UNIVERSITÀ DI PAVIA
Dipartimento di Ingegneria Civile e Architettura

Synthetic Physiology Laboratories

European Research Council
Established by the European Commission

Dear Researcher,

I am looking for talented scientists and engineers to join my **Synthetic Physiology Lab** at the University of Pavia in Italy. Traditional synthetic biologists use DNA parts to program cell function. Similarly, we study how to control tissue function using extracellular matrix (ECM) components. Our first goal is to **reverse engineer human heart development in a project funded by the European Research Council and entitled *"Synthetic Matrix Biology: Designer matrices to program healthy and diseased myocardial morphogenesis."***

For this project, I am looking for a **computational scientist.** The ideal candidate will have experience working with mechanical models of soft materials and (dissipative) particle dynamics in synthetic or biological systems. Previous work in the cardiac field, with LAMMPS/Chaste packages, parallel programming (especially if GPU-enabled), or cloud computing is a plus. At the same time, we will be doing things differently than most efforts in this field, so anyone with great scientific programming skills and interested in using particle dynamics to describe cell and tissue mechanics is welcome.

I am looking for candidates who have completed (or who are about to complete) **a relevant Ph.D. program and have published at least one paper as a first author** in appropriate peer-review outlets. Being able to clearly communicate in English (written, spoken) is a requirement. Based on experience, I can offer appointments at various seniority levels and with competitive salaries.

If this opportunity feels like something you can make a positive contribution towards, or if you know somehow who might, please email me (in English) at francesco.pasqualini@unipv.it. Please, include:

1. **A few short paragraphs** in the email covering:
   - Your name and the position you would like to fill
   - Your current research life
   - The contributions you feel you can make to this project
   - Your long-term goals.
2. **A 1-page resume** that highlights your current achievements:
   - School: graduation grade, grades in exams relevant to the position
   - Research: posters, presentations, papers
   - Translation: patents, start-ups, industry.
3. **A copy of your first author paper(s)** and any other relevant co-author paper.

Thank you for your interested in our work, and I look forward to hearing from you.

Francesco Pasqualini

via Ferrata,3
I-27100 Pavia ITALIA
Tel. (+39) 0382 - 98 5300 / 98 5400 / 98 5450
Fax (+39) 0382 - 98 5589 / 98 5419
Codice Fiscale 80007270186
Partita IVA 00462870189