

# The Daily Wire

THE OFFICIAL EUROPCR COURSE NEWSPAPER

EDITION ONE, 16 MAY 2023

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# Our finger is on the pulse of your educational needs

## Welcome to EuroPCR 2023!

This year we are thrilled to be an increased total of five Course Directors wishing you a very warm welcome to EuroPCR. This is a happy result of the recent onboarding of fresh talents and NextGen representatives across the entire PCR Family, and you're invited to get to know us a little better in tomorrow's edition of the Daily Wire! Our joint goal is to foster better patient care all around the globe, and we've enjoyed tailoring the 2023 programme for the daily practice of all Heart Team professionals, while keeping you up to date with the latest in your field.

## 30th anniversary of primary PCI for STEMI

The 'latest' is in constant progression and often a moving target. So much so that we sometimes take advancement for granted. To see how far we've come, there's no need to go back too far in time. The incredible breakthrough of pPCI for STEMI, one of the most successful achievements in modern medicine, took place 30 years ago. It has since saved the lives of literally millions of patients, and you can read more about how it developed on page 12. Although regrettably not available in the majority of world regions, it is a prime example of how a new technique can become standard practice in a relatively short space of time.

## Focus on international collaborations

For new medical treatments to be world changing, we are of course reliant on educational exchange on a global scale, as well as the ability of practitioners to carry out lifelong and transformative learning that is applicable in their daily practice. International collaborations play a major role in this sharing process, and we are delighted that they are one of the Course's underlying themes this year. As an example, 65 National Societies, Working Groups and International Organisations have co-built 22 'How Should I Treat?' sessions. During each one, practitioners from three different countries and the audience will engage in discussions on the optimal treatment options for an individual clinical case. Endeavour to join at least one of these inspiring sessions; we have so much to learn from each other!

## Outreach is key to improved global care

On this note of worldwide interaction, we also want to highlight how delighted we are to once again see so many participants from all over the globe joining us in person. After the issues encountered over the past couple of years, it is particularly gratifying to now observe a return of our friends from Asia too, as travel from this region becomes easier. Their enthusiasm is most appreciated, and we are impressed to see

that this year, India is again the country with the largest number of submissions to EuroPCR. We are of course well aware that for diverse reasons many colleagues are unable to join us in Paris. For them, we have designed a digital package, which enables easy access to live-streamed sessions, as well as real-time chat with onsite and online participants.

## An extensive programme for the whole community

As always, whatever your specialty, unique experience, topic of interest, or means at your disposal, we trust you will find content that meets your expectations and needs in terms of knowledge and practical, hands-on training. With so much to choose from in the programme, be sure to plan your agenda wisely, and make the most of every opportunity to raise your hand and share with your peers. We are delighted to once again be offering sessions tailored by and for the nurses and allied professionals who play such a pivotal role in patient care, and to have attracted a record number of participants to the dedicated EAPCI-PCR Fellows Course – built with support from the driven PCR NextGen and EAPCI Young.

## Staying ahead of the times in a fast-moving discipline

As illustrated at PCR Innovators Day, the past 10 years have seen many advances, but the next 10 will

undoubtedly see a massive evolution in our field as AI and new techniques and treatments continue to provide further options for our daily practice and, most importantly, for improved patient care. Rest assured that as innovation evolves with ever-increasing speed, so does PCR, and together, we are shaping the future of patient care worldwide.

**Enjoy learning!  
Enjoy sharing!  
Enjoy Paris!**



**Thomas Cuisset**



**Nicolas Dumonteil**



**Jean Fajadet**



**Nieves Gonzalo**



**Williams Wijns**

## In remembrance of Michele Pighi

### "A great individual, a great member of our community and someone who is sorely missed."

Since his untimely and tragic passing in September 2022, the PCR family continues to mourn the loss of Michele Pighi.

Michele worked as an Associate Professor alongside Professor Flavio Ribichini, Director of the School of Cardiovascular Diseases at the School of Medicine of Verona, Italy. "Michele is a source of great pride for us all," says Professor Ribichini. "He had already established himself as an international

expert and, given his dedication, he would have continued to be known and appreciated for his excellence. Michele was born to be a professor. He had that commitment needed to devote himself to training others. Only a pure soul like his can teach and inspire trainees. Michele painted in my eyes and in my soul the exact portrait of what a mentor looks for in a pupil."

Michele gave his time and expertise freely for the good of the PCR Community, including managing the Daily Wire newspaper at EuroPCR 2022 where his insights and guidance were highly valued by the editorial team

and readers. Michele was also an active member of the Euro4C Editorial Team, a member of the PCRONline Board and Journal Club, and a member of the PCR London Valves 2022 Simulation Lab Core Team. "We have lost a much-loved member of the PCR family and also of the cardiovascular community," says Professor Nicolo Piazza, Course Director at PCR London Valves 2022 and Michele's Fellowship Program Director at McGill University Health Centre. "Anyone who knew Michele will know there are no words to describe what an incredible person he was."

**"Ciao Michele, ciao anima bella"**



# LIVE CENTRES IN FOCUS

In LIVE cases, renowned centres of excellence share their expert techniques and best practices, providing an unparalleled learning experience and helping to optimise patient care across the world.

Two of this year's centres tell us about their setup and how they feel about being part of EuroPCR 2023.

## Toulouse, France Clinique Pasteur

Centre established in 1957

**Practitioners include** about 200 practitioners (including 45 cardiologists and cardiac surgeons) and 1,250 employees (around 900 of whom are paramedics).

**Most frequent types of interventions/procedures:** Around 5,000 coronary angiographies, 3,300 angioplasties (robotic-assisted or not) and 1,000 structural heart disease treatments (aortic, mitral and tricuspid) per year.

**How would you describe your centre?** We are a leading cardiology centre offering excellence, innovation and ethical standards to its patients. Clinique Pasteur has long-lasting expertise in cardiology and benefits from adopting a multidisciplinary approach to patient care using latest technologies.

**Number of times the centre has participated in EuroPCR:** For as long as EuroPCR has existed – each year since 1989!

"From the beginning to 2022, from Professor Marco and Dr Fajadet to the next generation, we are excited and grateful to be part of EuroPCR, the world-leading Course in interventional cardiovascular medicine. It is our way to raise, enhance and share our experience"



## Leipzig, Germany Heart Centre

Centre established in 1994

**Practitioners include** more than 40 cardiologists, more than 30 cardiac surgeons, more than 150 residents and fellows in both cardiology and cardiac surgery, and more than 200 NAPs.

**Most frequent types of interventions/procedures:** 6,000 coronary angiographies, 3,000 angioplasties, >1,000 TAVIs, around 300 mitral/tricuspid procedures and a wide range of GUCH, congenital and structural interventions. And last but not least, we have one of the world's largest cardiac surgical volumes.

**How would you describe your centre?** The pillar of our centre is teamwork – dedication, responsibility, innovation and adaptation are realised by a fantastic interdisciplinary approach and outstanding staff who are proud to be part of the Heart Centre, Leipzig.

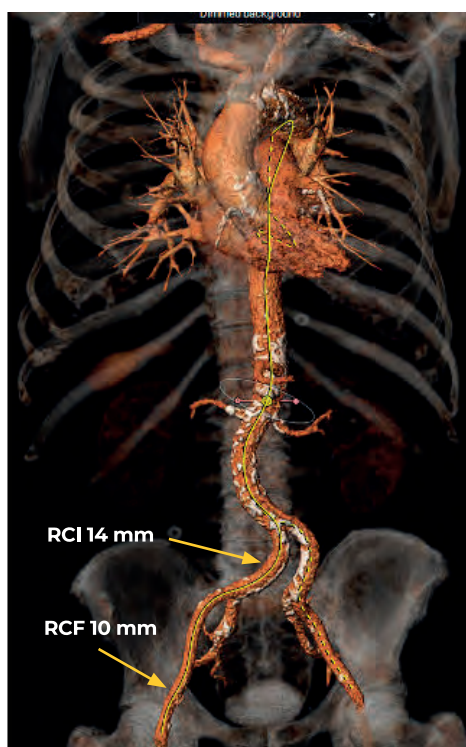
**Number of times the centre has participated in EuroPCR:** 2

"It's an honour and a privilege to be able to contribute to one of the most important international meetings in interventional cardiology. We are excited to share our knowledge and expertise with peers and to provide our input for the worldwide optimisation of daily practice"





# LIVE CASES TODAY!



## Toulouse, France

Join operators, **Nicolas Dumonteil** and **Didier Tchetché**, for an interesting case that illustrates factors to be considered in the lifetime journey of younger patients with aortic stenosis

Lifetime management of aortic stenosis -  
Key considerations before, during and after the index procedure: LIVE Case from Clinique Pasteur, Toulouse - France

- TAVI in low-risk patients: do we have enough data?
- What should be the (lower) age limit to perform TAVI in low-risk patients?
- Should TAVI be the treatment of choice in low-risk patients?

Main Arena 12:00 – 13:30



## Leipzig, Germany

Then follows an interesting case from Leipzig, which highlights the value of imaging for calcified lesion interventions, with operators, **Mohamed Abdel-Wahab** and **Dmitriy Sulimov**

Calcified lesions with imaging: LIVE Case from Heart Centre, Leipzig - Germany

- Which coronary imaging is more important in heavily calcified lesions: pre- or post-stenting?
- How often do you use rotablation, Shockwave balloon or CSI instead of just an 'ordinary' balloon in heavily calcified lesions?
- What is your preferred antiplatelet regimen after stenting heavily calcified lesions? Does it really matter?

