

International Post-Graduation Program

Arterial Stiffness and Early Vascular Aging

7th Edition – 27th-29th November 2019.

Center for the Research and Treatment of Arterial Hypertension and Cardiovascular Risk, Internal Medicine Department, Guimarães – Centro Hospitalar do Alto Ave / Minho University. Portugal

Life and Health Sciences Research Institute (ICVS), School of Health Sciences, Minho University

ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Portugal

School of Health Sciences, University of Minho, Braga, PORTUGAL

1.Scope

This will be the sixth edition of this International Post Graduation Course. The main goal is to create a scientific forum on new aspects and concepts concerning cardiovascular risk evaluation and stratification, as well as discussing interactions between aspects of the cardiovascular and the central nervous system disease process. At the end of this course, all participants should:

- 1) Understand the concept of Arterial Stiffness and know its clinical applicability;
- 2) Know how to measure arterial stiffness markers (Pulse wave velocity and Central Blood Pressure) both theoretically and practically;
- 3) Identify subjects with Early Vascular Aging syndrome and be aware of its clinical implications;
- 4) To discuss the connection between brain and arterial aging,
- 5) To recognize the relationship between micro and macrovascular changes, cognitive decline and cerebrovascular disease;

- 6) Acquire technical skills in Pulse Wave Velocity, Central Blood Pressure and Carotid Evaluation (Intima/Media thickness evaluation and Carotid Doppler).
- 7) To apprehend new research perspectives in the field of cardiovascular research involving the brain and arterial disease
- 8) To improve Knowledge of the cardiometabolic effect on aging and the potential treatment effect of new drugs on intermediate risk phenotypes..

2.Faculty

ORGANIZING COMMITTEE

Nuno Sousa, MD, PhD

- President of the School of Medicine, University of Minho
- Full Professor and Director of the Integrated Masters in Medicine, School of Medicine, University of Minho, Braga, PORTUGAL

Pedro Cunha, MD, PhD

- Coordinator of the Hypertension and Kidney Disease Outpatient Clinic of the Centre for the Research and Treatment of Arterial Hypertension and Cardiovascular Risk, Internal Medicine Department - Guimarães Hospital, Guimarães, PORTUGAL
- Assistant Professor of the School of Medicine, University of Minho, Braga, PORTUGAL
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Jorge Cotter, MD, PhD

- Director of the Centre for the Research and Treatment of Arterial Hypertension and Cardiovascular Risk
- Director of Internal Medicine Department, Guimarães Hospital Guimarães, PORTUGAL
- Assistant Professor of the School of Medicine, University of Minho, Braga, PORTUGAL
- Life and Health Sciences Research Institute (ICVS), School Medicine, University of Minho

- ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães,
Portugal

INVITED LECTURERS

Angelo Scuteri, MD, PhD

Professor of Medicine
Director Post-Graduate Medical School in Geriatrics
University of Sassari
Sassari (Italy)

Peter M Nilsson, MD, PhD

Department of Clinical Sciences
Lund University, University Hospital
Malmö, SWEDEN

Pierre Boutouyrie, MD, PhD

Pharmacologie, HEGP, APHP
Paris, FRANCE

Stephane Laurent, MD, PhD

Université René Descartes, Faculté de Médecine Paris V
Unité INSERM U970 – Physiology and pharmacology of large arteries
Pharmacologie, HEGP, APHP
Paris, France

3.Preliminary Program

November 27th

9h00 – Post-Graduate Course/Opening Ceremony

9h. The Brain as a Target Organ of Vascular Aging. (Prof. Angelo Scuteri)

- 1) Cognitive Decline and dementia – the role of arterial aging;
- 2) Structural brain changes and arterial aging;
- 3) Early detection of Cognitive decline in hypertensive patients;
- 4) Research opportunities

10h30. Coffee Break

10h45. Early Life origins of vascular Aging (Prof. Peter Nilsson)

- 1) Perinatal care and Childhood determinants;
- 2) Clinical practical implications;
- 3) Research opportunities.

12h15. Arterial Function in CV Risk Stratification. (TBD)

- 1) **New treatment options – the SGLT2 and GLP1RA connection**

13h. Lunch

14h – 18h. Practical component of the Course (Hands on practice in PWV/Central Blood Pressure and Carotid Evaluation)

16h. Coffee Break

November 28th

9h. Comparing Methods to measure arterial function (Prof. Pierre Boutouyrie)

- 1) How to compare values from devices with different measurement algorithms?
- 2) Measurement protocol, Valid Measurements and Clinical Significance.
- 3) Research opportunities

10h30. Coffee Break

10h45. Reversing Early Vascular Aging and the SUPERNOVA concept (Prof. Stephane Laurent)

- 1) Definitions and influence of underlying disease
- 2) Therapeutics: new drugs under development / developed for cardiovascular disease prevention;
- 3) Research opportunities.

12h15. Low-grade Inflammation and arterial function (Prof. Pedro Guimarães Cunha)

13h. Lunch

14h – 18h. Practical component of the Course (Hands on practice in PWV/Central Blood Pressure and Carotid Evaluation)

16h. Coffee Break

November 29th

9h. Arterial Stiffness and Early Vascular Aging in the Iberian Peninsula

- 1) Prof. Pedro Guimarães Cunha; The Guimarães/Vizela Study. Center for the Research and Treatment of Arterial Hypertension and Cardiovascular Risk, Guimarães Hospital; School of Medicine and Life and Health Research Institute, Minho University, Portugal.
- 2) Prof. Luis Garcia Ortiz; Centro de Salud La Alamedilla, Unidad de Investigacion, Salamanca.
- 3) Prof. Vicente Martinez Vizcaino – Centro de Estudios Sociosanitarios. Cuenca. Universidad de Castilla-la-Mancha
- 4) Prof^a Cristina Sierra, Hospital Clinic and Universidade Autonoma de Barcelona

10h30. Coffee Break

10H45. Arterial Stiffness and Early Vascular Aging in the Iberian Peninsula

- 1) Prof. Rafael Ramos Blanes / Prof. Marti Lluch, Instituto Catalá de la Salud, Girona
- 2) Prof. Enrique Rodilla Sala – Universidade Cardenal Herrera, Departamento de Medicina Valência
- 3) Prof. Auxiliadora Graciani, School of Medicine, Universidad Autónoma de Madrid

12h. Research Projects – presentation and discussion with the faculty

13h. Lunch

14h – 16h. 4th Meeting of the Iberian Network on Central Hemodynamics, Arterial Structure and Neurocognition

14h – 18h. Practical component of the Course (Hands on practice in PWV/Central Blood Pressure and Carotid Evaluation)

16h. Coffee Break