InnoRenew CoE
Livade 6, 6310 Izola/Isola, Slovenia, T: +386 40 282 944, E: coe@innorenew.eu, **www.innorenew.eu**

Fungal biomineralisation – MSc thesis project available

https://innorenew.eu/jobs

The InnoRenew CoE is seeking a motivated student to pursue her/his final project in the field of fungal biomineralisation, within the scope of the MSCA project "Microbially Induced Mineralisation of Wood for Improved Fire Resistance" (MICRO-INSERT), GA #101105772, funded by the European Commission. https://innorenew.eu/project/microbially-induced-mineralisation-wood-improved-fire-resistance-micro-insert/. The project is led by Karen Butina Ogorelec, PhD.

The overall objective of MICRO-INSERT is to investigate the feasibility of using fungal biomineralisation to develop a novel bioinspired organic-inorganic hybrid materials (more information can be found at https://microinsert.eu/). At the current stage of the project, we are optimising fungal biomineralisation but encourage students with deeper knowledge and/or interest in wood and/or materials science to reach out as well.

The work will be conducted in the Engineered Living Materials laboratory, at InnoRenew CoE in Izola, Slovenia (https://innorenew.eu/laboratory/engineered-living-materials-laboratory/), in the Materials Department, under the supervision of Assoc. Prof. Anna Sandak and co-supervision of Karen Butina Ogorelec, PhD.

Goals and Tasks

The student will develop and optimise an assay for fungal biomineralisation of calcium carbonate. The work will involve microbiological culture techniques, microscopy and infrared spectroscopy with the possibility to include other material characterisation techniques such as hyperspectral imaging, thermogravimetry and Raman microscopy.

Desired qualifications

- Education in the field of microbiology, biotechnology, wood science or other natural sciences
- Good communication skills in English
- Experience with aseptic work is highly valuable
- Experience with microbiology is highly valuable
- Experience with infrared spectroscopy and microscopy are highly valuable

The candidate is expected to have an interest in interdisciplinary work and the capacity to work in an international environment.

What we offer

The team in the Materials department is very diverse in our backgrounds, projects and ethnicities, offering a dynamic and stimulating environment for the student. The laboratories are very well equipped, the student will be able to experience a broad range of different techniques and learn how to utilise various equipment. The aim is for the thesis to be finished within six months and authorship on publications resulting from the student's work is guaranteed.

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How to apply

Interested applicants should send:

- Curriculum vitae
- Short description/ motivation why would you like to work with us

Please note that despite the advertisement being for a thesis project we are open for other forms of collaboration as well! Reach out and we will do our best to work something out together.

All materials should be in English and submitted in PDF format.
There is no deadline, we will close the call when we find a suitable candidate.

For any additional information, you can contact Karen by email: **karen.butina@innorenew.eu**.

Learn more about the InnoRenew CoE at **http://innorenew.eu** *or by e-mailing:* **coe@innorenew.eu.**

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