University of Pisa Summer School

Summer School in Cardiovascular Medicine: Clinical & Experimental
XI Edition

Polo Didattico Monastero "Le Benedettine"
Piazza S: Paolo a Ripa d'Arno, Pisa

July 20-24, 2026

Organizing Committee: Rosalinda Madonna, Doralisa Morrone, Luna Gargani

Scientific Committee: Carlo Palombo, Marco De Carlo, Gabriele Masini, Giulio Zucchelli, Riccardo Liga, Alessandro Sticchi, Ida Bort, Mattia Alberti

Course Director: Rosalinda Madonna

Honorary President: Raffaele De Caterina

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Rationale and Presentation

The **Summer and Winter Schools Initiative** of the University of Pisa was launched in 2013 with the aim of fostering international exchange among students, postgraduate trainees, and early-career researchers, and of strengthening cooperation with foreign universities. The initiative is grounded in the conviction that the sharing of knowledge, academic perspectives, and research projects is a cornerstone of critical thinking and a driver toward a better and more inclusive world.

This call from the Academic Authorities, strongly supported by the International Division of the University of Pisa, was enthusiastically embraced by numerous Departments and Research Groups across a wide range of disciplines, from Mathematics and Physics to the Humanities and Health Sciences. Among the earliest initiatives activated in 2013 was the Cardiovascular Summer School, which has been held annually ever since, with the exception of a compulsory two-year interruption during the COVID-19 pandemic.

Over time, the School has evolved both in scope and denomination, reflecting the expanding range of topics addressed. Its titles have included *"Updates in Cardiovascular Pathophysiology"*, *"Cardiolung. Updates in Cardiovascular and Pulmonary Pathophysiology"*, and, for the current 2025 Edition, *"Summer School in Cardiovascular Medicine. Clinical and Experimental"*. Participation has steadily increased, from an initial cohort of approximately 20 attendees to the current cap of 100 participants.

The Summer School is designed as an intensive, typically one-week course, characterized by a strong translational and multidisciplinary approach. Its objective is to provide state-of-the-art and cutting-edge insights into major cardiovascular topics, spanning basic science, pathophysiology, and clinical practice. Particular emphasis is placed on fostering scientific reasoning and critical thinking through interactive sessions and direct dialogue between faculty members and participants.

Traditionally, the target audience has consisted primarily of undergraduate and early postgraduate students in Medicine and Life Sciences, PhD candidates, and trainees in the initial years of postgraduate medical programs. In the current edition, the course will also be open to practicing physicians—predominantly cardiologists—offering an in-depth exploration of rapidly evolving areas of cardiovascular research and innovation.

The Course provides a unique opportunity to engage, in a collegial and stimulating environment, with highly qualified local and international faculty from prestigious Italian and foreign institutions. Lectures and discussions address key clinical challenges as well as emerging scientific themes across the broad spectrum of cardiovascular medicine and pathophysiology.

The Pisa "Cardiovascular Summer School. Clinical and Experimental" is officially recognized with European Credit Transfer and Accumulation System (ECTS) credits (typically 3–4), as well as Italian academic credits. Younger participants are formally enrolled as temporary students of the University of Pisa for the duration of the course and benefit from all associated academic facilities and services.

Further information about the Cardiovascular Summer School is available at. http://summerschool.cardiovascular.med.unipi.it

The School is also featured on several international education platforms, including.

- Summer Schools in Europe
- Educations.com
- Keystone Academic Study Portals

Contact information.

- *Scientific matters*. cardiovascularsummerschool@unipi.it
- *Administrative matters*. support.summerschool@unipi.it

Additional details are available at.
https://www.unipi.it/index.php/health-sciences/item/22266-cardiovascular-summer-school

Rosalinda Madonna – Course Director

Raffaele De Caterina - Honorary President

University of Pisa Summer School

The venue – University of Pisa – Congress Center "Le Benedettine"

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Summer School in Cardiovascular Medicine 2026

Monday July 20 morning

09:00-09:15 Introduction to the Summer School – **Raffaele De Caterina, Rosalinda Madonna (Pisa)**

09:15-09:30 The University of Pisa and its Internationalization Program – **Filippo Giorgi (Pisa)**

TOPIC 1 - Principles of Cardiovascular Physiology and Pathophysiology

Chairs: Raffaele De Caterina (Pisa), Carlo Palombo (Pisa)

09:30-09:50 Biventricular Function and Mechanics in Health and Disease – **Fabio Recchia (Pisa)**

09:50-10:10 Large Artery Function and Remodeling in Cardiovascular Disease – **Carlo Palombo (Pisa)**

10:10-10:30 The autonomic nervous system control of cardiovascular functions - **Gianfranco Parati (Milan)**

