1st International Haemodynamic Symposium on Venous Disorders

Haemodynamic aspects of physiopathology, diagnosis and therapy of the venous disease

Maggiori Policlinico Hospital of Milan - Aula Magna of the Mangiagalli Clinic

Milan, October 15 and 16, 2015
**Introduction**

In recent decades we have witnessed a great revolution in the approach to venous diseases thanks to the increasing understanding of the physiopathological mechanisms that cause the typical pathological signs of venous insufficiencies.

The introduction of non-invasive diagnostics with the continuous wave Doppler and subsequently with the Echo Color Doppler enabled us to acquire detailed information on the physiological mechanisms of venous circulation and consequently on the physiopathological mechanisms. This allowed for a new close examination of the events and hemodynamic changes that trigger the onset of the clinical abnormalities characteristic of venous insufficiencies.

This development has greatly benefitted diagnosis and therapy not only of the superficial venous insufficiencies but also of the deep venous insufficiencies, which are common in post-thrombosis syndrome.

In the last twenty-five years, non-invasive hemodynamic ultrasound diagnostics together with technological developments have broadened therapeutic options. These include conservative hemodynamic therapy and also the progressive development of different forms of minimally-invasive therapies which intend to offer alternatives to stripping that are easier to implement.
The hemodynamic CHIVA strategy (Conservatrice et Hemodynamique de l'Insuffisance Veineuse en Ambulatoire) codified by Claude Franceschi, a pioneer who played a major role in the development and spreading of the Doppler ultrasound vascular investigation both in the arterial and venous districts, appeared in 1988 as an alternative to demolition therapies. It’s primary aim was to preserve saphenous veins in every patient for any possible further vascular use and while maintaining proper tissue drainage.

The hemodynamic CHIVA strategy requires remarkable diagnostic skills and constant practice and perseverance in order to fully exploit the diagnostic potential of the Echo Color Doppler. Thanks to these efforts it has been possible to increase the understanding of the physiopathological mechanisms of venous insufficiencies of the lower limbs and to expand therapeutic horizons as in the case of the varicose veins of pelvic origin.

All this allowed for the application of new hemodynamic knowledge to the arterial district as well, with several benefits for patients suffering from arterial occlusive disease arising from the development of atherosclerotic lesions and especially from diabetic arteriopathy. An example is the possibility of measuring the arterial pressure in the vascular bed of the forefoot (Pole test) or in the tibial veins of the ankle, taking advantage of the basic principles of physics, with an Echo Color Doppler or a simple pulse oximeter.

The definition of the concept of a shunt and the possibility of classifying hemodynamic events in any type of shunt enabled us to develop and implement new hemodynamic corrective therapies not only of the superficial vein but also of deep veins. The aim of these therapies is to normalize transmural pressure values in the superficial districts and under the fascia, standardizing the treatment according to the type of shunt.
As far as deep venous insufficiencies, thanks to hemodynamic assessment and the contemporary development of new reconstructive and endovascular techniques, today it’s possible to face the complex problem of deep venous insufficiencies like post-thrombosis syndrome with more optimism and a higher success rate.

Vascular malformation pathology has also been positively affected by the progress brought about by increasing awareness of hemodynamic Echo Color Doppler diagnostics. Together with the possibility of pre-surgery assessment, the use of ultrasounds during operations has remarkably increased the success rates of this therapy.

Prof. Livio Gabrielli
Director of the Postgraduate course on Vascular Surgery at the University of Milan
Head of the Vascular Surgery Unit of the IRCCS Cà Granda Foundation – Maggiore Policlinico Hospital

Prof. Claude Franceschi
Consultant in vascular pathology, complex venous insufficiency and vascular malformations Saint Joseph Hospital, Paris
Director of the diplôme d’Ecodoppler vasculaire Groupe hospitalier Pitié-Salpêtrière University of Paris VII, Paris
Medical Consultant Private Clinic - Figlie di San Camillo, Cremona

Dott. Roberto Delfrate
Head of the Surgery Department and of the Surgery Unit at the Private Clinic Figlie di San Camillo in Cremona
1st International Haemodynamic Symposium on Venous Disorders

Hemodynamic aspects of physiopathology, diagnosis and therapy of the venous disease

The symposium consists of two days of in-depth study during which the fundamental concepts of the physiopathology of the superficial and deep venous disease and of venous malformation will be explained.

