



ICELAND  
REYKJAVIK  
HILTON NORDICA

25<sup>th</sup>  
29<sup>th</sup>  
JUNE 2016

# Vulnerable Patient Meeting

A Cardialysis Event

**VPM2016 PROGRAM**

## DAY 1

### Basics

- 📖 Key note lectures
- 📖 Who is at risk of developing atherosclerosis? – from Framingham to ‘Omics’
- 📖 Mechanisms of Atherogenesis
- 📖 Targets for molecular imaging
- 📖 Interventions to prevent coronary disease development
- 📖 Non-traditional risk factors
- 📖 Who will become vulnerable and when will it happen?
- 📖 How do we identify vulnerable myocardium, imaging or functionality test?
- 📖 “Grey” cases discussion: with or without clinical consequences

## DAY 2

### Mechanisms and Imaging

- 📖 Intracoronary Imaging
- 📖 TECHNICAL CORNER
- 📖 Non-invasive imaging
- 📖 Biomechanical modelling
- 📖 Vulnerability: What to do after the event

## DAY 3

### Treatment















- 📖 Mechanisms of plaque instability
- 📖 Thrombosis and antithrombotic therapies
- 📖 Treatment options for vulnerable plaques/patients
- 📖 TRIAL CORNER on PCSK-9
- 📖 Anti-inflammatory drug strategies
- 📖 Treatments to reduce patient vulnerability
- 📖 FINAL DEBATE Vulnerable Plaque – Simply a Myth or is the Requiem premature?

# DAY 1

Sunday June 26, 2016



3

-  08:00  **Welcome remarks**  
**Prof. Patrick W. Serruys** and  
guest director **Prof. Bernard Gersh**
  
-  **KEY NOTE LECTURES**  
**Moderators: Vilmundur Gudnason and Karl Andersen**
  
-  08:05  What have I learned from VPM 2015? A 10,000 feet view  
**Patrick W. Serruys (NL)**
  
-  08:25  The vulnerable population. The epidemic of CVD in the  
developing world: Global implications.  
**Bernard Gersh (USA)**
  
-  08:45 *Burning questions (5min)*
  
-  **Who is at risk of developing Atherosclerosis?**  
**- from Framingham to 'Omics'**  
**Chairmen: Eric Peterson and Bernard Gersh**
  
-  08:50  Precision medicine initiative- Dream or reality?  
**Eric Peterson (USA)**
  
-  09:00 *One burning question (3min)*
  
-  09:03  From genome wide association to whole genome  
sequencing and epigenetics in CAD - What has been  
delivered and what can we expect?  
**Kari Stefansson (IS)**
  
-  09:13 *One burning question (3min)*
  
-  09:16  Cardiovascular phenotyping in population studies -  
reclassification of CV risk in moderate/low risk individuals.  
**Vilmundur Gudnason (IS)**
  
-  09:31 *One burning question (3min)*
  
-  09:34  Discussion (10 min.)



### Mechanisms of Atherogenesis

Chairmen: Ramzi Khamis and Kari Stefansson



09:45



Ageing and the Biology of Atherosclerosis  
**Toren Finkel (USA)**



09:55

*One burning question (3min)*



09: 58



Effect of DNA damage and repair on Atherosclerosis –  
a clinical perspective  
**Martin Bennett (UK)**



10:08

*One burning question (3min)*



10:11



Assessing oxidative stress, its impact on atherogenesis  
and predicting clinical outcomes  
**Ramzi Khamis (UK)**



10:21

*One burning question (3min)*



10:24



Discussion (10 min)



10:35



Coffee break (30 min)



### Targets for molecular imaging

Chairmen: Marc Dweck and Rob Krams



11:05



Macrophages  
**Farouc Jaffer (USA)**



11:15

*One burning question (3min)*



11:18



Potential clinical imaging targets: hypoxia and  
haemorrhage  
**Joe Boyle (UK)**



11:28

*One burning question (3min)*



11:31



Anti-oxidised LDL antibodies from predicting risk in blood  
to imaging atherosclerosis.  
**Ramzi Khamis (UK)**



11:41

*One burning question (3min)*




11:44



Discussion (10 min)

 **Interventions to Prevent Coronary Disease Development**  
**Chairmen: Farouc Jaffer and Martin Bennett**

 11:54

 Focus on families and peer pressure- it works!  
**Juan Alvira (ES)**

 12:04

*One burning question (3min)*


 12:07

 Hypertension – Impact of Under-treatment on Global CVD burden implications of SPRINT.  
**Eric Peterson (USA)**

 12:17

*One burning question (3min)*

 12:20

 Cardiotoxicity of Tyrosine Kinase Inhibitors: Novel mechanisms and implications for atherosclerosis  
**Ori Ben-Yehuda (USA)**

