Laboratorios
Larrasa

One test, twelve studies

Personalised medicine and whole genome sequencing: Cutting-edge medicine at your fingertips.

Personalised medicine is an innovative approach that recognises that **each individual is unique** and therefore so are their healthcare needs. Rather than applying general treatments to broad groups of patients, personalised medicine tailors therapeutic and diagnostic approaches to the genetic, molecular and personal characteristics of each patient. Thanks to **whole genome sequencing**, we are able to identify and analyse all the genes present in an individual's DNA.

With our personalised medicine service you will offer a **unique and tailor-made service for each patient or healthy individual.** Through whole genome sequencing, each of the medical areas in which the patient is interested can be studied, anticipating the appearence of possible genetic diseases within each area.

Between 15-20% of the population carry pathogenic variants associated with disease risk

About 5% of patients are hospitalised for adverse drug reactions

Approximately 20% of sudden cardiac deaths are caused by genetic defects

About 20% of cancer cases are of genetic origin and are related to hereditary factors

Why is it important for my patients?

Personalised medicine and whole genome sequencing offer a number of significant benefits for patients, improving both their quality of life and their healthcare experience. It also enables medical professionals to provide more effective and patient-centred care.

Personalisation of treatments
By identifying a patient's unique responses to medicines, we achieve more effective and personalised treatments.

Accurate diagnostics
By detecting disease-specific genetic risks at an early stage, we can increase the effectiveness of treatment and gain a better long-term perspective.

Disease prevention
In the case of a family history of hereditary diseases, we can anticipate the onset of diseases. This not only reduces the impact of the disease, but also allows preventive measures to be taken.

Advances in Medical Research
Whole genome sequencing makes it possible to identify new genetic variants and their relationship with diseases, fostering the discovery of underlying causes of rare and complex diseases.

Clinical examples

Personalised medicine and whole genome sequencing have significantly improved diagnostics, treatments and clinical outcomes, making a real impact on patient's quality of life.

Sick patients: to establish precise causes, adapt treatments and dosages, increase efficacy and reduce adverse effects.

