worldwide EXCELLENCE

for young cardiologists

an advanced program, aimed at deepening your theoretical and practical knowledge

HEART IMAGING@BOSTON
Oct 14th and 21st, 2023

HYPERTENSION@ATHENS
Nov 18th and 25th, 2023

CHD@MADRID
Dec 9th and 16th, 2023

HEART FAILURE@SEOUL
Sept 16h and 23rd, 2023

E-BOOK

Worldwide Excellence for young cardiologists

President: Prof. Claudio Ferri

Full Professor of Internal Medicine; Director of the Chair of Internal Medicine, School of Internal Medicine, PhD School in Medicine and Public Health at the University of L'Aquila; Director of the Internal Medicine and Nephrology Hypertension and Cardiovascular Prevention Unit - San Salvatore Hospital. Coppito, Italy

Summary

Worldwide Excellence for young cardiologists

INTRODUCTION

Scientific research and technological innovation have accelerated many areas in cardiology in terms of both diagnosis and disease management. For this reason, it is crucial to develop training programs targeted on young expert healthcare professionals willing to widen their competences and keep themselves updated on the most recent advances. Worldwide EXCELLENCE for young cardiologists is an online, exclusive program specifically designed to enhance the debate on scientific research and its latest development, knowledge of the most effective organizational models in healthcare, and finally update on the application of new technologies to clinical practice. The aim of this advanced-level training program is to create a concrete platform for medical professionals to increase their competence by sharing their experience with recognized experts in research and management of heart diseases. The training format is developed to boost interaction between the attendees and the experts from four international centers selected by their recognized expertise in specific cardiology areas.

HEART FAILURE@SEOUL

HEART FAILURE@SEOUL

Hanyang University Seoul Hospital, which opened as the greatest hospital in Asia in 1972, has played a leading role in the internationalization and progressions of medication cutting-edge medical research exploration and medical innovation improvements. Hanyang University Seoul Hospital seeks after more than essentially broadening life by defeating advanced serious illness, yet in addition, seeks after clinical assistance that raises personal satisfaction.

The Cardiology Department has been leading the way to the globalization and advancement of medicine based on state-of-the-art medical researches and development of medical technologies. The center aims toward medical services that improve the quality of life rather than simply extend life by conquering currently incurable diseases

HEART FAILURE@SEOUL

COURSE N. 1

Heart failure, state of the art

P. Perrone Filardi

The prevalence of heart failure has increased over the past decades and is a major social and economic burden on healthcare services. Patient quality of life is severely impaired and heart failure is one of the main causes of death worldwide. It is a clinical challenge that requires a patho-physiological-based approach. Advanced heart failure, in particular, is defined as a clinical syndrome characterized by severe and persistent symptoms, most commonly with severe ventricular dysfunction, despite optimized medical therapy. Pivotal studies and future directions in the management of heart failure are presented here.

Watch the full lecture

Biomarkers in heart failure

R. Heo

Heart failure is a clinical condition with complex pathophysiology that involves many different processes. Diagnosis is often difficult in patients presenting for the first time with breathlessness. Many biomarkers have been identified that are elevated in heart failure and their role in as-sessing prognosis has also been investigated. At present the natriuretic peptides appear to be the gold standard biomarker against which the other biomarkers are compared and the most relevant evidences are here presented.

Watch the full lecture

HEART FAILURE@SEOUL

Treatment of heart failure: current and future approaches

M. Kittleson

Heart failure (HF) is a progressively deteriorating medical condition that significantly reduces both the patients' life expectancy and quality of life. Even though real progress was made in the past decades in the discovery of novel pharmacological treatments for HF, the prevention of premature deaths has only been marginally alleviated. Thus, a myriad of experimental and clinical studies focusing on the discovery of new and provocative underlying mechanisms of HF physiopathology pave the way for the development of novel HF therapeutic approaches. Furthermore, recent technological advances made possible the development of various interventional techniques and device-based approaches for the treatment of HF.

