



## Universal Nano-enhancer for a new multiplexing Surface Plasmon Resonance Imaging analysis of miRNAs in Multiple Sclerosis

**Acronym:** NanoPlasmiRNA

**Coordinator:** Renzo Vanna, Laboratory of Nanomedicine and Clinical Biophotonics (LABION), Fondazione Don Carlo Gnocchi - Research Hospital, Italy; rvanna@dongnocchi.it

**Partners:** Jesús M de la Fuente, Aija Linē, Dev Arya



“Develop a nanotechnology-enhanced surface plasmon resonance imaging method in Multiple Sclerosis”

Multiple Sclerosis (MS) monitoring and treatments are currently based solely on subjective and scarcely predictive analyses such as MRI and clinical assessment. The use of biomarkers circulating in blood would certainly improve the management of this disease. MicroRNAs (miRNAs) could be promising biomarkers but, at the same time, the validation and the clinical use of miRNAs are hampered by the limited availability of appropriate analytical technologies. The aim of this project is to develop a nanotechnology-enhanced surface plasmon resonance imaging (SPRi)-based method of facilitating more effective analysis of miRNA biomarkers, and demonstrate its use in MS.

