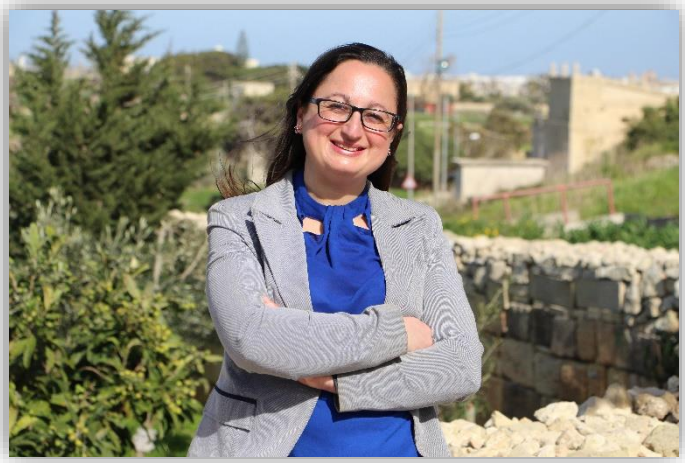
MSCA-NET

# Widening Country Inspiration Story

"Choose a project you are enthusiastic about."

**Name of the fellow:** Maria Cardona
**Country of the host:** Malta
**Project Acronym:** AMPLIFI
**Project start and end date:** 01.10.2021 – 30.09.2024
**Type of MSCA, Horizon 2020:** Individual Fellowship



## What is your project about and why is the topic important for science advancement?

AMPLIFI aims to design and develop an auxetic, antimicrobial polymer for biomedical devices such as catheters. Auxetics (materials that expand when stretched) are unique due to their negative Poisson's ratio, which imparts superior mechanical qualities. This would result in a more comfortable, safer product for the patient. The project will combine theoretical studies with experimental techniques to attempt to synthesise the first molecular auxetic structure with antimicrobial properties.

## Why is your project important for the society?

There is yet no synthetic meta-material which demonstrates auxeticity at the nano-level. Such a material would result in superior mechanical properties and will result in devices which are more comfortable for the patient. For example, using such a material in a catheter will result in devices that do not kink. In addition, the antimicrobial effect will also address a very common problem with the use of such devices.

## What communication and public engagement measures a have you foreseen?

Communication and public engagement measures:

- ✓ Academic: Presentation at conferences and publication of results in open-access journals.
- ✓ General public: Talks to school children and university students and participation in local science communication events, e.g. European Researchers' Night, both in person as well on social media.

## Why did you choose a widening country as a host?

I chose my host organisation based on the expertise needed for the project. The main supervisors are experts in their fields of study and have successfully built good research teams. In addition, they regularly publish in international peer-reviewed journals, which are top-level in their field.

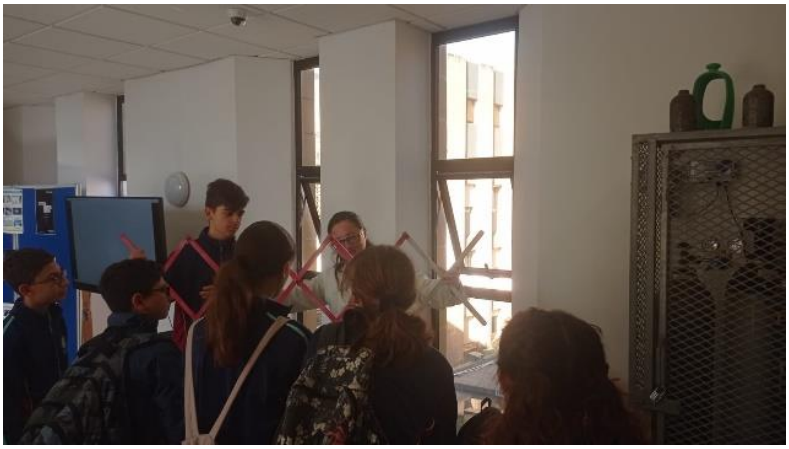
## How did you find your host organisation?

I met my supervisors through ex-colleagues and received good reviews, and they were also mentioned as top-cited scientists in their field of study. So I contacted them by email and spoke to them personally. I proceeded with the

application once I was comfortable with the project discussed.

**What kind of support did you get?**

The project was designed together with the main supervisors in the host organisation, whose expertise in the subject and experience in writing successful funding applications were essential for the design of an impactful project with very real practical applications. My supervisor and project support officers at the host organisation provided me with examples of past successful applications. The NCPs were also very helpful and gave me suggestions on the technical issues of my application. A handbook provided by the NCPs and the guidelines for preparing the application were also particularly useful in setting and writing my proposal. I am also grateful to friends and ex-colleagues who read my application and gave me feedback.



**What tips can you give other researchers who would like to apply for MSCA?**

Choose a project you are enthusiastic about, as this will reflect in your writing and identify practical applications for your project. The project should build on your past expertise and delve into new areas as well, thus showing growth. The ability and willingness to network is essential. Also, support your application with related non-academic activities to show that you are capable of undertaking the varied aspects of your project.

More information on the project:

The Marie Sklodowska-Curie Actions (MSCA) support researchers at all stage of their career across all disciplines. The MSCA also support cooperation between industry and academia and provide innovative trainings and career developments.

The MSCA Individual Fellowships (IF) provide opportunities to researchers of any nationality to acquire and transfer new knowledge and to work on research and innovation in Europe and beyond.

The MSCA-NET project is the MSCA NCP project to facilitate the transnational cooperation to achieve a consistent and harmonised level of NCP support. The scientific community can also profit from our project to support their MSCA application.