

KARIN ARINELL was born in Karlstad 1982. She received her medical degree at Uppsala University 2008. After two years of internship, Karin began her training in the Department of Cardiology, Örebro University Hospital. She received specialist qualification in Internal Medicine 2014 and is currently working as an intern in Cardiology at the Department of Cardiology and Internal Medicine at the Central Hospital in Karlstad. In 2010, she commenced her postgraduate studies at

the School of Health and Medical Sciences, Örebro University with Professor Ole Fröbert as her main supervisor.

Cardiovascular disease is the leading cause of death worldwide. Immobilization and a sedentary lifestyle are correlated to an elevated risk of both arterial and venous thrombosis in humans. Despite several cardiovascular risk factors, brown bears show no signs of organ damage after 5-7 months of hibernation every year. The overall aim of the thesis was to explore different possible links between immobilization and the risk of arterial and venous thrombosis in both a human and an animal model, by investigating markers associated with cardiovascular disease risk, such as cystatin C, platelet activation and aggregation, lipids and coagulation factors in both active and inactive states. Our objective was to gain further insights of the risks of physical immobilization documented by 1) how brown bears survive repeated annual cycles of immobilization and 2) human bed rest experiments.

OREUMO UNINERES



**Doctoral Dissertation** 

## Immobilization as a risk factor for arterial and venous thrombosis

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Medical Science with a specialisation in Medicine

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