Main Arena 15:00 – 16:30

## DON'T MISS TODAY'S OTHER LIVE CASE

Distal left main: LIVE Case from Clinique Pasteur, Toulouse - France

Main Arena 10:00 – 11:30

# PICK OF THE DAY, BY YOUR PEERS

Your colleagues share their top session choices at EuroPCR 2023 today



**So many sessions, so little time!**  
To help you make the most out of today's programme, we asked different Heart Team members to tell us which sessions they are really looking forward to today and why.



**Alessandro Beneduce**

*Interventional cardiologist  
Ospedale San Raffaele - Milan, Italy / Clinique  
Pasteur - Toulouse, France*

## **Lifetime management of aortic stenosis - Key considerations before, during and after the index procedure: LIVE Case from Clinique Pasteur, Toulouse - France**

Main Arena, 12:00 – 13:30

As TAVI has expanded across the spectrum of surgical risk, the proportion of aortic stenosis (AS) patients with long life expectancy eligible for percutaneous treatment is growing. Implementing a lifetime management strategy for our younger AS patients is critical, but not straightforward. This LIVE case from Clinique Pasteur will offer you the opportunity to focus on key considerations together with an outstanding multidisciplinary panel of experts. Moving from current evidence to clinical and anatomical factors

determining the choice between surgical and transcatheter solutions, you will learn how procedural planning, valve design and implantation technique at the time of the index TAVI procedure can influence long-term outcomes and future treatment options. Highly recommended to everyone who is interested in gaining a contemporary approach to transcatheter AS treatment.

## **PCI algorithm for left main bifurcation**

Room 352AB, 12:00 – 13:30

PCI for left main bifurcation poses unique challenges. Ensuring optimal long-term outcomes in this setting requires in-depth understanding of anatomy, devices and techniques. This "Focus on NextGen" session is specifically designed by the PCR NextGen group as a highly practical case-based discussion on key anatomical considerations, stenting strategies and intravascular imaging. Join this session if you want to benefit from innovative learning approaches and engage in interactive dialogue with your peers to gain a contemporary and effective algorithmic approach to left main bifurcation PCI. Warmly recommended for young

interventionalists and fellows in training. Do not forget to access the related state-of-the-art review article online!

## **The importance of optimal vascular access and closure in TAVI patients**

Room 251, 13:45 – 14:30 (sponsored by Abbott)

In my humble opinion, vascular access and closure can be considered as the signature of the interventional cardiologist. When dealing with large-bore sheaths, like those used for TAVI, vascular access planning, technique and pre-closure can really make the difference between a smooth procedure and a painful complication. By joining this session, you will be led by an experienced panel of operators through the key steps of ultrasound-guided arterial puncture and vascular access closure for TAVI procedures. I would recommend this session to interventional cardiologists approaching structural heart interventions, but also to experienced operators who are not familiar with suture-based vascular closure devices. If you have enough time, try to also attend the echo-guided arterial puncture session beforehand to get hands-on experience with the vascular access simulator (Simulation Learning Room, 12:00 – 13:30: This session has been made possible thanks to the kind support of Abbott, FREE-MED and GE HealthCare).

## **The many faces of MINOCA: a guide for everyday practice**

Studio A, 15:00 – 16:30

Myocardial infarction with non-obstructive coronary arteries (MINOCA) is a diagnostic and therapeutic challenge. A case-based session will shed light on this underdiagnosed condition.

Through the interactive analysis of three different clinical cases with an international panel of experts, you will explore the underlying mechanisms of MINOCA and get the latest updates on diagnostic pathways and contemporary treatment approaches for patients suffering from this condition. Baseline knowledge of coronary physiology testing and intravascular imaging is recommended for an optimal learning experience. Take advantage of online access to the PCR-EAPCI Textbook chapter on MINOCA to boost your knowledge before attending the session!

## **Coronary access and PCI after TAVI**

Theatre Havane, 15:00 – 16:30

One of the most common fears of interventional cardiologists is facing an acute coronary syndrome in a patient with a previously implanted transcatheter heart valve. Indeed, coronary access and PCI after TAVI might be challenging and require both understanding of anatomy and devices, and specific technical skills. This case-based session brings together a multidisciplinary team and blends a promising live-in-the-box case from Erasmus Medical Center (Rotterdam, the Netherlands) with interesting interactive talks on how to manage patients undergoing TAVI with concomitant coronary artery disease and how to practically approach PCI after TAVI in different clinical scenarios. A perfect opportunity to share procedural tips and tricks with your peers. Recommended to both TAVI operators and intermediate-level PCI operators who might face these challenges in everyday practice.







Nicola  
Ryan

Interventional cardiologist  
Aberdeen Royal Infirmary - Aberdeen,  
United Kingdom

**Distal left main: LIVE Case  
from Clinique Pasteur,  
Toulouse - France**

Main Arena, 10:00 – 11:30

Treatment strategies for distal left main stem disease remain a key topic in the field of interventional cardiology. The first session of EuroPCR 2023 is a LIVE case from Clinique Pasteur, focussing on assessment of the distal bifurcation and intracoronary imaging to select and optimise the procedure. This session includes all the key values of EuroPCR, a patient-centred case, sharing with colleagues, in-depth procedural analysis and learning for all; from the new fellow to experienced colleagues. I highly recommend all attendees – whether they are interventional cardiologists, nurses, imagers, surgeons, or from any other field – to attend the very first session of the Course. I can assure it will be beneficial and helpful for all. It is a fantastic way to kick off EuroPCR 2023!

**Lifetime management of aortic  
stenosis - Key considerations  
before, during and after  
the index procedure: LIVE  
Case from Clinique Pasteur,  
Toulouse - France**

Main Arena, 12:00 – 13:30

Since the first TAVI implant in 2002, the field has evolved to a position where TAVI is now considered in younger low-risk patients with aortic stenosis. With this evolution comes the need to understand the lifetime management of these patients and how to select and implant the initial valve to not only optimise the outcome of this valve but also allow future interventions should the patient out-live their valve. Based around a LIVE case from Clinique Pasteur, we will learn how to comprehensively assess and plan lifetime treatment for patients with aortic stenosis. I call on all members of the heart team to join me and our peers to participate in this groundbreaking session.

**Planning of CTO PCI based on  
initial angiogram**

Theatre Bleu, 12:00 – 13:30

If the LIVE case at midday does not suit your choice, I recommend this case-based discussion.

In fact, a detailed understanding of the coronary angiogram, as well as the anatomical factors predicting success and failure, is a fundamental skill for all chronic total occlusion (CTO) operators. This case-based discussion session will be highly interactive, working through the analysis of angiograms with colleagues to understand the optimal strategy for differing anatomies as well as predicting the CTO skills required to safely and efficiently treat patients with CTOs. So, if you are considering starting a CTO-PCI career or you are still in the early stage of your CTO career, join your peers to learn more.

**Complex PCI - Angiography  
looks good, what's next?**

Room 242AB, 12:00 – 13:30

For those who wish to integrate post-PCI assessment with physiology and imaging into the work flow of their cathlab, I suggest heading to this session. Providing our patients with durable, long-term results from coronary intervention is a key goal of all interventional cardiologists. The field has evolved to provide us with many adjuvant tools with this goal in mind. This learning session focusses on assessing the result of PCI with intracoronary imaging and physiology and then integrating

this information into our daily work flow to optimise the PCI result. As with all learning sessions, it will be a very interactive session with many opportunities to share experiences and address any questions or doubts colleagues may have.

**Physiologic guidance and  
optimisation in multivessel  
disease**

Studio A, 13:45 – 14:30  
(sponsored by Philips)

Coronary physiology has matured from the initial era of aiding in the decision to treat or defer a stenosis to providing a sophisticated analysis of the patterns of coronary disease. Attending this case-based session will help participants to better understand how to perform a comprehensive assessment of the coronary arteries and integrate this information into procedural planning to provide their patients with optimal outcomes. Who should attend? Participants interested in incorporating physiology pullbacks in their routine clinical practice and those who already do so, but want to understand how to further optimise the care they provide to their patients.

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Use of 4D ICE in  
tricuspid and mitral  
valve interventions

May 16, 4.45–5.30 p.m.

Room  
252B

Join our Case in Point symposium on Tuesday, May 16, 4.45–5.30 p.m., room 252B, and familiarize yourself with 4D ICE technology and how it can support imaging and guidance in complex structural heart disease interventions.

Speakers:

Fabien Praz, MD, Anchorperson

Nina Wunderlich, MD, Spokesperson

Stephan von Bardeleben, MD, Discussant

Sergio Berti, MD, Discussant

Felix Kreidel, MD, Discussant

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7



**Elena Calvo**

Nurse  
Bellvitge University Hospital - Barcelona, Spain

### What's new in 2023 for Nurses and Allied Professionals?

Room 351, 12:00 – 13:30

This session opens the specific programme for nurses and allied professionals (NAPs), where we will meet again, one year after the last EuroPCR. Our EAPCI Nurses and Allied Professionals Committee chair will welcome and introduce the

other members of the committee. Then, we will see the latest news on radiation, personnel safety and the procedures we perform in the cathlab. All the topics that will be discussed are of great interest to the group, since they are updated with the latest recommendations and findings. This session – which will give space for discussion and questions – is aimed at all NAPs interested in being up to date with the latest developments in interventional cardiology cathlabs.

