IOC
COURSE ON CARDIOVASCULAR EVALUATION OF OLYMPIC ATHLETES

BUDAPEST, HUNGARY
22 - 23 APRIL 2021
Dear Colleagues, Dear participants,

Welcome to Budapest for the IOC Course on Cardiovascular Evaluation of Olympic Athletes.

As already experienced in 2019, the Course will closely follow the ATP course, with the aim of making the participation of a large number of delegates much easier.

The idea for organising such a Course was prompted by the recognition that sound and experienced information in this field is still scarce, particularly with regard to basic concepts to avoid misdiagnosis or inappropriate management of a concealed cardiac condition, and to contribute to avoiding sudden cardiac death among athletes.

For the 2021 edition, we will continue with what has become the trademark of the previous IOC Cardiology Courses, addressing the basic elements of Cardiovascular Evaluation of Olympic Athletes through real life cases. The lectures will be delivered by experienced professionals and scientists in simple language and supported by large range of practical cases, illustrated and discussed collegially with the delegates. You should expect extensive interaction among the participants and faculty members around the clinical cardiology conundrums faced nowadays by the physicians working with elite athletes.

Apart from our medical discussions, we will also have time for informal social interaction, and to build an international network with experienced colleagues from all over the world.

Looking forward seeing you all in Budapest on 22 and 23 April 2021.

Prof. Dr Uğur Erdener
IOC Medical & Scientific Commission Chair
Dear Participants,

As the Director of the 2021 IOC Course on Cardiovascular Evaluation of Olympic Athletes, I am very pleased to welcome you to Budapest, Hungary.

This is the 10th edition of the Course and the excellent feedback from previous participants has inspired us to become even more valuable for the broad audience we have, including team physicians, as well as sports medicine specialists and consulting cardiologists.

As for previous editions, this Course aims to provide you with the most up-to-date academic and practical information on the prevention of sudden cardiac death in elite athletes, and to share methods of assessing such a risk in athletes’ lives.

Aside from our scientific discussions, we will also have the opportunity to foster networking, thanks to a social programme which – I am sure – will receive your full approval.

Looking forward to your active participation and contribution and to seeing you all in Budapest on 22 and 23 April 2021!

Prof. Antonio Pelliccia
Course Director
Target of the Course

Professional team physicians, sport medicine specialists, cardiologists and sport scientists interested in the cardiovascular evaluation and care of the professional/elite athletes.

Main objectives for the Course

Teach the physicians of the basic knowledge of CV evaluation, according to the protocol suggested by the IOC.

1. Explain the criteria to identify and interpret the ECG in athletes, and distinguish the normal ECG changes consistent with the athlete’s heart from the abnormalities requiring additional diagnostic testing and cardiology consultation.

2. Discuss the indication for the imaging testing (when indicated, echocardiography, cardiac magnetic resonance, exercise ECG testing), and be able to interpret the results, by distinguishing normal (consequence of athletic conditioning) from abnormal (suggestive for cardiac disease).

Delegates

Sport physicians and cardiologists delegated by the National Olympic Committees, International Federations, Intl. Sport Bodies, Academic Institutions (presentation required).

Individual applications accepted selectively, please contact the Organising Secretariat. If your application is accepted, a fee of 100€ will be charged.

The Course will be held in English (no simultaneous translation).

In addition to the Course, you can attend a workshop on cardiopulmonary resuscitation and defibrillation from 14.30 to 18.00 on 23 April

Workshop fee: 30 €

For further information, visit the website:
http://ioc-cardiologycourse.org/budapest2021/
Programme

**Wednesday 21 April 2021**
Arrival Day and Faculty Dinner

**Thursday 22 April 2021**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>08.00-08.30</td>
<td>Registration</td>
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| 08.30-08.37 | Welcome & introduction by the Chair of the IOC Medical & Scientific Commission  
Uğur Erdener |
| 08.37-08.45 | Course outline                                                       Lars Engebretsen |

**SESSION 1: Interpreting symptoms and physical findings**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 08.45-09.15 | Lecture: How to interpret symptoms and physical findings  
Stefano Caselli |
| 09.15-09.30 | Discussion                                                                |

**SESSION 2: Interpreting the ECG in athletes: normal vs. abnormal**

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<tr>
<th>Time</th>
<th>Event</th>
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| 09.30-10.00 | Introduction: from the original ESC to the current international criteria  
Michael Papadakis and Jonathan Drezner |

**CASE PRESENTATION N°1**

Presenters: Michael Papadakis and Jonathan Drezner

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>10.00-11.00</td>
<td>Interactive presentation of cases of normal ECG patterns vs. abnormal ECG patterns in athletes</td>
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<tr>
<td>11.00-11.15</td>
<td>Discussion</td>
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<tr>
<td>11.15-11.45</td>
<td>Coffee break</td>
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## Programme

### SESSION 3: The exercise-ECG in athletes

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>11.45-12.00</td>
<td>Lecture: How to perform and interpret the exercise ECG in athletes</td>
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<tr>
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<td>Mats Börjesson</td>
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**CASE PRESENTATION N°2**

