

## EAPC Course on Diagnostics in Sports Cardiology 06 - 08 May 2024, Munich, Germany

Sports cardiology is an emerging field within cardiology. ESC Guidelines have outlined the scope and clinical statements on diagnostics, therapy and exercise recommendations have been published. However, the practical aspects in addition to the scientific and clinical background are often lacking in those becoming interested in preventive and sports cardiology.

The three-day seminar will give practical recommendations on the basis of general cardiology for those starting as well as those already practicing within the field. The course will give an in-depth overview on the specific aspects of echocardiology and exercise testing in sports cardiology. In practical sessions patients will be on site and diagnostics will be assessed in athletes, leisure time sportsmen with and without cardiovascular disease.

The days can be booked as a total or each day separately. Low numbers of attendees of 15-20 will assure a hands-on teaching atmosphere. A certificate will be handed out after completion of each course.

### Venue:

Technical University of Munich, University Hospital “rechts der Isar”, Department of Preventive Sports Medicine and Sports Cardiology, Georg-Brauchle-Ring 56, D-80992 Munich, Germany

### Organising committee:

Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany

Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany

### Organisation:

Day 1:

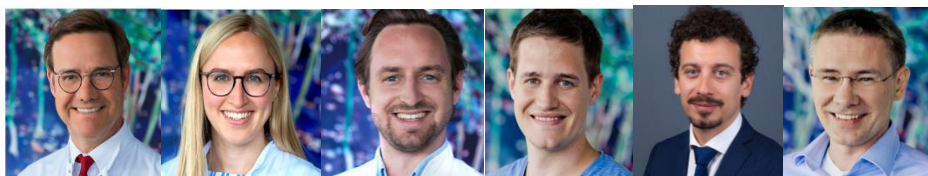
- Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Fritz Wimbauer, MD, MBA, Salzburger Landeskliniken, Salzburg, Austria

Day 2:

- Stephan Müller, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Flavio D’Ascenzi, MD, University of Siena, Italy

Day 3:

- Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Mario Weichenberger, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany



## I. Echocardiography in Sports Cardiology – 6 May 2024

### Learning Objectives:

- Understanding the echocardiographic assessment of cardiac changes in athletes
- Getting to know special diagnostics in sports cardiology (stress echocardiography, strain analysis, tissue Doppler) and relevant sports cardiology issues
- Learning how to differentiate between an athlete's heart and cardiomyopathies

### Target Group:

- Medical doctors interested in sports cardiology with moderate to advanced echocardiography skills

### Organisation:

- Isabel Fegers-Wustrow, MD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Fritz Wimbauer, MD (Salzburger Landeskliniken, Salzburg, Austria)

Time	Duration	Topic	Speaker
09:00 - 09:15	15 min	Welcome and introduction	I. Fegers-Wustrow, MD F. Wimbauer, MD, MBA
<b>Theoretical Part</b>			
09:15 – 09:45	30 min	<b>Basics of Echocardiography in Athletes</b> Indication, Cardiovascular Adaptation, Parameters	I. Fegers-Wustrow, MD
09:45 – 09:50	5 min	Discussion	
09:50 – 10:20	30 min	<b>Echocardiographic special diagnostics in sports cardiology part 1</b> Strain analysis, tissue Doppler, 3D echocardiography	M. Schindler, MD
10:20 - 10:30	10 min	Discussion	
<b>10:30 - 10:45</b>	<b>15 min</b>	<b>Break</b>	
10:45 - 11:25	40 min	<b>Special Questions part 1</b> -Coronary Anomalies -Valvular heart disease (bicuspid/ MV-Prolapse)	F. Wimbauer, MD, MBA
11:25 - 11:40	15 min	Discussion	
<b>11:40 - 11:50</b>	<b>10 min</b>	<b>Break</b>	
11:50 - 12:40	50 min	<b>Special Questions part 2</b> Athlete's heart vs. cardiomyopathies	J. Scharhag, MD
12:40 - 12:55	15 min	Discussion	
12:55 - 13:25	30 min	<b>Echocardiographic special diagnostics in sports cardiology part 2</b> Stressechocardiography	F. D'Ascenzi, MD
13:25 - 13:35	10 min	Discussion	
<b>13:35 - 14:15</b>	<b>40 min</b>	<b>Lunch</b>	
<b>Practical Part (Training at Patients)</b>			
14:15 – 16:30	135 min	<b>Practical Echocardiography (à 45 min)</b> - Case 1: Athlete's heart - Case 2: HCM - Case 3: ACM/A(R)VC	I. Fegers-Wustrow, MD F. Wimbauer, MD M. Schindler, MD
16:30 - 16:45	15 min	Farewell	

