

Peter M. Schneider ISFG Fellowship 2024

Applicant: Dr. Natasha Arora

Forensic Genetics Group, Zurich Institute of Forensic Medicine, University of Zurich

Host Institution: FISABIO, Valencia, Spain

Duration: May 10th - June 10th, 2024

Short Report: Research Visit to FISABIO

Dear ISFG Fellowship Board,

I am deeply grateful to the ISFG Fellowship Board for the opportunity to carry out a research visit FISABIO in Valencia, Spain, from May 10th to June 10th, 2024. This visit provided allowed me to gain deeper insights into advanced sequencing technologies and computational statistical methods, specifically in the context of forensic biological evidence analysis.

During my stay at FISABIO, I engaged with numerous scientists who are at the forefront of applying state-of-the-art sequencing technologies for both clinical and forensic purposes. This experience allowed me to obtain a more comprehensive understanding of the interconnected challenges faced in applying novel technologies. My training was particularly focused on the utilization of advanced sequencing technologies such as PacBio and MinION. I actively participated in lab meetings, seminars, and discussions, and had the opportunity to learn from the technical staff responsible for the laboratory workflows and their optimisation. I continue to exchange information with the technical staff in order to establish workflows in our lab.

Moreover, during my stay I also engaged with the bioinformatics team to explore their data processing pipelines, learning of their novel statistical methods for classification problems. We have set up a collaboration in order to explore the accuracy of their approaches for body site classification, which will be instrumental in my ongoing research. A significant highlight of my visit was the mini-symposium organized by Prof. González, which included researchers from both FISABIO and some members of our group at the Department of Forensic Genetics in Zurich. This symposium facilitated a productive exchange of knowledge and fostered dialogue on our respective research methods and findings.

I am very grateful to the ISFG Fellowship Board for their support and to the team at FISABIO for their guidance and hospitality throughout my visit. This exchange has been a profoundly enriching experience, facilitating workflow establishment in our group, and providing with new collaborations as well as inspiration for my own research.

Dr. Natasha Arora

Forensic Genetics Group

Zurich Institute of Forensic Medicine

University of Zurich