



CENTRO TRAPIANTO FEGATO  
Turin Liver Transplant Center  
Torino

# FIRST INTERNATIONAL WORKSHOP ON LIVER MACHINE PERFUSION

Centro Congressi  
Unione Industriale Torino  
June 10-11, 2022



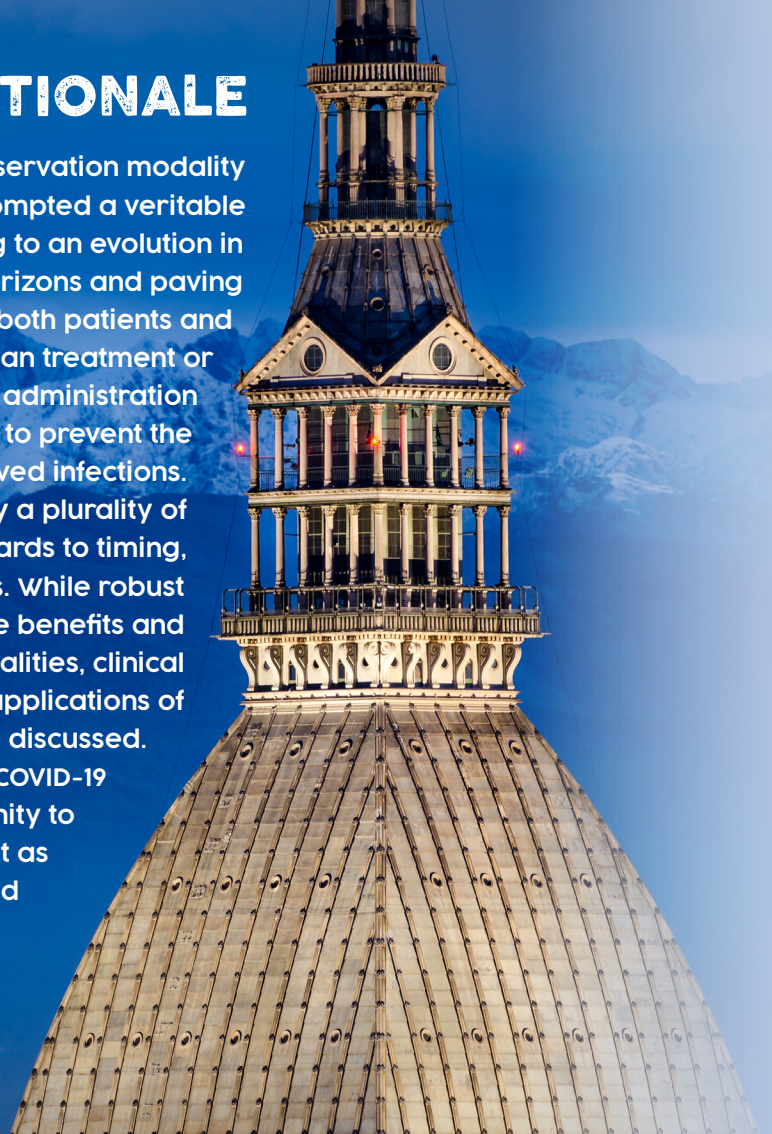


# RATIONALE

The introduction of machine perfusion as a preservation modality alternative to static cold storage has prompted a veritable revolution in liver transplantation, leading to an evolution in clinical practice, widening therapeutic horizons and paving the way for new treatment possibilities, for both patients and liver grafts. The possibilities of ex-situ organ treatment or “reconditioning” are manifold and include the administration of antibiotics, immunoglobulins or other drugs to prevent the transmission of donor-derived infections.

The current scenario is characterized by a plurality of different approaches that differ with regards to timing, technical modalities, and logistical implications. While robust data are emerging about the respective benefits and drawbacks of different machine perfusion modalities, clinical implications, potential developments and new applications of this technology are heatedly discussed.

After these last two years during which COVID-19 pandemic has greatly limited the opportunity to organize in-person meetings, this event set out as an opportunity to gather top experts in the field to discuss the state of the art in liver machine perfusion, real-life clinical indications, implications for immunosuppressive therapy, and future developments of the technology.