## II. Basics of Cardiopulmonary Exercise Testing (CPET) – 7 May 2024

### Learning Objectives:

- Understanding the basics of exercise physiology and the physiology behind CPET
- Learning how to conduct and interpret cardiopulmonary exercise testing

### Target Group:

- CPET beginners (no to low experience; medical doctors or scientists)

### Organisation:

- Stephan Müller, PhD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Flavio D'Ascenzi, MD (University of Siena, Italy)

Time	Duration	Topic	Speaker
09:00 - 09:10	10 min	Welcome and introduction	S. Müller, PhD F. D'Ascenzi, MD
<b>Theoretical Part</b>			
09:10 - 09:25	15 min	CPET Equipment (Set-Up and Calibration)	E. Adjei
09:25 - 09:30	5 min	Discussion	
09:30 - 10:30	60 min	Basic Exercise Physiology – CPET made easy	S. Müller, PhD
10:30 - 10:45	15 min	Discussion	
<b>10:45 - 11:05</b>	<b>20 min</b>	<b>Break</b>	
11:05 - 11:30	25 min	Understanding pathological changes in the 9-panel plot – Part I	M. Guazzi, MD
11:30 - 11:40	10 min	Discussion	
11:40 - 12:05	25 min	Understanding pathological changes in the 9-panel plot – Part II	J. Meyer, MD
12:05 - 12:15	10 min	Discussion	
12:15 - 12:40	25 min	Understanding pathological changes in the 9-panel plot – Part III	A. Hager, MD
12:40 - 12:50	10 min	Discussion	
<b>12:50 - 13:50</b>	<b>60 min</b>	<b>Lunch</b>	
13:50 - 14:10	20 min	Plausibility and measurement errors, Case examples	S. Müller, PhD
14:10 - 14:15	5 min	Discussion	
14:15 - 14:35	20 min	CPET protocols, criteria for maximal exhaustion, termination criteria	E. Adjei
14:35 - 14:40	5 min	Discussion	
14:40 - 15:00	20 min	Exercise Prescription based on CPET	F. D'Ascenzi, MD
15:00 - 15:10	10 min	Discussion	
<b>15:10 - 15:30</b>	<b>20 min</b>	<b>Break</b>	
<b>Practical Part</b>			
15:30 - 17:00	90 min	Practical demonstration	all

### III. Basics of Lactate Testing – 8 May 2024

#### Learning objectives:

- knowing the aims and content of lactate performance diagnostics and to be able to evaluate results using reference values
- understanding the physiological mechanism of aerobic and anaerobic metabolism
- knowing different lactate threshold concepts and to understand differences
- performing lactate performance diagnostics in practice

#### Target Group:

- Lactate beginners (no to low experience; medical doctors or scientists)

#### Organisation:

- Martin Halle, MD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)
- Mario Weichenberger, PhD (Preventive Sports Medicine and Sports Cardiology, Munich, Germany)

