11.30 h Pravastatin and pre-eclampsia-cardiovascular mechanisms
   D. Williams
11.50 h Maternal hemodynamics after chemotherapy
   K. Van Calsteren
12.10 h Discussion
12.30 h Lunch
13.30 h Free communications
14.30 h "The practice of" assessing the micro-circulation
   J. Cornette & J. Cockcroft
15u30 h Coffee break

Afternoon session: Long term implications of maternal cardiovascular dysfunction
(chairs: E. Ferrazzi/L. Peeters)
16.00 h Short and long term implications of preeclampsia-related maternal cardiovascular dysfunction
   J. Cornette
16.20 h The chance to intervene early in maternal cardiovascular dysfunction
   H. Duvekot
17.40 h Discussion
17.00 h Closing remarks and farewell reception
SATELLITE SYMPOSIUM  Friday 17th October 2014

12.30 h  Doppler sonography for maternal hemodynamics assessment
  Toshiba

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