

Practical Aspects of Modern Cardiology: a Multidisciplinary Clinical and Translational Approach

DEPARTMENT OF CARDIOPNEUMOLOGY

GENERAL DESCRIPTION

Cardiovascular diseases are the main cause of adult deaths from a global and Brazilian perspective, in spite of important geographic differences related mainly to the level of the country or region's development. The main purpose of the present course is to develop, in a very interactive way, correlations between basic and advanced Cardiology, giving substrate for the student to understand the pathophysiology, diagnosis, prevention and therapeutic options (clinical and surgical) for most cardiovascular diseases. Emphasis will be given for disorders that are prevalent in both, developed and in-development countries.

The main topics to be covered will be: risk factors for atherosclerosis, acute and chronic ischemic heart disease, cardiac arrhythmias, valvular heart congenital heart diseases, molecular biology, ECG and images in cardiology, cardiac surgery.

COURSE OBJECTIVES

The main objective of the Course is to develop in the student the interest in the study of cardiovascular diseases and translational cardiovascular research, encouraging the improvement of reasoning derived from correlations among several different aspects of Cardiology and Cardiovascular Surgery. Other objectives include the improvement in the students' research skills, and the possibility to maintain future interaction with the InCor staff and colleagues of the course. At the end of the training, the students will be able to recognize and implement an initial clinical approach to the most relevant forms of CV diseases, and understand the importance of the translational research.

TEACHING METHODS

The students will participate in the following interactive activities:

- Visit to basic research laboratories;
- Study of cardiac anatomy and pathology with specimens;
- Analysis and discussion of EKG tracings, echocardiography, multislice angiotomography, cardiac magnetic resonance and nuclear cardiology;
- Case-discussions and clinical assessment of hospitalized and outpatients with different clinical presentation of CV diseases;
- Clinical and surgical-pathological correlation sessions;
- Visit to operating rooms acting as observers in selected cardiac surgical procedures.

Interactivity will be the main focus of the Course, and different tools will be utilized for this purpose, such as anatomical specimens, computer images, case discussions, etc.

Medical students from the 5th period (3rd year) and advanced.

Course Coordinators

Prof. Dr. José C. Nicolau

Prof. Dr. Raul D. Santos Filho

Profa. Colaboradora Vera Demarchi Aiello

Prof. Colaborador Wilson Mathias Jr.

Prof. Colaborador Luiz Fernando Caneo

Prof. Colaborador Paulo Sampaio Gutierrez

Prof. Colaborador Carlos Alberto Pastore

Course Supervisors

Prof. Dr. Roberto Kalil Filho

Prof. Dr. Fábio Biscegli Jatene

Faculty:

The above professionals will also participate as faculty members. Additionally, as many other professionals from InCor's staff will also be participating. A complete list can be provided if requested.

Course material:

- Bibliography to be provided in May 2024, in order to make the course as updated as possible;
- EKG, magnetic resonance echocardiographic and nuclear cardiology images;
- Pathological specimens;
- Films of cardiac operations.

Prerequisites:

Applicants are required to demonstrate sufficient ability to understand and express themselves in both spoken and written English.