Exceptionally experienced professionals will gather to analyze the different approaches to the venous disease, to examine the aspects of physiopathology and provide in-depth, expert information and updates.

Lecturers from different backgrounds will take turns at the podium and will compare their experiences during the various sessions. A live examination with Echo Color Doppler will be carried out on patients affected by the venous disease and the concepts expressed by the lecturers will be put into practice.

It will be an extraordinary occasion for any physician who wants to develop and update their skills thanks to the latest knowledge in the field of venous diseases affecting the western population more and more.
**Target audience**

Italian and foreign physicians.

Target medical disciplines: angiology, general surgery, vascular surgery, diabetology, gynecology and obstetrics, dermatology, cardiology, vulnology, emergency medicine, internal medicine, sports medicine, radiology, neurology, general medicine.

Italian and foreign resident doctors of the above-mentioned disciplines.

**Scientific Board**

Dott. Roberto Delfrate  
Cremona

Prof. Claude Franceschi  
Paris

Prof. Livio Gabrielli  
Milan

**Educational objectives:**

The main objective of this symposium is to discuss the latest advancements in venous physiopathology, which involves complex hemodynamic concepts, and to provide physicians with the skills to perform advanced hemodynamic diagnostics by improving the overall standard of the Echo Color Doppler examinations. Another important aim is to promote the practice of looking for the most suitable treatment, starting with the prognosis, followed by the development of a rational therapeutic strategy based on the examination of evidence and knowledge of physiopathology.

Below is a detailed list of the symposium’s objectives:

- To promote the diagnostic potential of the new ultra-sonographic technologies and the implementation modalities of the diagnosis with the use of hemodynamic maneuvers and cartographic maps.
- To examine the different fields of application of the new hemodynamic physiopathological knowledge in depth. These fields include:
  - Superficial venous insufficiencies;
  - Venous insufficiencies of pelvic origin;
  - Vascular malformations;
- Deep venous insufficiencies;
- Venous ulcers of the lower limbs;

**To know and compare different therapies:**
- Sclerotherapy;
- Saphenectomy;
- Endoluminal therapies;
- CHIVA;
- Surgical therapies and treatment of the varicose veins of pelvic origin;
- Surgical therapies of vascular malformations;
- The treatment of deep venous insufficiencies: from stents to valvuloplasties and CHIVA corrections
- The treatment of ulcers of the lower limbs
- Elastoccompressive venous disease therapies
- The need for post-surgery anticoagulant therapies for a brief or medium period after the treatment of deep and superficial venous insufficiencies
- The role of medical therapy today

**Format:**

The course is accredited by the Italian Accreditation Council for Continuing Medical Education (ECM) and consists of two days and 10 sessions, during which there will be two lections magistralis, a final recap session and a live session from the examination room of the Hospital Maggiore Policlinico of Milan with the ultrasound examination of two patients. Each session consists of:
- Lecture of one member of the faculty
- Guided debate with one or more discussants

**12 Crediti ECM** reference number 351-135480
Conduttori, Relatori e Discussant

Prof. Giovanni Battista Agus  
*Milano*
*Full Professor of Vascular Surgery at the University of Milan*  
*Vascular Surgery and Angiology Private Practice*

Prof. Amine Bahnini  
*Parigi*
*Head of the Department of Vascular Pathology of the American Hospital of Paris*  
*Associate Professor in the Phlebology track at the University Pierre et Marie Curie, Paris*

Dott.ssa Vittoria Baraldini  
*Milano*
*Surgeon specialized in Pediatric Surgery and Vascular Surgery at the Center for Child Angiomas and Vascular Malformations at the “V.Buzzi” Children’s Hospital in Milan*

