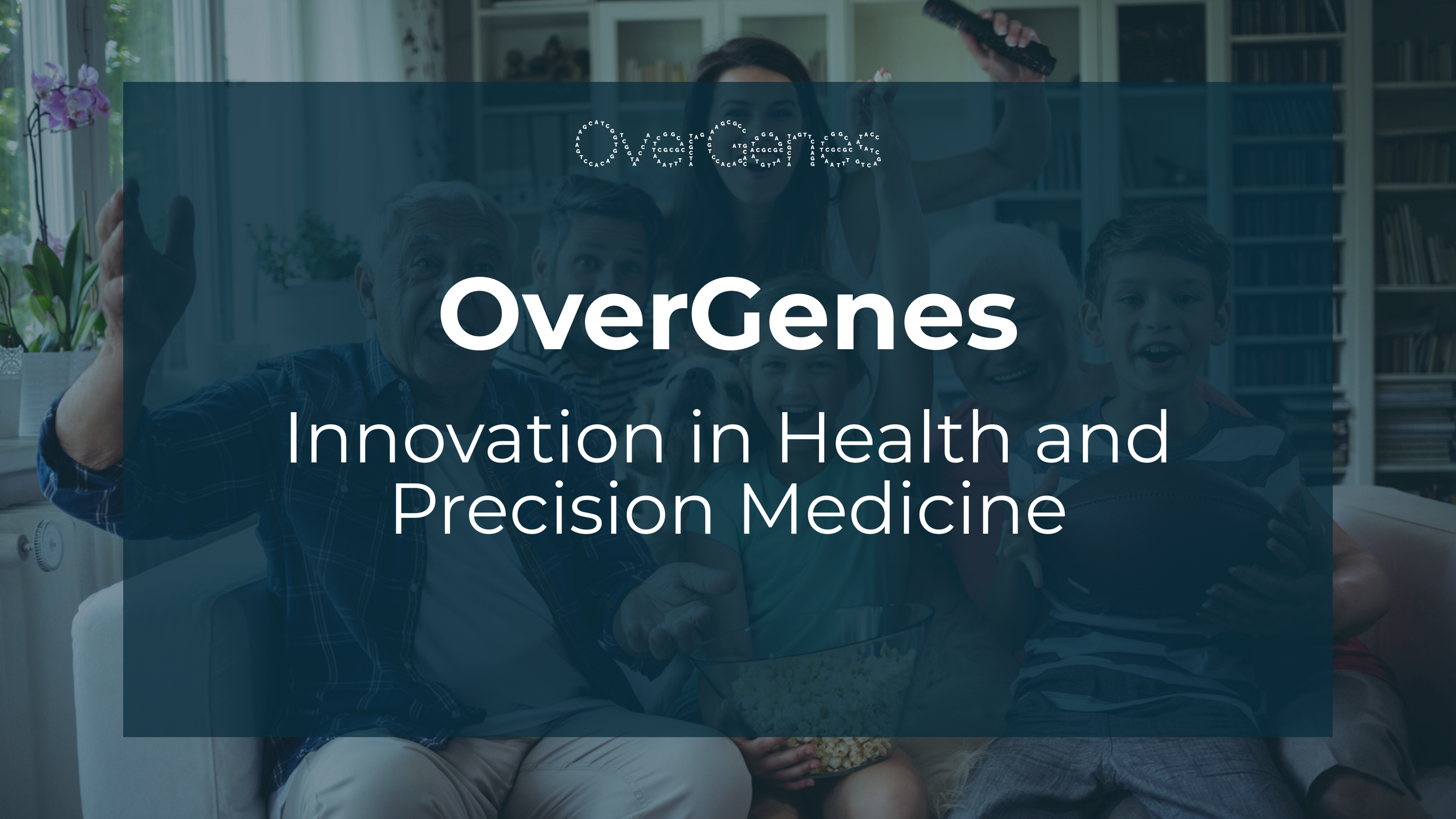


OverGenes

Innovation in Health and Precision Medicine



ABOUT US

OVERGENES

Overgenes is a biotechnology company founded in 2017, headquartered in the Science Park of the University of Valencia. It is part of the Sabartech Group (2016), which specializes in precision medicine.