### CTO: more than just a procedure

Room 351, 15:00 – 16:30

CTO procedures have been optimised thanks to the improvement of materials, good previous study of

patients and the learning curve. Although it is true that in some hospitals early discharge is considered, should the decision to discharge early be made? Is there anything I as a NAP can do to decrease the patient's risk before or after radiation or contrast? Of course, yes! Do not hesitate to follow this session, where the speakers will make you reflect on various patient factors prior to undergoing CTO. This session is aimed at all professionals interested in caring for the patient globally, to obtain better health results.

### Managing cardiogenic shock in patients with AMI

Theatre Bleu, 15:30 – 16:30

The management of cardiogenic shock in patients with AMI is one of

the topics that arouses the most interest, since the scientific evidence varies depending on the studies being published on the use of different devices in different patient contexts. The entire team that treats patients with cardiogenic shock should know the recommendations, as well as the treatment escalation and de-escalation protocols. During the session, they will review theory on the novel classification of cardiogenic shock, scientific evidence on the different mechanical circulatory assistance devices and information on escalation and de-escalation protocols. This theory will be interspersed with the presentation of different cases, where you can discuss and put into practice the knowledge acquired.



**Edoardo Zancanaro**

Cardiac surgery resident  
San Raffaele University Hospital - Milan, Italy

As a young cardiac surgeon, it was really challenging to pick just four sessions from this rich and versatile programme to recommend to the EuroPCR audience.

### Tips, tricks and complications of mitral valve TEER

Room Arlequin, 12:00 – 13:30

Participants who have an interest not only in performing transcatheter edge-to-edge repair (TEER) for mitral

pathology but also in managing mitral and TEER patients will certainly look forward to the advice that will be given to avoid complications. The principal aspect of this session will be helping current and future operators to learn from mistakes and understand different ways to perform these types of procedures.

### Solving complex mitral disease with transcatheter solutions

Case Corner 3B, 12:00 – 13:30

Since TEER is an evolving field, this session is a great opportunity to understand and be prepared for the most complex situations and scenarios. TEER is a well-established treatment also in more complex anatomies, such as calcification or severe prolapsing leaflets; then it's fundamental to be aware of all possible scenarios that an operator can face in daily practice.

### Treating diverse mitral regurgitation anatomies: the power of versatility

Theatre Bleu, 13:45 – 15:15  
(sponsored by Edwards Lifesciences)

Again concerning the mitral valve, this session will dig into a very interesting aspect of mitral anatomy. In the case of transcatheter mitral valve intervention, valve anatomy becomes pivotal in order to obtain the best results from any patients we are treating.

As a surgeon, these sessions represent a very important milestone in understanding mitral valve intervention, since we can learn from complexities seen by our colleagues and make the most from complications not previously seen.

### ACS: when a CABG is involved

Case Corner 2C, 15:00 – 16:30

The interaction between cardiac surgery and interventional cardiology is essential; this concept is particularly true in the case of coronary diseases where PCI and CABG are two faces of the same coin; very different from each other but with the same goal. This session will give a perspective to cardiologists on how CABG is still a very important resource and how the two methods can collaborate with each other. The final message is 'sharing is caring'.

It is going to be a memorable day, so tailor your choice according to your needs and enjoy EuroPCR 2023! Do not forget to open your minds and embrace all the aspects of this wonderful field.







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## SESSION SPOTLIGHT

# The comeback of renal denervation



**Felix Mahfoud**

Interventional cardiologist / Cardiologist  
Saarland University Hospital - Homburg, Germany

**Clinical trials confirming the benefits of renal denervation for controlling hypertension in certain patient groups prompted the recent issue of the ESC Council on Hypertension and the EAPCI Expert Consensus statement<sup>1</sup> to guide practitioners through the practical and theoretical considerations. Education and discussion are the bywords for a tutorial this afternoon, which will use expert presentations, along with audience interaction and clinical cases to explore key steps in the process, from patient selection to procedural challenges.**

"In recent years, we have made significant progress in refining renal denervation to manage hypertension," explains Professor Felix Mahfoud, co-author on the consensus statement and the session's Anchorperson. "This approach is now ready for adoption in the clinic and provides practitioners with a valuable treatment option for certain difficult-to-treat patients. However, it is vital to understand which patients are most suitable for renal denervation and what is required to perform the procedure optimally. This information, and more, will be given in today's session, making it a must for all participants wanting to integrate this approach into their practice," he says.

The scene will be set with a presentation of the latest data from the pivotal clinical trials that were instrumental in changing practice. "Renal denervation was not recommended for routine use in

patients with hypertension in the 2018 ESC/European Society of Hypertension Guidelines," says Professor Mahfoud. "This changed with the publication of several high-quality, randomised controlled trials – including the SPYRAL HTN and RADIANCE-HTN trial programmes – demonstrating the efficacy and safety of radiofrequency and ultrasound renal denervation in lowering 24-hour ambulatory and office hypertension in a broad spectrum of patients.<sup>3-6</sup> In light of these new data, the ESC Council on Hypertension and EAPCI recognised the importance of producing consensus recommendations to help inform clinical practice."

According to Professor Mahfoud, one of the most important elements of the consensus statement focusses on patient selection and recommendations for this will be summarised in the session. "Renal denervation should generally be regarded as an adjunct option for patients with preserved renal function and uncontrolled hypertension that is confirmed by an elevated office and ambulatory blood pressure and that is resistant to lifestyle and antihypertensive medication. These patients will generally have failed on three or more treatments," he says, adding, "It may also be beneficial for patients unable to tolerate long-term use of medication." Patient preference forms an important part of the equation. In some cases, patients with uncontrolled hypertension on fewer than three drugs can be considered for treatment if they indicate a strong preference for it. Reasons for this include an unwillingness to take additional medication, especially for patients with multiple comorbid conditions. A shared decision-making process is integral to the process, however, and steps should be taken to ensure that the patient is fully informed about renal denervation and about alternative treatment options, including lifestyle modification and medication.



The tutorial will also give valuable advice about how to safely and effectively perform the procedure and the requirements for setting up a successful programme locally. "Renal denervation should be carried out at a centre with a multidisciplinary team experienced in hypertension and percutaneous CV interventions. It requires the expertise of an interventionalist who is trained to perform renal procedures and who is able to handle any potential complications," says Professor Mahfoud. "Standard operating procedures are recommended with currently available devices. However, there is as yet no validated clinical indicator of successful ablation," he concludes.

Participants can learn more about renal denervation in other sessions taking place at EuroPCR 2023. A tutorial this morning will review other potential indications of renal denervation beyond hypertension, including heart failure, rhythm disorders and metabolic diseases. Tomorrow, there is a chance to hear late-breaking clinical data from the cutting-edge SMART trial from China, which is investigating a system combining renal nerve mapping with selective ablation to achieve targeted sympathetic denervation in patients with essential and uncontrolled hypertension.<sup>7</sup> And on Thursday, Professor Mahfoud will lead a tutorial discussing how to successfully set up a renal denervation programme.

1. Barbato E, et al. *EuroIntervention*. 2023;18:1227–1243.
2. Williams B, et al. *Eur Heart J*. 2018;39:3021–3104.
3. Kandzari DE, et al. *Lancet*. 2018;391:2346–2355.
4. Böhm M, et al. *Lancet*. 2020;395:1444–1451.
5. Azizi M, et al. *Lancet*. 2018;391:2335–2345.
6. Azizi M, et al. *Lancet*. 2021;397:2476–2486.
7. Wang J, et al. *J Cardiovasc Transl Res*. 2023;15:358–370.

## DON'T MISS

**Comeback of renal denervation: The ESC Council on hypertension/ EAPCI clinical consensus statement**

Tuesday, Room 252B,  
15:00 – 16:30

## AND ALSO:

**Update on renal denervation**

Tuesday, Room 252B,  
12:00 – 13:30

**Late-Breaking clinical data: TAVI, hypertension, stroke prevention**

Wednesday, Room Maillot,  
10:30 – 12:00

**Renal denervation action plan – European guide to adoption**

Thursday, Room 252B,  
08:30 – 10:00

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SESSION SPOTLIGHT

# NSTEMI and multivessel disease



**Natalia Pinilla**

*Interventional cardiologist / Cardiologist  
McMaster University - Hamilton, Canada*

**Patients with NSTEMI make up a substantial proportion of patients seen every day in the cathlab. However, management is often complex and different for each patient. A session today discusses how best to manage NSTEMI and multivessel disease (MVD), with particular emphasis on distinguishing between culprit and non-culprit lesions, the use of physiology and imaging, and also the type and timing of revascularisation, which are usually challenging.**

Anchorperson of the session, Dr Natalia Pinilla, explains, “NSTEMI is quite different to STEMI – the spectrum of patients is broader, the range of comorbidities tends to be greater and type 2 myocardial infarction plays an important role. In a patient with STEMI, the culprit lesion is usually easily identified by angiography, but in NSTEMI with MVD, the culprit lesion may be less obvious. Making the right decision, in terms of what needs to be treated in NSTEMI and when, is not easy in clinical practice.”

Dr Pinilla explains that in cases of ambiguous lesions, physiology and intracoronary imaging could provide important supplementary information for identifying which lesion or lesions would benefit from intervention. She notes, “Especially in ACS, the question is whether there is an acute culprit lesion with plaque disruption and intraluminal thrombosis where intravascular



imaging plays an important role in diagnosis. A physiology-guided strategy may objectively identify the lesions that are functionally significant, but might lead to deferral of lesions that, despite being negative by physiology, still have high-risk morphological features representing high risk for future cardiovascular events. The potential benefit of using a physiology-guided strategy alone may be attenuated by deferring intervention on such lesions.”

