

Report ISFG Short Term Fellowships 2019

Applicant: Julyana da Silva Varela Ribeiro, PhD student at Universidade do Estado do Rio de Janeiro, Laboratório de Diagnóstico por DNA (LDD). Research visit to i3S (– Instituto de Investigação e Inovação em Saúde, Universidade do Porto, Porto) and IPATIMUP (Institute of Molecular Pathology and Immunology of the University of Porto), from September 28th 2021 to December 7th 2021, under the supervision of Doctor Verónica Gomes.

The main purpose of this research travel was to give continuity of the collaboration project between Forensic Genetics Laboratory of the LDD-UERJ and IPATIMUP /i3S, concerning the study of male lineages on South American populations.

As for most South American populations, it is possible to observe different patterns of admixture in Ecuador, which vary according to the geography, climate and economy of the different continental regions. In Ecuador, Mestizos is the main representative ethnic group, followed by Native Americans and Afro-descendants. Due to the high Ecuadorian genetic complexity, it is very important to increase the knowledge of this population through exploring its genetic composition.

During the visit, 200 samples from Ecuador were genotyped for Y chromosome markers, using the routine methods available in Population Genetics and Evolution group from IPATIMUP /i3S. Moreover, this stay allowed me to acquire knowledge on the development of multiplexes for the Y-SNP genotyping.

The data obtained has been analyzed in a collaborative way, since the team from Porto, Portugal, has significant experience in this type of genetic markers studies. Furthermore, the results will be published and will contribute to databases updating with Y chromosome haplotypes representative of populations in South America, which can be used as a reference in forensic and population genetic studies.

The ISFG Short-Term Fellowship gave me the opportunity to increase my knowledge in experimental work and for training in typing Y-STRs and Y-SNPs, as well as to expand and strengthen collaborations between professionals from IPATIMUP /i3S and LDD-UERJ.

In conclusion, I am sure that the financial support provided by the ISFG Short-Term Fellowship has contributed to growth my research experience and to the development of current and future collaborations between our institutions.

Julyana Ribeiro.