

# 5<sup>th</sup> International Conference on **Biomarkers & Clinical Research**

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## Investigating DYS functional-HDL in selected groups of patients at high risk of cardiovascular events (DYS-HDL study) - Protocol and organization

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**Introduction and Objectives:** Different clinical conditions associated with inflammation and oxidation can alter HDL functionality, converting them into dysfunctional HDL. It may lead to the impairment of reverse cholesterol transport and might exhibit pro-inflammatory, pro-oxidant, and pro-thrombotic properties. The main aim of the study is to investigate the occurrence of dysfunctional HDL in a selected group of patients. We will also assess subfractions of HDL-C that may have impaired antiatherogenic function, and their predictive role for clinical events.

**Protocol:** 500 consecutive patients will be included in the study- 125 patients in each group: (1): with hypertension and other CAD risk factors; (2): with DMt2; (3): with established CAD; and (4): with chronic kidney disease in stage 1-4. After evaluating of patients' overall CV risk they will receive atorvastatin at a suitable dose (20-80 mg/day- according to ESC/EAS 2011 guidelines). Patients will attend clinic visits after 6 months and next at 12-month intervals and will be contacted by telephone in alternate quarterly intervals. The mean follow-up will be 42 months. The primary outcome will be defined as the time from inclusion to the first occurrence of any of the following events: CHD death, coronary event or coronary procedure. Dysfunctional-HDL analysis will be performed by the detailed detection of the nitration and chlorination sites using a Q-ToF Premier mass spectrometer system equipped with nanoACQUITY UPLC system. HDL subfractions/subpopulation analyses will be performed by the LipopPrint test and NMR Lipotest. miRNA profiles within HDL fractions will be studied with quantitative PCR techniques.

**Organization:** General Coordinating Centre is in Lodz, Poland (Medical University of Lodz). The Executive Committee is composed of international lipid experts from Europe and USA, who form the Steering Committee.

### Biography

Maciej Banach was an Undersecretary of State at Ministry of Science and Higher Education of Republic of Poland (2010-2012). He is Professor of Medicine at Medical University of Lodz, Head of Foreign Affairs Office (2012-Present) and Head of Department of Hypertension (2008-Present) at Medical University of Lodz and Professor in the Department of Nephrology, Hypertension and Family Medicine, Chair of Nephrology and Hypertension, at WAM University Hospital in Lodz, Poland. He is a Founder and Head of Polish Lipid Association (PoLA) (2011-Present) - the official partner of National Lipid Association (NLA, US) and Lodz Chapter of Polish Society of Hypertension (2009-Present). Dr. Banach is a fellow of the Council for High Blood Pressure Research of American Heart Association (FAHA), National Lipid Association (FNLA), American Society of Angiology (FASA), European Society of Cardiology (FESC), Royal Society for Public Health (FRSPH) and Society of Geriatric Cardiology (FSGC; 2008-2010). He is a founder of Lipid and Blood Pressure Meta-analysis Collaboration (LBPMC) Group, member of working-core of Alliance for Biomedical Research/European Council for Health Research, steering committee of European Innovation Partnership in Active and Healthy Ageing (2010-2012) at European Commission (Brussels), and steering committee of Centre for Good Aging/Healthy Ageing Research Center (HARC) at Medical University of Lodz, member of Committee for Public Health of Polish Academy of Sciences. His main area of scientific interests concerns hypertension aspects (risk stratification, prehypertension, new biomarkers, optimal level of BP - J-curve phenomenon, pharmacotherapy/combined therapy, prevention, complications), lipid disorders (risk stratification, new biomarkers, diagnosis, rare diseases), dyslipidemia therapy (statins, new drugs combined treatment), new drugs in CVD therapy.

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