NSTEMI presentations generally involve more complex anatomy, bifurcated and long lesions, left main disease, significant calcification and chronic total occlusions. Dr Pinilla comments, “Given the challenging nature of NSTEMI with MVD, it is vital that interventional cardiologists have the latest knowledge on the range of different modalities available to identify the culprit lesion and vulnerable non-culprit lesions causing ischaemia, and to perform optimal interventions. Today’s session gives participants the chance to

hear from distinguished experts in intracoronary imaging, physiology, ACS and the management of MVD. And because we believe that an interactive element of the session is key to learning, participants will be encouraged to give their input on presentations of NSTEMI cases involving ambiguous lesions and complex MVD, before hearing how each case was managed in real life by the presenting experts.”

The best timing and strategy for revascularisation will also be discussed. “NSTEMI patients usually present to the cathlab in a more clinically and haemodynamically stable condition compared to STEMI patients. This means that there is more time for the interventionalist to consider all the modalities at hand to make decisions regarding the type of revascularisation and its timing,” Dr Pinilla observes. “It also means that not all interventions have to be carried out at the same setting, particularly if there is complex anatomy, and that complete revascularisation could be

considered as long as the complexity of the situation is understood and all suitable technologies are available.” In some patients, CABG surgery may be an alternative option to percutaneous revascularisation and the non-emergent timing of NSTEMI gives the interventionalist the time to make the right decision for each patient.

In conclusion, Dr Pinilla says, “With such a topic, and an experienced and world-leading faculty, today’s session really is too good a learning opportunity to miss.”

## DON'T MISS

**A patient with NSTEMI and multivessel disease: culprit and non-culprit lesion management**

Tuesday, Studio A,  
12:00 – 13:30



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peers!

# 30 years of primary PCI

## A tale of perseverance

Over the last 30 years, primary PCI (pPCI) has evolved from an experimental ‘rescue’ intervention to an essential routine procedure – performed daily in cathlabs around the world – which is responsible for saving millions of lives. However, its path to success was far from smooth.

The pPCI journey began in the early 1980s when **Geoffrey O. Hartzler**, from the Mid America Heart Institute, Kansas City, first had the foresight to use percutaneous transluminal coronary angioplasty to treat AMI, publishing his experiences in 41 patients in 1983.<sup>1</sup>



Geoffrey O. Hartzler

Based on his knowledge of pathophysiology and visionary mind, William C. Roberts (a pathologist and Editor in Chief of the *American Journal of Cardiology*) endorsed Hartzler’s findings in a letter published in 1984,<sup>2</sup> challenging current dogma, but the medical community was far from convinced.

Using a mechanical treatment to open acutely occluded vessels was thought highly controversial by most of the cardiology community at the time, given that new thrombolytic therapies were emerging. Proponents were called ‘savages’ and ‘cowboys’ for considering primary angioplasty over newly developed drugs. The lack of support meant it was difficult to find funding for further investigations and it took another 10 years before Hartzler’s first experimental findings were confirmed in randomised trials. In March 1993 – 30 years ago this year – the first two randomised trials demonstrating that primary angioplasty was superior to thrombolysis were published: one by the Primary Angioplasty in Myocardial Infarction (PAMI) Study Group, which included among others, Cindy L. Grines, Jean Marco and William W. O’Neill,<sup>3</sup> and one by Felix Zijlstra and the group at Zwolle, the Netherlands.<sup>4</sup>



The NEW ENGLAND JOURNAL of MEDICINE

March 11, 1993

ORIGINAL ARTICLE

### A Comparison of Immediate Angioplasty with Thrombolytic Therapy for Acute Myocardial Infarction

Cindy L. Grines, Kristin S. Browner, Jean Marco, Donald Batholomew, Gregg W. Stone, James O’Keefe, Paul O’Neill, Bryan Donohue, Noah Chelliah, Gerald C. Timmis, Ronald L. Vlietstra, Michelle Sztejnec, Sylvia Rudenski-Ochocki, William W. O’Neill, and the Primary Angioplasty in Myocardial Infarction Study Group<sup>3</sup>

ORIGINAL ARTICLE

### A Comparison of Immediate Coronary Angioplasty with Intravenous Streptokinase in Acute Myocardial Infarction

Felix Zijlstra, Menko Jan de Boer, Jan Hoornstra, Stoffer Seiffers, Johan Reiber, and Harry Suryapranata<sup>4</sup>



Cindy L. Grines as a fellow, with Eric Topol

Cindy L. Grines: “When I was a cardiology fellow, we were allowed to perform angioplasty in patients

with an MI only after thrombolytics. This meant that correction of arterial occlusion could be delayed by over an hour. We suggested that simultaneously combining the two methods of treatment, or eliminating thrombolytic therapy altogether, could improve patient outcomes and conducted a series of studies to investigate this. Our findings were met with a great deal of hostility and criticism and, even after additional studies confirmed our results, the role of primary angioplasty continued to be questioned for many years. It is gratifying to note that pPCI is now the standard-of-care treatment for STEMI around the world.”

FROM THE EDITOR



When I Have an Acute Myocardial Infarction Take Me to the Hospital That Has a Cardiac Catheterization Laboratory and Open Cardiac Surgical Facilities

When a sick person is taken to a hospital in an ambulance, the driver is required in most cities to transport this case.

facilities: use of either or both during AMI has not been reported at this time in the literature.

William C. Roberts’ letter endorsing Hartzler’s findings

In December 1993, Hartzler and team published experiences with primary angioplasty in 1,000 consecutive unselected high-risk patients with AMI.<sup>5</sup> Despite the growing evidence, there remained much scepticism; however, robust clinical work continued to confirm the value of primary angioplasty and, in 1997, a meta-analysis of the first 10 international trials highlighted its associated significant 34% reduction in 30-day mortality: 6.5% with thrombolysis versus 4.4% with primary angioplasty (odds ratio 0.66; 95% CI 0.46–0.94; p=0.02).<sup>6</sup>

Following this initial demonstration of safety and efficacy, the scarce availability of pPCI became apparent, which raised a new major concern about its applicability. However, this barrier was overcome by pioneering centres providing 24-hour pPCI services despite the absence of cardiac surgery on site.<sup>7,8</sup> Nevertheless, primary angioplasty was still underused as it was offered only to the limited number of patients admitted directly to hospitals with interventional services spontaneously organised to work around the clock. Transportation from the local hospital to an



**Petr Widimský:** “Our idea to transport these patients to a tertiary centre for pPCI, over a distance of up to 100 km, was initially met with furious criticism. We conducted the



**Petr Widimský**

PRAGUE study<sup>9</sup> without any financial support – thanks to the enormous enthusiasm of a young generation of cardiologists, nurses and other healthcare professionals who deeply believed in what they did for the patients. Positive results from our trials and others led to a major change in the organisation of acute cardiac care and the initiation of the first real model of hub-and-spoke network in cardiology. This new approach decreased mortality not only because pPCI is more effective than thrombolysis, but also due to the fact that a much higher proportion of patients are treated with reperfusion treatment overall.”

**Flavio Ribichini:** “Today’s generation of interventional cardiologists may not view pPCI as ‘cutting edge’, but the development of pPCI represents a story of passion, dedication and courage. We must not forget that around a fifth of patients died early after STEMI in the pre-reperfusion era, but now, mortality is less than 3%. This commonplace cost-effective procedure has saved countless lives over the last 30 years. What in the beginning seemed to be a ‘whim of spoiled young interventionalists’ became, in less than 10 years, the most



**Flavio Ribichini**

important cardiovascular interventional procedure and now, the main mission of any interventional cardiologist.”

angioplasty centre was considered to represent a further major limitation to the widespread use of primary angioplasty, until trials such as PRAGUE, DANAMI-2 and AIR-PAMI in the early 2000s demonstrated that timely transfer to the cathlab was superior to onsite thrombolysis.<sup>9-11</sup>

Taken together, data from pivotal trials culminated in pPCI gaining a class I recommendation in ESC guidelines for STEMI in 2003.<sup>12</sup> Focus then shifted to how to bring successful pPCI to as many people with STEMI as possible. A European survey, conducted in

2008, highlighted disparities in the use of pPCI.<sup>13</sup> The study found that pPCI was the dominant reperfusion strategy in 16 countries, while thrombolysis was still widely used in 8 countries in Europe. Depending on the country, the use of pPCI varied widely from 5% to 92% of all STEMI patients, while the number of pPCIs per million inhabitants/year ranged from 20 to 970.

The leadership of EuroPCR and EAPCI seized the opportunity to improve STEMI care and launched the **Stent for Life** initiative in 2009. Stent for Life encouraged equal access to pPCI by citing guideline

implementation barriers and outlining plans for the individual needs of different countries. After just 2–3 years, a new survey showed some positive changes, with the dominant reperfusion strategy noted as pPCI in 33 countries and thrombolysis in 4 European countries.<sup>14</sup> Access to pPCI was still regarded as suboptimal in Europe and beyond, and to address further challenges, Stent for Life underwent global expansion and became **Stent – Save a Life!** in 2017, expanding the initiative to extra-European geographies. Today, its mission to improve delivery of life-saving pPCI continues.

