

## PhD Project Description

<b>School/Department:</b> <b>Department of Epidemiology, Erasmus MC</b>	
<b>Supervisor information:</b>  <b>Prof dr A Ikram</b> <a href="mailto:m.a.ikram@erasmusmc.nl">m.a.ikram@erasmusmc.nl</a>	<ul style="list-style-type: none"> <li>- Dr. Annemarie I. Luik, PhD</li> <li>- <b>Email:</b> <a href="mailto:a.luik@erasmusmc.nl">a.luik@erasmusmc.nl</a></li> <li>- <b>Website:</b> <a href="https://www.erasmusmc.nl/en/research/groups/psychiatric-epidemiology">https://www.erasmusmc.nl/en/research/groups/psychiatric-epidemiology</a></li> <li>- <b>Grants and Awards:</b> <ul style="list-style-type: none"> <li>- European Sleep Research Society Top Young Researcher Abstract (2018)</li> <li>- Sleep Research Society Foundation Career Development Award (2019)</li> <li>- Netherlands Organization for Scientific Research (2020)</li> </ul> </li> <li>- <b>Most important publications:</b> <ul style="list-style-type: none"> <li>- <b>Nature Hum Behav</b> 2020; in press.</li> <li>- <b>Mov Disord.</b> 2020; published online Sep 15.</li> <li>- <b>Alzheimers Dement</b> 2020; 16: 1259-1267.</li> <li>- <b>JAMA Psychiatry</b> 2019; 76: 21-30.</li> <li>- <b>JAMA Pediatrics</b> 2019; 173: 883-885.</li> <li>- <b>Nature Genet</b> 2019; 51: 387-393.</li> <li>- <b>Nature Comm</b> 2019; 15: 1521.</li> <li>- <b>Brain</b> 2019; 142; 2013-2022.</li> <li>- <b>NPJ Digital Med</b> 2018; 1:3</li> <li>- <b>Lancet Psychiatry</b> 2017; 4: 749-758.</li> <li>- <b>Nature Genet</b> 2017;49: 274-281.</li> <li>- <b>Psychol Med</b> 2016; 46: 1951-1960.</li> <li>- <b>Mol Psychiatry</b> 2015; 20: 1232-1239.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- Dr. Daniel Bos, MD, PhD</li> <li>- <b>Email:</b> <a href="mailto:d.bos@erasmusmc.nl">d.bos@erasmusmc.nl</a></li> <li>- <b>Website:</b> <a href="https://www.erasmusmc.nl/en/research/groups/imaging-of-arteriosclerosis">https://www.erasmusmc.nl/en/research/groups/imaging-of-arteriosclerosis</a></li> <li>- <b>Grants and Awards:</b> <ul style="list-style-type: none"> <li>- Royal Academy of Arts and Sciences Grant (2016)</li> <li>- Lourens Penning Prize for best publication in the field of Neuroradiology(2016)</li> <li>- BrightFocus Foundation Grant (2017)</li> <li>- Erasmus MC Mrace Grant (2019)</li> <li>- European Commission Horizon 2020 - Research and Innovation Framework Programme (2019)</li> <li>- Netherlands Organisation for Scientific Research (2019)</li> </ul> </li> <li>- <b>Most important publications:</b> <ul style="list-style-type: none"> <li>- <b>JACC</b> 2020; 19;75:2387-2399.</li> <li>- <b>BMC Medicine</b> 2020; 18:263.</li> <li>- <b>Heart</b> 2020; 106(2):133-139.</li> <li>- <b>Plos Med</b> 2020; 17(5):e1003115.</li> <li>- <b>Eur Heart J</b> 2018; 39:3369-3376.</li> <li>- <b>JACC</b> 2018; 72: 582-584.</li> <li>- <b>Alzheimers Dement</b> 2018; pii: S1552-5260(18)30129-8.</li> <li>- <b>Eur Radiol</b> 2018; 2018: 28:3082-3087.</li> <li>- <b>Circulation</b> 2017; 135:2207-09.</li> <li>- <b>Circ Cardiovasc Genet</b> 2013; 2013; 6:47-53.</li> </ul> </li> </ul>
<b>Project Title:</b>	<b>Unravelling the role of vascular disease in depression</b>
<b>Abstract:</b>	<p>Depression remains one of the top causes of disability worldwide according to the World Health Organization. Interestingly, an increasing body of evidence shows a role for vascular disease in the development of depression at older ages. The current increase in the occurrence of depression around the age of 60 may even be largely attributed to vascular disease. However, important aspects of the relationship between vascular disease and depression remain poorly understood and require further investigation. An important topic within the field of research on vascular disease pertains to its location in the blood vessel system. Although vascular disease may occur anywhere in the body, the presence and amount of vascular disease may differ considerably across different blood vessels within the same person. As such, vascular disease located in the main blood vessels that provide the brain with blood may thus play a more important role in the development of depression and depressive symptoms than vascular disease in more distant arteries.</p> <p>The overall aim of this project is to comprehensively investigate the role of vascular disease in the development of depression and to better understand the potential causal link between vascular disease and depression. To accomplish this data from the large population-based Rotterdam Study (N=14,926), which has been running for more than 30 years, will be used. Within this cohort, medical imaging of the major arteries in the heart-brain axis has been performed. All persons are also extensively evaluated for depression, using questionnaires, clinical interviews and follow-up of medical records. Henceforth, the link between vascular disease and the development of depression can be established.</p> <p>The studies will be performed within the Psychiatric research group of the Department of Epidemiology and the Imaging of Arteriosclerosis research group of the Department of Epidemiology and Radiology. Moreover, we participate in different large consortia, including CHARGE and ENIGMA.</p>
<b>Requirements of</b>	<ul style="list-style-type: none"> <li>• We are looking for a highly motivated, hardworking student to join our international and multidisciplinary team. Due to the nature of the project and data, strong statistical skills, good communication skills, and an interest in medical imaging and mental health are required.</li> <li>• The student should have completed an MD or MSc in Neurosciences, Psychology, Health Sciences, Epidemiology, or a related field. A good command of English is required (level of IELTS 7.0 (min 6.0 for all subs) or TOEFL 100 (min 20 for all subs)).</li> <li>• Within the project the student will have access to the Rotterdam Study data, training in epidemiology and statistics, and the broader Erasmus MC research infrastructure. The</li> </ul>

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	scholarship will, at least, have to cover subsistence allowance and international air plane ticket. We are happy to help with the scientific part of your scholarship proposal, please contact dr. Annemarie Luik at <a href="mailto:a.luik@erasmusmc.nl">a.luik@erasmusmc.nl</a> or dr. Daniel Bos at <a href="mailto:d.bos@erasmusmc.nl">d.bos@erasmusmc.nl</a> .
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Application requirements & Deadlines:

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

*Erasmus MC, ranked world*

*\* 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>