



Vulnerable
Patient
Meeting

REGINA PALACE

23-25 JUNE
Stresa-Italy

**vpm2019**
A Cardialysis Event

DAY 1

Basics

- 📄 Exploring inflammation-based targets in Atherosclerosis
- 📄 Translational Science in the Vulnerable Plaque and Vulnerable Patient
- 📄 Imagenetics/Imagomics
- 📄 Special lectures

DAY 2

Mechanisms and Imaging

- 📄 Non-invasive imaging
- 📄 Intravascular Imaging on LRP
- 📄 Standalone intravascular imaging
- 📄 Advances in hybrid intravascular imaging
- 📄 Computational fluid dynamic analysis -2
- 📄 Early stage development in cardiovascular disease

DAY 3

Treatment

- 📄 Debate: ASPIRIN way out or renaissance?
- 📄 After plaque rupture, Post-sudden death, most vulnerable patient
- 📄 Treating the Vulnerable Plaque – Systemic Therapy
- 📄 Systemic Treatment
- 📄 Last debate

DAY 1

Sunday 23 June, 2019



3

08:00

Welcome words
Patrick W. Serruys

08:10

Exploring inflammation-based targets in Atherosclerosis
Naïve Question:
Which inflammatory target should we focus on?
Chairmen: Martin Bennett and Ranil De Silva

08:10

Key note lecture: ABC of immune system in atherosclerosis
Jon Laman

08:25

IL1 and IL6 biology and translation
Wolfgang Koenig

08:35

Evaluation of shear stress and strain in atherosclerotic pig coronary arteries - towards predictive models of advanced plaque formation
Ranil De Silva

08:45

Takayasu arteritis as a biological testing ground for atherosclerosis: Novel targets in inflammation
Justin Mason

08:55

Mechanistic aspects of perivascular fat in atherosclerosis
Antoniades Charalambos

09:05

The humoral immune system as a target in atherosclerosis
Ramzi Khamis

09:15

Discussion

09:50

Coffee break

10:20

Translational Science in the Vulnerable Plaque and Vulnerable Patient
Chairmen: Justin Mason and Amir Lerman

10:20

ABC of Translational Molecular targeting of atherosclerosis
Ramzi Khamis

10:30

Adipose tissue and atherosclerosis on MSCT
Antoniades Charalambos

DAY 1

Sunday June 23, 2019 4

10:40 Vascular smooth muscle cell death, autophagy and senescence in Atherosclerosis
Martin Bennett

10:50 Accelerated atherosclerosis related to systemic inflammatory disease and potential targets
Justin Mason

11:00 Lipid profile in preclinical model and its impact on treating atherosclerosis
Ayla Hoogendoorn

11:10 What's new in vulnerable plaque pathology?
Michael Joner

11:20 Association between oxidation modified lipoproteins and atherosclerosis in psoriasis
Nehal N. Mehta

11:30 **Discussion**

12:10

Lunch

13:50

Imagenetics/Imagomics

Naïve question:

Can we combine -omics and cardiac imaging to refine prediction of vulnerable patient?

Chairmen: Wolfgang Koenig and Ramzi Khamis

13:50 More effective LDL-C lowering for primordial prevention, even in individuals conventionally considered at optimal risk."
Javier Sanz

14:00 Genomics and phenotypics of immune cell subsets
Jon Laman

14:10 Biomarker based risk model to predict cardiac mortality in stable coronary artery disease
Lars Wallentin

14:20 Predictive value of proteomics for plaque morphology
Wolfgang Koenig

14:30 Artificial Intelligence in the context of disease prevention: digital biomarkers
Amir Lerman

14:40 Identification of Vulnerable Plaque by NIR spectroscopy: an FDA approved imaging marker
James Muller

14:50 Nuclear imaging of inflammation targets
Kim van der Heiden

15:00 Combination of Lipodomics and imaging for lipid profiling of atherosclerosis: MALDI results
Gijs van Soest