**Presenters:** Jonathan Drezner and Mats Börjesson

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>12.00-12.45</td>
<td>Examples of normal and abnormal exercise ECGs in athletes</td>
</tr>
<tr>
<td>12.45-13.00</td>
<td>Discussion</td>
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<tr>
<td>13.00-14.00</td>
<td>Lunch break</td>
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### SESSION 4: The imaging in the cardiovascular evaluation of athletes

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>14.00-14.45</td>
<td>Lecture: How to recognize cardiac disease at risk by imaging in athletes: the multimodality approach to identify the diseases at risk</td>
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<td>Stefano Caselli and Viviana Maestrini</td>
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**CASE PRESENTATION N° 3**

**Presenters:** Stefano Caselli and Antonio Pelliccia

<table>
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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>14.45-15.45</td>
<td>Interactive reading and interpretation of the imaging studies in athletes (with special references to cardiomypathies and valvular diseases)</td>
</tr>
<tr>
<td>15.45-16.00</td>
<td>Discussion</td>
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<tr>
<td>16.00-16.15</td>
<td>Coffee break</td>
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**CASE PRESENTATION N° 4**

**Presenters:** Viviana Maestrini and Antonio Pelliccia

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<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>16.15-17.15</td>
<td>Interactive reading and interpretation of the cardiac magnetic resonance images in athletes (with special references to cardiomypathies and valvular diseases)</td>
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<tr>
<td>17.15-17.30</td>
<td>Learning assessment of Day 1</td>
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<tr>
<td>19.00</td>
<td>Dinner for participants &amp; Faculty</td>
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**Friday 23 April 2021**

### SESSION 5: Cardiac arrest on the athletic field

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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>08.30-09.00</td>
<td>Lecture: Most common causes of sudden death in athletes</td>
<td>Ali Oto</td>
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<tr>
<td>09.00-09.30</td>
<td>Lecture: How to manage Cardiac arrest in the athletic field</td>
<td>Jonathan Drezner</td>
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<tr>
<td>09.30-09.45</td>
<td><em>Discussion</em></td>
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### CASE PRESENTATION N° 5

**Presenter:** Bela Merkely  
**Time:** 09.45-10.30  
Series of clinical cases with cardiac arrest/death in athletes  
**Time:** 10.30-10.45 *Discussion*  
**Time:** 10.45-11.00 Coffee break

### SESSION 6: Ventricular arrhythmias in athletes

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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>11.00-11.20</td>
<td>Lecture: How to manage ventricular arrhythmias in athletes</td>
<td>Antonio Pelliccia</td>
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<tr>
<td>11.20-11.30</td>
<td><em>Discussion</em></td>
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### CASE PRESENTATION N° 6

**Presenters:** All Faculty members  
**Time:** 11.30-12.15 Interactive illustration and interpretation of clinical cases  
**Time:** 12.15-12.30 Learning assessment of Day 2  
**Time:** 12.30-13.00 ECG quiz  
**Conductor:** Michael Papadakis

### Closure of the Course

**Time:** 14.30-18.00  
Practical tutorial on cardiopulmonary resuscitation, including use of automatic external defibrillator (AED)  
(Limited places available. Reservation required)
Antonio PELLICCIA, MD, Prof.
Chief of Cardiology
Institute of Sport Medicine and Sciences, National Italian Olympic Committee, Rome, Italy

Lars ENGBRETSEN, MD PhD
Professor & Head of Medicine & Science
International Olympic Committee, Lausanne, Switzerland;
Oslo Sports Trauma Research Center, Oslo University Hospital &
Norwegian Olympic Training Center, Oslo, Norway

Uğur ERDENER, Prof. Dr
IOC Medical & Scientific Commission Chair
International Olympic Committee, Lausanne, Switzerland

Mats BÖRJESSON, MD
Dept of Molecular and Clinical Medicine, Sahlgrenska University Hospital/Ostra,
University of Gothenburg, Sweden.

Stefano CASELLI, Dr Prof.
Cardiovascular medicine at Klinik Im Park
Zürich, Switzerland

Jonathan DREZNER, MD
Professor, Department of Family Medicine
Director, Center for Sports Cardiology
University of Washington, Seattle, USA

Viviana MAESTRINI, Dr
Department of Cardiovascular, Respiratory, Geriatric, Anesthesiologic and Nephrologic Sciences,
Sapienza University of Rome, Rome, Italy
Institute of Sport Medicine and Sciences, National Italian Olympic Committee, Rome, Italy

Béla MERKELY MD, PhD, MSc, DSc, FESC, FACC
Director of the clinic
Semmelweis University, Heart and Vascular Center
Budapest, Hungary

Ali OTO, MD, FESC, FACC, FHRS, FISHNE
Professor of Cardiology
Chairman, Department of Cardiology
MHG, Memorial Ankara Hospital
Ankara-Turkey

Michael PAPADAKIS, Dr Prof.
Cardiology Clinical Academic Group,
St George’s, University of London, UK
Venue

Hilton Budapest
Hess A. Ter 1-3, Budapest, H-1014, Hungary

For information

International Olympic Committee
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