Watch the full lecture

HEART FAILURE@SEOUL

COURSE N. 2

Hyperglicemia and heart failure

H.J. Kim

Recent reports support the presence of the reciprocal interrelationships between congestive heart failure (CHF) and glucose abnormalities and the firm association of diabetes mellitus with CHF has been undoubtedly established. Patients with heart failure are generally at higher risk of developing type 2 diabetes mellitus. Several factors may be involved, such as a lack of physical activity, hypermetabolic state, intracellular metabolic defects, poor muscle perfusion, and poor nutrition. Serum levels of inflammatory cytokines and leptin are elevated in patients with heart failure. Once hyperglycemia ensues, the risk of metabolic and cardiovascular complications also increases, therefore pharmacologic and lifestyle interventions are crucial to break this vicious circle.

Watch the full lecture

Hypertension, the kidney and heart failure: from pathophysiology to therapeutic implications

M. Burnier

Renal dysfunction is recognised as an independent risk factor for morbidity and mortality in congestive cardiac failure and the association between cardiac failure and chronic kidney disease is well established. The comorbid condition of hypertension also enhances risk in patients with CKD. New observations suggest that diminished glomerular filtration rate and hypertension share primacy in the development of cardio-vascular illness and the most relevant and recent publications on this topic are analysed here.

Watch the full lecture

HEART FAILURE@SEOUL

Management of Heart Failure in Africa and Asia: face to face perspectives

M. Destro/J. Shin

Sub Saharian Africa and Asia are a major challenge for worldwide health. Heart failure and cardiac illnesses have increasing prevalence in both areas. Socioeconomic and cultural assets, together with poor access to care and poorly developed healthcare systems represent the barriers that determine a high mortality and morbidity of these diseases.

Watch the full lecture

HEART FAILURE@SEOUL

FACULTY

Michel Burnier

Emeritus Professor at the Faculty of Biology and Medicine, University of Lausanne. Lausanne, Switzerland

Maurizio Destro

Chief Medical Officer, International Specialized Hospital of Uganda. Kampala, Uganda

Claudio Ferri

Full Professor of Internal Medicine; Director of the Chair of Internal Medicine, School of Internal Medicine, PhD School in Medicine and Public Health at the University of L'Aquila; Director of the Internal Medicine and Nephrology Hypertension and Cardiovascular Prevention Unit San Salvatore Hospital. Coppito, Italy

Ran Heo

Associate Professor of Cardiology, Hanyang University Medical Center. Seoul, Korea

Hyun Jin Kim

Associate Professor of Cardiology, Hanyang University Guri Hospital. Guri, Korea

Michelle Kittleson

Professor of Medicine; Director, Post Graduate Medical Education in Heart Failure and Transplantation, Cedars-Sinai California Heart Center. Los Angeles, California

Pasquale Perrone Filardi

Professor of Cardiology, Department of Advanced Biomedical Sciences; Director of Cardiology Residency School at Federico II University of Naples. Naples, Italy. President of the Italian Society of Cardiology

Jinho Shin

Director of the Noninvasive Cardiology Department, Hanyang University Medical Center. Seoul, Korea.
Director of the scientific committee in Korean Society of Hypertension; Elect President of the Korean Soc. of Hypertension

HEART FAILURE@SEOUL

MULTIMEDIA

1st course recording

2nd course recording

HEARTIMAGING@BOSTON

HEARTIMAGING@BOSTON

The Carl J. and Ruth Shapiro Cardiovascular Center at Brigham and Women's Hospital (BWH) is designed to deliver the best in heart and vascular care. The Shapiro Center integrates all of the hospital's cardiovascular services and state-of-the-art technology into one building to create the most advanced facility of its kind in the region. Today, the Heart & Vascular Center continues to be poised for the future and will lead the way in shaping cardiovascular care in the years to come. The way the center delivers care to patients within the Carl J. and Ruth Shapiro Cardiovascular Center – integrating all of the cardiovascular services in a Center of Excellence with a collaborative environment that fosters teamwork amongst all specialists – serves as a catalyst for groundbreaking research and for providing advanced heart and vascular patient care.