With its own technology and a pioneering approach, it has developed a portfolio of highly accurate genetic tests. Furthermore, it leads the development of Multiscale Genetic Algorithms, which integrate genetics, microbiota, epigenetics, and other biomarkers using Artificial Intelligence.

Its mission is to bring the latest advances in preventive and personalized health to professionals and patients, with products of high scientific validity and clinical applicability.

IN-HOUSE TECHNOLOGY

Automated Intelligence Genetics- AIG

Overgenes has developed AIG, a disruptive technology based on Artificial Intelligence that integrates data mining and machine learning tools to establish genetic patterns in different diseases.

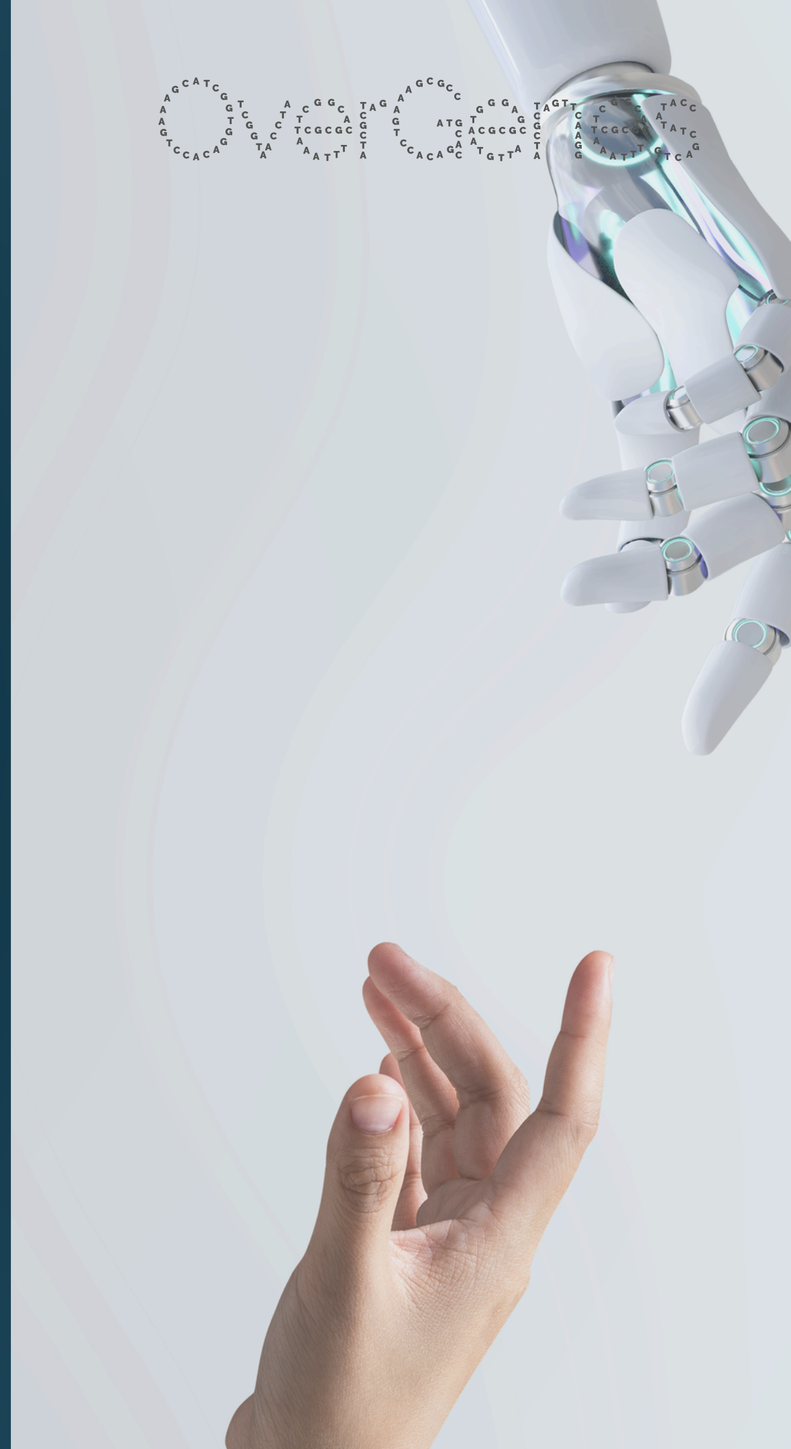
It is based on the following modules:



1. **Text mining**
2. **Multigenic risk**
3. **Bioscore multiscale**
4. **Machine Learning e Inteligencia Artificial**

AIG integrates different layers of data (genetics, epigenetics, microbiota, biomarkers, anthropometric, clinical, demographic and lifestyle information) into a multiscale algorithm capable of predicting risk, impact and response to various pathologies.

