SUCCESS STORY

CNVIMPACTGEXP / Deep Surveying of CNV Impact on Mouse Transcriptome Complexity and Regulation
Research area : FP7 – People / Marie Curie Action
Start date – End date : 2010-06-01 to 2012-10-31

Duration : 24 months
Funding : € 180 470
Host Institution : University of Lausanne (UNIL)
Type of contract : Intra-European Fellowship (IEF)

EMILIE AIT YAHYA GRAISON

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IN THE COMPLEX WORLD OF GENES

Doctor in biotechnology and researcher at the Centre for integrative genomics at UNIL, Emilie Ait Yahya Graison was granted a Marie Curie postdoctoral Intra-European fellowship (IEF) for her research project named *"Deep Surveying of CNV Impact on Mouse Transcriptome Complexity and Regulation"*.

What is this Marie Curie scholarship and what does it represent for you ?

This European Union financing aims at fostering the mobility of researchers. It's an excellent stepping stone to the start of a career. It allows us to work serenely for two years with a salary which is adapted to our family situations, such as childcare costs. It takes into account our future, because it is possible to apply for a scholarship allowing us to go back to our country of origin. But this time is still a long way off for me.

What is the subject of your research ?

My research is centred on a complex genetic phenomenon, the CNV (copy number variants). The discovery of CNV highlighted the fact that the human genome varies more than we thought from one individual to the next. It seems our chromosomes harbour approximately 1500 CNV regions, and that these account for more than 10% of the human genome. If this variation in the number of copies contributes to the variability between individuals, it would then also confer a different susceptibility to certain diseases, such as cancer and autism.

What is the goal of your work ?

My work aims at understanding the impact of CNV on the expression of genes on different lineages of pure strain mice. The gene expression study was made easier thanks to an emerging technology based on locating RNA in a cell : high-throughput sequencing. It is this tool, which was then already widely used at UNIL that encouraged me to come to Switzerland.

"We are involved with such energy when we lead a project that we want to go all the way."

ABOUT THE PROJECT

Emilie Ait Yahya Graison's fellowship is endowed with more than € 180 000.
Under the responsibility of Prof. Alexandre Reymond, the young researcher works on the copy number variations of DNA segments thrown into relief. Objectives of her work : delivering of a global and precise vision of the transcriptome of the mouse, producing of the first comparison of transcriptome at the nucleotide level of normal individuals over a given population, helping to evaluate the influence of CNV on the transcriptome.

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