PHILIPS

PROJECT SUMMARY	
Title	**ROS production and in vitro models for gum health**
Duration	Around 9 months
Start date	Preferably November 1st, 2021
Location	High Tech Campus, Eindhoven, HTC11
Compensation	According to internal HR standards for internships
Housing	Eligibility according to internal HR standards for internships
We offer	Highly multidisciplinary and international environment, development of independent research skills. Get a taste of research in an industrial setting.
Required training	Opening is for advanced master level student. More details on next page
Application	**By email to** Monique.Stoffels@philips.com Application should include: - CV - Cover letter with motivation - Availability (including dates of absence if applicable) Please note that to be applicable for an internship, it should be compulsory (outside EU/EER) by your education and you need to be registered as a student, formal documentation of which may be requested at any time.
Apply before	**October 15, 2021**. Selection and interview will take place before acceptance (anticipated between 18-22 October). Important: applications sent after October 15 will not be considered and will not be communicated back.
Contact	Project supervisor(s): - L. van de Kamp-Peeters, Loes.vande.kamp-peeters@philips.com - M. Stoffels, PhD, Monique.Stoffels@philips.com

PROJECT DETAILS	
Title	ROS production and in vitro models for gum health
Organization Description	Philips Research is a global organization that helps Philips introduce meaningful innovations that improve people's lives. We provide technology options for innovations in the area of health and well-being, targeted at both developed and emerging markets. Positioned at the front-end of the innovation process, we work on everything from spotting trends and ideation to proof of concept and – where needed – first-of-a-kind product development. The Oral Healthcare team focuses on long-term winning innovations in the field of Oral Healthcare. Our mission is to deliver the best performance over lifetime, endorsed by professionals.
Challenge/Aim	To study biologically relevant mechanisms in gum health, representative biological cell models are needed. In this project, the student will work with cells from gingival origin to investigate mechanisms of cellular toxicity and ROS formation in different settings and set out how this is clinically relevant. The student will mainly work with in vitro cell lines and an array of assays to study cell viability, toxicity, and function. We encourage the student to discuss own ideas with supervisors.
Work plan	This project is a follow-up from work initiated earlier this year. The main methods have been established; however, a lot of details still need to be worked out. This involves setting up new protocols, critical interpretation of results, and discussion with supervisors for continuation of the project. The approach will be scientific, including literature study, formulation of hypotheses, design of experiments and interpretation of results in clinical context. As such, the student will be required to write an initial work plan to define the work during the internship. For execution of experiments in the lab and interpretation of results, the student will have two daily supervisors. The student will frequently present/discuss progress during the regular project meetings to the project team and will adjust plans according to new insights. Finally, the student will write a full report on the findings and visually present these in a multidisciplinary group meeting.
Student requirements	We are looking for an advanced master level student biochemistry, molecular life sciences, medical or molecular biology, molecular mechanisms of disease, or similar, who is pro-active, goal-oriented, and independent and likes to work in a multidisciplinary team integrating different scientific fields. The project team specializes in (molecular) cell biology, microbiology, and biochemistry and interacts a lot with other disciplines such as optics, advanced image processing, and biophysical modeling. Required: - previous lab experience, especially with cell culture - English language (written and oral) at working proficiency - Student and university supervisor need be able to sign confidentiality agreements before the start of the internship. - Knowledge of molecular biology Highly preferred: - Background in immunology, redox biology, biochemistry - Affinity to work in multidisciplinary environment - Full time available - Officially finished bachelor