



Metabolic & Cardiovascular Crosstalk: from pathways to biomarkers

Program

6-7 December 2018

La Grande Crypte
69 bis rue Boissière, 75016 Paris

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#ICANSeries2018



5th ICAN Conference Series

METABOLIC & CARDIOVASCULAR CROSSTALK: From pathways to biomarkers

6-7 December 2018

Paris - France

La Grande Crypte
69 bis rue Boissière, Paris, France

Metro Line 2, Victor Hugo stop
Metro Line 6, Boissière stop
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Buses 52 & 82, Victor Hugo-Poincaré stop

Program



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Welcome

Dear friends and colleagues,

On behalf of the conference organizing committee and the Institute of Cardiometabolism and Nutrition (IHU-ICAN), I would like to warmly welcome you to the 5th edition of the ICAN Conference Series, "Metabolic & Cardiovascular Crosstalk: from pathways to biomarkers". This recurring event is now well established as a key scientific milestone in our Institute's calendar.

We are delighted to host international experts at the forefront of their research domains, as well as enable up-and-coming researchers to showcase the breadth and variety of their research. This conference aims to foster new and strengthen existing fruitful collaborations.

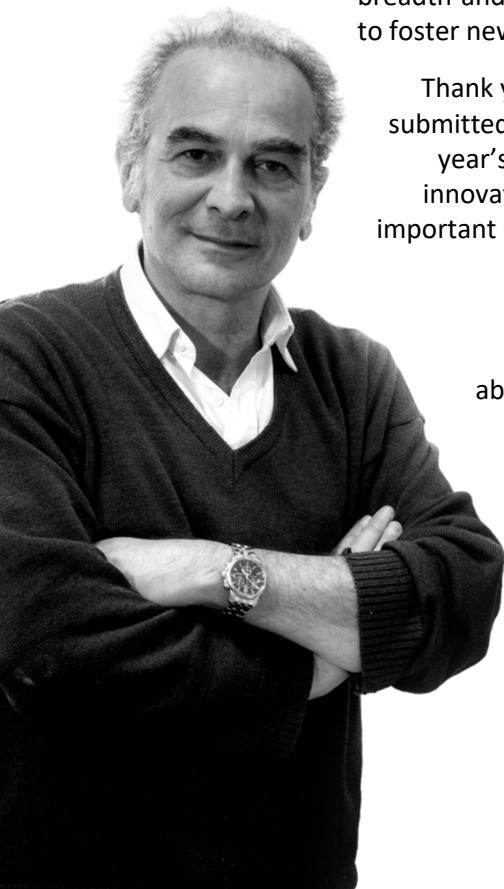
Thank you also to all the researchers and clinicians who submitted abstracts. It is truly encouraging to see that this year's unique program reflects current challenges and innovative approaches in the evolving and increasingly-important cardiometabolic field, IHU-ICAN's central theme.

Last but not least, I would like to thank the Scientific Committee, which generously contributed their valuable time to evaluate abstracts and judge presentations. This conference would not have been possible without you.

I wish you all an excellent conference experience!

A handwritten signature in black ink, reading 'Stéphane Hatem'. The signature is fluid and cursive, with a small horizontal line at the end.

Prof. Stéphane Hatem
IHU-ICAN Director General





Thursday morning: **The hidden intertwining pathways of metabolic & heart disease**

Chairs: **Dr Nadjib Hammoudi** Cardiometabolic Pole, GH Pitié Salpêtrière-Charles Foix
Dr Wilfried Le Goff UMR_S1166, Pitié-Salpêtrière

8:30 – 9:15 **Registration & coffee**

9:20 – 9:30 **Welcoming Address**
Prof. Stéphane Hatem

9:30 – 10:15 **Opening session**

Plenary Opening Address:

9:30 **Prof. André Carpentier** Medical & Science Faculty, University of Sherbrooke
Adipose tissue metabolic dysfunction: involvement in cardiometabolic risk

Highlighted Abstract

10:15 **Dr Maryse Guerin** UMR_S1166, Pitié-Salpêtrière

Association of serum cholesterol efflux capacity with mortality in patients with ST-segment elevation myocardial infarction

