

1 PHD POSITION

DEVELOPMENT OF BIOPOLYMER-BASED WOUND HEALING MATERIALS

BIOMATTER UNIT- BIOMASS TRANSFORMATION LAB (BTL)

INTERFACULTY SCHOOL OF BIOENGINEERING

Job description

From 1st June, 2019, the Biomass Transformation Lab of the Université libre de Bruxelles will initiate the project *Reverse Photosynthesis for Brussels (RE4BRU)*. The project aims to valorize Brussels sorted biowastes into platform chemicals for green chemistry using innovative green conversion technologies.

Currently, there is an increasing trend on design and development of new wound healing/sealing materials. The focus is to use biobased materials such as chitin and its derivatives to synthesise wound healing/sealing materials with the ability to enhance the healing process at the molecular and cellular level. Chitin is an inexpensive and abundant polymer of linear 1,4 N-acetyl-D-glucosamine residues which is largely found in the exoskeleton of crustaceans shells as well as the cell walls of fungi and yeast. As a part of *RE4BRU* project, we aim to transform and utilise the chitooligosaccharides from the green photocatalysis process of chitin for the development of wound healing hydrogel for biomedical applications. In this project we will adopt catechol chemistry as a versatile and biocompatible green method for the surface functionalization.

To execute the biomaterial development part of the project, the BioMatter unit at BTL seeks a highly motivated doctoral researcher to join the team during three years (June 2019- June 2021). She/He preferably has experience in the area of biopolymer chemistry and expertise in cell culturing techniques.

Profile

- MSc in in Biomedical Engineering, Biological Engineering, Medicine, Biochemistry, or other related fields
- Required language skills: English
- The candidate must be a team player

Interested ?

To apply, contact Dr. Amin SHAVANDI: amin.shavandi@ulb.ac.be . Please send no later than January 20th, 2018:

- A letter of motivation
- CV
- the coordinates (including email and telephone) of two reference person
- Master and Bachelor's grades, transcripts and the abstract of your Master thesis.

The starting date of the position is June 1st, 2019, for a duration of three years in total.