



Research fellowship on: “Web based Decision Support Systems for precision medicine”, project “DC-ren - Drug combinations for rewriting trajectories of renal pathologies in type II diabetes”, Grant Agreement no. 848011, CUP H74I19001540005

The present document in English is to be considered as a mere summary of the main provisions of the notice of competition which is available in Italian at the following ([link](#)) The text in Italian is the official text of the notice of competition for all legal intents and purposes and, in the event of non-conformity with the present document, it shall prevail.

Description

The ECLT Centre, in charge of the administrative management of the above mentioned project, invites applications for a fellowship in:

Title: Web based Decision Support Systems for precision medicine

SSD or Research sector: INF/01 Computer Science; ING-INF/05 Data Processing System

Supervisor: Prof. Claudio Silvestri

Scientific coordinator: Prof. Irene Poli

Duration: 12 months

Abstract: Recent developments in biomedical technology led to the generation of large datasets potentially useful for building personalized treatments based on specific patient characteristics. In this emerging context of precision medicine, computational methods are used to support, based on known data, the choice of optimal personalized treatments, explaining the proposed choices in an understandable way to domain experts.

The candidate will integrate predictive and classification models into a web interface to make them accessible to users with medical background. Contextual information based on known data will support the presentation of the possible future evolution of the patients' states to help informed decision making by clinicians. In particular, a temporal graph will be used to visually represent the effects of treatment choices and provides information on models and data from other patients to support each indicated transition.

This research uses longitudinal and high-dimensional data about patients from different European countries with kidney disease and type II forms of diabetes and is funded by the European project H2020: Drug combinations for rewriting trajectories of renal pathologies in type II diabetes (see DC-ren, <https://dc-ren.eu/>), in the area system approaches for the discovery of combinatorial therapies for complex disorders, with duration 2020-2025.

The research may be carried out in English.

The fellowship is intended to provide the successful candidate with the opportunity to pursue his/her own research while benefiting from the range of expertise at Università Ca' Foscari Venezia.

Who can apply

Prospective candidates are expected to hold a Master's degree in Computer Science or Computer Engineering or equivalent title obtained abroad and a professional scientific curriculum suitable for carrying out research activities.

Ca' Foscari encourages applications from researchers with positive evaluation in all the criteria in individual proposals such as Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar.

Researchers having successfully completed Marie Skłodowska Curie Actions - Individual

Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar funded projects are warmly encouraged to apply.

The following are considered preferential qualifications:

- the PhD in Computer Science or Computer Engineering;
- the completion of attendance at a doctorate course pending the award of the qualification;
- specialization diplomas and certificates of attendance at postgraduate specialization courses, obtained both in Italy and abroad; the performance of documented research activities carried out with public and private entities both in Italy and abroad;
- other titles: Previous web application development experience (Python and Javascript); Basic knowledge of machine learning; Basic knowledge of relational and graph databases.

Duration of contract: 12 months (approximately starting in March 2023)

Stipend: The research fellowship amounts to 20.266,98 Euros per year, gross percipient net of charges to be borne by the institution.

Deadline for submission of applications: January 23, 2023, 12.00 noon CET.

How to apply:

Candidates must submit:

1. The application form
2. A motivation letter (max 1 page) along with their CV in European format, duly dated and signed, both enclosed as a one single.pdf file. ([link](#))
3. A copy of a valid identity document (either Identity Card or Passport);
4. (If available) Evaluation Summary Reports of Marie Skłodowska Curie Actions - Individual Fellowships/ ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) individual proposals having passed all the evaluation thresholds;
5. (If available) Details of Marie Skłodowska Curie Actions - Individual Fellowships, ERC Starting Grants, FIRB (Italian Fund for basic research investments)/ SIR Scientific Young Independence Research funded projects;
6. A declaration of availability to hold the interview online (template available at this [Link](#)), which is to be emailed to: inest_pnrr@unive.it
7. Any other documents, qualifications and publications deemed relevant for the selection procedure (See the notice at this [link](#)).

Templates for the above mentioned documentation are available on the University's website ([link](#)).

How to submit your application

Applications must be submitted online, exclusively through the procedure that can be entered at the following link:

<https://apps.unive.it/domandeconcorso-en/accesso/dcren23012023webapp>

After submitting the application, the candidate will receive a submission number and an e-mail acknowledging receipt of his/her application.

The candidate can, if necessary, access the procedures and update uploaded data and materials via the link provided by the e-mail. Updates are only accepted before the deadline of **January 23, 2023, 12.00 noon CET**.

Please note that the candidate can contact the University for any support needs until 24 hours prior to the deadline.

In case of a high number of applications and / or weight of the materials uploaded by the candidates the system might become slower, therefore it is suggested not to start the application process close to the deadline.

NB: The University does not take on responsibility for wrong or late communication of addresses, nor for any communication problem not depending on the University.

Evaluation

Up to 100 points, specifically:

For qualifications and publications, from 0 up to 60 points (42 points is the minimum score for admission to the interview)

For the interview, from 0 up to 40 points (28 point is the minimum score for passing the interview).

Selection procedure

Interviews will take place telematically on February 6, 2023.

The list of candidates admitted to the interview, the timetable, together with notice of any postponements, or changes in the time of the interview, will be announced on **January 30, 2023**, by means of a notice that will be published at the following [link](#). **It is the candidate's responsibility to check the admission results and, if admitted, to show up at the required date and time.**

The interview may ascertain knowledge of the following topics:

- Scientific experience of the candidate
- Databases
- Web application development
- Python and Javascript programming languages

Information and contacts

Candidates may find further details about the application process and the research project in the official call published at the following ([link](#)).

For further information please contact CESA, email: inest_pnrr@unive.it

(please note that from 27/12/2022 to 08/01/2023 included, the Offices will be closed for Christmas).