

AN INTERVIEW WITH...

Valeria Paradies, MD

Dr. Paradies discusses her goals as Co-Chair of the EAPCI Women Committee, takeaways from her recent published work on patients with ACS and multivessel disease and other projects on the horizon, the value of pursuing study abroad, and more.



How you would summarize your main research interests right now, and what do you hope your career looks like 10 years down the road?

My main goal is to build up a collaborative network across the globe.

At this stage, my research interests are pharmacologic therapy and complete revascularization in acute coronary syndrome (ACS) patients, the efficacy and safety of different stent platforms, intravascular imaging as guidance for percutaneous coronary intervention (PCI), and nonobstructive coronary artery disease.

My biggest ambition for the next 10 years is to establish my role as principal investigator of multicenter randomized clinical trials in the field of cardiovascular disease and, ultimately, to report results that are able to improve patient care.

Your passion for supporting women in cardiology is evident through your work—particularly, your role as Co-Chair of the European Association of Percutaneous Cardiovascular Interventions (EAPCI) Women Committee. What have been the highlights so far of your time as Co-Chair, and can you share any projects you are currently working on with the group?

When I was approached to become the Co-Chair of the EAPCI committee, I couldn't imagine the potential of this role. Interventional cardiology still ranks at the bottom among other specialties in terms of female representation, with a very low representation of women at apical positions. Practical measures to promote sex parity, such as a checklist of actions or legal quotas for women, do not work on their own; they must be accompanied by a cultural transformation to raise awareness of sex inequity and barriers.

The topic of how to overcome professional barriers

in interventional cardiology will be addressed in a position statement from the EAPCI Women Committee and be deeply investigated in educational webinars. International societies, such as EAPCI and the European Society of Cardiology (ESC) and organizations such as Women As One, have been active in closing this gap by promoting mentorship and educational programs and by establishing already accomplished female interventional cardiologists as role models. Mutual trust and close collaboration with industry are pivotal to pursuing these goals.

The main mission of our working group is to attain gender equality at not only the professional level but also at the patient level. By tackling underrepresentation of women in clinical trials and by achieving sex-adjusted treatment in clinical practice, we aim to ensure evidence-based, sex-specific recommendations. One of the next goals of our working group will focus on antithrombotic therapy. We aim to investigate the gap in the current standard of care and adherence to guidelines, and we aim to provide expert opinion on how to achieve equal sex representation and report sex-specific results of randomized clinical trials in this field.

On a related note, you were also on the scientific committee for the second edition of a meeting entitled, "Complex Clinical Scenarios in Interventional Cardiology: What is the Role of Gender Medicine?" What was the significance of that event?

I had the pleasure to be on the scientific committee for the first two editions of the Complex Clinical Scenarios in Interventional Cardiology event organized by the Italian Society of Interventional Cardiology (GISE) and endorsed by EAPCI and Women as One. We had a stellar faculty presenting clinical cases focused on gender medicine. Sex disparities in everything from health care providers to patient treatment is a worldwide issue, and joining forces among different societies has a common target: creating

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a workforce that reflects the diversity of our patients and optimizes delivery of care.

In recent published works¹ and meeting presentations, you've explored the clinical conundrum of MINOCA (myocardial infarction in the absence of obstructive coronary artery disease) and INOCA (symptoms and signs of ischemia but no obstructive coronary artery disease). What would you consider to be the most important management tips for interventional cardiologists who are presented with these patient populations?

A large proportion of patients undergoing coronary angiography because of angina or myocardial infarction (MI) do not present with obstructive coronary artery disease. In the PCR textbook chapter,¹ we tried to summarize the current evidence and provide recommendations on how to treat these patients. Our scientific community should be aware of how these frequently overlooked clinical conditions can impact a patient's quality of life and prognosis, as well as our health care system. Interventional diagnostic procedures, including guidewire testing and vasoreactivity testing, have been implemented to differentiate between different INOCA endotypes. The major gap in evidence remains the best treatment for these patients. We definitely need more data!

In a 2021 *EuroIntervention* paper, you and colleagues reviewed complete revascularization in patients with ACS and multivessel disease, as well as the role of nonculprit lesion assessment.² What were the main takeaways from the paper? Are there plans for future study in this area?

Up to 50% of patients presenting with ACS have multivessel disease. The benefit of a complete revascularization strategy has been widely shown on composite endpoints, mainly driven by repeat revascularization, and recently also on hard clinical endpoints. However, several questions remain regarding how to identify nonculprit lesions that are amenable for revascularization and the optimal timing for treatment.

I had the pleasure and honor to be the leading author of a State of the Art paper on this topic that was recently published in *EuroIntervention* and supported by my senior colleague Dr. Pieter C. Smits. We extensively reviewed and put into perspective the current evidence on this topic, and we hope to contribute generating new evidence in this field.

You have also reported results from bench tests assessing different two-stent techniques for bifurcation PCI, stent expansion capacity, and thrombogenicity.³ What is the practical implication of such experiments?

During my time in Singapore, I deepened my interest for interventional cardiology from a different perspective. I worked closely with an already established team of biomedical engineers to investigate the mechanical performance of different stent platforms in silicone models and compare different bifurcation stenting techniques in terms of strut apposition and thrombus formation. This multidisciplinary approach combined my passions for both interventional cardiology and basic science. Bench testing is not only essential in the first steps of breakthrough device development; it is also crucial to implementing implantation techniques and better understanding pathophysiology.

Your experience in Singapore also led to an important document on prognostically relevant periprocedural myocardial injury and infarction associated with PCI.⁴ Why was it important to have a consensus document on this topic?

Currently, there is a lack of consensus for defining periprocedural MI and myocardial injury, with the Society for Cardiovascular Angiography and Interventions and Academic Research Consortium-2 using much higher thresholds of post-PCI troponin elevation compared to the Fourth Universal Definition of Myocardial Infarction. Moreover, periprocedural MI is a component of primary endpoints in several trials and, therefore, represents an important outcome measure in research studies.

A fruitful collaboration between the EAPCI and the ESC Working Group on Cellular Biology of the Heart recently resulted in this important consensus document, which had the aim of shedding light on the prognostic relevance of post-PCI troponin elevation and on the management of periprocedural myocardial injury and MI.

What was your impetus to study medical statistics along with your clinical activities, and how has it applied to the work you do?

A robust medical statistics background is pivotal to reaching a high level of research. I completed a medical statistics course at Stanford University, and I am currently enrolled in a PhD program at Erasmus Medical Centre in Rotterdam (Netherlands) and in a Master in Structural Heart Intervention program at University of Padova (Italy). Top universities offer professional qualifications and an influential network.

Your education and career path have taken you back and forth from Italy, Singapore, and the Netherlands. What led you to pursue study and work outside of your home country, and can you share any takeaways from these experiences—professional or otherwise?

I welcome this question as I am happy to share my experience. My career path has brought me to live in different countries, from Europe to Southeast Asia. I packed my things and left for a fellowship in a foreign country with “only” the aim of improving my curriculum vitae (CV) and acquiring new skills. Each experience has enriched me both from a professional and a personal perspective. I built up lifelong relationships, created an international network, and had the chance to open my mind to different cultures.

I am currently on the EAPCI Fellowship Grants Committee, which selects candidates and allocates grants for clinical training in interventional cardiology in ESC member countries. I am impressed by the enthusiasm of the applicants and I am a strong believer of the success of these programs for both the fellows and the hosting centers. I strongly encourage my young (and not

only young) colleagues to consider adding this “piece of adventure” to their CVs. *Audentes fortuna iuvat!* ■

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Disclosures: None.