

## FULLY-FUNDED PhD FELLOWSHIP

### PhD contract and topic:

A PhD contract (former FPI program) is offered for a PhD position at the Biomedical Signal Interpretation and Computational Simulation (BSiCoS) group of the Aragón Institute of Engineering Research, University of Zaragoza.

The PhD thesis is associated with the research grant “Towards improved management of cardiovascular diseases by integrative in silico-in vitro-in vivo research into heart’s structure, function and autonomic regulation”, funded by Spanish Ministry of Science and Innovation, with reference **PID2019-105674RB-I00**.

As part of his/her PhD thesis, the candidate will work on some of the following lines:

- **Processing of signals** acquired by patch-clamp and optical mapping as well as electrograms and electrocardiograms.
- Incorporation into **multi-scale computational models** of the heart and the autonomic nervous system of all the information extracted from the signals and from additional processing of histological images and molecular biology data.
- Development of **numerical methods for simulation** of cardiac activity.
- Application of **artificial intelligence** techniques for prediction of abnormalities in heart’s electrical behavior.

### Profile of the candidate:

Graduate/Master in Mathematics, Physics, Engineering or related disciplines.

### Procedure and deadline for application submission:

Interested candidates should submit an application through the electronic website of the Spanish Ministry of Science and Innovation: <https://sede.micinn.gob.es/ayudaspredoctorales/>

Application submission will be open **from October 13<sup>th</sup> to October 27<sup>th</sup>, 2pm (Spain time)**.

### Full details about the call:

- Call for PhD fellowship

[https://www.unizar.es/gobierno/vr\\_investigacion/sgi/doc/Convocatoriaayudascontratospredoctorales2020.pdf](https://www.unizar.es/gobierno/vr_investigacion/sgi/doc/Convocatoriaayudascontratospredoctorales2020.pdf)

- Summary of the PhD fellowship program

[https://www.unizar.es/gobierno/vr\\_investigacion/sgi/doc/ExtractoboeFPI.pdf](https://www.unizar.es/gobierno/vr_investigacion/sgi/doc/ExtractoboeFPI.pdf)

### Additional information:

Although the candidate should submit his/her application through the electronic website of the Spanish Ministry of Science and Innovation, as indicated above, he/she is advised to **send CV and academic transcripts by email to Esther Pueyo (epueyo@unizar.es)**.

For additional information, please contact Esther Pueyo ([epueyo@unizar.es](mailto:epueyo@unizar.es)).

**Please circulate this offer**