6th EU-CARDIOPROTECTION COST Action
WG Meeting

March 25th – 27th 2020 Riga, Latvia

Meeting Venue
Avalon hotel & Conferences
13. Janvāra Sreet 19, Riga, LV-1050, Latvia
Phone: +371 67 169 999
https://hotelavalon.eu

Program committee
COST Action Core Group committee
Maija Dambrova, Edgars Liepins, Janis Kuka, Reinis Vilskersts
(local organisers)

General Information
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PRACTICAL INFORMATION

- City bus **Nr 22** from Riga Airport to central Riga; bus stop is just in front of the Riga Aiport and Avalon hotel (when coming from airport -opposite side of the street, stop Autoosta; ~300m). Bus ticket costs 2 EUR (from driver in bus; 1.15 EUR- ticket automat). 10-15 min intervals, time table: [https://saraksti.rigassatiksme.lv/index.html#bus/22/b-a/en](https://saraksti.rigassatiksme.lv/index.html#bus/22/b-a/en)
- Taxi ~15 EUR.

Please book rooms on AVALON HOTEL & Conferences homepage [www.hotelavalon.eu](http://www.hotelavalon.eu), indicating the Special offer code **CARDIO** or directly by e-mail reservations@hotelavalon.eu until **24.02.2020**.

Price offer for period 24-27.03.2020 is as follows:

- Standard room for 1 person - 55.00 EUR/per night
- Standard room for 2 persons - 60.00 EUR/per night
- Superior room for 1 person - 65.00 EUR/per night
- Superior room for 2 persons - 75.00 EUR/per night

Mentioned rate includes hot-buffet breakfast, 2 course dinner for adults on arrival day 24.03.20 (beverages are not included), Wi-Fi and VAT 12%.
Complimentary coffee and tea set, lap-top size safe, iron and ironing board and additional pillow in the room.

Guaranteed reservation can be cancelled without any charge 24 hours before arrival.
In case of late cancellation or no-show Hotel reserves rights to charge a cancellation fee equal to the first night's room rate.

*Check-in time: 15:00 / early CI is subject to availability and for extra cost
*Check-out time: 12:00 / late CO is subject to availability for extra cost
*Pets are not allowed in this hotel
* Airport transfer service for extra cost:
- Baltic Taxi with 4 seats EUR 16.50/one way. Please provide your arrival time and flight number.
Wednesday March 25\textsuperscript{th} 2020

0930-1130 \textbf{Oroboros O2k-Workshop}  
\textbf{Measurement of mitochondrial functionality in cardiac tissues}  
\textit{Erich Gnaiger & Maija Dambrova}

Venue:  
Laboratory of Pharmaceutical Pharmacology  
Latvian Institute of Organic Synthesis  
Aizkraukles Str. 21, LV1006

Optional visit to the Laboratory of Pharmaceutical Pharmacology (Prof. M. Dambrova)

1200-1300 Registration and put posters up
1200-1300 Lunch
1230-1300 \textbf{COST Action Core group meeting – (closed meeting)}

1300-1310 \textbf{Welcome and introductions to meeting}  
Derek Hausenloy, Ioanna Andreadou, Peter Ferdinandy, Maija Dambrova

1310-1330 \textbf{COST ACTION update}  
Derek Hausenloy

\textbf{Opening Keynote Lecture}  
\textbf{Chair: Maija Dambrova}

1330-1420 \textbf{Invited specialist:}  
40 min talk, 10 min QA

Stimulating glucose oxidation and inhibiting fatty acid oxidation as an approach to treating myocardial ischemia/reperfusion injury  
\textit{Gary Lopaschuk (Edmonton, Canada)}

1420-1600 \textbf{WG1 NEW TARGETS}  
\textbf{COST Workshop – Mitochondria/metabolism as targets for cardioprotection}  
\textbf{Chair: Janis Kuka}  
15 min talk and 10 min QA

1. Mitochondrial pathways and respiratory states  
\textit{Erich Gnaiger (Oroboros, Austria)}

2. Measuring metabolic flux in hearts  
\textit{Dunja Aksentijevic (London, UK)}

3. Measuring mitochondrial fatty acid oxidation: concept and reality  
\textit{Marina Makrecka-Kuka (Riga, Latvia)}

4. Mitochondrial imaging  
\textit{Marko Vendelin (Estonia)}

1600-1630 \textbf{Coffee break – Poster viewing}

1630-1830 \textbf{COST Workshop – Mitochondria/metabolism as targets for cardioprotection}  
\textbf{Chair: Edgars Liepinsh}  
15 min talk and 5 min QA

5. Getting to the heart of hypoxia in diabetes
Lisa Heather (Oxford, UK)
6. Characterising malonate as a drug in heart attack and stroke
   Thomas Krieg (Cambridge, UK)
7. The many facets of mitochondrial ROS in cardiac injury and protection
   Fabio Di Lisa (Padova, Italy)
8. Mitochondrial complex 2 as target for cardioprotection
   Antonio Rodríguez Sinovas (Barcelona, Spain)
9. The role of edible compounds targeting mitochondria in order to lead to cardioprotection
   Vincenzo Lionetti (Italy)
10. Redox-sensitive chaperone and protease DJ1 in heart protection
    Lina Badimon (Madrid, Spain)
11. Higher M1CU1/MCU ratio Decrease Mitochondrial Calcium Overload and Contribute to Tolerance of Cardiac Reperfusion Injury in Hypothyroidism.
    Gerardo García-Rivas (Mexico)