**THE STENT –  
SAVE A LIFE!  
GLOBAL INITIATIVE**

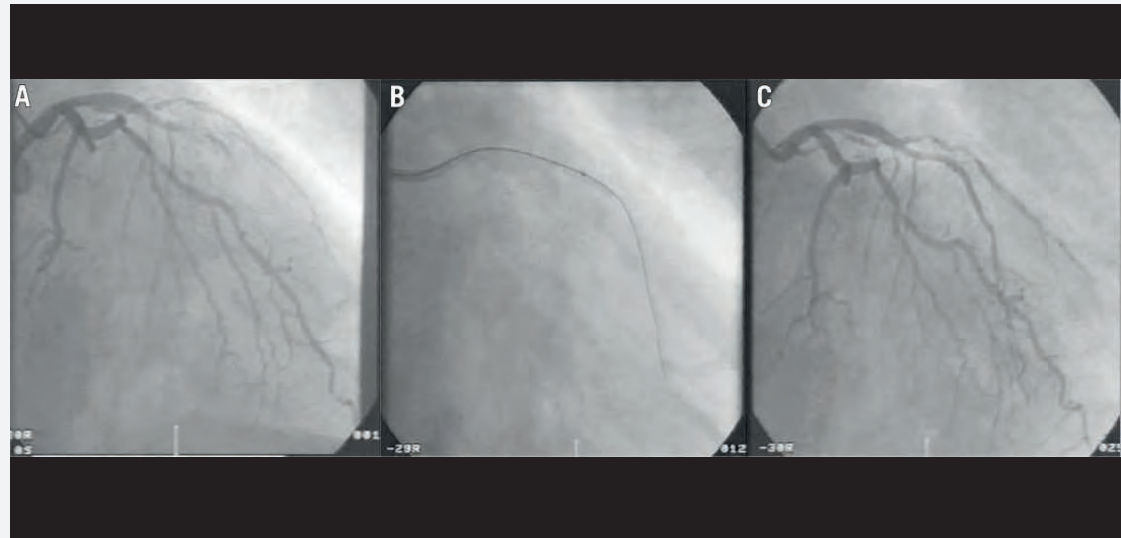
Its mission: “To improve the delivery of care and patient access to the life-saving indication of pPCI, thereby reducing mortality and morbidity in patients suffering from AMI.”

**Read more about the work of Stent – Save a Life! in Thursday’s The Daily Wire.**

**Despite the tremendous clinical impact of a treatment that completely changed the organisation of cardiology departments worldwide, little difference has been seen in the global concept of the procedure since its origin in 1993 (Figure).**

pPCI has evolved from the simple inflation of balloons through 8Fr guiding catheters inserted in the femoral artery followed by days of anticoagulation, to the use of radial access, simple oral drug administration, routine stent

implantation, ideally intravascular imaging assessment, and early discharge. However, the procedure remains substantially the same, with timely and expert organisation of the emergency team still the central pillar of success.<sup>15</sup>



Primary PCI procedure performed in March 1993: A) Right anterior oblique angiographic image showing a thrombotic, acute, total occlusion of the left anterior descending coronary artery causing a large anterior STEMI; B) Balloon dilatation (3.0x20 mm) at the site of the occlusion; C) Recanalised vessel after balloon angioplasty.<sup>15</sup>

1. Hartzler GO, et al. *Am Heart J*. 1983;106:965–973.  
2. Roberts WC. *Am J Cardiol*. 1984;53:1410.  
3. Grines CL, et al. *N Engl J Med*. 1993;328:673–679.  
4. Zijlstra F, et al. *N Engl J Med*. 1993;328:680–684.  
5. O’Keefe JH, et al. *Am J Cardiol*. 1993;72:107G–115G.  
6. Weaver WD, et al. *JAMA*. 1997;278:2093–2098.  
7. Dellavalle A, et al. *Coron Artery Dis*. 1995;6:513–520.  
8. Wharton TP, et al. *J Am Coll Cardiol*. 2004;43:1943–1950.  
9. Widimský P, et al. *Eur Heart J*. 2000;21:823–831.  
10. Andersen HR, et al. *N Engl J Med*. 2003;349:733–742.  
11. Grines CL, et al. *J Am Coll Cardiol*. 2002;39:1713–1719.  
12. Van de Werf F, et al. *Eur Heart J*. 2003;24:28–66.  
13. Widimský P, et al. *Eur Heart J*. 2010;31:943–957.  
14. Kristensen SD, et al. *Eur Heart J*. 2014;35:1957–1970.  
15. Ribichini F, Cuisset T. *EuroIntervention*. 2014;10:T7–T8.

# Yesterday’s catch up: EAPCI-PCR Fellows Course

**Case-based learning was the focus of yesterday’s EAPCI-PCR Fellows Course, and it did not disappoint, with a record number of early-career interventional cardiologists in attendance.**

This year’s EAPCI-PCR Fellows Course began the day before the start of the EuroPCR Course, with a full day dedicated to early-career interventional cardiologists. One of the Course Directors, Professor Gabor G. Toth (University Heart Center Graz - Graz, Austria), explained the reason: “The idea was simply to offer early-career interventionalists more – a whole day of sessions on Monday, as well as nine dedicated NextGen sessions during the EuroPCR Course from Tuesday to Thursday, so an agenda lasting almost an entire week. It has proven popular as we have had a record number of more than 200 registrations this year.”

The principal aim of the EAPCI-PCR Fellows Course is to provide a platform of structured and year-on-year continuous education for young interventional cardiologists in Europe and around the world. “Key to the Course is the provision of

education that is pertinent to clinical practice, and that has been created by young interventionalists for young interventionalists and fellows,” said Course Director, Dr Dejan Milasinovic (Clinical Centre of Serbia - Belgrade, Serbia). “As part of this, the Course comprises the most comprehensive, relevant details on essential topics, with real-life case studies at the core of the sessions,” he added.

The Course creators have proactively invited participants to submit case studies from their practice. “In this way – and distinct from other fellows’ courses – we encourage attendees to participate by not only contributing content, but also by discussing cases from their practice in interactive sessions that will take place during the week of EuroPCR,” said Dr Milasinovic.

Another new aspect of the EAPCI-PCR Fellows Course this year was a session yesterday to help early-career interventionalists learn communication and presentation skills. “We believe our fellows represent a highly trained community for the future,” said Professor Toth, adding that, “If they also learn to enhance their presentation and communication skills, they can spread their knowledge to others. Using this approach, knowledge



gained from attending the EAPCI-PCR Fellows Course reaches those who will one day be trained by the Course participants in years to come.”

After yesterday, feedback was positive:

**Dr Dan Prunea from University Heart Center Graz - Graz, Austria:**


“I had a wonderful experience at last year’s EAPCI-PCR Fellows Course and so this year, I decided to attend again as it not only provides the opportunity of meeting and linking up with colleagues from around the world to share experiences, but it also enables us to learn a lot from experts in the field, from basic PCI skills to complex interventions, including how to approach bifurcations and calcified lesions. Based on my experience last year, my expectations from this year’s

Course were similar: for all of us to have a good time together!

Prior to attending the Course this year, I was really looking forward to the interactive presentations and cases and at the end, I was expecting to leave with lots of answered questions, increased knowledge and confidence, and of course, an improved network for my future career. The Course did not disappoint. In addition to the classic clinical presentations, which were highly interesting and educational, I also found the session on presentation and communication skills unique and particularly useful. I picked up hints and tips that I’ll definitely use for my future career. Yesterday’s full-day Fellows Course was the perfect preparation for the EuroPCR Course.”

**Dr Nina Glavnik from University Medical Centre Maribor - Maribor, Slovenia:** “Through attending the EAPCI-PCR Fellows Course, I have learned a structured approach to percutaneous interventions. This type of knowledge sharing has made me broaden my thinking, search for information and keep thinking critically. Through being able to participate in discussions, I have learned that experience is crucial. I wanted to become a facilitator in order to give young interventional cardiologists the opportunity to learn, share experiences and feel accepted in the community in the same way I did. Also, it is an opportunity for me to grow as a mentor, meet new people and keep on learning. For all these reasons, I would encourage early-career interventionalists to attend the EAPCI-PCR Fellows Course in the future. The Course also offers the opportunity to take part in an exceptional learning process and be part of a great community.”

**Dr Valeria Paradies from Maasstad Hospital - Rotterdam, the Netherlands:** “Attending the EAPCI-PCR Fellows Course has meant that I have not only learned about pivotal concepts and interventions, but it has also helped me to create lifelong relationships. I was keen to get involved as a facilitator this year as it is a great way to share my experience with younger colleagues and consider clinical scenarios from different perspectives. I would strongly encourage other fellows to attend the EAPCI-PCR Fellows Course in the future as it is a great opportunity for them to build on or expand their network, as well as share experiences with their peers.”



# How can physiology help you optimise PCI in multivessel disease?

Discover how at **Philips case in point**  
Today 16 May at 13:45 • Studio A

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# PCR Innovators Day: Anticipating the next big thing

**“PCR Innovators Day is a forum where physicians, investors, innovators and industry leaders come together to exchange their perspectives and learn about the emerging innovations that will change practice in the future,” said Mr José Calle Gordo, one of the organisers who represents industry.**

He continued, “It’s all about discussing the current gaps, and how innovation and medical technology will address these unmet needs.” Commenting on this year’s theme, Dr Azeem Latib, organiser and interventional cardiologist, noted, “The idea behind choosing ‘The Next Big Thing’ was to attract people from the entire innovation cycle and it did not disappoint.”