10:30-11:00 Discussion

11:00-11:30 COFFEE BREAK

11:30-11:50 Exercise Responses in Health and Cardiovascular Disease – **Claudio Passino (Pisa)**

11:50-12:10 Practical session: From murmurs to mechanics: the pathophysiological basis of cardiac auscultation - **Raffaele De Caterina (Pisa)**

12:10-12:30 Practical session: From murmurs to mechanics: the pathophysiological basis of lung auscultation – **Alessandro Celi (Pisa)**

12:30-13:00 Discussion

13:00-14:00 LUNCH BREAK

Monday July 20 afternoon

TOPIC 2 - Myocardial ischemic syndromes: Pathophysiology and Endotypes

Chairs: Raffaele De Caterina (Pisa), Riccardo Liga (Pisa)

14:00-14:20 Endothelial dysfunction as the final common pathway of atherosclerotic vascular disease – **Lorenzo Ghiadoni (Pisa)**

14:20-14:40 Acute and non-acute myocardial ischemic syndromes – The need for a new classification – **William E. Boden (Boston, MA, USA) and Raffaele De Caterina (Pisa)**

14:40-15:00 Diagnosis and risk stratification of non-acute myocardial ischemic syndromes – **Danilo Neglia (Pisa)**

15:00-15:30 Discussion

15:30-15:50 BREAK

15:50-16:10 Myocardial infarction with non-obstructive coronary arteries – **Doralisa Morrone (Pisa)**

16:10-16:30 Acute and non-acute myocardial ischemic syndromes: the view of the interventional cardiologist – **Giulio Stefanini (Milan)**

16:30-16:50 Acute and non-acute myocardial ischemic syndromes: the view of the cardiac surgeon – **Andrea Colli (Pisa)**

16:50-17:10 Discussion

Tuesday July 21 morning

TOPIC 3 - Modifiable risk factors for cardiovascular health: redefining the trajectory of prevention

Chairs: Stefano Taddei (Pisa), Agostino Virdis (Pisa)

Session 1: Arterial hypertension

09:30-09-50 Arterial hypertension: from mechanisms to complications – **Stefano Masi (Pisa)**

09:50-10:10 Antihypertensive treatments: old and new drugs and devices – **Stefano Taddei (Pisa)**

10:10-10:30 The polypill: a 'Trojan Horse' for clinical inertia? - **Claudio Borghi (Bologna, Italy)**

10:30-11:00 Discussion

11:00-11:30 COFFEE BREAK

Session 2: Dyslipidemias

Chairs: Rosalinda Madonna (Pisa), Francesco Sbrana (Pisa)

11:30-11:50 Changes of paradigm in lipid lowering therapy with old and new drugs. Not only LDL: new CETP inhibitors, new triglyceride lowering agents - **Alberto Zambon (Padua)**

11:50-12:10 The Lipid Revolution: Targeting Residual Risk beyond LDL - **Maurizio Averna (Palermo)**

12:10-12:30 Perhaps beyond lipids: Omega-3 fatty acids in patients with cardiac and renal disease – **Marcello Arca (Rome)**

12:30-13:00 Discussion

13:00-14:00 LUNCH BREAK

Tuesday July 21 afternoon

Session 3: Obesity and diabetes

Chairs: Andrea Natali (Pisa), Guido Salvetti (Pisa)

14:00-14:20 Lifestyle interventions: the new frontier – **Luigi Fontana (Sydney, Australia)**

14:20-14:40 GLP-1 agonists in patients with and without cardiovascular disease – **Ferruccio Santini (Pisa)**

14:40-15:10 Combination of GLP1 agonists with other gastro-hormonal targets in patients with and without cardiovascular disease: dual GLP-1/GIP and triple GLP-1/GIP/glucagon receptor agonists – **Giovanni Ceccarini (Pisa)**

15:10-15:40 SGLT2 Inhibitors: From glucose lowering to organ protection – **Stefano Del Prato (Pisa)**

15:40-16:20 Discussion

Wednesday July 22 morning

TOPIC 4 - Cardiomyopathies and heart failure

Chairs: Raffaele De Caterina (Pisa), Michele Emdin (Pisa)

08:50-9:10 Hypertrophic cardiomyopathy: new therapeutic horizons – **Maurizio Pieroni (Florence)**

09:10-09:30 Cardiac amyloidosis: classification, clinical red flags and multidisciplinary approach – **Giuseppe Vergaro (Pisa)**

09:30-09:50 Cardiac amyloidosis as a unique pathophysiological model for targeted and disease-modifying therapies: stabilizers, silencers, depleters and gene editing – **Aldostefano Porcari (Trieste and London, UK)**

09:50-10:10 Identifying Fabry Disease within the Landscape of Infiltrative Cardiomyopathies – **Francesca Graziani (Rome)**

