



DEMIR DJEKIC was born in Niš, Yugoslavia 1989. He received his medical degree from Umeå University in 2016 and, after an internship at Örebro University Hospital from 2017 to 2019, began training in the Department of Cardiology, Örebro University Hospital. He commenced PhD studies in 2017 at the School of Medical Sciences, Örebro University with Professor Ole Frøbert as primary supervisor.

Coronary artery disease is a major cause of death globally, and, despite recent advances in cardiovascular care, it remains a significant public health concern in Sweden. The research presented in this thesis comprises investigations to improve our understanding of mechanisms involved in, and capacity to manage, coronary artery disease. Serum lipidome and psychosocial factors have emerged as elements that show potential to supplement and modify the estimates of cardiovascular risk based on traditional risk factors. The initial objective of my research was to investigate associations of the serum lipidome, psychosocial factors, and traditional risk factors with coronary artery calcium, a marker of subclinical coronary artery disease, in subjects without history of cardiovascular disease. This progressed to exploring the effects of a vegetarian diet on traditional risk factors and potential risk modifiers such as oxidized low-density lipoprotein cholesterol, plasma metabolome including choline, trimethylamine N-oxide, L-carnitine, and acetyl-carnitine, as well as plasma lipidome, gut microbiota, and faecal short- and branched-chain fatty acids in subjects with known coronary artery disease. This research supports the hypothesis that factors associated with an elevated risk of coronary events may be modified by dietary intervention in subjects with established coronary artery disease.

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DEMIR DJEKIC

Medical Science with a specialisation in Medicine



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