 12:30

*One burning question (3min)*

 12:33

 Discussion (10 min)

 12:45

 **Lunch Break**

 **Non-traditional risk factors**  
**Chairmen: Vilmundur Gudnason and Eric Peterson**


 14:15

 Endothelial dysfunction and vasomotion  
**Amir Lerman (USA)**

 14:25

*One burning question (3min)*

 14:27

 Noninvasive assessment of Endothelial Function: Can it identify the Vulnerable Patient?  
**Ori Ben-Yehuda (USA)**

 14:37




















*One burning question (3min)*


 14:40

 Sleep disorders and cardiovascular risk  
**Bernard Gersh (USA)**

 14:50

*One burning question (3min)*

-  14:53  Patients with chronic kidney disease  
**Lilach Lerman (USA)**  
*One burning question (3min)*
-  15:03
-  15:06  Discussion (15 min)
-  **Who will become vulnerable and when will it happen?**  
**Chairmen: Wolfgang Koenig and James Muller**
-  15:21  Circulating biomarkers for predicting future cardiovascular risk – do we need more that high sensitivity troponin and BNP?  
**Stefan Blankenberg (DE)**  
*One burning question (3min)*
-  15:31
-  15:34  Beyond circulating biomarkers: In situ biomarkers assessment is essential to identify the vulnerable patients.  
**Nick West (UK)**  
*One burning question (3min)*
-  15:44
-  15:47  MSCT vs. PET-CT for identification of vulnerable patient – what PREFFIR will tell us.  
**Marc Dweck (UK)**  
*One burning question (3min)*
-  15:57
-  16:00  Discussion (10 min)
-  16:10  **Coffee break (30 min)**

 **How do we identify vulnerable myocardium, imaging or functionality test?**  
Chairmen: Amir Lerman and James Muller

 16:40

 I will use MSCT<sub>FFR</sub> for risk stratification.  
**Pamela Douglas (USA)**

 16:50

*One burning question (3min)*


 16:53

 Don't forget the importance of microcirculation  
**Javier Escaned (ES)**

 17:03

*One burning question (3min)*

 17:06

 Coronary vasospasm can cause plaque thrombosis  
**Takashi Akasaka (JP)**

 17:16


*One burning question (3min)*

 17:19

 Discussion (10 min)

 **"Grey" Cases Discussion: with or without clinical consequence**


 17:29

 How do you treat your boss? Physiology- guided or IVUS-guided?  
**Ramzi Khamis (UK)**

 17:39

*One burning question (3min)*

 17:42

 How do you treat your boss? iFR-, FFR- or OCT-guided?  
**Ranil de Silva (UK)**


























 17:52

*One burning question (3min)*

 17:55

 Discussion (5 min)

 **Intracoronary Imaging**  
**Chairmen: Ton van der Steen and Gregg Stone**

-  08:00  New development in intravascular ultrasound  
**Gary Mintz (USA)**  
*One burning question (3min)*
-  08:10
-  08:13  New development in intravascular optical coherence tomography. (ESCORT Trial update )  
**Takashi Akasaka (JP)**  
*One burning question (3min)*
-  08:23
-  08:26  Multimodality catheter development: OCT-NIRS, OCT-NIRF and IVUS-NIRF  
**Farouc Jaffer (USA)**  
*One burning question (3 min)*
-  08:36
-  08:39  NIRS-IVUS for detection of vulnerable plaque.  
**David Erlinge (SE )**  
*One burning question (3min)*
-  08:49
-  08:52  Serial (5yrs) analysis of fused OCT IVUS GS and IVUS VH. What does multimodality imaging add?  
**Patrick W. Serruys (NL)**  
*One burning question (3min)*
-  09:02
-  09:05  Discussion (15 min)
  
-  **09:20**  **TECHNICAL CORNER (5 slides - 5 min.)**
-  NIRS as a possible tool to detect erosion sites  
**James Muller (USA)**
-  Combined catheter of OCT-IVUS  
**Yoshi Onuma (NL)**
-  Heartbeat OCT  
**Ton van der Steen (NL)**
-  Photo-acoustic imaging  
**Ton van der Steen (NL)**
  
-  09:40  Discussion (10 min)



# DAY 2

Monday **June 27**, 2016



Brillouin imaging  
**Rob Krams (UK)**



Time-Resolved Spectroscopy IVUS  
**Christos Bourantas (UK)**



Xray angiography-derived FFR and shear stress  
**Jean-Paul Aben (NL)**



High Definition IVUS - The ACIST HDi System  
**Gary Mintz (USA)**



10:10



Discussion (10 min)



