



REN XIAOYUAN

From Sweden to France



Project: **The role of RdCVFL as a thioredoxin protein**

Research topic: **Biology**

Swedish Institution: **Karolinska Institutet**

French Institution: **Institut de la Vision, INSERM, Sorbonne University**

Dates of mobility: **09/05/2022 to 25/05/2022**

Program: **SFVE-A (ex FRÖ)**



PRESENTATION

[Ren Xiaoyuan](#) is a researcher at [Karolinska Institutet](#). His research focuses on biochemistry and redox biology. He also studies the roles of cellular antioxidant systems in different diseases, such as cancer and Alzheimer's disease. More specifically, he has been working on the functions of thioredoxin proteins regarding retinitis pigmentosa, an inherited retinal degenerative disease affecting more than 1.5 million people worldwide which ultimately induce blindness. Caused by various gene mutations, there is no effective treatment yet.

ACTIVITIES IN FRANCE

During his stay, Ren Xiaoyuan visited [Dr. Léveillard](#)'s lab at [Institut de la Vision](#) (Paris), a leading research organization for vision and eye diseases, to pursue a previous collaboration between Sweden and France and, more specifically, to study the role of RdCVFL in retina and its exact biological roles. The research topics at Institut de la Vision cover retina degeneration, gene therapy for vision diseases and vision optics, a stimulating environment that helped widen Ren Xiaoyuan's knowledge regarding vision and eyes. His stay also gave him the opportunity to discover the unique techniques for vision research used at the Institut, such as Electroretinography (ERG) or primary cell culture of retinal pigment epithelium cells.

With Dr. Léveillard, they developed a potential project to study the role of RdCVFL as a thioredoxin protein in defending retina from oxidative stress. Their plan is to utilize the expertise from both French and Swedish sites: RdCVFL protein will be expressed and studied in redox system at Karolinska Institutet while also at Institut de la Vision.