

<b>Name</b> Participants of WG3	<b>Noemi Rotllan Vila</b>
Affiliation	Principle Investigator at Pathophysiology of lipid-related diseases group at Biomedical Research Institute Sant Pau (IIB-Sant Pau)
Scientific expertise, up to 5 key words	miRNAs, atherosclerosis and lipid metabolism
Motivation for participation in WG3	It is well known that NRF2 is a mediator of cellular response to oxidized phospholipids that represents a hallmark of lipid load and inflammatory microenvironment of the atherosclerotic plaques. Moreover, oxidized phospholipids and miRNAs are recognized to play an important role in the three main cells (endothelial, macrophages and vascular smooth muscle cells) driving atherosclerosis. It might be interesting the mechanisms of action of miRNAs in the regulation of NRF2 activity, since a tight control of NRF2 expression and activity is essential. Interestingly, NRF2 itself has been identified as a regulator of miRNAs. Thus, NRF2 pathway might be a promising target for the prevention of atherosclerosis
Short narrative biosketch, including scientific background/ education/major achievements etc.	My training and background has provided me with extensive experience and immersion in the fields of lipid metabolism and vascular biology. I did my postdoctoral training at New York University (Fulbright fellowship). As an independent investigator at Yale, my research focuses on the identification and characterization of novel mechanisms by which cholesterol and lipoprotein metabolism are regulated in order to develop therapeutic approaches to treat cardiovascular diseases, specifically studying the role of miRNAs in regulating lipoprotein metabolism and the progression of atherosclerosis. In May 2019, I joined IIB-Sant Pau as a Principle Investigator with the prestigious Ramón y Cajal programme. Currently, my work is focus into the understanding the role of microRNAs in hyperhomocysteinemia related atherosclerosis and to use an innovative therapeutic approach for targeting miRNAs in an "in vivo" mice model in order to shed insights into their roles as potential therapeutic targets.
Current research topics/ongoing projects	<ul style="list-style-type: none"> <li>Investigate the role of new microRNAs in hiperhomocysteinemia related atherosclerosis</li> <li>Use an innovative therapeutic approach for targeting miRNAs in vivo using a pH Low-Insertion Peptide (pHLIP) as well the using of rHDL.</li> </ul>
Nfr2-related methodologies/ infrastructure/ equipment	Unfortunately no experience with Nfr2
Available sample collections/datasets; interested in sharing; yes/no	I do not have samples or datasets
Available cohorts/ ongoing/planned human studies/grant applications	NA

Interested in STSM: outgoing/hosting (year 1/later); yes/no	I might be interested in both
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