

## **The genomics facility of iBiMED – bioinformatics lab**

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The Genomics facility of iBiMED (iBiGEN), provides genomics services, including bioinformatics and statistical analysis to iBiMED researchers, and to external users. Since our start, in 2018, the bioinformatic lab have carried out 52 studies at a genomic scale, including de novo genome sequencing with variant detection (SNPs, indels, CNVs, LOH), whole exome or gene panel sequencing, RNA sequencing analysis (total RNA, mRNA, small RNA, LncRNA), as well as DNA microarrays for cohort genotyping in populational studies and gene expression assessment. During the COVID-19 pandemics, iBiGEN joined the national effort to monitor SARS-COV2 genomic variants and have analyzed 1121 samples through genome sequencing and variant detection. As part of iBiGEN, the Bioinformatics laboratory is equipped with 16 desktops (for resident and temporary users), one server and one cluster for storage and high-level processing. It gathers a team composed of one senior bioinformatician, one bioinformatic technician, two PostDocs and five PhD students. The data-analysis workflows implemented use open-source programs automatized with house-made scripts of several coding languages (bash, Python and R). The workflows are based on state-of-the-art methods and support different data types, formats, origins, and reference organisms.

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