

LERU STudent REseArch Mobility Programme (STREAM)
Project proposal



Host University:
Università degli studi di Milano



Field:
Medicine/biology

Specified field, subject:
Molecular biology, pharmacology

Research project title:
Hypoxia and chronic wounds: pathogenetic mechanisms and nonconventional nanotherapies.



Possible starting month(s):

Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
x											

Possible duration in months:

1	2	3	4	5	6
					x

Suitable for students in: 2nd cycle (Master students)

Prerequisites: Students in Biology, Biotechnology, Pharmacology; basic skills in molecular and cell biology

Restrictions: none

Description:

The Research project is aimed to study the role of hypoxia and oxygen supplementation on the production of inflammatory and angiogenic factors, as well as the underlying mechanisms, by the human cell populations involved in wound healing. New oxygen-loaded nanodroplets (OLNDs) will be used as a source of oxygen delivery to hypoxic cells with the aim of identifying the most relevant inflammatory and/or angiogenic mediators influenced by hypoxia and restored by OLNDs. The student will be involved in the evaluation of OLNDs safety and efficacy in in vitro models of human skin, including single cultures and co-cultures of the different cell populations. Biological and biochemical assays will be used to characterize cell behavior.

Faculty or Department Department of Biomedical, Surgical and Dental Sciences - Università degli Studi di Milano

Contact person: International relations office, University of Milan

Contact email: international.programmes@unimi.it.