COURSE N. 1

Diagnostic and prognostic value of cardiac magnetic resonance tissue characterization

R.Y. Kwong

Cardiac magnetic resonance (CMR) imaging is a well-established noninvasive imaging modality in clinical cardiology. Its unsurpassed accuracy in defining cardiac morphology and function and its ability to provide tissue characterization make it well suited for the study of patients with cardiac diseases. Late gadolinium enhancement was a major advancement in the development of tissue characterization techniques, allowing the unique ability of CMR to differentiate ischemic heart disease from nonischemic cardiomyopathies. A new generation of mapping techniques are emerging, enabling direct quantitative assessment of cardiac tissue properties in absolute terms.

Watch the full lecture

Cardiac CT in Preventive Cardiology

R. Blankstein

One of the underlying premises of cardiovascular imaging is to improve health outcomes by diagnosing various forms of cardiac and vascular disease. As diagnostic capabilities have improved, it is now possible to diagnose disease with increased precision and at earlier stages. Imaging can therefore be used to enhance cardiovascular disease prevention. Cardiac CT, in particular, allows for a novel approach of personalized risk assessment and targeted prevention, by characterization of subclinical atherosclerosis as a phenotypic surrogate of the ‘vulnerable patient’.

Watch the full lecture

Role of Cardiac Imaging in Cardio Rheumatology

B.Weber

Rheumatic heart disease (RHD) is the most common cause of valvular heart disease worldwide, affecting millions, especially in low- and middle-income countries. Multiple imaging modalities such as cardiac CT, cardiac MRI, and three-dimensional echocardiography may be utilized in diagnosing, screening, and managing RHD. In the intervening years, many measures have been developed to find a balance between simplicity and accuracy. Nonetheless, there remain significant unresolved problems within imaging in RHD, including the development of a practical and sensitive screening tool to identify patients with RHD. The current and latest developments concerning cardiac imaging and RHD are here examined.

Watch the full lecture

COURSE N. 2

Hyperuricemia as a component of cardiometabolic risk in hypertensive and non-hypertensive patients: role and implications

C. Borghi

Hyperuricemia (HUA) is a metabolic disorder caused by abnormal purine catabolism and urate excretion via urate transporters. Numerous epidemiological studies have explored the association between HUA and cardiovascular and renal outcomes. It is suggested that HUA is associated with hypertension (HT), cardiovascular death, diabetes, chronic kidney disease (CKD) and stroke. The studies and most recent evidences of the association of HUA and cardiovascular risk in hypertensive and non-hypertensive patients is revised here.

Watch the full lecture

Use of Cardiac SPECT and PET to Assess Ischemia and Microvascular Disease

M. Di Carli

A healthy, functional microcirculation in combination with non-obstructed epicardial coronary arteries is the prerequisite of normal myocardial perfusion. Quantitative assessment in myocardial perfusion and determination of absolute myocardial blood flow (MBF) can be achieved noninvasively using dynamic imaging with multiple imaging modalities. Extensive evidence supports the clinical value of noninvasively assessing indices of coronary flow for diagnosing coronary microvascular dysfunction (CMVD). Although currently positron emission tomography (PET) is the most commonly used tool for the quantification of MBF, other modalities including single-photon emission computed tomography (SPECT), computed tomography (CT), magnetic resonance imaging (MRI) and myocardial contrast echocardiography (MCE) have emerged as techniques with great promise for determination of CMVD.

Watch the full lecture

Use of Imaging in Diagnosing Cardiac Amyloidosis

S. Dorbala

Systemic amyloidosis encompasses a debilitating, under-diagnosed but increasingly recognized group of disorders characterized by the extracellular deposition of misfolded proteins in one or more organs. Cardiac amyloid deposition leads to an infiltrative or restrictive cardiomyopathy and is the major contributor to poor prognosis in patients with systemic amyloidosis. Given the nonspecific symptoms of these disorders, a high index of suspicion is paramount in making the correct diagnosis, which can involve the use of non-invasive imaging methods such as echocardiography, bone scintigraphy and cardiovascular MRI.