In this way, Overgenes brings genomics closer to clinical actionability.





COLLABORATIONS

Overgenes is part of an active collaborative network with universities, research centers and hospitals, which promotes innovation and scientific excellence.

We work together with leading institutions to:

- To validate and continuously improve our products and technologies.
- Participate in translational and clinical research projects.
- Facilitating the transfer of knowledge between academia and industry.
- Develop precision medicine solutions applicable to different pathologies.

These alliances strengthen our commitment to preventive and personalized health, guaranteeing the quality and scientific relevance of our genetic tests and biomarkers.

VNIVERSITAT DE VALÈNCIA

UNIVERSITAT POLITÈCNICA DE VALÈNCIA

UAM Universidad Autónoma de Madrid

UCAM Universidad Católica de Murcia

UBA Universidad de Buenos Aires

Fundació Fisabio

Instituto de Investigación Sanitaria La Fe

ribera SALUD RESPONSABLE

HOSPITAL DE LA SANTA CREU I SANT PAU UNIVERSITAT AUTÒNOMA DE BARCELONA

Clínic Barcelona

Hospital del Mar Barcelona

R&D PROJECTS

Overgenes and its parent company Sabartech have eight ongoing research projects, both individually and in consortium with various institutions.

As an example, let's highlight some of the projects:

Fragility Projects: SARCORISK, LEGTECH, FRAGILTECH and SARCOTECH
These four projects have generated a consortium between Sabartech, the Autonomous University of Madrid, the University of Valencia and the FISABIO Foundation for research into a line of aging related to geriatric motor dysfunctions (sarcopenia, frailty and functional deterioration of the lower limbs).

Active and Healthy Aging Projects: SENIOR HEALTH 6P
This project aims to develop a multi-scale digital biobank of health data for older adults in the Mediterranean region to continuously improve the diagnosis and study of healthy aging. The consortium involved includes Overgenes, the Cofrentes Spa, the FISABIO Foundation, the Autonomous University of Madrid, and the University of Valencia.

Sports Performance Projects: iSPORTS-PRO GENETICS 6P
Multiscale integration of the genome, microbiome, and biosignals to optimize physical performance and well-being in athletes. The consortium is formed by Overgenes and the company DAWAKO.

Commitment to Quality

- License for manufacturers of medical devices, guaranteeing development, production and marketing processes under international quality standards.
- Accredited as importers of health products and biological samples, guaranteeing safety and full compliance with current regulations.
- Currently implementing ISO 13485 (Quality Management in Medical Devices).
- Committed to European CE-IVDR conformity to guarantee the safety, efficacy and traceability of our products.

MINISTERIO DE SANIDAD

International Organization for Standardization
ISO
13485
Quality Management System

CE
IVD

PRODUCTS AND SERVICES

Overgenes offers solutions based on key areas of precision medicine and backed by the highest scientific validity, providing accurate and actionable information to improve diagnosis and treatment.

Genetics 

Tests that, individually or in combination, allow the identification of predisposition to diseases, optimize treatments, and personalize specific recommendations for each individual and objective.

Microbiota 

Advanced analysis of the gut microbiome using metagenomics to assess not only its composition, but also its functionality, allowing the identification of metabolic pathways, key genes and their impact on protection or risk against the development of diseases.

Epigenetics 

Assessment of biological age and the impact of lifestyle on gene expression, with personalized improvement plans.

ACTIONABLE GENETICS



Nutrition

Nutrigenetic testing that allows personalized nutritional plans for each patient based on their needs and goals



Supplements and Vitamins

Genetic study to understand the effectiveness and benefits provided by supplements and vitamins on the most important physiological processes



Sports performance

Genetic profile related to nutrition, athletic performance, predisposition to injury, and recovery



Liver detoxification

It analyzes 758 markers from 57 genes in phases I and II of liver detoxification to assess the ability to eliminate toxins and the genetic response to food and drugs.



