

REPORT

During my ISFG short term fellowship, I stayed two weeks at the Laboratory of Identification by DNA of the State University of Rio de Janeiro (Universidade Estadual do Rio de Janeiro), where I've been hosted by Dr. Leonor Gusmão. She gave me theoretical training and advice for continuing with two projects that are being conducted under my responsibility at the Laboratory of Genetic Diversity of IMBICE (La Plata, Argentina) where I do my research activities.

Concerning a project about genetic determination of hair color, Dr. Gusmão and I investigated about the markers that are important to include in the analysis in order to get a better power of prediction of hair color from the genetic information of individuals. Thus far, the SNPs that are under analysis at my laboratory are the following:

Gene MC1R: rs11547464, rs885479, rs1805008, rs1805005, rs1805006, rs1805007, rs1805009, rs201326893, rs2228479, rs1110400.

Gene SLC45A2: rs28777

Gene TYR: rs1042602, and rs1393350

Gene TYRP1: rs683

Gene OCA2: rs1800407

Gene HERC2: rs12913832

Gene PIGU: rs2378249

As some other SNPs and genes are also considered in different reports (Hysi et al. 2018, Andersen et al. 2020), we selected among them those with the strongest influence in the determination of hair color to be included in the near future in our routine: rs16891982, rs12203592, rs2402130, rs2378249, rs2402130, rs2378249, and rs12821256. We then talked about different techniques for obtaining that data (SNAP Shot, Sanger sequencing, NGS sequencing) and about the technical and economical requirements for performing them.

On the other hand, we were discussing about the better way to process data of a set of 33 X-chromosome indels that were genotyped at my laboratory for two populations from Argentina. We analyzed the way to select populations for making comparisons, and how to interpret some output information that is provided by the programs Arlequin and Structure for population genetics analysis. Once the data is analyzed, I intend to get the results published in a scientific journal.

Finally, I would like to highlight the kindness and good disposition of Dr. Gusmão and her team to make the most of my stay during my fellowship.

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