A novel and stimulating aspect this year was the Innovator’s Exchange Hub. “These discussions comprised roundtables of participants from the same part of the innovation cycle,” said Dr Latib. “Each Hub debated what they considered to be the unmet needs and the areas where the most meaningful innovations could be sought, and then suggestions were later fed back to all participants – it was interesting to see if the different groups came up with the same ideas!”

For heart failure, regardless of where in the innovation cycle participants were from, all acknowledged substantial unmet clinical and economic needs. Which parameters to monitor and how these should be monitored – particularly in the long term – were identified as unmet needs by each Hub. There was widespread agreement that AI models could be used to analyse data from continuous monitoring to help better understand the parameter or combination of parameters that provide optimal information on disease progression. Improved understanding of HFpEF was identified as a clinical gap and



also how devices (especially shunts) could be personalised for specific HFpEF subgroups. Regarding pumps, key innovations discussed to improve their utility included extended longevity of battery power, a pump with a low profile ( $\leq 10\text{Fr}$ ), being able to pump 4.5–5 litres of blood/minute, and having low haemolysis and good biocompatibility. Among the ‘next big things’ identified as part of the heart failure ‘toolbox’ were neuromodulation and myocardial regeneration.

“We also invited start-up companies to present their innovations,” noted Mr Calle Gordo. “We received over 300 submissions and selected the most relevant ones, based on the four main themes covered over the day: mitral and tricuspid valves, heart failure, pulmonary embolism and an ‘open umbrella’ theme. It was impossible to have oral presentations for all the innovations, but an e-poster area meant we could learn more about the great innovations being developed.”

Always an exciting part of the programme, the three finalists in the Jon DeHaan Foundation Award competition were introduced by Dr Robert Schwartz, President of the Jon DeHaan Foundation, which

aims to promote innovations in the cardiovascular arena. Dr Paul Sorajja described a novel valve from VDyne as a unique approach for transcatheter tricuspid valve replacement. “The right ventricle remains a challenging valve to treat with replacement technology, given the surgical predicate of repair and vulnerability of the right ventricle to even mild changes in distension,” he explained. He was “ecstatic and highly honoured” to be selected as a finalist.

A novel innovation from NXT Biomedical, which involves a right-to-right shunt between the pulmonary artery and the superior vena cava for patients with heart failure and pulmonary hypertension was described by Mr Rob Taft. He said, “We believe that the best innovation means finding the right solution that offers the most benefit to patients, not just settling for the easy solution.” Commenting on making it to the final three, Mr Taft said, “There are many worthy companies in this competition, so being chosen as a finalist is an honour and affirmation that we are pursuing an innovative therapy that has potential to benefit patients.”

Mr Benjamin Bertrand from Cardiawave described “a unique

non-invasive ultrasound therapy (NIUT) for the treatment of calcific aortic stenosis.” He said, “Cardiawave is focused on developing a non-invasive, ambulatory solution for patients suffering from calcific aortic stenosis, combining therapeutic ultrasound, robotics and ultrasound imaging. It will provide an effective alternative solution in addition to the existing surgical and transcatheter valve replacements. Being a Jon DeHaan Foundation Award finalist provides great recognition of our hard work and supports awareness of our unique therapy.”

**And who is the winner of the \$200,000 USD prize for the best innovation? Find out at Friday’s Award Ceremony!**

## DON'T MISS

**EuroPCR 2023 Awards**

Friday, Main Arena,  
10:30 – 11:30

**PCR Publishing**

Drop by to **NETWORK** with **YOUR PEERS** and browse the **MOST RECENT ACADEMIC RESOURCES** in interventional cardiovascular medicine!

*Publishing booth on level 2*

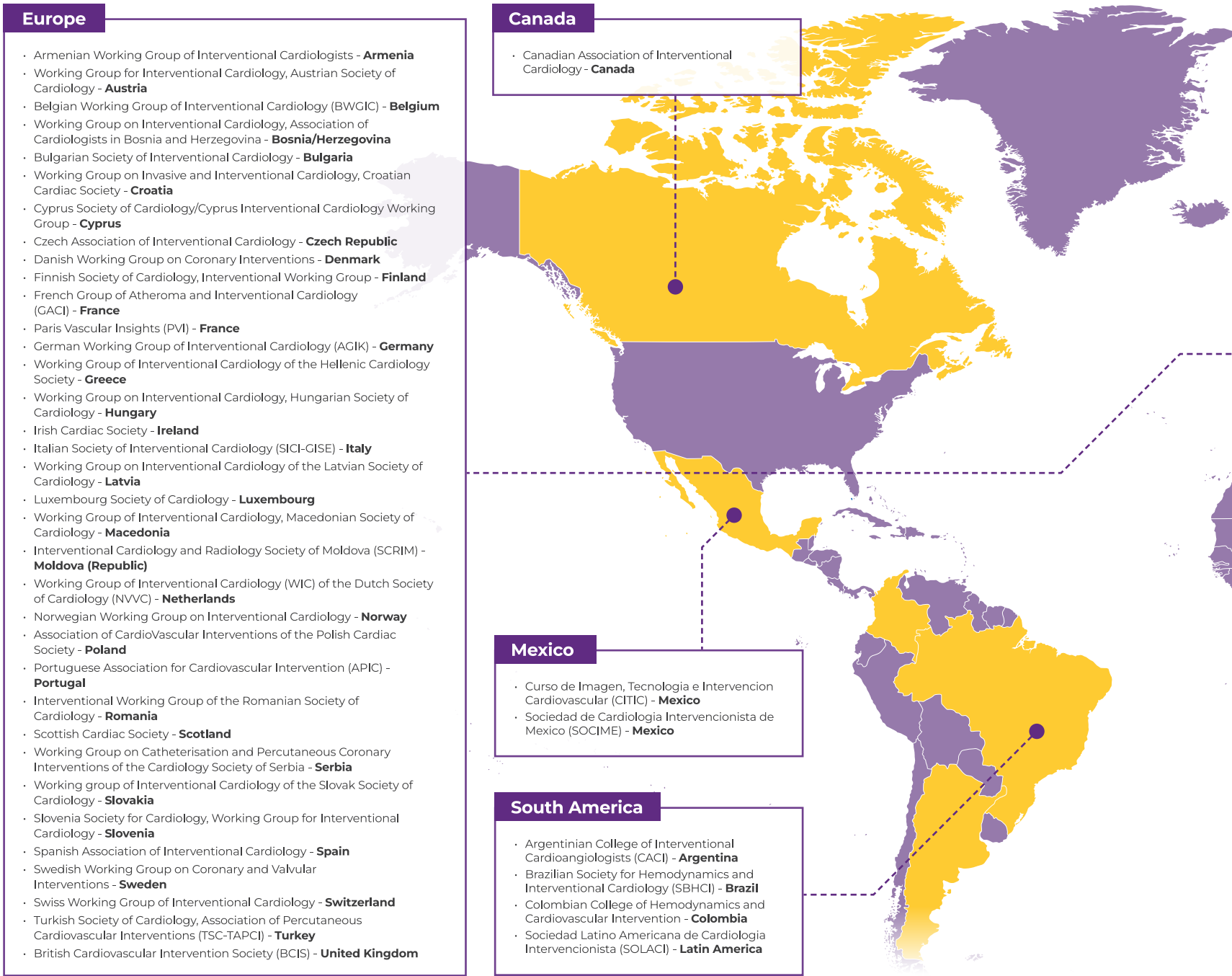


**HURRY AND SHARE YOUR OPINION!**



# Focus on international collaboration!

As always, National Societies and Working Groups are at the heart of EuroPCR. Joint sessions greatly enrich the programme, providing the opportunity for participants to compare and discuss local treatment methods for a more global view of practice in different regions around the world.



For EuroPCR’s new Course Directors it’s a two-way street – they are delighted to have contributions from so many different National Societies and Working Groups, and they also want to learn how best to support them.

**Thomas Cuisset**  
EuroPCR 2023 Course Director

We really want to see the PCR community as a network of worldwide companions. And we need to share and to learn together to improve daily practice as this will translate into the optimisation of patient outcomes.

Although it’s called ‘EuroPCR,’ it is anything but a European Course – it really is an international event and that is its beauty. It can be even more interesting to discuss practices with people working in different places than with, let’s say, partners from your centre,