10:10-10:30 SGLT2 Inhibitors and GLP-1 agonists in heart failure with reduced and preserved ejection fraction – **Michele Senni (Bergamo)**

10:30-11:00 Discussion

11:00-11:30 COFFEE BREAK

Chairs: Raffaele De Caterina (Pisa), Doralisa Morrone (Pisa)

11:30-11:50 Steroidal and non-steroidal mineralocorticoid receptor antagonists – **Beatrice Musumeci (Rome)**

11:50-12:10 Sodium guanylate cyclase stimulators: for many, for a few or for all? – **Alberto Giannoni (Pisa)**

12:10-12:30 The evolution of device therapy in heart failure – **Giulio Zucchelli (Pisa)**

12:30-13:00 Discussion

13:00-13:30 End of the sessions

13:30 LUNCH BREAK

Wednesday July 22 afternoon

Free afternoon (optional: guided visit to the University of Pisa Anatomy Museum)

Thursday July 23 morning

TOPIC 5 - Advanced cardiovascular imaging

Chairs: Raffaele De Caterina (Pisa), Emanuele Neri (Pisa)

09:00-09:20 Imaging of vascular disease – **Gabriele Masini (Pisa)**

09:20-09:40 Echocardiography and point-of-care ultrasound – **Luna Gargani (Pisa)**

09:40-10:00 Cardiac computed tomography – **Gianluca Pontone (Milan, Italy)**

10:00-10:20 Nuclear cardiology – **Duccio Volterrani (Pisa) and Alessia Gimelli (Pisa)**

10:20-10:40 Cardiac magnetic resonance imaging – **Giovanni Donato Aquaro (Pisa)**

10:40-11:00 Discussion

11:00-11:30 COFFEE BREAK

TOPIC 6 - Valvular heart disease – From diagnosis to treatment

Chairs: Marco De Carlo (Pisa), Alessandro Sticchi (Pisa)

11:30-11:50 Aortic stenosis and transcatheter aortic valve implantation (TAVI): state of the art – **Carlo Di Mario (Florence)**

11:50-12:10 Mitral transcatheter interventions: state of the art – **Tullio Palmerini (Bologna)**

12:10-12:30 Tricuspid transcatheter interventions: state of the art – **Marco De Carlo (Pisa)**

12:30-13:00 Discussion

13:00-14:00 LUNCH BREAK

Thursday July 23 afternoon

TOPIC 6 - Electrophysiology and Arrhythmias

Chairs: Giulio Zucchelli (Pisa), Andrea Di Cori (Pisa)

14:00-14:20 The electrophysiology study: How to find heart rhythm abnormalities - **Giulio Zucchelli (Pisa)**

14:20-14:40 Sudden death and cardiomyopathies: How to identify patients at risk and when to treat ventricular tachycardias - **Stefano Viani (Pisa)**

14:40-15:00 Practical section: The ECG: the cardiologist's best friend **– Raffaele De Lucia (Pisa)**

15:00-15:30 Discussion

15:30-15:50 BREAK

Chairs: Gino Grifoni (Pisa), Luca Segreti (Pisa)

15:50-16:10 Atrial cardiomyopathy: cause or bystander for future stroke? **– Lin Yee Chen (Minneapolis, USA)**

16:10-16:30 Atrial fibrillation: from pathogenesis-guided anti-arrhythmic therapy to ablation **– Marisa Carluccio (Pisa)**

16:30-16:50 Current and forthcoming antithrombotic approaches **– Raffaele De Caterina (Pisa)**

16:50-17:10 Discussion

Friday July 24 morning

Topic 8 - Pulmonary Circulation and Pulmonary Hypertension

Chairs: Rosalinda Madonna (Pisa), Marco Lucchi (Pisa)

09:30-09-50 Pulmonary arterial hypertension: Definitions, classifications, diagnosis, risk stratification and treatment – **Rosalinda Madonna (Pisa)**

09:50-10:10 Practical session: Right heart catheterization and provocative tests for pulmonary hypertension – **Laura Scelsi (Pavia)**

10:10-10:30 Focus on cardiopulmonary exercise test in the diagnosis of pulmonary hypertension – **Marco Vicenzi (Milan)**

10:30-11:00 Discussion

11:00-11:30 COFFEE BREAK

11:30-11:50 Pulmonary arterial hypertension with rheumatologic diseases – **Alessandra Della Rossa (Pisa)**

11:50-12:10 Chronic thromboembolic pulmonary disease and hypertension – **Sandeep Sahay (Houston, TX, by Teams)**

12:10-12:30 Pulmonary hypertension secondary to lung disease – **Roberta Pancani (Pisa)**

12:30-13:00 Discussion

13:00-13:15 END OF THE COURSE – **Rosalinda Madonna (Pisa)**

Supporting agency: