



OPEN POSTDOC POSITION ON STRUCTURAL BIOLOGY AND BIOPHYSICS OF CARDIAC AMYLOIDOSIS

I would like to advertise an Open Postdoc Position who will work in my lab at the Dept. of Biosciences of University of Milan (Italy) and at the Institute for Molecular and Translational Cardiology, at the Research Hospital Policlinico San Donato (Milan, Italy).

Candidates may have a solid background in protein biochemistry and biophysics, structural biology (X-ray crystallography and/or Cryo-EM) of folded/misfolded proteins. Experience in mammalian cell expression and in techniques for ligand binding would be considered as positive assets.

The project will deal with

- Understanding the molecular bases of light chain cardiotoxicity in patients affected by AL amyloidosis (through biochemistry and biophysics of proteins identified in patients)
- Structure determination of *ex-vivo* amyloids by Cryo-EM

The contract will last 2 years (renewable), starting summer 2024.

Some information about the research group can be found at:

<https://sites.unimi.it/stericagno/>.

Interested candidates should send a CV and a motivation letter to

Stefano.ricagno@unimi.it

Stefano Ricagno

Most relevant and recent publications related to this project:

- Helical superstructures between amyloid and collagen VI in heart-derived fibrils from a patient with Light Chain Amyloidosis. Schulte, T et al. **Research Square** (pre-print)
- Nanobodies counteract the toxicity of an amyloidogenic light chain by stabilizing a partially open dimeric conformation. Broggin L, et al **J Mol Biol.** 2023. doi: 10.1016/j.jmb.2023.168320.
- The Cryo-EM STRUCTURE of Renal Amyloid Fibril Suggests Structurally Homogeneous Multiorgan Aggregation in AL Amyloidosis. Puri S, et al **J Mol Biol.** 2023 doi: 10.1016/j.jmb.2023.168215.
- Cryo-EM structure of ex vivo fibrils associated with extreme AA amyloidosis prevalence in a cat shelter. Schulte T, et al **Nat Commun.** 2022. doi: 10.1038/s41467-022-34743-2
- An N-glycosylation hotspot in immunoglobulin κ light chains is associated with AL amyloidosis. Nevone A, et al. **Leukemia.** 2022. doi: 10.1038/s41375-022-01599-w
- Inherent Biophysical Properties Modulate the Toxicity of Soluble Amyloidogenic Light Chains. Maritan M, et al. **J Mol Biol.** 2020. doi: 10.1016/j.jmb.2019.12.015
- Cryo-EM structure of cardiac amyloid fibrils from an immunoglobulin light chain AL amyloidosis patient. Swuec P, et al. **Nat Commun.** 2019. doi: 10.1038/s41467-019-09133-w