

Net4Mobility⁺



Net4Mobility+

Network of the Marie Skłodowska-Curie Actions National Contact Points for the mobile scientific and innovation community

MSCA Success Stories from Organisations in Widening Countries

Task 4.4 Effective MSCA promotion

Issued by: Gabriella Tchouprenska and Antoaneta Mateeva,
Bulgarian Academy of Sciences

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Work Package Leader: NKFIH



Host organization: AGH University of Science and Technology

Country: POLAND

Organization role: Beneficiary

Project Acronym: mCBEEs

Project start and end date: 01.10.2017 – 30.09.2021

Type of MSC action, H2020: ITN



Halina Krawiec, professor of AGH

Project objectives and research field:

The main objectives of this project are:

- 1) Understanding the corrosion mechanism which proceeds on Mg alloys in the simulated body fluids. The corrosion behavior of Mg alloys will be determined at the micro and nanoscale.
- 2) Application of biopolymers coatings which are modified by using the antibacterial nanoparticles.

Research field: materials engineering (biomaterials, corrosion).

Tell us why the topic is important and/ or how it brings to advancement in your research field:

Production and development of biodegradable materials, which are safe for human body, is a real challenge. It was found that the Mg is biocompatible, nontoxic and non-allergic material which can be used as implants. However, the low corrosion resistance of Mg and its alloys is one of the biggest obstacles for their application as biomaterials. Therefore, the study of mechanism and corrosion kinetics of Mg alloys is very important, because they allow to predict the lifetime of such biomaterials in the human body. Production of smart coatings on the base of biopolymers reduces the corrosion rate of magnesium alloys in the simulated body fluids. Moreover, such coatings will have antibacterial properties. Development of biopolymers coatings which provide controlled degradation (corrosion) of Mg alloys in human body will bring the advance in the research of corrosion and materials engineering, especially for biomaterials.

What are the benefits of participating in a MSC action?

The participation in a MSC action is very important for PhD students who have the possibility to work in an international team. Participation of PhD students in training, courses, workshop and secondments allows them to gain new knowledge, laboratory experience, etc. Moreover, research stays of students in other European countries give them possibility to enhance their scientific skills and allows them to get to know other cultures. The participation of our University in this project is helpful for our scientists too. Meetings and conferences allow the exchange of knowledge, experiences, create new ideas and opportunities to expand cooperation between different countries.

Did you encounter any challenges during application/ implementation and did you get any help?

I have not encountered big challenges during application. When I had some problems or questions, I have obtained help from the coordinator of this project and from NCPs (administration of AGH University of Science and Technology).

Would you recommend others to apply? What useful advice/ tips can you give them?

I strongly recommend others to apply for MSC project. It will be good to create the consortium with international partners which work in various scientific disciplines.

What strategies did your organization use to attract the fellow/s? Are they in line with national strategies supporting the widening EC policy?

AGH University of Science and Technology supports all activities aimed at creating strong research teams: between-university and international. The strong position of the AGH University of Science and Technology requires the intensification and activity of the University in the field of foreign cooperation in both educational and research areas. An element of such a strategy is the creation of networks of associated universities, research and industrial units. Our University encourages the researchers to apply for European project and education programmes which attract the foreign students.