

Postdoctoral positions are available in Megakaryocyte Physiology and Pathology Lab – Department of Molecular Medicine, University of Pavia, Italy.

A postdoctoral fellow position is available in the Megakaryocyte Physiology and Pathology Lab, Department of Molecular Medicine, University of Pavia, Italy (<http://alessandrabalduini.com/>). The laboratory has perfected the use of silk biomaterials to develop 3D models of the bone marrow for producing functional platelets and their precursors, megakaryocytes (Di Buduo et al., *Blood*. 2015; 125(14): 2254-64; Di Buduo et al., *Biomaterials*. 2017; 146:60-71; Tozzi et al., *Biomaterials*. 2018; 178:122-133). We have made significant contributions in developing a 3D model specialized in bone marrow and blood cells, a unique tissue that has never been replicated ex-vivo using human cells. The current focus is to develop a 3D engineered nanotechnology silk biomaterial platform for large-scale generation of human platelets. The first application of this system will be: 1) producing platelets from human Pluripotent Stem Cells (hPSCs), 2) modeling diseases and 3) developing drug response and toxicity tests for personalized medicine. This project is funded by the Horizon 2020-European Commission, Future and Emerging Technologies (<https://silkfusion.eu/>). We are seeking highly motivated postdoctoral candidates, who are interested in translational and inter-disciplinary research to develop 3D organ models.

Postdoc job description: The successful applicant must have PhD and an excellent track record of research in a field related to biotechnology or bioengineering and to have an interest in biological applications. The candidate should bring strong expertise and experimental background in the fields of microfluidics, microfabrication, bioengineering for biological applications. Basic knowledge of molecular cell biology (cell culture, basic molecular biology concepts and techniques) and microscopy techniques is also required. Background in 3D printing would be preferable, but not required. The applicant should have published in peer-reviewed journals and must have fluency in spoken and written English. Candidates who have recently completed or are about to complete their PhD will be considered. The candidates are expected to work independently and to generate high impact publications. Proven team collaboration skills are essential for this position.

Interested applicants should send a cover letter, CV, and the names/phone numbers of three people who could provide letters of reference by email to: **alessandra.balduini@unipv.it**. Applicants who are not Italian citizens or permanent residents may apply, indicating their immigration/visa status, if any.

The Laboratory is part of the Department of Molecular Medicine, University of Pavia, Italy. Founded in 1361 the University of Pavia continues the tradition of excellence in education, research and multidisciplinary research. SilkFusion (<https://silkfusion.eu/>) has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 767309. SilkFusion is a novel 3D technology that will use silk-fibroin as a biomaterial for microfabrication and 3D printing of a bone marrow model containing viable megakaryocytes for producing platelets.