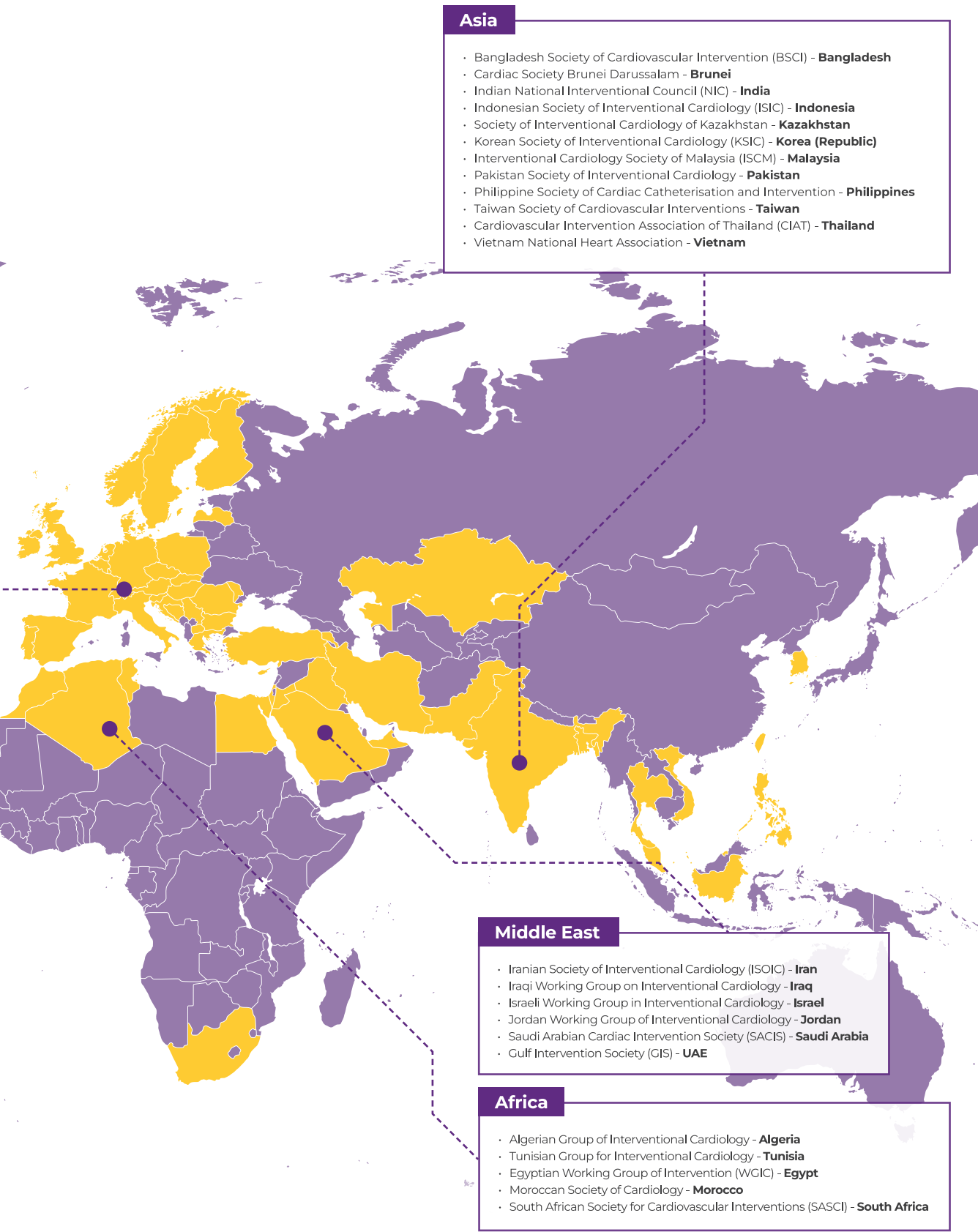
because it’s only then you realise that sometimes people have different ideas working in different set-ups.

In the future, I see the collaboration with National Societies growing, meaning that National Societies are not just invited to join, they take an even greater role in the Course. And on the other hand, I think all EuroPCR activities can help National Societies with medical education in their respective countries. **It’s really a win-win strategy between National Societies and not only EuroPCR, but PCR at large.**

**Nicolas Dumonteil**  
EuroPCR 2023 Course Director

From the beginning, the EuroPCR Course has been built *by* and *for* its participants. This means that at least half of the programme, or even more, is built from the contribution of its participants. And in that spirit, having structured participation coming from the National Societies is crucial. It allows us to offer them a free space for their communication with other National Societies and also provides the scope to build sessions around topics that particularly interest them.





Asia

- Bangladesh Society of Cardiovascular Intervention (BSCI) - **Bangladesh**
- Cardiac Society Brunei Darussalam - **Brunei**
- Indian National Interventional Council (NIC) - **India**
- Indonesian Society of Interventional Cardiology (ISIC) - **Indonesia**
- Society of Interventional Cardiology of Kazakhstan - **Kazakhstan**
- Korean Society of Interventional Cardiology (KSIC) - **Korea (Republic)**
- Interventional Cardiology Society of Malaysia (ISCM) - **Malaysia**
- Pakistan Society of Interventional Cardiology - **Pakistan**
- Philippine Society of Cardiac Catheterisation and Intervention - **Philippines**
- Taiwan Society of Cardiovascular Interventions - **Taiwan**
- Cardiovascular Intervention Association of Thailand (CIAT) - **Thailand**
- Vietnam National Heart Association - **Vietnam**

Middle East

- Iranian Society of Interventional Cardiology (ISOIC) - **Iran**
- Iraqi Working Group on Interventional Cardiology - **Iraq**
- Israeli Working Group in Interventional Cardiology - **Israel**
- Jordan Working Group of Interventional Cardiology - **Jordan**
- Saudi Arabian Cardiac Intervention Society (SACIS) - **Saudi Arabia**
- Gulf Intervention Society (GIS) - **UAE**

Africa

- Algerian Group of Interventional Cardiology - **Algeria**
- Tunisian Group for Interventional Cardiology - **Tunisia**
- Egyptian Working Group of Intervention (WGIC) - **Egypt**
- Moroccan Society of Cardiology - **Morocco**
- South African Society for Cardiovascular Interventions (SASCI) - **South Africa**

Today’s ‘Focus on International Collaboration’ sessions highlight the breadth and diversity of EuroPCR 2023

Check out the programme to see the full range of international collaboration sessions throughout the week!

DON'T MISS

Myocardial infarction with cardiogenic shock - Challenging cases

With the collaboration of the **Philippine** Society of Cardiac Catheterisation and Intervention, Cardiac Society **Brunei** Darussalam and Interventional Cardiology Society of **Malaysia** (ISCM)  
Tuesday, Room 252A, 12:00 – 13:30

Complex scenarios in TAVI

With the collaboration of the **Iranian** Society of Interventional Cardiology (ISOIC), **Swedish** Working Group on Coronary and Valvular Interventions and Working Group of Interventional Cardiology (WIC) of the **Dutch** Society of Cardiology (NVVC)  
Tuesday, Room 253, 12:00 – 13:30

Procedural challenges, difficulties and pitfalls in CTO PCI

With the collaboration of the **Irish** Cardiac Society, **Norwegian** Working Group on Interventional Cardiology and Working Group on Invasive and Interventional Cardiology, **Croatian** Cardiac Society  
Tuesday, Room 252A, 15:00 – 16:30

Complex TAVI procedures

With the collaboration of the **Saudi Arabian** Cardiac Intervention Society (SACIS), Working Group for Interventional Cardiology, **Austrian** Society of Cardiology and **Slovenia** Society for Cardiology, Working Group for Interventional Cardiology  
Tuesday, Room 253, 15:00 – 16:30

In addition, it enables the National Societies to encourage younger colleagues to present for the first time at an international meeting and we see new talent introduced into our community.

**It's all about partnership – they are our Companions; they are the basis of the community and they have this free opportunity to be a part of the programme.** Joint international sessions have always been, and will always be, part of the DNA of the Course.

**Nieves Gonzalo**  
EuroPCR 2023 Course Director

Collaboration with National Societies and Working Groups is key for EuroPCR. Indeed, facilitating sharing among the cardiovascular community is in the mission of PCR. International connections provide opportunities to understand the challenges colleagues face in different environments and we can learn more about regional differences in the approach to certain conditions.

Last but definitely not least, these collaborations help us share ways to provide impactful education – education that is specially adapted to the needs of each community.

**Ideally, we would like to extend these collaborations beyond the Course itself.** To this end, we would like to find new ways to help interactions between societies and EuroPCR to be able to provide more dedicated learning.

# AN IMAGE IS WORTH A 1,000 WORDS



To highlight the importance of imaging in interventional cardiovascular medicine, we've selected some of the most interesting and puzzling images out of those submitted for EuroPCR 2023.

## Today's case: How many is too many?

Review this image of a transcatheter edge-to-edge repair (TEER) and choose the TRUE statement:

- A. This patient has three devices in the mitral valve and two devices in the tricuspid valve
- B. This patient has had two sternotomies
- C. The TOE-probe is in the mid-oesophageal position

## Answer: B

This image demonstrates a simultaneous mitral and tricuspid transcatheter edge-to-edge repair (TEER) for the treatment of severe mitral regurgitation (MR) and severe tricuspid regurgitation (TR). People often ask: how many devices is too many in TEER? In this case, we implanted two devices in the mitral valve and three devices in the tricuspid valve with mild residual MR and mild residual TR, and no significant stenosis in either valve. This case also highlights the utility of transcatheter therapies in patients with previous sternotomy.

Authors: Cara Barnes and Sam Dawkins from John Radcliffe Hospital, Oxford, United Kingdom



CERC is celebrating its **15<sup>th</sup> ANNIVERSARY** and its ongoing commitment to advancing healthcare through groundbreaking clinical trials. For the first time, no less than **SIX STUDIES** managed by CERC's experts will be presented during **EuroPCR Late-Breaking Clinical Trial Sessions**.

Don't miss the opportunity to attend the **THREE FIRST TRIALS** today, and don't miss our **Booth**! You'll find out how **OUR** innovations can bring **YOUR** research to the spotlight of the scientific community.

➔ Check the program for today & follow us tomorrow. There is much more to come!

MAY 16<sup>th</sup>

12:00-13:30

Room Maillot  
Chairs: A. Neylon  
& D. Capodanno

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- **EBC II** Five-year follow-up – Provisional vs. culotte for coronary bifurcations.  
**S. Arunothayaraj**
- **KISS** Provisional stenting in bifurcation lesion: benefit of side branch intervention.  
**B. Chevalier**
- **EBC Main** The European Bifurcation Club left main coronary stent study: three-year follow-up.  
**D. Hildick-Smith**

**VISIT US BOOTH M 6 – LEVEL 2**



# CAPTURED MOMENTS



## SCATTER MATTERS

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# What’s new with the PCR-EAPCI Textbook?