Watch the full lecture

HEARTIMAGING@BOSTON

FACULTY

Ron Blankstein

Professor of Medicine and Radiology, Harvard Medical School; Associate Director, Cardiovascular Imaging Program; Director, Cardiac Computed Tomography; Co-Director, Cardiovascular Imaging Training Program; Senior Physician, Preventive Cardiology Brigham and Women's Hospital. Boston, Massachusetts

Claudio Borghi

Professor of Medicine, Department of Medical and Surgical Sciences at University of Bologna. Bologna, Italy

Marcelo Di Carli

Professor of Radiology and Medicine at Harvard Medical School; Executive Director of Cardiovascular Imaging program, Chief of the Division of Nuclear Medicine and Molecular Imaging, Department of Radiology at Brigham and Women's Hospital. Boston, Massachusetts

Sharmila Dorbala

Professor of Radiology at Harvard Medical School; Director of Nuclear Cardiology, Brigham and Women's Hospital. Boston, Massachusetts. Past President American Society of Nuclear Cardiology

Raymond Kwong

Associate Professor of Medicine at Harvard Medical School; Director of Cardiac Magnetic Resonance Imaging (MRI) at Brigham and Women's Hospital. Boston, Massachusetts

Brittany Weber

Instructor of Medicine at Harvard Medical School; Director of Cardio-Rheumatology Clinic; Associate Physician Cardiology and Cardiovascular Imaging, Brigham and Women's Hospital. Boston, Massachusetts

HEARTIMAGING@BOSTON

MULTIMEDIA

1st course recording

2nd course recording

HYPERTENSION@ATHENS

HYPERTENSION@ATHENS

The “Asklepieion” Hospital began its operation in 1921 under the Hellenic Red Cross, as a sanatorium for the treatment of tuberculosis of bones, joints and rickets that affected children at that time. Since 1948 it has evolved into a General Orthopaedic Hospital which covered orthopaedic surgery and traumatology. Gradually, other specialties were developed, as well as clinics to meet the needs of hospitalization. The Cardiology Clinic delivers excellence in cardiology services for patients from all over Greece and is involved in the major international clinical trials and research networks.

COURSE N. 1

Key messages from 2023 ESH Hypertension Guidelines

A. Manolis

The 2023 ESH guidelines, which have been published in June, is an exhaustive manuscript of 199 pages that provide a valuable source of updated information on all the aspects of clinical hypertension for in-depth training of doctors with special interest in hypertension. They contain several conceptual elements of novelty originated by research performed after the 2018 guidelines, deal more in depth with topics that were only briefly considered in the past and extend to several conditions that were previously unaddressed by guidelines, although frequently coexisting with hypertension and leading to specific needs for medical management.

Watch the full lecture

Hypertension and Diabetes

M. Doumas

The coexistence of diabetes and hypertension is known to have a multiplicative effect on adverse clinical outcomes with respect to both microvascular and macrovascular disease. Effective management of diabetes should therefore include a multifaceted approach combining optimal control of blood pressure and lipids with appropriate glycemic control. The pathophysiology of hypertension in diabetes involves maladaptive changes in the autonomic nervous system, vascular endothelial dysfunction, enhanced activation of the renin-angiotensin-aldosterone system, immune function alterations, and harmful environmental factors.

Watch the full lecture

Pharmacological treatment of hypertension

A. Coca

Detecting, treating and controlling hypertension remains a primary goal in health policy. New recommendations in the management of hypertension were published in 2023 to withhold its global pandemic. Management often requires multiple medicines in addition to lifestyle changes to achieve blood pressure targets and reduce overall cardiovascular risk. The pharmacological treatment, according to current recommendations and ongoing trials, is revised here.

Watch the full lecture

COURSE N. 2

Polypharmacy and the hypertensive patient

C. Ferri

Adults on treatment for high blood pressure (BP), especially the older ones, are more likely to take more than two medications, and polypharmacy in this age group is associated with increased risk of adverse events (fall injury, hyperkalemia and hypokalemia, heart failure, and BP exacerbation), polypharmacy mismanagement, drug-drug interaction, and increased costs. Knowledge of drugs that interact with known antihypertensive agents is paramount to avoid or reduce adverse events, hospitalizations, and healthcare costs.

Watch the full lecture

Hypertension Guidelines and beta-blockers

G. Grassi

In their recent guidelines, the European Society of Hypertension upgraded β-blockers, putting them on equal footing with thiazide diuretics, renin–angiotensin system blockers (eg, angiotensin-converting enzyme inhibitors and angiotensin receptor blockers), and calcium channel blockers. The reason offered for upgrading β-blockers was the observation that they are often used for many other clinical conditions commonly encountered with hypertension. The scientific rationale and major clinical evidences are here analysed.