## Day 1 | Friday, 10<sup>th</sup> June 2022

Opening Remarks

Mauro Salizzoni, Renato Romagnoli

### Session 1 Clinical applications of liver machine perfusion

*Chairpersons:* Luciano De Carlis, Cristiano Quintini

- 13:00-13:15** Impact of machine perfusion introduction on liver transplant activity in Italy: present and future  
Silvia Trapani, Massimo Cardillo
- 13:15-13:30** Implementation and results of Innsbruck normothermic machine perfusion program  
Felix Krendl, Stefan Schneeberger
- 13:30-13:45** Dual hypothermic oxygenated machine perfusion for livers from extended-criteria brain-dead donors improves graft survival: an inverse probability of treatment weighting analysis  
Damiano Patrono, Renato Romagnoli
- 13:45-14:00** Hypothermic oxygenated machine perfusion for livers from extended-criteria brain-dead donors improves graft survival: a randomized controlled trial  
Matteo Ravaioli, Matteo Cescon
- 14:00-14:15** Hypothermic oxygenated machine perfusion for livers from extended-criteria brain-dead donors: results, limits and future directions  
Zoltan Cziganý, Georg Lurje
- ### Session 2 State of the art in liver machine perfusion
- Chairpersons:* Patrizia Burra, Renato Romagnoli
- 14:30-14:45** Outcomes and risk factors of graft loss in liver transplantation from cDCD donors treated with postmortem normothermic regional perfusion in Spain  
Constantino Fondevila

**14:45-15:00** Normothermic machine perfusion: state of the art and future perspectives  
Peter J. Friend

**15:00-15:15** Ischemia-free liver transplantation  
Zhiyong Guo

**15:15-15:30** Machine perfusion in the US  
Malcolm P. MacConmara

**15:30-15:45** Zurich machine perfusion experience  
Philipp Dutkowski

**15:45-16:00** Groningen machine perfusion experience  
Robert J. Porte

**16:00-16:15** Liver viability assessment during normothermic regional perfusion and normothermic machine perfusion: results and comparison with static cold storage  
Christopher JE Watson

**16:15-16:45** Which endpoints for liver machine perfusion trials?  
Vatche G Agopian  
*Discussant:* Alfonso Avolio

**16:45-17:15** *Coffee break*

### Session 3 Normothermic regional perfusion and liver transplantation using donors after circulatory death

*Chairpersons:* Massimo Cardillo, Xavier Michel Mueller

**17:15-17:30** Normothermic regional perfusion: technical aspects and organ evaluation  
Alberto Zanella, Marinella Zanierato

**17:30-17:45** Normothermic regional perfusion and machine perfusion in liver transplantation with donors after circulatory determination of death  
Andrea Schlegel, Paolo Muiesan †

**17:45-18:00** Outcome of Maastricht category 3 grafts with long functional ischemia time  
Luciano De Carlis, Riccardo De Carlis

**18:00-18:15** Outcome of Maastricht category 2 grafts with long functional warm ischemia time  
**Daive Ghinolfi, Paolo De Simone**

**18:15-18:30** Impact of hypothermic oxygenated machine perfusion on biliary strictures following liver transplantation with donors after circulatory determination of death  
**Robert J. Porte, Rianne Van Rijn**

## Day 2 | Saturday, 11<sup>th</sup> June 2022

### Session 4 Viability assessment and other controversial issues in machine perfusion

*Chairpersons:* **Salvatore Gruttadauria, Paulo Martins**

**9:00-9:15** Viability assessment during NMP  
**Hynek Mergental, Darius Mirza**

**9:15-9:30** Viability assessment during hypothermic oxygenated machine perfusion  
**Janina Eden, Philipp Dutkowski**

**9:30-9:45** Perfusate analysis during normothermic machine perfusion: beyond the routine  
**Andras Meszaros, Stefan Schneeberger**

**9:45-10:00** Beyond early allograft dysfunction: how to assess liver injury and function after ex-situ perfusion?  
**Daniele Dondossola, Paolo Muesan †**

**10:00-10:15** Hypothermic oxygenated machine perfusion for fatty liver grafts  
**Richard Sousa da Sousa, Philipp Dutkowski**

**10:15-10:30** Dual hypothermic oxygenated machine perfusion as a tool to prolong preservation time  
**Robert J. Porte, Isabel M.A. Brüggewirth**

**10:30-11:00** *Coffee break*

### Session 5 Perspectives in machine perfusion

*Chairpersons:* **Umberto Cillo, Federico Genzano Besso**

**11:00-11:15** Defatting during normothermic machine perfusion  
**Carlo Ceresa**

**11:15-11:30** Donor-derived infections and NMP: threat or opportunity?  
**David Nasralla**

**11:30-11:45** In-situ isolated normothermic liver chemoperfusion  
**Tamsyn Clark**

**11:45-12:00** Upfront versus end-ischemic hypothermic oxygenated machine perfusion: time for a paradigm shift?  
**Andrea Schlegel**

**12:00-12:15** Extracellular vesicles from human liver stem cells to mitigate ischemia-reperfusion injury during normothermic machine perfusion  
**Nicola De Stefano, Giovanni Camussi**

**12:15-12:30** Liver preservation: from the pig to humans  
**Nicholas Gilbo, Diethard Monballiu**

**12:30-12:45** Biliary organoids and cholangiocyte repair during normothermic machine perfusion  
**Fotios Sampaziotis, Christopher JE Watson**

