



COMPREHENSIVE SOLUTIONS
FOR **GENOMIC ANALYSIS**
AND **GENETIC DIAGNOSIS**

ΔSCIRES
SISTEMAS
GENÓMICOS

WHAT IS Ascires Sistemas Genómicos?

*ASCIRES SISTEMAS GENÓMICOS IS THE
FIRST AND LARGEST SPANISH COMPANY
SPECIALISED IN GENETIC SEQUENCING WITH
NEARLY TWO DECADES OF EXPERIENCE IN
THE FIELD OF MOLECULAR BIOLOGY AND
GENETICS, SPECIALISING IN TECHNIQUES
AIMED AT HEALTH, AGRI-FOOD AND
RESEARCH.*



Internationally, it is the only company that is able to provide genetic analysis and diagnostic services in **all stages of the human life cycle**, working from gametes to embryos in the prenatal period, to the postnatal period and death.

A dedicated **interdisciplinary team of more than 100 professionals** together with **technological passion** and **big data** form the basis on which Ascires Sistemas Genómicos develops comprehensive ad hoc solutions. These elements are directed towards **the prediction, prevention and optimisation of early diagnoses and personalised medicine.**

The company creates **knowledge management** as a basis for innovation, organisational development and the genomics sector. In fact, in the past few years, on average **10% of turnover has been invested in R&D&I.** On these lines, for Ascires Sistemas Genómicos, the creation and transfer of knowledge and the development of scientific/medical tissue are two areas in which to continue advancing in diagnosis and individualised treatments.

Ascires Sistemas Genómicos has a **long history of pioneering research and studies.** In addition, it actively collaborates in numerous national and international R&D&I projects in order to place the **latest advances in genomics and genetics at the service of society and the medical and research community.**

Ascires Sistemas Genómicos is the genomics and genetics division of Ascires, a biomedical group with more than 50 years of experience in precision diagnosis through the specialisation and combination of two leading fields, diagnostic imaging and genetic diagnosis. Fields in which the biomedical group is a leader in Spain and an international benchmark.

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TIMELINE

2003
Establishment of the biomedical division

2005
Participation in the largest genome sequencing project carried out in Spain 'International Tomato Genome Sequencing Project'

2006
IVGEN Inaguration

2006
ISO9001 Certification for the Sanger sequencing units

2011
VENOMICS: FP7 project focused on the massive sequencing of toxins for the development of new drugs based on natural venoms

2014
GeneSystems launch, an innovative tool for NGS data analysis and interpretation

2014
CLIA-USA certificate obtained

2014
First product for diagnosis with CE marking (NGS kits)

2015
ISO 13485 certification for *in vitro* diagnosis medical devices manufacturing

2016
3 Horizon 2020 European research projects launched: GOODBERRY, DESIREE and LIQBIPSENS

2018
Preconception Focus Geneprofile

2019
Publication of cut points for FISH automated in sperm

2020
Preconception Optimized Geneprofile

1998
Creation of Sistemas Genómicos

2005
Merging with the Institute of Medical and Molecular Genetics (IGEM)

2006
New headquarters in Paterna (Valencia)

2006
ISO9001 certification for the pre-implantational genetic diagnosis unit

2011
LIFE project

2012
ISO15189 accreditation for the PGD unit

2013
FRAILOMIC: FP8 project focused on biomarkers of fragility at advanced age

2014
License for the manufacturing of sanitary products (NGS kits) granted by AEMPS

2014
First patent from LIFE project

2015
Extension of the scope of license for the manufacturing of sanitary products (bioinformatic analysis software) granted by AEMPS

2016
Ampliation of SG Baby Test Range launched of Advanced version

2018
First university specialization course in embryo biopsy

2019
Creation and Launch of GeneBytes

FEATURES

*LEADERS IN SPAIN, INTERNATIONAL
BENCHMARKS*

100 EXPERTS
highly qualified professionals

20 YEARS
of experience

INTERNATIONAL
capacity

REINVESTMENT 10%
of turnover in R&D&I

OVER 5,000
annual analyses

67,000
genes analysed

OVER 25 KITS
with CE marking

30 R&D&I
projects

AREAS OF ACTIVITY

ASCIRES SISTEMAS GENÓMICOS ORGANISES ITS SERVICES INTO SEVERAL AREAS WITH A SPECIALISATION IN TECHNIQUES AIMED AT HEALTH, AGRI-FOOD AND RESEARCH: SHAPING COMPLEX DATA INTO CLINICAL LANGUAGE OR PRACTICAL LANGUAGE IN THE CASE OF AGRI-FOOD.

AREAS OF ACTIVITY

BIOMEDICINE

Ascires Sistemas Genómicos specialises in the diagnosis of genetic diseases, a high percentage considered as "rare diseases". In addition, it studies the relationship between genotype and reproduction (reproductive genetics), the transmission of genetic material, epigenetic modifications and the effect of abnormalities in genetic material on reproduction, all under the strictest international ethical standards.

