



### Project coordinator

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## AMYLOID PEPTIDE GRAFTED TO NANOPARTICLE FOR AMYLOIDOSIS DIAGNOSIS

### Acronym

Dia-Amyl

### Project partners

- Olivier Tillement | Laboratoire de Physico-Chimie des Matériaux Luminescents | Université Claude Bernard Lyon 1 Lyon | France
- Cédric Louis | Nano-H S.A.S. | Saint Quentin Fallavier | France
- Mireille Dumoulin | Centre d'Ingénierie des protéines | Université de Liège, Institut de Chimie | Liège | Belgium
- Xavier Montet & Eric Allémann | Université de Genève | Geneva | Switzerland

### Abstract

Amyloidoses remain a considerable clinical challenge. Due to their numerous forms and their involvement in different organs and tissues, they are often misdiagnosed or diagnosed too late for an effective therapy. The project will focus on transthyretin, which is associated with familial amyloidotic polyneuropathy I, and on islet amyloid polypeptide, which is associated with type-II diabetes. The aim of this project is a proof of concept, consisting in the development and the validation of innovative nanoparticles with multifunctional properties for the amyloidose diagnosis by various imagery methods such as Magnetic Resonance Imagery or PET-Scan. The final objective is to extract a general concept for targeting amyloid deposits, enabling a diagnosis at the early stages of amyloidose development. Hopefully, this will significantly increase the therapy efficiency.