10:40 – 11:15 **Coffee**

11:15 – 12:50 **Session II**

Plenary: **Prof. Arne Hansen** Hamburg University

11:15 **Engineered heart tissue: Mechanical load drives metabolic maturation of hiPSC-cardiomyocyte and facilitates disease modelling of phospholamban p.Arg14del mutation**

11:55 **Dr Joe-Elie Salem** Clinical Investigation Centre, GH Pitié Salpêtrière-Charles Foix
Hypogonadism as a reversible cause of torsade de pointes in men

Malorie Blancard UMR_S1166, Pitié-Salpêtrière

12:10 A new catecholaminergic polymorphic ventricular tachycardia disease mechanism associated with a blunted response to adrenergic stimulation

Julien Solinc UMR_S1166, Pitié-Salpêtrière

12:25 PDGFRalpha regulates pulmonary vascular progenitor cell recruitment during early chronic hypoxia

12:40 **Poster blitz**



Thursday afternoon: **Unrecognized agents of cardiometabolic disorders**

Chairs: A/**Prof Estelle Gandjbakhch** Cardiometabolic Pole, GH Pitié Salpêtrière-Charles Foix
Dr Eric Hajdouch UMR_S1138, Cordeliers Research Center

12:50 – 14:10 Lunch & Posters

14:10 – 15:45 Session III

Plenary: **Prof. Christine Poitou** Cardiometabolic Pole, GH Pitié Salpêtrière-CFoix

14:10 **Rare genetic forms of obesity: clinical approaches and current treatments in 2018**

Dr Chloé Amouyal Cardiometabolic Pole, GH Pitié Salpêtrière-Charles Foix

14:50 Restoration of insulin secretion after bariatric surgery in ob/ob mice independently of weight loss

Léa Le Gleau UMR_S1138, Cordeliers Research Center

15:05 Enteroendocrine cell gene profiling in obesity and type 2 diabetes – a study in humans and mice

Jennifer Gorwood UMR_S938, St Antoine Research Center

15:20 Impact of HIV/SIV and of viral proteins on adipose tissue fibrosis and function

15:35 – 16:30 Coffee & Posters

16:30 – 17:35 Session IV

16:30 Plenary: **Prof. Vlad Ratziu** Hepato-Gastro-Enterology Dept. GH Pitié-Salpêtrière-CFoix
NASH as a cardiometabolic risk factor

Dr Jérémie Gautheron UMR_S938, St Antoine Research Center

17:05 The mediator of necroptosis promotes obesity and related disorders in mice

Claudia Savard CHU of Quebec Research Center, School of Nutrition, Laval University

17:20 Early-pregnancy factors associated with third trimester insulin resistance

17:35 – 18:30 Aperitif mixer



Friday morning: **How innovative imagery is driving early cardiometabolic diagnosis**

Chairs: **Prof. Alban Redheuil** LIB, UMR_S1146, GH Pitié Salpêtrière-Charles Foix
Prof. Stéphane Hatem UMR_S1166, Cardiometabolic Pole, GH Pitié Salpêtrière-Charles Foix

8:30 – 9:00 Registration & coffee

9:00 – 10:35 Session V

9:00 Plenary: Prof. Charalambos Antoniades University of Oxford
Perivascular Fat Attenuation Index: a new tool in personalized cardiovascular medicine

Dr Nadine Suffee UMR_S1166, Pitié-Salpêtrière
9:40 Cell specific reactivation of epicardium at the origin of fibro-fatty remodeling of the atrial myocardium

Elodie Baptista UMR_S1166, Pitié-Salpêtrière
9:55 High fat diet induces metabolic changes, electrical remodeling and vulnerability to arrhythmia of atria in mice

10:10 Sophia Houriez-Gombaud-Saintonge LIB, UMR_S1146, Pitié-Salpêtrière
 Evaluation of left ventricular diastolic function using 4D flow MR imaging

10:25 – 11:20 Coffee & Posters

11:20 – 12:55 Session VI

11:20 Plenary: Prof. João Lima Johns Hopkins School of Medicine
Phenotyping the left atrium as a marker of future cardiovascular events

12:00 Plenary: A/Prof. Jessica Bastiaansen University Hospital of Lausanne
The hyperpolarized heart: Noninvasive metabolic imaging of cardiac diseases

12:30 A/Prof. Thomas Dietenbeck LIB, UMR_S1146, Pitié-Salpêtrière
 Automated 3D MRI aortic morphometry demonstrates the enhanced value of volumes compared to diameters

12:45 Poster blitz



Friday afternoon: **Immunometabolism in cardiometabolic disease**

Chairs: A/Prof. **Bertrand Blondeau** UMR_S938, Saint Antoine Research Centre
Dr Sophie Nadaud UMR_S1166, Pitié-Salpêtrière

12:55 – 14:10 Lunch & Posters

14:10 – 15:25 Session VII

14:10 Plenary: A/Prof. Stoyan Ivanov University Côte d'Azur
Macrophage metabolic adaptation during inflammation

14:40 *Mathilde Flamant* UMR_S1166, Pitié-Salpêtrière
Protective role of macrophages in early adaptive cardiac hypertrophy

14:55 *Emilie Capel* UMR_S1138, Cordeliers Research Center
MFN2-associated lipomatosis: clinical spectrum and impact on adipose tissue, and cell modeling

15:10 *Dr Franck Phan* UMR_S1138, Cordeliers Research Center
Role of the receptor RANK and its ligand RANKL in the development of NAFLD

15:25 – 16:10 Coffee

16:10 – 17:00 Session VIII

Highlighted Abstract

16:10 *Dr Edi Prifti* Integromics, IHU-ICAN
Interpretable and accurate prediction models for metagenomics data

Highlighted Abstract

16:35 *Dr Wilfried Le Goff* UMR_S1166 Pitié-Salpêtrière
Modulation of the HDL phospholipidome by ABCG1 enhances their atheroprotective properties

17:00 – 17:15 Closing address & AstraZeneca young investigator prizes
Stéphane Hatem



Practical information

About the poster blitz

Some posters will be featured in Poster Blitz sessions. The poster blitz is a short oral pitch (1 minute max) presented to the conference from the podium to explain why a poster is interesting, and to entice people to visit. This is an exercise similar to an elevator pitch. The instructions are as follows:

- You have 1 minute max to give us a teaser about your poster.
- The poster blitz will not be judged.
- The poster blitz is in English.
- A single PowerPoint slide will be created and shown for you, containing your name, affiliation, poster number, and poster title.

Conference language

The conference language is English, for both talks and posters.

Badges

Your badge is your identification and your conference pass, please make sure you wear it at all times. Should you misplace your badge, please contact the reception desk as soon as possible.



Poster Blitz Thursday 12:40

- Poster 01** **Zahia TOUAT-HAMICI:** Oligogenic inheritance of ventricular fibrillation with Purkinje network short-coupled variant of torsade de pointes
- Poster 03** **Flavie ADER:** *FLNC* mutations in patients with cardiomyopathies: Prevalence and genotype-phenotype correlations
- Poster 09** **Janie ALLAIRE:** Relationship between the *in vivo* metabolism of apolipoprotein B100-containing lipoproteins and LDL features
- Poster 11** **Bénédicte TREMBLAY:** Gene co-expression network analysis in the relationship between plasma carotenoids and lipid profile
- Poster 13** **Noemie DANIEL:** Impacts of fiber and fat on metabolism through hepatic bile acids and gut microbiota specific modulation in mice
- Poster 21** **Volatiana RAKOTOARIVELO:** Identification of adipose tissue inflammatory profile of obese and diabetic patients

Poster Blitz Friday 12:45

- Poster 02** **Jérôme LAMY:** The differential meaning of LV and LA strains in aortic valve stenosis: a feature tracking MRI study
- Poster 04** **Mikael LAREDO:** Outcomes of patients with arrhythmogenic right ventricular cardiomyopathy/dysplasia after catheter ablation of stable ventricular tachycardia without an implantable cardioverter-defibrillator
- Poster 06** **Mathilde MOUCHIROUD:** Identification of a new hepatokine expressed and secreted in response to steatosis
- Poster 08** **Kevin BOUAOU:** Relative aortic blood pressures using 4D flow MRI: associations with age and aortic tapering
- Poster 10** **Sophia HOURIEZ-GOMBAUD-SAINTONGE:** Assessment of aortic pulse wave velocity using 4D flow MR imaging: methods comparison
- Poster 16** **Alice BELLICHA:** Relations between gait patterns, body composition and physical fitness in obese women (FAMOUS study)



All Posters

Thursday lunch: 12:50 – 14:10

Thursday afternoon: 15:35 – 16:30

Friday morning: 10:25 – 11:20

Friday lunch: 12:55 – 14:10

Poster 01	Thursday lunch	Zahia TOUAT-HAMICI: Oligogenic inheritance of ventricular fibrillation with Purkinje network short-coupled variant of torsade de pointes
Poster 02	Friday morning	Jérôme LAMY: The differential meaning of LV and LA strains in aortic valve stenosis: a feature tracking MRI study
Poster 03	Thursday lunch	Flavie ADER: <i>FLNC</i> mutations in patients with cardiomyopathies: Prevalence and genotype-phenotype correlations
Poster 04	Friday morning	Mikael LAREDO: Outcomes of patients with arrhythmogenic right ventricular cardiomyopathy/dysplasia after catheter ablation of stable ventricular tachycardia without an implantable cardioverter-defibrillator
Poster 05	Thursday afternoon	Juan DE TORO-MARTÍN: DNA methylation patterns of blood leukocytes as biomarkers of obesity-related complications
Poster 06	Friday morning	Mathilde MOUCHIROUD: Identification of a new hepatokine expressed and secreted in response to steatosis
Poster 07	Thursday afternoon	Alexandrine LIBOZ: Beta-cell neogenesis as an adaptive response to insulin resistance
Poster 08	Friday morning	Kevin BOUAOU: Relative aortic blood pressures using 4D flow MRI: associations with age and aortic tapering
Poster 09	Thursday lunch	Janie ALLAIRE: Relationship between the in vivo metabolism of apolipoprotein B100-containing lipoproteins and LDL features
Poster 10	Friday morning	Sophia HOURIEZ-GOMBAUD-SAINTONGE: Assessment of aortic pulse wave velocity using 4D flow MR imaging: methods comparison



Poster 11	Thursday lunch	Bénédicte TREMBLAY: Gene co-expression network analysis in the relationship between plasma carotenoids and lipid profile
Poster 12	Friday lunch	Maria Fernanda SALAS TAPIA: Spatio-temporal investigation of cholesterol/coprostanol metabolism by host and gut microbiota
Poster 13	Thursday lunch	Noemie DANIEL: Impacts of fiber and fat on metabolism through hepatic bile acids and gut microbiota specific modulation in mice
Poster 14	Friday lunch	Nicolas PERROT: Lipoprotein-associated phospholipase A2 activity, genetics, and risk of aortic valve stenosis
Poster 15	Thursday afternoon	Héloïse DALLE: VEGF-A regulation by glucocorticoids in an adipocyte murine model of glucocorticoid receptor invalidation and in 3T3-F442A adipocytes
Poster 16	Friday morning	Alice BELLICHA: Relations between gait patterns, body composition and physical fitness in obese women (FAMOUS study)
Poster 17	Thursday afternoon	Antonio GALLO: Lipoprotein subfractions profiling: any contribution in residual risk assessment?
Poster 18	Friday lunch	Amir ZOUAGHI: Ventricular arrhythmia recurrence in patients with myocarditis, a French multicenter retrospective study
Poster 19	Thursday afternoon	Florent HUANG: Left atrial strain to predict exercise intolerance among patients with hypertrophic cardiomyopathy
Poster 20	Friday lunch	Nicolas DOISNE: A new <i>SCN5A</i> mutation responsible for Multifocal Ectopic Purkinje-Related Premature Contractions
Poster 21	Thursday lunch	Volatiana RAKOTOARIVELO: Identification of adipose tissue inflammatory profile of obese and diabetic patients
Poster 22	Friday lunch	Charlotte DUPONT: Metabolic syndrome and smoking are independent risk factors of male idiopathic infertility
Poster 23	Thursday afternoon	Eric HAJDUCH: Endogenous ceramide species generated from C2-ceramide inhibit insulin signal in muscle cells



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