1930-2130 Meeting dinner at Hotel
Guided walking tour of Old Riga

Thursday March 26th 2020

0900-1130 WG1 NEW TARGETS – Inflammation/vascular/endothelial/other

Invited specialists:
Chairs: Ioanna Andreadou, Hector Cabrera-Fuentes, Derek Hausenloy
20 min talk and 5 min QA

1. Systemic Blockade of ACVR2B Ligands Protects Myocardium from Acute Ischemia-Reperfusion Injury
   Risto Kerkelä (Finland)
2. Role of MIF proteins in cardioprotection: from production to control of the cardioprotective AMPK pathway
   Jürgen Bernhagen (Munich, Germany)
3. Acute Myocardial Infarction: empty vessels make the most noise
   Stéphane Germain (Paris, France)
4. Intravital imaging of the beating heart microcirculation post-reperfusion injury
   Neena Kalia (Birmingham, UK)
5. New therapeutic approaches to treat ischemic injury
   Gemma Vilahur (Madrid, Spain)
6. Red blood cell both as a mediator of cardiac injury and a target for cardioprotection
   John Pernow (Sweden)

1130-1200 Coffee break – Poster viewing

1200-1245 Short-Term Scientific Missions - REPORTS
Chair: Coert Zuurbier
10 min talk, 5 min QA

1. Activation of PPARβ/δ protects mitochondrial function during myocardial ischemia/reperfusion
   Ioanna Papatheodora (Lazou/Dambrova)
2. Immunomodulation by Kv1.3 channel blockade improves insulin resistance and risk of cardiac arrhythmias in T2D rat model
   Julian Zayas (Casis+Ruiz-Meana/Turan)
3. Discovery and in vitro evaluation of potent inhibitors for reverse activity of mitochondrial F1F0 ATP synthase
Panagiota-Efstatia Nikolaou (Andreadou/Davidson)

1245-1315  Oral abstract ECI presentations
Chairs: Ioanna Andreadou, Gemma Vilahur, Maija Dambrova
10 min talk, 5 min QA

1. Effect of DJ-1 derived peptide, ND-13 to reduce acute myocardial ischemia reperfusion injury
   Sauri Hernandez (Giessen, Germany)
   Janis Kuka (Riga, Latvia)

1315-1400 Lunch – Moderated poster session
Chairs: Gemma Vilahur

1400-1530  Oral abstract ECI presentations
Chairs: Ioanna Andreadou, Gemma Vilahur, Maija Dambrova
10 min talk, 5 min QA

3. Effect of epoxyeicosatrienoic acid-based therapy to acute ischemia/reperfusion injury and post-ischemic heart failure in rats with angiotensin II- dependent hypertension.
   Jaroslav Hrdlička (Czech Republic)
4. Glutaredoxin-2 and Sirtuin-3 deficiencies impair cardiac mitochondrial energetics but their effects are not additive
   Neoma T Boardman (Norway)
5. Pannexin1 as a potential target for prevention of cardiac ischemia/reperfusion injury
   Olga M Rusiecka (Switzerland)
6. Chronic Empagliflozin treatment reduces myocardial infarct size in healthy mice through STAT-3 mediated protection on microvascular endothelial cells and reduction of oxidative stress.
   Panagiotis Efentakis (Greece)
7. Cardiac dysfunction after myocardial infarction: role of pro-inflammatory extracellular vesicles
   Vanessa Biemmi (Switzerland)
8. An intrinsic mechanism of metabolic regulation protects the heart from functional impairment under stress conditions.
   Matteo Sorge (Italy)

WG2 COMBINATION THERAPY
Chairs: Sean Davidson, Attila Kiss, Marisol Ruiz-Meana

1530-1600  Choosing inflammatory/vascular/endothelial therapies for combination therapy
ISCHEMIA trial in cardioprotection context
   Gerd Heusch (Germany)

WG1/WG2 Summary and Action Plan

1600-1630 Coffee break – Poster viewing

1630-1800 WG1/WG2 Workshop – criteria for selective novel target/therapy
Chairs: Hans Erik Botker, Derek Hausenloy, Gerd Heusch

Defining criteria for selecting a novel target/therapy for cardioprotection- group discussion – plan for COST paper-like STAIR criteria
WG1 Summary and Action Plan

1900-2300  Bus transportation to meeting dinner
Lido leisure and restaurant centre with Folk show
https://www.lido.lv/en/your-events/for-tourists/

Friday March 27th 2020

WG4: CONSORTIUM
Chairs: Gerd Heusch, Hans Erik Botker

0900-1030  Invited specialists:
Chairs: Hans Erik Botker
20 min talk, 10 min QA
1. Drug discovery in academia: how to meet industry expectations
   Maija Dambrova (Riga, Latvia)
2. Update on therapeutic hypothermia for cardioprotection
   David Erlinge (Lund, Sweden)
3. Clinical cardioprotection - Where to go from here?
   Michel Ovize (Lyon, Paris)

1030-1200  WG4 Workshop – Small and large animal networks
Chairs: Gerd Heusch, Derek Hausenloy, Hans Erik Botker

Setting up a large animal network - an update - Gerd Heusch
Setting up a small animal network - group discussion

WG4 Summary and Action Plan

1200-1230  Summary and action plan
Meeting close

1230-1300  Lunch