

## PhD Project Description

<b>School/Department:</b>	<b>Department of oral and maxillofacial surgery, special dental care and orthodontics, Erasmus MC</b>
<b>Supervisor information:</b>	<p>Prof. Eppo Wolvius (<a href="mailto:e.wolvius@erasmusmc.nl">e.wolvius@erasmusmc.nl</a>), Head of the Department  Prof. Fernando Rivadeneira (<a href="mailto:f.rivadeneira@erasmusmc.nl">f.rivadeneira@erasmusmc.nl</a>)  Dr. Lea Kragt (<a href="mailto:l.kragt@erasmusmc.nl">l.kragt@erasmusmc.nl</a>), Post-doctoral Scholar</p> <ul style="list-style-type: none"> <li>• <b>Website:</b> <a href="http://www.erasmusmc.nl/en/sophia/research/departments-and-centers/oral-and-maxillofacial-surgery">www.erasmusmc.nl/en/sophia/research/departments-and-centers/oral-and-maxillofacial-surgery</a></li> <li>• <b>Most important publications:</b>  2016: J Dent Res 95(4):395-401.  2016: Caries Res 50(5):471-479 &amp; 489-497  2017: J Dent Res 96(13): 1482-1489.  2017: J Dent 62:18-24.  2018: Hum Mol Genet 27(17):3113-3127.  2019: Qual Life Res 28(7):1783-1791.  2020: Bone 132:115-180.</li> </ul>
<b>Project Title:</b>	<b>Oral health trajectories - individual, environmental and genetic determinants</b>
<b>Abstract:</b>	<p>The department of oral and maxillofacial surgery, special dental care and orthodontics conducts oral health research in big datasets from population-based cohorts and clinical cohorts. Oral health research in this setting is worldwide nearly unique. Dr Lea Kragt has worked within this research line for 8 years, is coordinating the collection of dental data and has initiated and conducted research on different aspects within the research group, from quality of life factors to endocrine disruptors. We offer an interesting and challenging position in an ambitious yet friendly scientific and clinical research environment.</p> <p>PhD project:  Dental caries is a major public health problem with a prevalence around 30% in Dutch children and up to 90% among children worldwide. Next to this, dental caries is socially patterned, typically affecting in larger proportions socially disadvantaged and marginalized populations. The disparities already exist early in childhood, but increase throughout the lifetime. Carious lesions are very common in children, but the transition from childhood to adulthood is an even more sensitive period for the development of oral health and disease. The underlying mechanisms in the association of disadvantaged populations with oral diseases are not clear. The candidate will identify and investigate distinct trajectories of oral health and disease in growing children/young adults using latent class models. Multinomial multilevel regression analysis will be performed to study the behavioral, environmental and genetic predictors of oral health trajectories. In addition, he/she will employ state of the art biomarkers (including genomic) assessments that provide additional insight to assess causal relationships between potentially confounded risk factors for oral diseases. For example, the potential role of the oral microbiome in the relation of individual and environmental factors and oral diseases might be explored considering a plausible mediation by these factors.</p>
<b>Requirements of candidate:</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Research Master degree (public health, epidemiology or equivalent) or doctor of medicine (MD) or doctor of dentistry (DD)</li> <li>• Scholarship that will, at least, cover subsistence allowance and international air plane ticket (we could help with the scientific part of your scholarship proposal)</li> <li>• English language requirement:  <i>English speaking countries &amp; Netherlands:</i> no requirement  <i>Other countries:</i> IELTS 7.0 (min 6.0 for all subs), TOEFL 100 (min 20 for all subs)</li> </ul>

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>