

WINTER SCHOOL 2022

**STRUCTURAL SUBSTRATES OF SUDDEN DEATH
IN THE YOUNG: FROM GENES TO THERAPY**

PADOVA, 28TH MARCH – 1ST APRIL 2022

ORGANIZED BY:



DIPARTIMENTO DI SCIENZE
CARDIO-TORACO-VASCOLARI E
SANITA' PUBBLICA



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

1222-2022
800
A N N I

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Sudden death in the young is a rare but tragic event that may be caused by a variety of cardiac diseases, mostly including inherited cardiomyopathies (Arrhythmogenic and hypertrophic cardiomyopathy), myocarditis (acute myocarditis or post-inflammatory myocardial scar) and coronary artery abnormalities (premature coronary atherosclerosis and congenital coronary abnormalities).

The aim of the Winter School 2022 is to provide comprehensive insights into structural substrates of sudden death. The course will be open to PhD students, master students or other post-graduate students. Each day will focus on one of the substrates, and lectures will address the historical basis, physiopathology, genetics, diagnosis, and therapy. The course will take advantage of decades of experience of the local faculty in investigating and treating structural substrates of sudden death in the young. Lectures from distinguished international experts and guided tours to historical monuments will further increase the quality of the event.

FOCUS ON: HYPERTROPHIC CARDIOMYOPATHY

Chair: **I. RIGATO** (Padova, IT)

14.30 *History and pathology*

G. THIENE (Padova, IT)

Part I – Preclinical

15.00 *HCM: a sarcomeric disease*

A. RAMPAZZO (Padova, IT)

15.30 *Non sarcomeric HCM*

C. CALORE (Padova, IT)

16.00 *Sudden death in the athletes*

S. SHARMA (London, UK)

16.30 **Coffee Break**

Part II – Clinical

17.00 *Pathophysiology and rationale of drug therapy*

I. OLIVOTTO (Florence, IT)

17.30 *Interventional and surgical treatment*

A. ZYRIANOV - P. FERRAZZI (Monza, IT)

18.00 *Diagnosis by multimodality imaging*

A. CIPRIANI (Padova, IT)

Lecture

18.30 *Diagnostic role of magnetic resonance in cardiovascular medicine:
when and how*

J. BAX (Leiden, NL)

10.30 – Guided tour of Palazzo del Bo
12.30

FOCUS ON: ARRHYTHMOGENIC CARDIOMYOPATHY

Chair: **N. TISO** (Padova, IT)

14.00 *History and pathology*

C. BASSO (Padova, IT)

Part I – Preclinical

14.30 *AC: a desmosomal disease*

K. PILICHOV (Padova, IT)

15.00 Cellular and animal models

G. BEFFAGNA (Padova, IT)

15.30 *The unexpected role of innervation in the pathogenesis of arrhythmogenic cardiomyopathy*

T. ZAGLIA (Padova, IT)

16.00 *Sympathetic neurons in physiology and arrhythmias: biophysical insight*

M. MONGILLO (Padova, IT)

16.30 **Coffee Break**

Part II – Clinical

17.00 *Diagnostic criteria*

D. CORRADO (Padova, IT)

17.30 *Early identification for prevention of sudden death*

B. BAUCE (Padova, IT)

18.00 *Risk stratification and electrophysiology*

F. MIGLIORE (Padova, IT)

Lecture

18.30 *Channelopathies and sudden death*

C. A. REMME (Amsterdam, NL)

10.00 – Guided tour of the Morgagni Museum
12.30

FOCUS ON: MYOCARDITIS

Chair: **C. BASSO** (Padova, IT)

14.00 *The historical milestones*
A. ZANATTA (Padova, IT)

Part I – Preclinical

14.30 *Pathology*
K. KLINGEL (Tübingen, D)

15.00 *Pathophysiology*
A. CAFORIO (Padova, IT)

15.30 *Ventricular arrhythmias and sudden death*
A. ZORZI (Padova, IT)

16.00 **Coffee Break**

Part II – Clinical

16.30 *Cardiac Magnetic Resonance in acute and chronic myocarditis*
M. PERAZZOLO MARRA (Padova, IT)

17.00 *Drug Therapy*
R. MARCOLONGO (Padova, IT)

17.30 *ECMO and VAD in fulminant myocarditis*
T. BOTTIO (Bari, IT)

Lecture

18.00 *The genetics of dilated cardiomyopathy*
L. MESTRONI (Colorado, USA)

20.00 – **Social Dinner**
22.00

11.00 – Guided tour of the Orto Botanico
13.00

FOCUS ON: CORONARY ATHEROSCLEROSIS

Chair: **A. ANGELINI** (Padova, IT)

14.00 **Lecture**

Etio-pathogenesis of atherosclerosis: still an enigma?

L. BADIMON (Sant Pau, ES)

Part I – Preclinical

14.30 *Pathology and mechanisms of coronary artery occlusion in the young*

S. RIZZO (Padova, IT)

15.00 *Genetic background and risk factors of atherosclerosis*

C. BILATO (Padova, IT)

15.30 *The role of abuse substances and doping on premature atherosclerosis*

D. FAVRETTO (Padova, IT)

16.00 **Coffee Break**

Part II – Clinical

16.30 *State-of-the-art: CMR and myocardial viability*

P. G. MASCI (London, UK)

17.00 *Functional test and early identification*

G. TARANTINI (Padova, IT)

17.30 *Coronary artery disease in the athlete*

A. PELLICCIA (Rome, IT)

Lecture

18.00 *Dysfunction of microcoronary circulation: does it exist?*

P. CAMICI (Milan, IT)

8.30 – Guided tour of the Teatro Olimpico and other sites of Vicenza
14.30

FOCUS ON: CONGENITAL CORONARY ARTERY ANOMALIES

Chair: **G. GEROSA** (Padova, IT)

15.00 *Congenital Heart Disease and Exercises*

G. DI SALVO (Padova, IT)

Part I – Preclinical

15.30 *Embryology of coronary arteries*

J. M. PÉREZ POMARES (Malaga, ES)

16.00 *Pathology spectrum*

C. FRESCURA (Padova, IT)

16.30 *Sudden cardiac death*

C. BASSO (Padova, IT)

17.00 **Coffee Break**

Part II – Clinical

17.30 *Diagnosis by non-invasive imaging*

P. ZEPELLI (Milan, IT)

18.00 *Early identification and sudden cardiac death prevention*

P. SARTO (Padova, IT)

18.30 *Surgical therapy*

M. PADALINO (Padova, IT)

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