15:10 **Discussion**

15:50 Coffee Break

16:20 Special lectures
Chairmen: Amir Lerman and James Muller

16:20 Pollution, Tobacco, nicotine substitutes and the environment
Potential Impact on Vulnerable Plaque
John Ambrose

16:30 Psoriasis, Inflammation and Cardiometabolic Diseases: A Human Model
Nehal N. Mehta

16:40 **Discussion**

17:00 Adjourn

DAY 2

Monday **June 24, 2019** / 6

08:00

Non-invasive imaging

Technical Corner:

Advance in Cardiac MSCT

Chairmen: Daniele Andreini and Bon-Kwon Koo

08:00 Future of interventional guidance

Nicolas Foin

08:10 Update from GE

Paul Deak

08:20 Update from HeartFlow

Charles Taylor

08:30 Artificial intelligence and imaging

Wiro Niessen

08:40 **Discussion**

08:55

Non-invasive imaging

Technical Corner:

Cardiac MSCT for Vulnerable Plaque detection

Chairmen: Patrick W. Serruys and Ton van der Steen

08:55 ABC of “vulnerable” plaque in MSCT

Daniele Andreini

09:05 Deep learning in coronary imaging, from the lumen, the vessel wall, the plaque to the automatic Syntax Score

Michiel Schaap

09:15 Incremental value of FFRCT on prediction of future event. Emerald II: an update

Bon-Kwon Koo

09:25 FFRCT guidance in diagnosis and treatment of suspected CAD

Gregg W. Stone

09:35 CTCA for assessing the effect of emerging therapies targeting atherosclerosis

Yoshi Onuma

09:45 Emerging PET tracers for assessing coronary artery inflammation

Jason Tarkin

09:55 **Discussion**

Diagnostic angiography is at dismal and MSCT is one stop shop imaging tool for CAD - from asymptomatic patients to 3VD, for planning of PCI and CABG.

10:15

Coffee Break

10:35

Intravascular Imaging on LRP

Chairmen: Christos Bourantas and Akiko Maehara

10:35

Basics and new developments of NIR-Spectroscopy Technology including newest changes in catheter

Cherry Greiner

10:45

NIR-Spectroscopy and Intravascular Ultrasound to Detect Vulnerable Plaques And Vulnerable Patients: Insights From The Lipid-rich Plaque (LRP) Study

Carlo Di Mario

10:55

What are the implication of LRP study on the PROSPECT II and PREVENT studies

Gregg W. Stone

11:05

Discussion

Are we satisfied with the diagnostic capability of intravascular imaging to detect VP?

11:15

Standalone intravascular imaging

Chairmen: Yoshi Onuma and Ton van der Steen

11:15

Reclassification of Plaque rupture and erosion in relationship with healed plaque

Akiko Maehara

11:25

Applications of intravascular imaging in vulnerable plaques detection: An expert consensus document of the European Association of Percutaneous Cardiovascular Interventions

Gulio Guagliumi

11:35

Advances in OCT imaging - Attenuation compensated, polarized OCT, micro OCT

Brett Bouma

11:45

Super fast OCT

Ton van der Steen

11:55

Discussion

12:15

Lunch

DAY 2

Monday June 24, 2019 / 8

13:35

Advances in hybrid intravascular imaging

Chairmen: Ton van der Steen and James Muller

- 13:35 Miniature NIRF-IVUS system
Farouc Jaffer
- 13:45 SpectraWAVE: NIRS-OCT
Gregg W. Stone
- 13:55 Inflammations and DCBs, and a new anti restenosis – insights from NIRF-OCT
Farouc Jaffer
- 14:05 CONAVI : IVUS-OCT (First-in-man)
Brian Courtney
- 14:15 TERUMO : IVUS -OCT
Yoshi Onuma
- 14:25 IVUS- photoacoustic imaging
Gijs van Soest
- 14:35 **Discussion**

14:55

Computational fluid dynamic analysis -2

Naïve question:

What is the impact of biomechanics on biology?

Chairmen: Jolanda Wentzel and Peter Stone

- 14:55 **Keynote lecture:** Change in paradigm of vulnerable plaque: from plaque rupture to erosion, a computational fluid dynamic analysis
Steve White
- 15:10 ABC of biomechanical lexicon and atherosclerosis based on the European expert consensus
Frank Gijsen
- 15:20 Link between inflammation, senescence, apoptosis and shear stress
Paul Evans
- 15:30 CFD meet Large Data: Mechanosensitive microRNA families regulate mechanotransduction
Rob Krams
- 15:40 Stents, shear stress and endothelium
Paul Evans
- 15:50 **Discussion**

16:10

Coffee Break

16:30

Early stage development in cardiovascular disease

Naïve question:

Are we ready for prime time of endothelial shear stress?

Chairmen: Ranil De Silva and Frank Gijzen

- 16:30 Spatial relationships among local shear stress, MLA, and NIRS lipid signal in patients with CAD: Implications for individual plaque destabilization
a. From Rotterdam
Jolanda Wentzel
- 16:40 b. From Boston
Peter Stone
- 16:50 Emerging concepts of non-invasive calculation of local endothelial shear stress by coronary computed tomography angiography
Peter Stone
- 17:00 Role of multidirectional shear stress on atherosclerotic disease progression a sub-analysis of the IBIS4 study
Christos Bourantas
- 17:10 Plaque stress and plaque vulnerability insights from the PROSPECT study
Martin Bennett
- 17:20 Colocalization of Mechanical stress and plaque rupture
Ali Akyildiz
- 17:30 Shear Stress in cathlab to guide PCI, implication of strut thickness and deformations
Ryo Torii
- 17:40 Shear stress and coronary remodeling, 3 years after PCI (ABSORB II)?
Patrick W. Serruys
- 17:50 Return of local treatment: Bioresorbable stent and coronary hemodynamics
Javier Escaned
- 18:00 3D-QCA software makes on-line shear stress feasible
a. Medis approach
Hans Reiber
- 18:10 b. PIE medical approach
Jean-Paul Aben

DAY 2

Monday June 24, 2019 / 10

18:20

Debate

Naïve Questions:

Which imaging modality, which parameters, at which time point is the most relevant to detect vulnerable plaque and predict clinical events?

Do the current imaging parameters (surrogate endpoints) reflect the clinical effect of therapeutic agent?

18:50

Adjourn

DAY 3

Tuesday June 25, 2019 / 11

08:00

Debate: ASPIRIN way out or renaissance?

Naïve Questions:

- Do we need aspirin to prevent event of vulnerable patient?*
- Should we continue to use aspirin for primary prevention?*
- Should we continue to use aspirin for 2nd prevention after cardiovascular events?*
- Should we continue to use aspirin after PCI?*
- Is there any role for new formulation of aspirin?*

Chairmen: Yoshi Onuma and Amir Lerman

08:00

The best strategy for the use of aspirin in the primary prevention of cardiovascular disease may simply be to prescribe a statin instead

Yoshi Onuma

08:10

A Critical Appraisal of Aspirin in Secondary Prevention. Is Less More?

Giuseppe Gargiulo

08:25

Aspirin is on the way out for post-PCI antiplatelet therapy: Insights from the Global Leaders and ASET?

Patrick W. Serruys

08:40

What will we see in the Twilight? Sneak peak in the TWILIGHT trial

Roxana Mehran

08:55

Renaissance of aspirin will be achieved with a new, safer and more reliable formulation

Makis Deliargyris

09:10

Debate: ASPIRIN way out or renaissance?

09:45

Coffee Break

10:15

After plaque rupture, Post-sudden death, most vulnerable patient

Chairmen: Patrick W. Serruys and Christos Bourantas

10:15

Supersaturated oxygen for treatment of acute myocardial infarction

Gregg W. Stone

10:25

Landscape of acute mechanical circulatory support

Susanna Price

DAY 3

Tuesday June 25, 2019 / 12

10:35 Structure-function relationships in the post-MI remodelling heart –insights from combined diffusion and strain cardiovascular magnetic resonance

Ranil De Silva

10:45 Rationale and landscape for right heart support (PERKAT, Impella RP, TandemLife Protek Duo and Renal Guard)

Osama Soliman

10:55 Clinical experience of Impella from Italian Registry

Alaide Chieffo

11:05

Discussion

11:30

Treating the Vulnerable Plaque – Systemic Therapy

Naïve question:

What is the role of DOACS to manage residual thrombotic risk?

Chairmen: Dorian Haskard and Gregg W. Stone

11:30

Special lecture: Implications of gut microbiome for cardiovascular disease

Thomas Luscher

11:40

ABC of Thrombosis and Bleeding (Occlusion and Lysis Time)

Thomas Luscher

11:50

Discussion

12:00

Lunch

13:30

Systemic Treatment

Naïve question 1:

What is the role of immunomodulating agent in management of vulnerable plaque?

Chairmen: Ramzi Khamis and Gregg W. Stone

13:30

ABC of inflammation as target of therapy in atherosclerosis

Thomas Luscher

13:40

Update on rheumatological treatments for atherosclerosis – IL6, IL1, Feboxustat and JAK inhibitors

Dorian Haskard

13:50

CANTOS and CIRT – successful proof of concept, but why no clinical adoption? Lessons learnt for developmental pathway of new agent

Wolfgang Koenig

14:00

Discussion

14:20

Naïve question 2:

Which patient, when, how long and at which cost do we need to allow PCSK-9?

Chairmen: Ranil de Silva and Wolfgang Koenig

14:20

Rationale for PCSK9 inhibition in ACS (and atherosclerosis?)

Thomas Luscher

14:30

Answers from ODYSSEY, FOURIER and GLAGOV trials

Wolfgang Koenig

14:40

Answers from ORION trials

David Kallend

14:50

New cholesterol modifying agent -1 What do we expect from Bempedoic Acid?

Alberico L. Catapano

15:00

New cholesterol modifying agent -2 What do we expect from apabetalone?

Norman Wong

15:10

Discussion

15:40

Coffee Break

16:10

Last debate

Open session:

What was new?

Summary of each session/day

(6 chairmen) x 3 min Talks (1 slide) followed by discussion...

Chairmen: Patrick W. Serruys and Yoshi Onuma

17:00

Adjourn

GENERAL INFORMATION

DATES & PLACE

The Meeting will be held June 23, 24 and 25, 2019, at the Regina Palace Hotel, in Stresa Lago Maggiore, Italy.

Perhaps more than any other Lake Maggiore town, Stresa, with a ringside view of sunrise over the lake, captures the lake's prevailing air of elegance and bygone decadence. This is most evident in the string of belle époque confections along the waterfront, a legacy of the town's easy access from Milan, which has made it a favourite for artists and writers since the late 19th century. The water front promenade offers excellent views of the surrounding, the mountains, and the Borromean islands in the lake.

VENUE

REGINA PALACE, STRESA

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<http://www.reginapalace.it/en> | The Regina Palace is located in Stresa.

SCIENTIFIC PRESENTATIONS

The Meeting room will be equipped with Screen, Data Video Projector for Microsoft Power Point presentations, Note pads, pens and laser pointers. Please download your presentation at the meeting secretariat in advance (preferably the day before) and fill in the relevant presenter material form.

TRANSFER SERVICES FROM/ TO AIRPORT

Transfer services will be available to/from Malpensa and Linate airport according to your flight itinerary. Kindly note, that there will be a transfer service arranged for you upon your arrival and departure. Pick-up time for your departure transfer will be 3hrs prior your flight departure to Malpensa airport and 3hrs and 30mns prior your flight departure to Linate airport.

MEETING SECRETARIAT & OFFICIAL TRAVEL AGENCY

The Meeting's Secretariat will operate during meeting hours.



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SPECIAL THANKS TO



