UNIVERSITAT ROVIRA i VIRGILI

ORGANISATION: UNIVERSITAT ROVIRA I VIRGILI

RESEARCH FIELD: Computer-Aided Diagnosis from Medical Imaging

RESEARCHER PROFILE: Recognised Researcher (R2)

APPLICATION DEADLINE: 15 of January 2024

LOCATION: Tarragona (Spain)

TYPE OF CONTRACT: 2 years postdoc

JOB STATUS: Full-time

HOURS PER WEEK: 35

RESEARCH FRAMEWORK PROGRAMME: Spanish State Plan for Scientific and Technical Research and Innovation 2021-2023

TITLE OF THE CALL:

Juan de la Cierva **PF 2023 Host in Computer-Aided Diagnosis from Medical Imaging for Exp of Interest**

Prof Domenec Puig, established at the Universitat Rovira i Virgili (Tarragona, Spain), is interested in receiving Expressions of Interest of potential candidates for the *Juan de la Cierva* Postdoctoral Fellowship call:

https://www.aei.gob.es/en/announcements/announcements-finder/ayudas-contratos-juan-cierva-2023

Selected candidates will receive dedicated support from our research group to prepare a successful proposal.

The overarching goal of the research project developed by the group is to investigate robust radiomics for breast cancer diagnosis and prognostication. The fundamental objectives of the project are:

- *Development of novel radiomics and biomarkers based on computer vision and deep learning methods for prediction of treatment response and outcomes, tumour staging, and tissue identification of various modalities of digital images, including MRI, CT, PET and mammographic images.*

- *Design of methods for modelling clinical health record data of patients (e.g., cancer genetics, and blood analysis data) using data mining, knowledge representation, approximate reasoning, and decision support systems.*
- *Development of algorithms to study the correlation between radiomics, and the correlation between the outcomes of radiomics and clinical health record data.*
- *Development of computational methods to study possible association among different common cancers (e.g., lung, breast, prostate and brain cancers).*
- *Design of computational models using data mining technologies and machine method that will allow personalized monitoring of patients, by integrating the outcomes of radiomics and clinical data models.*

For the Juan de la Cierva PF 2023 call, we are looking for postdoc(s) with experience in:

- *Computer-based Diagnosis from Medical Imaging.*

- *Machine Learning, Big Data, Deep Learning.*

We are looking for talented and innovative young scientists, strongly committed to high quality frontier research and able to add new insights to the existing URV core expertise. Only candidates with an outstanding record of research achievements and publications in top-quality journals will be considered.

URV as Hosting Institution located at Scientific Campus of Universitat Rovira i Virgili (Tarragona, Spain), has all the technical and scientific facilities for carry out this project.

Universitat Rovira i Virgili (URV) is well positioned both nationally and internationally due to the Excellence of its research and the commitment and internationally recognised staff. URV is made up of 12 Faculties and Schools, with 24 Departments, which welcome annually more than 12.000 undergraduate, 1.500 master and 1.200 PhD students (20% of them full time employees). In 2019, it was named World's 78th Best Young University aged less than 50 years and 401-500 Best University in the World (by Times Higher Education World University Rankings), and 501-600 by Academic Ranking of world Universities. Being the within the top 10% universities in number and impact of its publications is a clear measure of the quality of the research we can offer to the future PF fellows.

Testament to the quality of its research is the fact that URV is host for more than 100 PF fellows, in different programmes (COFUND, ITN, IF), displaying a strong bond to the principles of the European programmes.

ELIGIBILITY CRITERIA

At the deadline for the submission of the proposals (15/01/2024), researchers:

- **Recognised Researchers:** In possession of **doctoral degree obtained after 1 of January 2022**. At the call deadline, supported researchers must have a maximum of 2 years fulltime equivalent experience in research, measured from the date that the researcher was in a possession of a doctoral degree and certified by appropriate documents.

- **Nationality:** Any.

- Must be fluent in **English** (both written and spoken).

SELECTION PROCESS

Researchers willing to apply should check that they fulfil the eligibility criteria and then send an expression of interest, consisting of:

- Curriculum Vitae.
- Summary presentation of their research proposal / Motivation letter.

Expressions of interest must be submitted to domenec.puig@urv.cat (Title of the e-mail: "URV - JDLC-2023-PF Prof Domenec Puig").

Proposals will be pre-selected on the basis of internal evaluation. Candidates will be informed of the results of the pre-selection a week after the deadline.

WEB of the research group: https://webs-deim.urv.cat/~rivi/