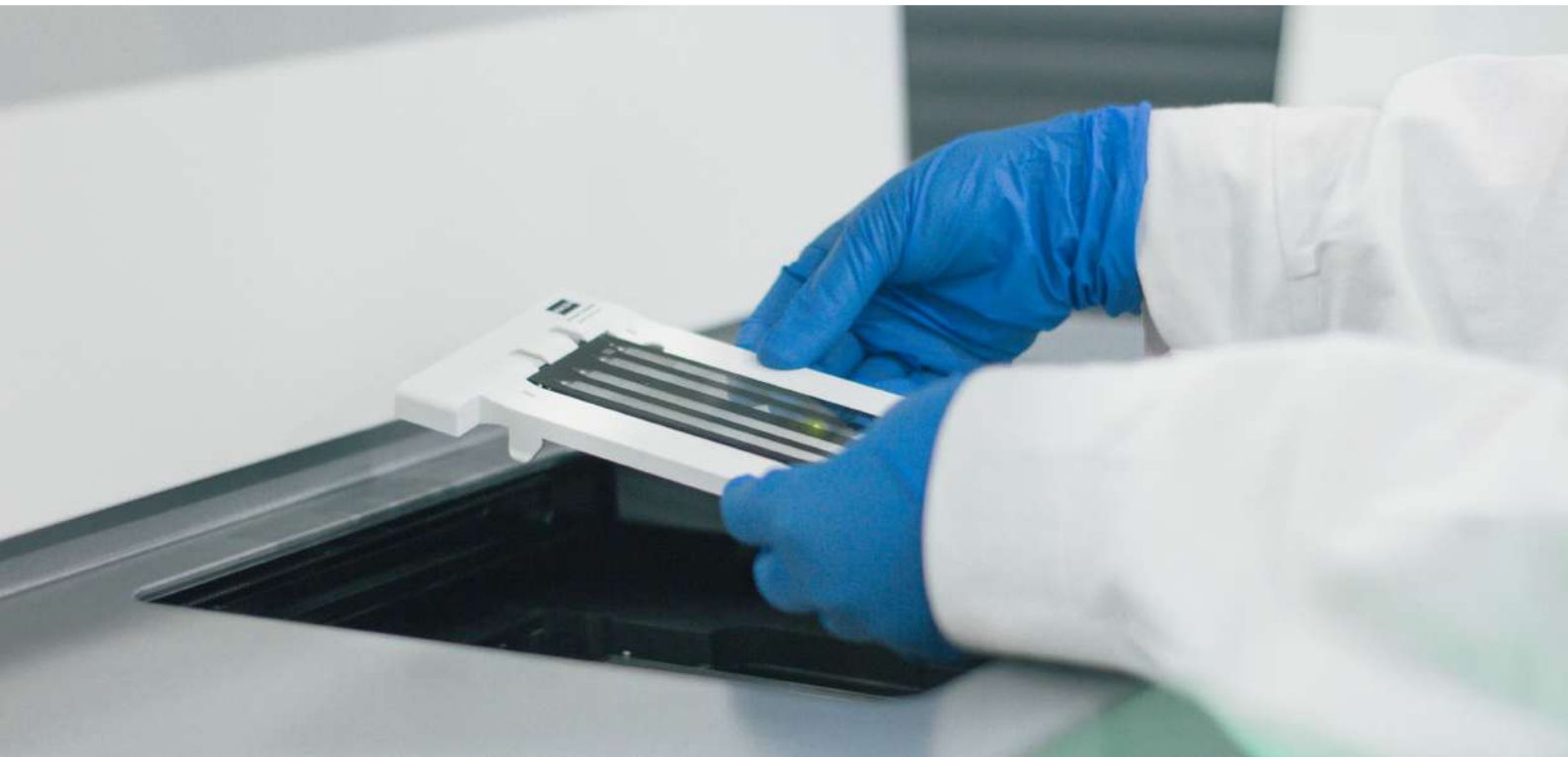
Healthy patients with a family history: anticipating diseases enables early diagnosis and minimises impacts.

Healthy patients of childbearing age: the identification of genetic variants helps to take preventive measures against their transmission to offspring.

Newborns: detect genetic conditions early, preventing future complications.

Technical Information

- A saliva sample is used for whole genome sequencing.
- We use the most advanced technologies, such as the NGS NovaSeq 6000 and Bioinformatics Analysis.
- WGS, with Illumina technology, allows us to provide the most complete and highly accurate information on the market.
- With an average coverage of 50x and an average of 95% in regions with a coverage of more than 20x, the results are reliable and sensitive.



Apply genetics to your clinical speciality

By implementing personalised medicine in clinical practice, your medical centre can **expand** and **differentiate its services,** standing out through the application of comprehensive medical advances.

Whole genome sequencing can be performed **before or during the diagnostic process,** depending on the patient's needs. In cases of rare or complex diseases, it can be an initial tool for a more accurate diagnosis. Results will be available withing 8 weeks, but this may vary depending on the complexity of the sample and types of study.

For professionals who are not specialised in genetic, our laboratory will asign a **genetics expert** based on the patient's location. Once the results are obtained, the patient will be able to schedule an appointment to discuss the findings and establish next steps.

Incorporating whole genome sequencing into the clinical workflow **does not require a significant investment of time and effort.** In the case of specialist, two genetic counselling consultations (one before and one after sequencing) may be sufficient. For other medical professionals, referral to the laboratory is a straightforward process.

As healthcare professionals, our goal is to provide care that is as unique as each of our patients.

Keeping up to date and adapting to scientific and technological developments is essential. The genome does not change, but the information we know about it does. A variant not initially classified as pathogenic may withing two or three years be found to be linked to the development of a disease.

Based on a person's **genetic, lifestyle** and **individual characteristics**, personalised medicine represents a significant advance in our ability to provide more precise healthcare tailored to each patien's needs.

This approach goes beyond generic solutions to provide personalised care that improves clinical outcomes and strengthens the **doctor-patient relationship** by demostrating a commitment to individual healt and wellbeing.

Empowering lives

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