Watch the full lecture

Hypertension and CHD: which target, which drug?

M. Kallistratos

Evidence suggests that coronary heart disease (CHD) is the most common outcome of hypertension. Hypertension accelerates the development of atherosclerosis, and sustained elevation of blood pressure (BP) can destabilize vascular lesions and precipitate acute coronary events. Hypertension can cause myocardial ischemia in the absence of CHD. These cardiovascular risks attributed to hypertension can be reduced by optimal BP control. Although several antihypertensive agents exist, the choice of agent and the appropriate target BP for patients with CHD remain controversial.

Watch the full lecture

HYPERTENSION@ATHENS

FACULTY

Antonio Coca

Honorary Professor of Medicine at the University of Barcelona; former Director of Hypertension and Vascular Risk Unit at Hospital Clínic. Barcelona, Spain. Executive Officer of the European Society of Hypertension

Michalis Doumas

Associate Professor of Internal Medicine, School of Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki. Thessaloniki, Greece

Claudio Ferri

Full Professor of Internal Medicine; Director of the Chair of Internal Medicine, School of Internal Medicine, PhD School in Medicine and Public Health at the University of L'Aquila; Director of the Internal Medicine and Nephrology Hypertension and Cardiovascular Prevention Unit San Salvatore Hospital. Coppito, Italy

Guido Grassi

Professor of Internal Medicine and Director of the Post-graduate School of Internal Medicine and of the PhD course in Public Health at the University of Milan-Bicocca; Director of the Internal Medicine Institute at S. Gerardo Hospital. Monza, Italy. President ESH 2022-2024

Manolis S. Kallistratos

Consultant Cardiologist, PhD, FESC, EHS; Deputy Director 2nd Cardiology Department, Metropolitan Hospital. Athens, Greece. Vice President of the WG Arterial Hypertension Hellenic Society of Cardiology

Athanasios J. Manolis

Director of the Department of Cardiology Metropolitan Hospital. Piraeus, Greece

HYPERTENSION@ATHENS

MULTIMEDIA

1st course recording

2nd course recording

CHD@MADRID

CHD@MADRID

The 12 de Octubre University Hospital is today one of the most prestigious national and international health centers, thanks to its technological equipment, facilities and the work carried out by its more than 6,000 professionals. This recognition is projected not only in its care facet, but also in teaching and research. The Cardiorenal Translational Laboratory has been specifically designed as a research excellence in the field of cardiovascular and cardiorenal lines.

COURSE N. 1

Characteristic of Cardiovascular Disease in women

B. Miranda

Cardiovascular disease (CVD) in women remains under-diagnosed and undertreated due to the diagnostic challenge it presents, as well as the persisting attitude that CVD predominantly affects men. Gender-related risk factors have now been identified but there is a lack of clinical application, leading to the misdiagnosis and poor management of women with CVD. It is necessary to address gender-specific symptomatology and risk factors in order to optimise management and positively influence morbidity and mortality in this cohort of patients.

Watch the full lecture

Exercise benefits in CHD: beyond traditional risk factors

A. Lucia

Over the past 40 years, evidence has accumulated on the role of physical activity in preventing and treating coronary heart disease (CHD). The findings are consistent and show that sedentary people have about twice the risk of developing or dying from CHD, compared to active people. The benefits of regular exercise include, for instance, improvement in myocardial contraction and its electrical stability, and an increase in stroke volume at rest and during exercise, leading to a higher maximal cardiac output. Heart rate is decreased at rest, and at any given level of submaximal cardiac output. The evidence is compelling and has established physical inactivity as one of the major modifiable risk factors for CHD.

Watch the full lecture

The kidney and CHD

L. M. Ruilope

The literature on the relationship between kidney and cardiovascular diseases is continuously expanding. Scientists have elucidated many of the neurohormonal and hemodynamic pathways involved in cardiorenal disease. However, little is known about kidney disease in patients with congenital heart disease. Given advances in the medical and surgical care of this highly complex patient population, survival rates have dramatically improved leading to a higher percentage of adults living with congenital heart disease. Accordingly, a noticeable increase in the prevalence of kidney disease is appreciated in these patients. Unfortunately, data regarding the prevalence, pathophysiology, and prognosis of chronic kidney disease in the adult congenital heart disease population remain scarce.