10:20



Innovations in software and post-processing  
**Yoshi Onuma (NL)**



10:30

*One burning question (3min)*



10:33



**Coffee break (30 min)**



**Non-invasive imaging**  
Chairmen: **Udo Hoffmann and Gary Mintz**



11:00



The relationship between invasive and non-invasive imaging for vulnerable plaques.  
**James Muller (USA)**



11:10

*One burning question (3min)*



11:13



Culprit and vulnerable plaque in CT (Trial Updates)  
**Udo Hoffmann (USA)**



11:23

*One burning question (3min)*



11:26



Dixon MRI  
**Jouke Smink (NL)**



11:36

*One burning question (3min)*



11:39










MRI for plaque vulnerability  
**Rene Botnar (UK)**



11:49

*One burning question (3min)*

-  11:52  Update of PESA: MRI  
**Juan Alvira (ES)**  
*One burning question (3min)*
-  12:02
-  12:05  Panel discussion (20 min)
- Will we ever solve the problem of vulnerable plaque with intravascular imaging?
  - We will solve the problem with non-invasive imaging.
  - No imaging needed.
-  12:25  **Lunch Break**
-  **Biomechanical modelling**  
**Chairmen: Peter Stone and Ton van der Steen**
-  13:45  Haemodynamic determinants of advanced coronary plaque formation  
**Ranil de Silva (UK)**  
*One burning question (3min)*
-  13:55
-  13:58  Shear stress is the determinant of neoatherosclerosis and stent failure  
**Christos Bourantas (UK)**  
*One burning question (3min)*
-  14:08
-  14:11  What influences plaque progression and vulnerability most: High shear stress, low shear stress, or oscillatory shear stress?  
**Jolanda Wentzel (NL)**  
*One burning question (3min)*
-  14:21
-  14:24  Linking haemodynamics with biology – systems biology of advanced atherosclerotic plaque formation  
**Rob Krams (UK)**  
*One burning question (3min)*
-  14:34
-  14:37  Applying shear stress to PROSPECT  
**Peter Stone (USA)**  
*One burning question (3min)*
-  14:47

-  14:50  Is shear stress ready for prime time? Feasibility of on-line analysis and what decision could be made based on shear stress.  
**Academic Perspective: Frank Gijzen (NL)**  
**What we need from industry: Christos Bourantas (UK)**  
*One burning question (3min)*
-  15:10
-  15:13  Discussion (20 min)
-  **Vulnerability: What to do after the event**  
**Chairmen: Ramzi Khamis and James Muller**
-  15:33  Cardioprotection after reperfusion - it works in animals but why not in patients?  
**Bernard Gersh (USA)**  
*One burning question (3min)*
-  15:43
-  15:46  Intracoronary infusion of Adenosine perfusion in preclinical model  
**Dirk-Jan Duncker (NL)**  
*One burning question (3min)*
-  15:56
-  15:59  Cooling for myocardial infarction: How much, how soon?  
**Marko Noč (SL)**  
*One burning question (3min)*
-  16:09
-  16:12  Discussion (10 min)



**Mechanisms of plaque instability**  
**Chairmen: Rob Krams and Martin Bennett**



08:00



Observations from sudden cardiac death patients - how do they relate to our patients presenting with ACS?

**Michael Joner (DE)**

*One burning question (3min)*



08:10



08:13



The temporal shift in plaque characteristics underlying clinically manifest of atherosclerotic disease.

**Gerard Pasterkamp (NL)**

*One burning question (3min)*



08:23



08:26



Porcine models of vulnerable plaque: Apo E knockout minipigs

**Jacob Fog Bentzon (ES)**

*One burning question (3min)*



08:36



08:39



Humoral immunity and plaque vulnerability

**Ramzi Khamis (UK)**

*One burning question (3min)*



08:49



08:52



Intra-plaque haemorrhage and hypoxia - potential diagnostic and therapeutic targets

**Joe Boyle (UK)**

*One burning question (3min)*



09:02



09:05



Discussion (15 min)

# DAY 3

Tuesday June 28, 2016

 **Thrombosis and antithrombotic therapies**  
**Chairmen: Bernard Gersh and Peter Stone**


 09:20

 Bivalirudin and Cangrelor - From one Horizon to the next.  
**Gregg Stone (USA)**

 09:30

*One burning question (3min)*

 09:33

 Prolonged antiplatelet therapy: who really needs it, and is it treating stents or vulnerable plaque?

