



**INGE KÜHL**

*From France to Sweden*



Project: **Post-translational modifications in the regulation of mitochondrial DNA gene expression**

Research topic: **Biology**

Swedish Institution: **Karolinska Institutet**

French Institution: **Institut de Biologie Intégrative de la Cellule**

Dates of mobility: **01/04/2019 to 13/04/2019**

Program: **SFVE-A (ex TOR)**



## PRESENTATION

[Inge Kühl](#) is a Research Associate in the Department of Cell Biology at [Institut de Biologie intégrative de la Cellule \(CNRS\)](#). Her research focuses on deciphering the role of post-translational modifications in the regulation of mitochondrial DNA gene expression. Dysfunction of the mitochondrial OXPHOS (oxidative phosphorylation) system is a major cause of human disease, such as neurodegenerative and metabolic disorders like Parkinson's and Alzheimer's Disease, Type 2 Diabetes, and is linked to the aging process itself. Understanding the molecular function of mitochondrial phosphorylation is thus essential for a variety of complex human diseases.

## ACTIVITIES IN SWEDEN

Inge Kühl's stay in Sweden aimed to strengthen an already established research collaboration with [Prof. Nils-Göran Larsson's group](#) at the [Department of Medical Biochemistry and Biophysics](#) at [Karolinska Institutet](#), a world leading laboratory in the field of mitochondrial biology. They did comparative analyses of the mitochondrial proteomes with severe OXPHOS dysfunction. The latest outcome of her collaboration with Prof. Larsson, published in [eLife](#), was very well received in the field, and they planned to collaborate on a follow-up study, aiming at identifying the mitochondrial phosphor-proteome and its role for mitochondrial function.

The SFVE-A (ex TOR) mobility program was also the opportunity to meet [Dr. Akos Vegvari](#), the head of the proteomics facility at Karolinska Institutet, an expert in the field of mass spectrometry and post-translational modifications.

During her visit, she received experimental training, got valuable input on her data from experts in the field, discussed the data produced by fellow researchers in the frame of their research collaboration, and did some experiments she wouldn't have been able to perform at her laboratory in France.