Prof. Stefano Bianchi  
*Milano*
*Head of the Multi-Specialty Department of Obstetrics and Gynecology and of the Maternal-Infant Department at the Hospital San Giuseppe in Milan*  
*Associate Professor in charge of the Obstetrics and Gynecology track at the University of Milan*

Prof. Piero Bonadeo  
*Tortona*
*Head of the Department of Day Surgery and Vascular Surgery at the Hospital of Tortona (Alessandria)*

Dott. Massimo Bricchi  
*Cremona*
*Assistant Medical Director of the Department of General Surgery at the Private Clinic Figlie di San Camillo in Cremona*

Prof. Massimo Cappelli  
*Firenze*
*Self-employed physician with Angiology and Phlebology Private Practice in Florence.*  
*Adjunct Professor at the Clinical Research Centre of the University of Camerino*

Prof. Giacomo Clerici  
*Pavia*
*Head of the Centre for the Treatment of Diabetic Foot at the Istituto di Cura Città di Pavia – University of Pavia*

Dott. Roberto Delfrate  
*Cremona*
*Head of the Surgery Department and of the Surgery Unit at the Private Clinic Figlie di San Camillo in Cremona*

Prof. Maurizio Domanin  
*Milano*
*Assistant Director of the University Department of Vascular Surgery at the IRCCS Cà Granda Maggiore Policlinico Hospital of Milan*  
*Adjunct Professor of the Postgraduate Specialty Course of Vascular Surgery at the University of Milan*

Prof. Stefano Ermini  
*Firenze*
*Self-employed physician with Phlebology Private Practice in Grassina - Florence*  
*Contract Professor of Hemodynamic Phlebology at the University of Camerino.*
Dott. Guglielmo Fornasari  Cremona  
Vascular Surgeon, - Consultant at the Private Clinic “Figlie di San Camillo” – Cremona

Prof. Claude Franceschi  Parigi  
Consultant of Vascular Pathology, Complex Venous Insufficiency and Vascular Malformation, Hospital Saint Joseph, Paris  
Director of the Echo Color Doppler Certificate Program at the University Hospital Petié-Salpêtrière University Paris VII, Paris  
Consultant at the Private Clinic Figlie di San Camillo in Cremona

Prof. Livio Gabrielli  Milano  
Director of the Postgraduate course on Vascular Surgery at the University of Milan  
Head of the Vascular Surgery Unit of the IRCCS Cà Granda Foundation – Maggiore Policlinico Hospital

Prof.ssa Milka Greiner  Parigi  
Assistant Director of the Interventional Vascular Radiology Ward at the American Hospital in Paris  
Doctor of the Cardio-vascular and Interventional Radiology Department at the Hospital Petié-Salpêtrière in Paris  
Lecturer of Vascular Medicine at the University Pierre et Marie Curie, Paris

Dott. Salvatore Laganà  Salò  
Assistant Director of the Department of General Surgery at the Hospital Enterprise of Desenzano del Garda – Hospital of Gavardo

Prof. Oscar Maleti  Modena  
Head of the Department of Vascular Surgery at Hesperia Hospital in Modena  
Head of research on new biomedical phlebology products at the Research Centre “Math for Technology, Medicine and Biosciences” at the University of Ferrara

Dott. Fausto Passariello  Napoli  
Self-employed Vascular Surgeon at the Practice Aquarius - Naples

Dott. Riccardo Piccioli  Crema  
Self-employed Surgeon in the Department of General and Vascular Surgery at the Medilaser Practice in Crema (Cremona)

Dott. Mauro Pinelli  Avezzano  
Head of the Department of Angiology and Vascular Diagnostics at the Hospital of Avezzano (L’Aquila)

Prof. Jorge Juan Samsò  Barcellona  
Director of the Vascular Lab of the Diagnostic unit Platón at the University Hospital of Barcelona

Dott. Gianni Vercellio  Milano  
Vascular Surgeon and Angiologist, Consultant at the Italian Diagnostic Centre of Milan.  
Coordinator of the Center for Angiomas and Vascular Malformations at Niguarda Cà Granda Hospital in Milan

