

PhD Project Description

School/Department: Department of Epidemiology, Erasmus MC	
Supervisor information: Prof. dr. A Ikram	<ul style="list-style-type: none"> • Dr. Daniel Bos, MD, PhD • Email: d.bos@erasmusmc.nl • Website: https://www.erasmusmc.nl/en/research/groups/imaging-of-arteriosclerosis • Grants and Awards: <ul style="list-style-type: none"> - Royal Academy of Arts and Sciences Grant (2016) - Lourens Penning Prize for best publication in the field of Neuroradiology (2016) - Harvard HSPH Grant (2016) - Erasmus MC Mrace Grant (2017) - BrightFocus Foundation Grant (2017) - Erasmus MC Mrace Grant (2019) - European Commission Horizon 2020 - Research and Innovation Framework Programme (2019) - Netherlands Organisation for Scientific Research (2019) • Most important publications: <ul style="list-style-type: none"> - JACC 2020; 19;75:2387-2399. - BMC Medicine 2020; 18:263. - Heart 2020; 106(2):133-139. - Plos Med 2020; 17(5):e1003115. - Eur Heart J 2018; 39:3369-3376. - JACC 2018; 72: 582-584. - Alzheimers Dement 2018; pii: S1552-5260(18)30129-8. - Eur Radiol 2018; 2018: 28:3082-3087. - Circulation 2017; 135:2207-09. - Circ Cardiovasc Genet 2013; 2013; 6:47-53.
	<ul style="list-style-type: none"> • Dr. Maryam Kavousi, MD, PhD • Email: m.kavousi@erasmusmc.nl • Website: https://www.ergo-onderzoek.nl/managementteam/15 • Grants and Awards: <ul style="list-style-type: none"> - AXA Research Fund (2012) - IDF (2014) - Prestigious UNESCO-Loreal Fellowship 'For Women in Science' (2014) - Prestigious ZonMw VENI Grant (2015) - COLCIENCIAS (2016) - Erasmus MC Mrace Grant (2016, 2019) - Netherlands Organisation for Scientific Research (2017, 2017, 2019, 2020, 2020) - Dutch Heart Foundation (2017, 2019, 2020) - NIH (2019, 2020) - European Commission Horizon 2020 (2020) - European Commission Horizon 2020 – Innovative Medicines Initiative (IMI) (2020) - European Society of Cardiology Viviane Conraads Outstanding Achievement Award (2020) - Young Academy of The Royal Netherlands Academy of Arts and Sciences (2020) - Dutch Cardiovascular Alliance (2020) • Most important publications: <ul style="list-style-type: none"> - BMC Medicine 2020; 18:263. - Heart 2020; 106(2):133-9. / 2019;105:1414-22. - Lancet 2019;394:2173-83. - Circulation 2019;139:e1019-20. - JACC 2019;74:1420-21. - Diabetologia 2019;62:1581-90. - Circulation Research 2017 121:1392-400 - JAMA Cardiology 2017 2:986-94. - JAMA 2016 316:2126-34. / 2014 311:1416-23. - JAMA Cardiology 2016 1:767-76.
Project Title:	Imaging the progression of arteriosclerosis; sex-specific causes and clinical consequences
Abstract:	<p>Cardiovascular diseases (CVD), including ischemic heart disease and stroke, remain leading causes of mortality and permanent disability worldwide. Arteriosclerosis (i.e. hardening of the arteries) is the condition underlying the majority of CVD cases. Importantly, the burden of arteriosclerosis varies considerably across the circulatory system and often occurs at multiple locations simultaneously. Many important knowledge gaps pertaining to the etiology, progression, and prognosis of arteriosclerosis remain. The current project is aimed at comprehensively investigating the sex-specific incidence, progression, and risk factors of arteriosclerosis in the heart-brain axis within the large population-based Rotterdam Study. Using state-of-the-art medical imaging techniques, including CT and MRI, changes in arteriosclerosis have been visualized. We aim to study longitudinal changes in arteriosclerosis throughout the arterial system and the factors influencing these changes. In particular, we study whether there are sex-specific patterns in the changes in arteriosclerosis and its contributing risk factors. The studies will be performed within the Cardiometabolic research group Department of Epidemiology and the Imaging of Arteriosclerosis research group of the Departments of Epidemiology and Radiology.</p>
Requirements of candidate:	<ul style="list-style-type: none"> • We are looking for a highly motivated, hardworking student to join our very international team. Our strength is in using team work to tackle large scientific questions and thus requires a student with good communication skills. • Master degree or MD • Scholarship that will, at least, cover subsistence allowance and international air plane ticket

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	<p>(we could help with the scientific part of your scholarship proposal)</p> <ul style="list-style-type: none">• English language requirement:<ul style="list-style-type: none">◦ <i>English speaking countries & Netherlands</i>: no requirement◦ <i>Other countries</i>: IELTS 7.0 (<i>min 6.0 for all subs</i>), TOEFL 100 (<i>min 20 for all subs</i>)
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Application requirements & Deadlines:

<https://www.eur.nl/en/about-eur/erasmus-university-china-centre/csc-scholarship>

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** No.32 for Clinical Medicine US News 2020:*

<https://www.usnews.com/education/best-global-universities/clinical-medicine?page=3>

** No. 30 Nature Index for Biomedical Sciences 2019:*

<https://www.natureindex.com/supplements/nature-index-2019-biomedical-sciences/tables/healthcare>