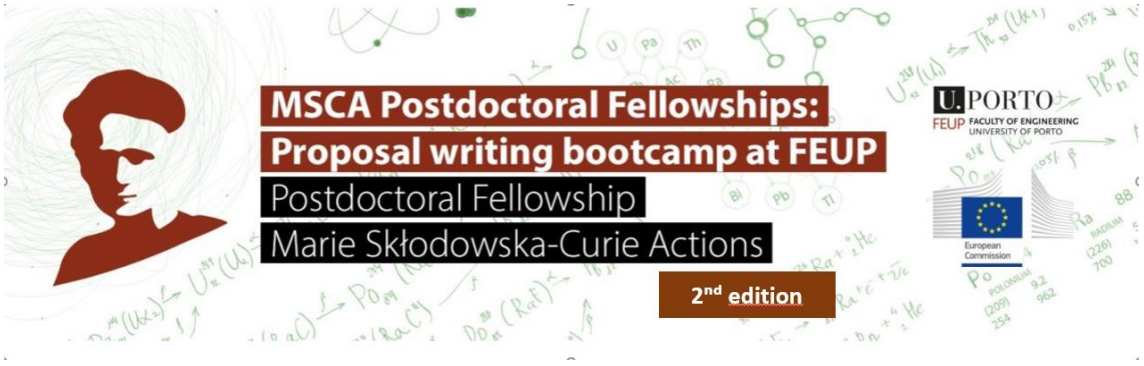


| SUPERVISOR INFORMATION | |
|---|---|
| First and Last name | Berta Nogueiro Estevinho |
| URL of supervisor webpage | https://sigarra.up.pt/feup/pt/func_geral.formview?p_codigo=383303 |
| Department | **Department of Chemical and Biological Engineering** |
| Field(s) of research | Microencapsulation and controlled release studies of bioactive compounds; Spray-drying techniques; Electrospinning and electrospraying techniques. |
| **PROJECT PROPOSAL** | |
| Title (optional) | **Development and application of Electrospinning Techniques in Electrochemical Biosensors** |
| Brief project description | |

Biosensors can provide rapid and sensitive detection of pathogens, and highly sensitive biosensors can be developed by incorporating nanomaterials such as nanofibers and nanoparticles into their electrode surface to increase the surface area.

In biosensors, electrospun nanofibers can be used as substrate materials or functional components of sensors. As the base material, electrospun nanofibers can provide a large surface area to enhance the adsorption of biomolecules, thus improving the sensitivity and detection limit of the sensors. At the same time, the pore structure of electrospun nanofibers is also conducive to the diffusion and transfer of biomolecules, enhancing the response speed and stability of the sensors.

Therefore, it is proposed to use Electrospinning techniques to prepare nanofibers to be used as Biosensors for different food applications.