Time	Duration	Topic	Speaker
09:00 - 09:10	10 min	Welcome and introduction	M. Halle, MD M. Weichenberger, PhD
<b>Theoretical Part</b>			
09:10 - 09:35	25 min	Methods and basics of endurance performance diagnostics, advantages of lactate performance diagnostics, fields of application	J. Schellenberg, MD, MHBA
09:35 - 09:45	10 min	Discussion	
09:45 - 10:35	50 min	Energy metabolism and exercise, theoretical basics of lactate metabolism and lactate threshold concepts	K. Röcker, MD
10:35 - 10:45	10 min	Discussion	
<b>10:45 - 11:05</b>	<b>20 min</b>	<b>Break</b>	
11:05 - 11:35	30 min	Basics and practical implementation of lactate sampling, equipment: ergometers, lactate measurement devices, lactate analysis software	F. Möckel, MD
11:35 - 11:45	10 min	Discussion	
<b>Practical Part</b>			
11:45 - 13:15	90 min	Lactate diagnostics (in groups): Treadmill and bicycle ergometry	J. Schellenberg, MD, MHBA M. Weichenberger, PhD F. Möckel, MD M. Halle, MD
13:15 - 14:15	<b>60 min</b>	<b>Lunch and Discussion</b>	
<b>Theoretical Part</b>			
14:15 - 16:15	120 min	Workshop: 10 cases from athletes to patients	J. Schellenberg, MD, MHBA M. Weichenberger, PhD F. Möckel, MD M. Halle, MD
16:15 - 16:45	30 min	Open discussion and Quiz	
16:45 - 17:00	15 min	Conclusion and Farewell	all

## Panelists:

### Day 1:

- Isabel Fegers-Wustrow, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Fritz Wimbauer, MD, MBA, Salzburger Landeskliniken, Salzburg, Austria
- Michael Schindler, MD, Cardiology, Sports Cardiology and Sports Medicine, Baden, Switzerland
- Jürgen Scharhag, MD, Institute of Sport and Exercise Science, Vienna, Austria
- Flavio D’Ascenzi, MD, Department of Medical Biotechnology, Siena, Italy

### Day 2:

- Stephan Müller, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Flavio D’Ascenzi, MD, Department of Medical Biotechnology, Siena, Italy
- Emmanuel Adjei, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Marco Guazzi, MD, Department of Health Sciences, University of Milan, Milan, Italy
- Joachim Meyer, MD, Pneumology and internal intensive care & respiratory medicine, Munich Clinic, Munich, Germany
- Alfred Hager, MD, Department of congenital heart defects, Deutsches Herzzentrum München, Munich, Germany

### Day 3:

- Martin Halle, MD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Mario Weichenberger, PhD, Preventive Sports Medicine and Sports Cardiology, University Hospital “rechts der Isar” of Technical University of Munich, Munich, Germany
- Jana Schellenberg, MD, MHBA, University Hospital Ulm, Germany
- Kai Röcker, MD, Institute for Applied Health Promotion and Exercise Medicine, Furtwangen, Germany
- Frank Möckel, MD, Sports Medicine, Regensburg, Germany

### Registration:

The course can be booked as a total or each day separately. Fees for the full course: €900 and for one day: €350. There is a 10% discount for EAPC Silver members\*.

For the registration, please write an E-mail with your contact details and let us know, if you take part the whole course or if you book single day(s): [kongress.sportmed@mri.tum.de](mailto:kongress.sportmed@mri.tum.de)

*\*A valid EAPC Silver membership certificate is required to confirm the discount. Please download the certificate from your [MyESC Account](#)*

Registration is open until **Friday 3<sup>rd</sup> May 2024 (14:00 CEST)**

### Continuing Medical Education (CME):

CME points are registered at “Bayerische Landesärztekammer” – 28 points for all three days. To receive these points, please bring your EFN. The confirmation of participation will be sent to you by e-mail after the event.

The event will also be submitted for accreditation by the European Accreditation Council for Continuing Medical Education (EACCME®). The EACCME® is an institution of the European Union of Medical Specialists (UEMS).

**Sponsoring:**

The Course will be sponsored by the following companies:



€2000 / 6m<sup>2</sup> exhibition on 06-08.05.2024 plus logo on website and programme booklet



€2000 / 6m<sup>2</sup> exhibition on 06-08.05.2024 plus logo on website and programme booklet



€1500 / 6m<sup>2</sup> exhibition on 06.05.2024 plus logo on website and programme booklet