**Patrick W. Serruys (NL)**

 09:43

*One burning question (3min)*

 09:46


 Discussion (5 min)

 09:55

 **Coffee break (30 min)**

 **Treatment options for vulnerable plaques/patients**  
**Chairmen: Wolfgang Koenig and David Erlinge**

 10:25

 PCSK9 metabolism: from synthesis to expression  
**Jochen Maas (DE)**

 10:35

*One burning question (3min)*

 10:38

 ALN-PCSSc, an RNAi Investigational Agent That Inhibits PCSK9 Synthesis

**David Kallend (CH)**

 10:48

*One burning question (3min)*

 10:51

 Hs-CRP and PCSK-9 after ACS: Lessons learned from IBIS-4  
**Lorenz Räber (CH)**

 11:01

*One burning question (3min)*

 11:04

 Apo-AI Milano  
**Peter Wijngaard (CH)**

 11:14

*One burning question (3min)*

 11:17

 Discussion (15 min)





















-  11:32  **TRIAL CORNER on PCSK-9 (5 slides - 5 min)**  
FOURIER trial **Ricardo Dent**  
ODYSSEY outcomes trial **Timothée Sourdille**  
SPIRE I/II trials **James Revkin**
-  11:50  Panel discussion of trialists  
**Gregg Stone, Bernard Gersh, Wolfgang Koenig, Amir Lerman, Patrick W. Serruys ,.....**
-  12:05  **Lunch Break**
-  **Anti-inflammatory drug strategies**  
**Chairmen: Ramzi Khamis and Bernard Gersh**
-  13:35  Targeting CD40-CD40L  
**Esther Lutgens (NL)**
-  13:45 *One burning question (3min)*
-  13:48  Lessons learned from biomarker analysis of STABILITY.  
**Wolfgang Koenig (DE)**
-  13:58 *One burning question (3min)*
-  14:01  CIRT, CANTOS and COLCOT Trials - Rationale and Progress  
**Wolfgang Koenig (DE)**
-  14:11 *One burning question (3min)*
-  14:14  Discussion (10 min)
-  **Treatments to reduce patient vulnerability**  
**Chairmen: James Muller and John Ambrose**
-  14:24  Why do we need the ISCHEMIA trial?  
**Gregg Stone (USA)**
-  14:34 *One burning question (3min)*
-  14:38  How vulnerable are patients with refractory angina?  
**Ranil de Silva (UK)**
-  14:48 *One burning question (3min)*

# DAY 3

Tuesday June 28, 2016



15

-  14:51  Biomarkers and IVUS for risk prediction – what did we learn from ATHEROREMO and BIOMArCS study?  
**Eric Boersma (NL)**  
*One burning question (3 min)*
-  15:01
-  15:04  IBIS-4: Effects of high-intensity statin therapy on OCT and VH-IVUS derived vulnerability parameters  
**Lorenz Räber (CH)**  
*One burning question (3min)*
-  15:14
-  15:17  Treatment of Vulnerable Plaque  
From PROSPECT: ABSORB to PREVENT  
(with case examples)  
**Gregg Stone (USA)**  
*One burning question (3min)*
-  15:27
-  15:30  Discussion (15 min)
-  **FINAL DEBATE: Vulnerable Plaque- Simply a Myth or is the Requiem premature?**
-  15:45  Vulnerable plaque does not exist. Stop wasting your time and our money. A clinician's view.  
**John Ambrose (USA)**
-  15:55  Thirteen years of VPM and the search for the vulnerable plaque – Now we are getting somewhere!!  
**James Muller (USA)**
-  16:05  Discussion (10 min)
-  16:15  **Closing remarks:**  
Board of directors (Patrick W. Serruys, Gregg Stone, Ton van der Steen, Wolfgang Koenig, Amir Lerman, James Muller and Gerrit-Anne van Es)  
Guest director: Bernard Gersh

## GENERAL INFORMATION

The Meeting will be held from **June 26<sup>th</sup> - June 28<sup>th</sup>, 2016**, at the Hilton Reykjavik Nordica Hotel.

### CONGRESS LOCATION & VENUE

**HILTON REYKJAVIK NORDICA HOTEL**  
Sudurlandsbraut 2, Reykjavik, 108, Iceland  
Tel.: +354-444-5000 Fax: +354-444-5001

Set in the city center, the stylish Hilton Reykjavik Nordica hotel is one of the city's most popular destinations for tourists, business travelers and locals alike. Its central location provides a great base from which to discover the capital, and makes it easy to travel further afield and explore Iceland's unspoiled natural landscapes.

### SCIENTIFIC PRESENTATIONS

The Meeting rooms 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 before your session starts.

### TRANSFER SERVICES FROM/ TO AIRPORT

Transfer services will be available to/from the Hilton Nordica Reykjavik Hotel, according to your flight itinerary. Kindly note, that there will be a transfer service arranged for you upon your arrival and departure. Please note that the pick-up time regarding your departure will be **3hrs & 30mns prior your flight**.

### SPECIAL THANKS TO



### MEETING SECRETARIAT & OFFICIAL TRAVEL AGENCY

The Meeting's Secretariat will operate during meeting hours.



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