



**PATRICIA RENESTO**

*From France to Sweden*



Project: **Proteins involved in the virulence and antibiotic resistance of *Francisella tularensis***

Research topic: **Medecine & Health**

Swedish Institution: **University of Umeå**

French Institution: **University of Grenoble**

Dates of mobility: **21/03/2017 to 25/03/2017**

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

## PRESENTATION

[Patricia Renesto](#) is a [CNRS](#) (French National Centre for Scientific Research) Director of Research and Co-head of the *Francisella* team of the [TIMC](#) (Translational Health Research Laboratory) and [IMAG](#) (Informatics Laboratory) at the [Faculty of Medicine](#) of the [University of Grenoble](#). She obtained her PhD in 1992 from [University Paris 7](#) and was habilitated in 1998 at the [Institut Pasteur Paris](#), where her research started at the Molecular Microbial Pathogeny Unit under [Prof. Philippe Sansonetti](#), where she acquired essential expertise in post-genomic analysis of several intracellular pathogens. Her current research focuses the resistance of pathogenicity of *Francisella*, a gram-negative, facultative intracellular bacterium responsible for tularaemia.

## ACTIVITIES IN SWEDEN

The main objective of this mobility were discussions with [Prof. Anders Sjöstedt](#) and his team at the [Department of Clinical Microbiology](#) at the [University of Umeå](#), including among others [Helena Lindgren](#), [Jeanette Bröms](#), [Igor Golovlev](#) and [Athar Alam](#), for whom she also held an informal seminar. They share a common interest for the complex bacterial group *Francisella* and resistance towards these bacteria and antibiotics. They visited the Umeå Centre for Electron Microscopy (UCEM) and the Laboratories of [Biochemistry](#), including the [Clinical Chemistry](#) Laboratory, where they manipulate highly virulent bacteria and virus, and against which they are developing a vaccine. Sjöstedt's team are also working on inflammasomes, collaborating with the French researcher [Thomas Henry](#) (Centre International de Recherche en Infectiologie [CIRI](#), Lyon).

Renesto also presented the results of recent experiments with a vaccine strain of *F. tularensis* underlining the incidence of a new protein FupA/B demonstrating bacterial resistance involving biofilm formation. They aim to verify related hypotheses by various experiments with complementary data and

biological substances from the two teams that will be transferred between the laboratories (e.g., antibodies and various mutants) to advance the development of a vaccine against tularaemia.