Watch the full lecture

COURSE N. 2

SAPT, DAPT, DOAC and APT?

R. de Caterina

Anticoagulation and antiplatelet therapy are individually mainstays of treatment for multiple cardiovascular conditions. Antiplatelet therapy, most commonly with dual agents, is vital in the setting of coronary artery disease with acute coronary syndrome requiring percutaneous coronary intervention to prevent in-stent complications. A multitude of cardiovascular conditions with increased thromboembolic risk also require anticoagulation, including atrial fibrillation, venous or arterial thrombosis, and prosthetic heart valves to name a few. There is often an overlap in comorbidities as patient population ages and becomes more complex, frequently necessitating a combination of both anticoagulation and antiplatelet agents

Watch the full lecture

Imaging in the early detection and control of CHD

J. Solis Martin

In the past three decades, technical advances in cardiovascular imaging have created a better balance in the requisite trade-off between spatial versus temporal resolution that is inherent to all dynamic imaging modalities. The development of matrix array probes has propelled three-dimensional (3D) echocardiography into a routinely available tool for the assessment of valvular dysfunction, structural abnormalities, and ventricular size and function. Recent advances in time-resolved 3D velocity mapping, widely known as four-dimensional (4D) flow cardiac magnetic resonance (CMR), have significantly improved the ability to assess the hemodynamic abnormalities associated with CHD.

Watch the full lecture

CHD@MADRID

Blood pressure in CHD

A. de la Sierra

Overviews of randomized controlled trials and prospective observational studies provide the most reliable data on the association between blood pressure and coronary heart disease (CHD). The totality of evidence indicates a strong association between blood pressure and CHD, which is continuous down to levels of at least 115 mm Hg systolic. Overall, for those 60 to 69 years of age, a 10 mm Hg lower systolic blood pressure is associated with about one-fifth lower risk of a CHD event. The size and shape of this association is consistent across regions, for males and females, and for fatal events as well as nonfatal myocardial infarction.

Watch the full lecture

Treatment of CHD

J. R. Gonzalez Juanatey

The primary treatments for CHD include pharmacotherapy and surgical revascularization of the myocardium. Although timely reperfusion and thrombolytic therapy can slow the adverse progression of cardiac remodeling, these treatments cannot completely restore myocardial structure, and the ultimate goal of treatment is to achieve remission. When the disease reaches advanced stages, heart transplantation remains the only effective treatment method: Cell therapy methods show great potential for restoring myocardial function, providing patients with an additional restorative treatment option in conjunction with currently used surgical and pharmacological methods.

Watch the full lecture

CHD@MADRID

FACULTY

Luis Miguel Ruilope
Advisor in Cardiorenal diseases at the Universidad de Europa; Group Leader of Translational Research in Hypertension and Cardiorenal Disease Group at the Hospital Universitario 12 de Octubre. Madrid, Spain

Raffaele De Caterina
Professor of Cardiology and Chair of the School of Cardiology; Director of the Cardiology Department, University Hospital of Pisa. Pisa, Italy

Alejandro de la Sierra
Director of Hypertension Unit at Hospital Mutua Terrassa, University of Barcelona. Barcelona, Spain

Jose Ramon Gonzalez Juanatey
Professor of Cardiology and Director of Cardiology and Intensive Cardiac Care Department, University Hospital Santiago de Compostela. Santiago de Compostela, Spain. Past-President of the Spanish Society of Cardiology

Alejandro Lucia
Full tenured Professor and Senior Researcher, Faculty of Sports Sciences, Universidad Europea. Madrid, Spain.

Blanca Miranda
Coordinator of Scientific Activities Spanish Society of Cardiology. Madrid, Spain

Jorge Solis Martin
Director of the Imaging Unit and Director Valvular Heart Disease Clinic at Hospital 12 Octubre;
Founding partner at ATRIA Clinic. Madrid, Spain

CHD@MADRID

MULTIMEDIA

1st course recording

2nd course recording

med stage
publishing, education, medical communication & events

Supported by an unconditional grant

MENARINI group