Prof. Mark Whiteley  Londra  
Vascular Surgeon, Director of “The Whiteley Clinic” - London  
External faculty member at the University of Surrey
**Date and venue:**  
Maggiore Policlinico Hospital of Milan  
Aula Magna of the Mangiagalli Clinic  
Via Commenda, 12 Milan  
**October 15 and 16, 2015**

**Maximum number of attendees:**  
The course cannot be attended by more than 150 physicians

**Learning material**

Attendees will be given the following texts written by **Dr Roberto Delfrate**:

- **A new approach to varicose veins: haemodynamic evaluation and treatment**  
  Lorena Dioni Publisher 2014  
  Cover price € 90,00

- **Nuovo approccio diagnostico alle vene varicose**  
  Lorena Dioni Publisher 2014  
  Cover price € 16,00.

**Extract from the prefaces of prof. Livio Gabrielli**

“In Vascular Surgery training, knowledge of haemodynamics is a basic requisite for the education of residents. This knowledge is the basis of a full understanding of the clinical manifestations of both arterial and venous diseases.

*In many aspects the venous system is far more complicated than the arterial system due to its anatomical network complexity, the existence of the muscle pumps that allow for the return of blood to the heart against forces of gravity and the presence of competent or incompetent valves in the vessels.*”

Prof. Livio Gabrielli
**Fees**

Registration fee: € 350,00 + VAT. It includes:

- Admission to all sessions
- Course material;
- Daily “light lunch”

**Administrative Office**

Lorena Dioni  
medical scientific publications and training  
Folgaria (Trento)  
phone: 348-7691268  
e.mail: lorenadioni@haemodynamicsdelfrate.com

**Scientific Office**

Maurizio Domanin  
Lorena Dioni

**How to reach the conference venue**
## Program

**Thursday, October 15, 2015 – Morning Session**

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<td>Registration</td>
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<tr>
<td>9.00</td>
<td><strong>1. New basics of venous physiopathology</strong></td>
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<tr>
<td></td>
<td>1.1. <em>Intra- and extra-pressure. Transmural pressure</em></td>
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<td>1.2. <em>The physiology of venous return</em></td>
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<td>1.3. <em>The concept and classification of shunts</em></td>
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<td><strong>Debate</strong></td>
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<td>10.50</td>
<td><strong>2. Hemodynamic diagnostics</strong></td>
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<td>2.1. <em>Standard Echo Color Doppler test</em></td>
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<td>2.2. <em>The choice of valvular diagnostics test and its meaning</em></td>
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<td>2.3. <em>Hemodynamic Cartography, systolic and diastolic aspects</em></td>
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<td>12.10</td>
<td><strong>3. The inner saphenous vein, an instrument for the surgeon</strong></td>
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<td>3.1. <em>The diabetic foot and diabetic arteriopathy of the lower limbs</em></td>
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<td>3.2. <em>The inner saphenous vein as a source of vascular graft: upgrade</em></td>
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<td>3.3. <em>The histological quality of the saphenous veins preserved with CHIVA treatment</em></td>
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<td><strong>Light Lunch</strong></td>
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<td>2.20</td>
<td><strong>Lectio magistralis</strong></td>
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<td><em>Elastocpression: overview of the elastocpression therapy of the venous disease</em></td>
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<td><em>Claude Franceschi</em> 20’</td>
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<td>2.40</td>
<td><strong>Vascular malformations</strong></td>
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<td>4.1.</td>
<td><em>Physiopathological framework and therapeutic overview</em></td>
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<td><em>Claude Franceschi</em> 20’</td>
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<td>4.2.</td>
<td><em>Surgical treatment of vascular malformations</em></td>
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<td><em>Gianni Vercellio</em> 20’</td>
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<td>4.3.</td>
<td><em>Hemodynamic surgical treatment of venous malformations</em></td>
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<td><em>Roberto Delfrate</em> 20’</td>
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<td><em>Moderator: Vittoria Baraldini</em></td>
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<td><em>Discussant: Livio Gabrielli</em></td>
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<td>4.10</td>
<td><strong>Venous insufficiency of the pelvis</strong></td>
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<td>5.1.</td>
<td><em>Physiopathology and diagnosis of the pelvic varicocele</em></td>
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<td><em>Mark Whiteley</em> 20’</td>
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<td>5.2.</td>
<td><em>Surgical treatment of the pelvic varicocele</em></td>
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<td><em>Amine Bahnini</em> 20’</td>
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<td>5.3.</td>
<td><em>Endovascular treatment of the pelvic varicocele</em></td>
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<td><em>Milka Greiner</em> 20’</td>
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<td>5.4.</td>
<td><em>The varicose veins of the lower limbs of pelvic origin</em></td>
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<td><em>Roberto Delfrate</em> 20’</td>
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<td><strong>Debate</strong></td>
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<td><em>Moderator: Giovanni Battista Agus</em></td>
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<td><em>Discussants: Stefano Bianchi, Salvatore Laganà</em></td>
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<td>6.00</td>
<td><strong>End of the first day</strong></td>
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**Program**

**Friday, October 16, 2015 – Morning Session**

**8.30**

### 6. Hemodynamic diagnostics and cartography

*Live from the examination rooms of the Graduate School of Vascular Surgery of the University of Milan*

*In the doctor’s office:* 2.00’

Roberto Delfrate

In the conference room:

Claude Franceschi

**Debate**

**10.50**

### 7. Pursuing the best therapeutic strategy in primitive varicose veins of the lower limbs without any sort of integralism

**10.50**

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>7.1</td>
<td>CHIVA and the reasons for preserving the saphenous vein</td>
<td>Stefano Ermini</td>
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<td>7.2</td>
<td>Hemodynamic aspects in sclerothepathy</td>
<td>Riccardo Piccioli</td>
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<td>7.3</td>
<td>Saphenectomy</td>
<td>Maurizio Domanin</td>
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<td>7.4</td>
<td>Endoluminal therapies</td>
<td>Giovanni Battista Agus</td>
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<td>7.5</td>
<td>CHIVA-Laser: possibilities and perspectives</td>
<td>Fausto Passariello</td>
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**Debate**

**1.00**

**Light Lunch**
# Programma

**Friday October 16, 2015 – Afternoon Session**

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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
<th>Duration</th>
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<tr>
<td>2.00</td>
<td><strong>Lectio magistralis</strong> Medical therapy of venous insufficiencies</td>
<td>Piero Bonadeo</td>
<td>20’</td>
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<td>2.20</td>
<td><strong>8. Deep venous insufficiencies: diagnosis, treatment and post-surgery management of the patient</strong></td>
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<tr>
<td>2.20</td>
<td>8.1. The physiopathological assessment and the benefits of the CHIVA treatment</td>
<td>Claude Franceschi</td>
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<td>8.2. The treatment of deep venous insufficiencies: from stents to valvuloplasties</td>
<td>Oscar Maleti</td>
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<td><strong>Debate</strong></td>
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<td>3.40</td>
<td><strong>9. Venous ulcers of the lower limbs</strong></td>
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<td>3.40</td>
<td>9.1. Physiopathological assessment</td>
<td>Massimo Bricchi</td>
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<td>9.2. Therapeutic details in the venous ulcers</td>
<td>Piero Bonadeo</td>
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<td>9.3. Alternatives to modern dressings in the treatment of ulcers in the lower limbs</td>
<td>Massimo Bricchi</td>
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<td><strong>Debate</strong></td>
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<td>5.00</td>
<td><strong>10. Final Recap Session</strong> Perspectives on the hemodynamic approach to venous diseases</td>
<td>Roberto Delfrate</td>
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<td>5.40</td>
<td><strong>Closing Remarks</strong></td>
<td>Livio Gabrielli</td>
<td>10’</td>
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<td>5.50</td>
<td><strong>CME Test</strong></td>
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This conference was made possible by the unconditional educational support of:

And with the support of

FADOI LOMBARDIA

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lorenadioni@haemodynamicsdelfrate.com