Estrogens

It evaluates the activity of liver enzymes to process and eliminate estrogen, and neutralize toxic compounds derived from its metabolism.

ACTIONABLE GENETICS



Inflammation and Oxidative Stress

It analyzes genetic variants that modulate inflammation and the risk of chronic diseases such as cardiovascular disease, type 2 diabetes, autoimmune diseases, etc.



Neurotransmitters

It analyzes genetic variants related to biological processes that influence brain function and mood.



Folate

Evaluate genetic variants of the folate metabolic pathway to detect possible deficiencies and define the most appropriate strategy to correct them.



Healthy aging

Evaluate genetic markers associated with aging to design personalized strategies that promote longevity and health.

PRECISION GENETICS



Food intolerances

It analyzes genetic markers associated with intolerance to **gluten, lactose, fructose and histamine, allowing for early diagnosis to prevent symptoms and reduce the impact of these intolerances.**



Pharmacogenetics

BASIC

Most common and widely used drugs

PAIN

Drugs for the treatment of pain

NEURO

Drugs related to mental health

ONCO

Drugs for cancer treatment

PREVENTIVE GENETICS



Cardiovascular

It analyzes genetic variants related to cardiovascular diseases, allowing prevention, diagnosis and personalized treatment in people at risk.



Diabetes

It detects genetic variants associated with type 2 diabetes and MODY, helping to identify predisposition, differentiate types, optimize treatment, and personalize habits to reduce their impact.



Cognitive Impairment

It analyzes genetic variants linked to Alzheimer's to detect predisposition and facilitate personalized and early prevention.



Sarcopenia

It detects genetic variants associated with accelerated loss of muscle mass and function, allowing the identification of a predisposition to sarcopenia and the personalization of habits to prevent or reduce its impact.

MICROBIOTA

It is an analysis that identifies all the microorganisms present in your gut (bacteria, archaea, fungi, viruses, parasites…) by directly reading their DNA.
Unlike more basic tests, this study analyzes the entire genome and not just fragments, allowing:

- Detect more species, even very rare ones
- Knowing what functions they perform, not just whether they are there
- To determine if pathogens, overgrowths, or probiotics are present
- Assessing your gut diversity, a key health marker

Innovation and technology

NexBiota is a clinical microbiota test based on metagenomics using nanopore sequencing (Oxford Nanopore Technologies), which allows for the direct analysis of DNA/RNA in real time. Thanks to its long readouts, it offers greater taxonomic accuracy at the species level and improved functional characterization by enabling the direct detection of entire genes.
The workflow prioritizes data quality and reliability, using highly restrictive filters and taxonomic assignment via ASV, which improves reproducibility and clinical accuracy compared to traditional approaches.
Functional analysis is based on the direct detection of genes, allowing the inference of relevant biological capabilities of the microbiome (metabolism, inflammation, resistance, functional pathways), providing high clinical value for the interpretation of dysbiosis, gastrointestinal disorders, therapeutic monitoring and personalized medicine.

EPIGENETICS

MyEpiAgeing measures biological age, which reflects the body's true state of health and aging, beyond chronological age. It analyzes epigenetic methylation patterns in the ELOVL2 gene, related to age in different tissues and populations.

This test allows you to know the individual rate of aging in order to make personalized health and wellness decisions.

Innovation and technology

From a saliva sample, DNA is extracted and processed to calculate biological age using advanced techniques (extraction with Chemagic™, NanoDrop quantification, bisulfite treatment and pyrosequencing), and analysis with predictive models.



CLINICAL APPLICABILITY

Our genetic, microbiota, and epigenetic analyses provide high-impact information related to patient health. This allows for improved prediction, diagnosis, and treatment accuracy for a wide range of conditions and diseases.

Among other advantages, our analyses allow:

- To diagnose the disease early
- Preventing the onset of diseases
- Predicting efficacy and adverse reactions to drug treatments
- Take personalized therapeutic actions
- Personalize nutrition and training plans

In addition, we offer a fully personalized interpretation service, providing clear and actionable recommendations tailored to each patient and healthcare professional.

This comprehensive approach ensures effective clinical decisions and tailored care plans.



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