**Piera Capranzano**

Deputy Editor of PCR-EAPCI Textbook  
Policlinico Hospital, University of Catania - Catania, Italy



**Interventional cardiologists who have used the PCR-EAPCI Textbook recently will have noticed a change in how the site looks, enhancing its usability and making it easier to share chapters via social networks. Professor Piera Capranzano, Deputy Editor of PCR-EAPCI Textbook, explains the reasons for the changes and describes other new features:**

“As a leading educational source for interventionalists, the PCR-EAPCI Textbook is a key point of reference for high-quality, evidence-based,

and up-to-date information for clinical practice today and for the future. The Textbook covers almost all clinical and practical aspects of interventional cardiac care and was accessed by more than 45,000 users in 2022. The new website is the first step towards refining the overall structure and content of the Textbook.

Ease of accessibility was a key motivator for the redesign of the Textbook website. For instance, graphical presentation of chapter text has been changed to improve the overall readability of the Textbook and enhance access to tables and images. In a bid to modernise the website to meet the expectations of today’s users, chapters can now also be shared easily via social media. One of the new features of the website is the addition of the ‘Spotlight On’ section, which allows easy direct access to selected chapters. This means that updated chapters are highlighted, and users can be kept up to date with the latest news and innovations.

In what we think is a really useful new development – and a way to link PCR activities –

those attending EuroPCR 2023 can supplement what they learn at the Course with information from the Textbook. We have reviewed all the sessions at EuroPCR 2023 and have tagged Textbook chapters addressing the specific topics presented at each session. So, when a participant attending the Course consults the programme, they can directly access the specific PCR-EAPCI Textbook chapter relevant to that session.

What’s more, during EuroPCR 2023, three new chapters of the PCR-EAPCI Textbook will be released and seven updated chapters will be made available, which address timely and interesting topics that are currently widely discussed within the scientific community. Free access to these chapters will be provided during the EuroPCR Course.

**EuroPCR 2023 also provides a chance to meet with the Textbook’s editors and authors at the PCR Publishing booth – we would love to hear your comments and feedback.”**



THE PCR-EAPCI  
**TEXTBOOK**

## NEW CHAPTER: Radial access



**Marco Valgimigli**

Cardiocentro Ticino - Lugano, Switzerland



“Radial access has become the default recommended approach by both European and US guidelines, with a Class Ia recommendation, to be preferred over femoral access in patients where radial access is feasible and there are enough technical skills within the team. This extensive new chapter summarises results of clinical studies and shows that radial access not only prevents bleeding complications and reduces the risk of vascular complications, but is also associated with

lower mortality risk. Bleeding is probably just a small component of this smaller risk of mortality, the remainder coming from the ability of radial access to reduce the risk of acute kidney injury. In this chapter, we briefly review the historical notes – how we got there, what were the reasons – before going on to discuss the anatomical features of the access site and also complications and how to best prevent them. Last but not least, the chapter reviews the very recent new technical features for achieving radial access. This includes not only the conventional approach but also distal radial artery access, which is becoming more and more popular, possibly because while it is more technically challenging, it is potentially associated with an even lower risk of radial artery occlusion. I hope you will enjoy reading this chapter.”

## NEW CHAPTER: Ultralow contrast PCI



**Javier Escaned**

Hospital Universitario Clínico San Carlos - Madrid, Spain



“Over 40 years have passed since the inception of PCI. During this time, we have acquired new techniques to visualise coronary vessels without the need for contrast opacification and we have seen a marked change in the patients coming for treatment. This new chapter describes how ultralow contrast PCI can improve the safety and quality of interventions in today’s cathlab. It outlines the multiple clinical scenarios – such as chronic kidney disease, an anticipated long procedure and patient frailty – where competence with, and knowledge about, new skills and tools available to perform PCI without contrast could improve results. We have all been trained to use contrast to perform interventions and we know that adapting approaches is not easy. This new chapter can help: not only will you learn multiple tricks involving commonly used techniques already available, you will also get information about more sophisticated approaches, such as the co-registration of IVUS and guidewires while performing injections, the analysis of pre-existing materials, like CT angiograms, in preparing your case and the use of diluted contrast for selective injections to reduce the total amount of iodinated contrast administered to the patient. We believe that this chapter is an indispensable part of the toolbox that every interventionalist should have when performing PCI in complex patients.”

## NEW CHAPTER: Revascularisation strategies in patients with low left ventricular ejection function



**Divaka Perera**

Guy’s and St Thomas’ Hospital - London, United Kingdom



**Matthew Ryan**

King’s College London - London, United Kingdom



“It’s a very exciting time for us to be writing this chapter and bringing all the evidence together. A really useful feature is the inclusion of a flow chart that can be used when an interventionalist is faced with a patient who has poor LV function and considerable coronary artery disease. And in addition to summarising current evidence, the chapter gives a glimpse into what might be coming in the future. This includes information from ongoing clinical trials looking into the use of mechanical circulatory support and also the big unanswered question of whether to use bypass surgery or PCI for a patient with poor LV function who needs revascularisation.”

“After decades of anecdotal evidence, we now have data from randomised trials, particularly the STICHES and REVIVED-BCIS2 trials, to guide how we revascularise patients with low LVEF. This is reflected in the new chapter, which is split broadly into two sections. The first part discusses which patients with low LVEF should undergo revascularisation and the second part goes on to discuss how they should be revascularised. The chapter features a short section on the safe perioperative management of bypass surgery. We then turn to the safe management of patients through PCI, looking at preprocedure aspects and then management during and after the procedure. There is also discussion around the role of mechanical circulatory support, which is becoming increasingly important in managing these patients.”

See the new changes and new content for yourself!

Visit the PCR-EAPCI Textbook at:

[textbooks.pcronline.com/the-pcr-eapci-textbook](https://textbooks.pcronline.com/the-pcr-eapci-textbook)



# New this year: Meet the authors & editors!

**“It is not the answer that enlightens, but the question”** – Eugene Ionesco

Visit the PCR Publishing booth to enjoy discussions with *EuroIntervention*, *AsiaIntervention* and PCR-EAPCI Textbook authors and editors!

## Any questions?

Tuesday 16 May	Wednesday 17 May	Thursday 18 May
 <p><b>Upendra Kaul</b> <i>AsiaIntervention</i> 10:00 – 10:45</p>	<div data-bbox="564 783 880 947">  <p><b>Davide Capodanno &amp; Michael Joner</b> <i>EuroIntervention</i> 10:30 – 11:15</p> </div> <div data-bbox="564 1025 880 1136">  <p><b>Divaka Perera</b> <i>PCR-EAPCI Textbook</i> 11:15 – 12:00</p> </div> <div data-bbox="930 783 1246 947">  <p><b>Javier Escaned</b> <i>PCR-EAPCI Textbook</i> 14:15 – 15:00</p> </div> <div data-bbox="930 968 1246 1136">  <p><b>Davide Capodanno &amp; Rasha Al-Lamee</b> <i>EuroIntervention</i> 15:00 – 15:45</p> </div>	<div data-bbox="1348 783 1665 947">  <p><b>Robert Byrne &amp; Darren Mylotte</b> <i>EuroIntervention</i> 12:15 – 13:00</p> </div> <div data-bbox="1348 1007 1665 1136">  <p><b>Piera Capranzano</b> <i>PCR-EAPCI Textbook</i> 14:00 – 14:45</p> </div>

**PCR Publishing**

Visit the booth: Level 2



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# 14,000 PCR Companions – and counting!

The PCR Companions initiative kicked off in 2019, the year EuroPCR celebrated its 30th anniversary. Just four years later, and despite the global pandemic, it counts thousands of members. Let's take a look at the core values and advantages that have drawn so many to sign up to this collective and collaborative programme.



### What is its goal?

The programme aims to facilitate and strengthen the link between mentors, fellows, and practitioners at large, so that they can support each other on the road to the worldwide standardisation and optimisation of practice, and better patient care.

### Who can join?

It is open to all healthcare practitioners who work in the field of interventional cardiovascular medicine: interventional cardiologists, cardiac surgeons, imagers, nurses and allied professionals.

### What do PCR Companions aspire to?

- Learn with and from each other by sharing daily practice experience
- Engage in long-lasting, non-judgmental relationships
- Find momentum together to adopt new techniques and technology
- Believe in high values and strong ethics, for their patients
- Build a mutual trust that goes beyond cardiology

### What are the benefits for PCR Companions joining EuroPCR 2023 in person?

- Access to two dedicated Spaces in which to relax, network and meet new people
- A professional headshot photo, for the update of your CV and social media profile
- A free one-year subscription to the print and/or digital edition of *EuroIntervention*

If you recognise yourself in the initiative and are driven by the same purpose, here's where you can find out more and sign up for free:

PCR Companions Social Space: Level 2

PCR Companions Work Space: Level 3



Scan the QR code to watch a short video about PCR Companions!



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# ARE YOU ON SOCIAL MEDIA?

## Join the conversation

Follow us and contribute on Twitter, Instagram, Facebook and LinkedIn too, and keep on top of all the latest in the PCR community!

## #EuroPCR

**Thank you for making this happen!** Throughout the last couple of months we have seen your excitement to get back together on site in Paris at EuroPCR.

The buzz created on social media has been overwhelming and we would like to say thank you for all your support and the success of our Course.



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