**12:45-13:00** Hepatocellular carcinoma recurrence, rejection and immunosuppressive therapy after dual hypothermic oxygenated machine perfusion  
**Federica Rigo, Damiano Patrono**



## SCIENTIFIC SECRETARIAT

**Renato Romagnoli**

*Professor of Surgery  
Head, Liver Transplant Center  
University of Turin  
Italy*

## FACULTY

**Vatche G Agopian**, *Los Angeles*

**Alfonso W. Avolio**, *Roma*

**Isabel M.A. Brüggewirth**, *Groningen*

**Patrizia Burra**, *Padova*

**Giovanni Camussi**, *Torino*

**Massimo Cardillo**, *Roma*

**Carlo Ceresa**, *Oxford*

**Matteo Cescon**, *Bologna*

**Umberto Cillo**, *Padova*

**Tamsyn Clark**, *Oxford*

**Zoltan Czigan**, *Aachen*

**Luciano De Carlis**, *Milano*

**Riccardo De Carlis**, *Milano*

**Paolo De Simone**, *Pisa*

**Nicola De Stefano**, *Torino*

**Daniele Dondossola**, *Milano*

**Philipp Dutkowski**, *Zurich*

**Janina Eden**, *Zurich*

**Constantino Fondavila**, *Madrid*

**Peter J. Friend**, *Oxford*

**Federico Genzano Besso**, *Torino*

**Davide Chinolfi**, *Pisa*

**Nicholas Gilbo**, *Leuven*

**Salvatore Gruttadauria**, *Palermo*

**Zhiyong Guo**, *Guangzhou*

**Felix Krendl**, *Innsbruck*

**Georg Lurje**, *Berlino*

**Malcolm P. MacConmara**, *Dallas*

**Paulo Martins**, *Worcester-USA*

**Hynek Mergental**, *Birmingham*

**Andras Meszaros**, *Innsbruck*

**Darius Mirza**, *Birmingham*

**Diethard Monbaliu**, *Leuven*

**Paolo Muiesan †**, *Milano*

**Xavier Muller**, *Lyon*

**David Nasralla**, *London*

**Damiano Patrono**, *Torino*

**Robert J. Porte**, *Groningen*

**Cristiano Quintini**, *Cleveland*

**Matteo Ravaioli**, *Bologna*

**Federica Rigo**, *Torino*

**Renato Romagnoli**, *Torino*

**Mauro Salizzoni**, *Torino*

**Fotios Sampaziotis**, *Cambridge*

**Andrea Schlegel**, *Milano*

**Stefan Schneeberger**, *Innsbruck*

**Richard Xavier Sousa Da Silva**, *Zurich*

**Silvia Trapani**, *Roma*

**Rianne Van Rijn**, *Groningen*

**Christopher JE Watson**, *Cambridge*

**Alberto Zanella**, *Milano*

**Marinella Zanierato**, *Torino*

# GENERAL INFORMATION

## CONGRESS VENUE

**Unione Industriale Torino**

Via Vincenzo Vela, 17

10128 Torino (Italy)

## CME PROVIDER

The event CME RES **38-346788** has been granted **no. 8 CME credits**.

*Accredited Professions:* Surgeons (Disciplines: Pathological anatomy, Anesthesia and Reanimation, Cardiac surgery, Cardiology, General surgery, Pediatric surgery, Vascular surgery, Gastroenterology, Medical genetics, Laboratory medicine, Infectious diseases, General medicine, Internal medicine, Nephrology, Oncology, Clinical pathology, Pulmonology, Radiodiagnosics, Food science and dietetics) Biologist, Dietitian, Hospital Pharmacist, Nurse, Pediatric Nurse, Psychologist, Perfusionist Technician, Medical Radiology Health Technician

## REGISTRATION

The congress is free to attend but the access is limited to 150 people. You can register at <https://webplatform.planning.it/Trapianti2022/register>

## #STAYSAFE

To ensure the safety of speakers, participants, sponsors, technical staff and support staff, PLANNING applies an **anti-contagion protocol** in the organization of each residential

event in compliance with the Decrees of the Presidency of the Council of Ministers in force at the date of the event, available on the website [www.planning.it](http://www.planning.it).

The CME Provider Planning Congressi srl has activated a platform for filling out the CME Online Questionnaire. For the purposes of the acquisition of educational credits, the effective presence of 90% of the total duration of the event and at least 75% of the correct answers to the learning evaluation questionnaire is ESSENTIAL.

Filling out the questionnaire will entitle you to credits ONLY if associated with the verification of actual attendance at the event. There will be no exceptions to these obligations.

## TRAINING OBJECTIVE

**Implementation of culture and safety in the field of transplant donation.**

## CONGRESS ORGANIZER & SECRETARIAT

### PLANNING

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