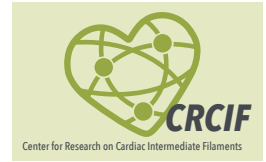




## RESEARCH PROGRAMME

### Request for 2 postdocs positions on the LCN project



**Supervisor: Giulio Agnetti**

**Department of Biomedical and Neuromotor Science**

**Project title: New Roles for the Intermediate Filament Cytoskeleton in Healthy and Diseased Cardiac Cells**

The CRCIF within Unibo is actively looking for 2 postdoctoral fellows to join an exciting, international collaboration project on the role of the cytoskeleton in cardiovascular disease:

<https://www.fondationleducq.org/network/cytoskeletal-regulation-of-cardiomyocyte-homeostasis-in-health-and-disease/>

The Center for Research on Cardiac Intermediate Filaments (CRCIFs) relocated from Johns Hopkins to Unibo effective Nov 1<sup>st</sup> 2023. We have a specific interest and expertise in proteotoxicity and mass spectrometry (MS). We have identified desmin phosphorylation sites and desmin misfolding and aggregation in heart failure (HF). Within the LCN network of excellence that we are part of we will oversee the experiments pertaining to desmin aggregation in all models, including measurement and characterization of pre-amyloid oligomers, short-fibrils, and large aggregates. We will also provide phospho-mimetic/dead desmin mutant constructs to assess how these modulate proteostasis and microtubule-IF interactions using preclinical model of HF with preserved ejection fraction (HFpEF). In addition, we will perform and assist MS efforts for the LCN.

Integration of ECIs: The training and participation of ECIs is a central component of our LCN. They will profit from unlimited exchange within the LCN, including the use of Slack and Electronic Lab Notebooks for interaction at the bench, as well as daily, weekly and (more formal) monthly exchanges that will be invaluable for positioning these young scientists for success. ECIs will attend the yearly LCN meeting and will participate in all videoconferences. The global budget reserves \$35,000/year to support exchange between labs for up to 7 ECIs per year, which will both spark collaboration and learning. This budget will be used for the travel, accommodation, and extra supplies to the host labs to further encourage their participation. The Penn group hosts a Quantitative Image Analysis Workshop that will be offered online to all ECIs, while Hamburg will offer a course on iPSC differentiation and generation of EHTs. The ECI Director [van der Velden] will compile and manage an “inventory” of learning opportunities and lab openings, making the rich repertoire of training opportunities transparent to the ECIs. The LCN is a gender-balanced team with broad experience in mentoring young scientists to tackle hurdles at different phases of their careers.

**Requirements include:**

- A recent MD or PhD in biochemistry, cell biology or related fields

**Preference will be given to candidates with:**

- A background in cell biology with specific reference to muscle biology and cytoskeletal dynamics
- Commitment to science and outstanding organizational skills
- Strong English presentation and writing skills
- Scientific curiosity and willingness to learn and to work in a dynamic environment

**Selected candidates will have access to:**

- Interdisciplinary training at a top scientific Italian institution, including but not limited to biochemistry, proteomics and cardiovascular pathobiology
- International travel as part of the project funded in the network
- Possibility of spending training periods at the labs which are part of the network (US, Europe, and Israel)
- Tailored career development plan

**Interested candidates should send:**

- Curriculum vitae
- A one-page statement of research interests
- Arrange for 3 letters of recommendation to be emailed directly to [giulio.agnetti@unibo.it](mailto:giulio.agnetti@unibo.it)

***Search will begin immediately and continue until the position is filled***