- Cytogenomics Unit
- Reproductive Genetics Unit
- Medical Genetics Unit

CYTOGENOMICS UNIT

It relies on the latest technology applied to pre- and postnatal diagnosis and is composed of sections adapted to each type of clinical context (cytogenetics, array-based and non-invasive prenatal screening).

The combination of the latest technology on the market and our ability to use different methodologies, types of culture and techniques allows Ascires Sistemas Genómicos to develop a great diversity of prenatal tests.

REPRODUCTIVE GENETICS UNIT

RGU adapts advances in genetics to reproductive medicine from a specialised, multidisciplinary perspective that incorporates clinical genetics, molecular genetics and embryology. The Unit performs genetic diagnostic services for IVF units in hospitals and clinics, as well as for specialist physicians (gynaecology, urology, obstetrics or paediatrics).

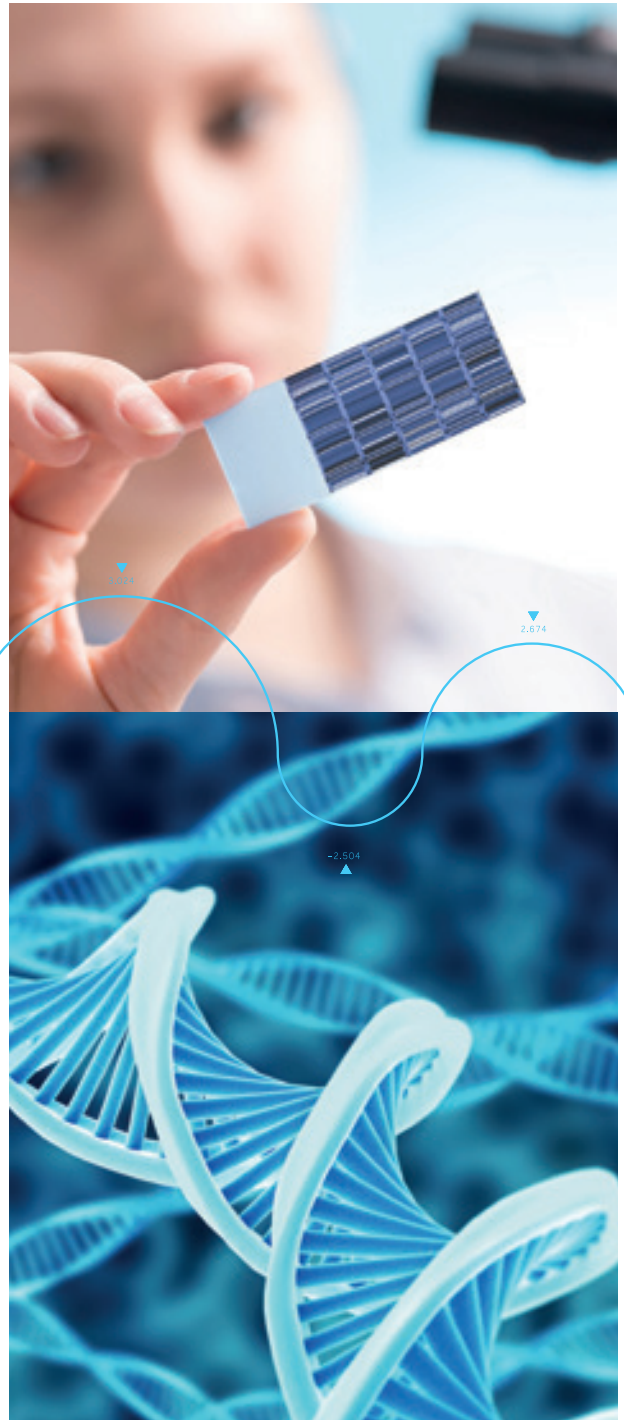
Pioneers in the certification of the Preimplantation Genetic Diagnosis service, Ascires Sistemas Genómicos has an expert team specialising in diagnosis – preimplantation, genetic causes of infertility, genetic screening of gamete and embryo donors – and genetic counselling.

MEDICAL GENETICS UNIT

MGU is a pioneering unit in massive sequencing diagnosis for heterogeneous genetic diseases. It is responsible for the clinical diagnosis, prognosis and new treatment models of genetic diseases through the application of various technologies for different medical specialties.

Ascires Sistemas Genómicos applies its know-how in genomics and genetics to daily medical practice. The multidisciplinary structure of the unit – genetics, medicine and bioinformatics – allows to offer the best technology for the diagnosis of each disease, using a range of simple and complex techniques.

Ascires Sistemas Genómicos offers more than 3,200 types of tests for diagnosing diseases with different technological protocols such as Sanger sequencing, fragment analysis and MLPA, and massive sequencing and bioinformatics protocols.





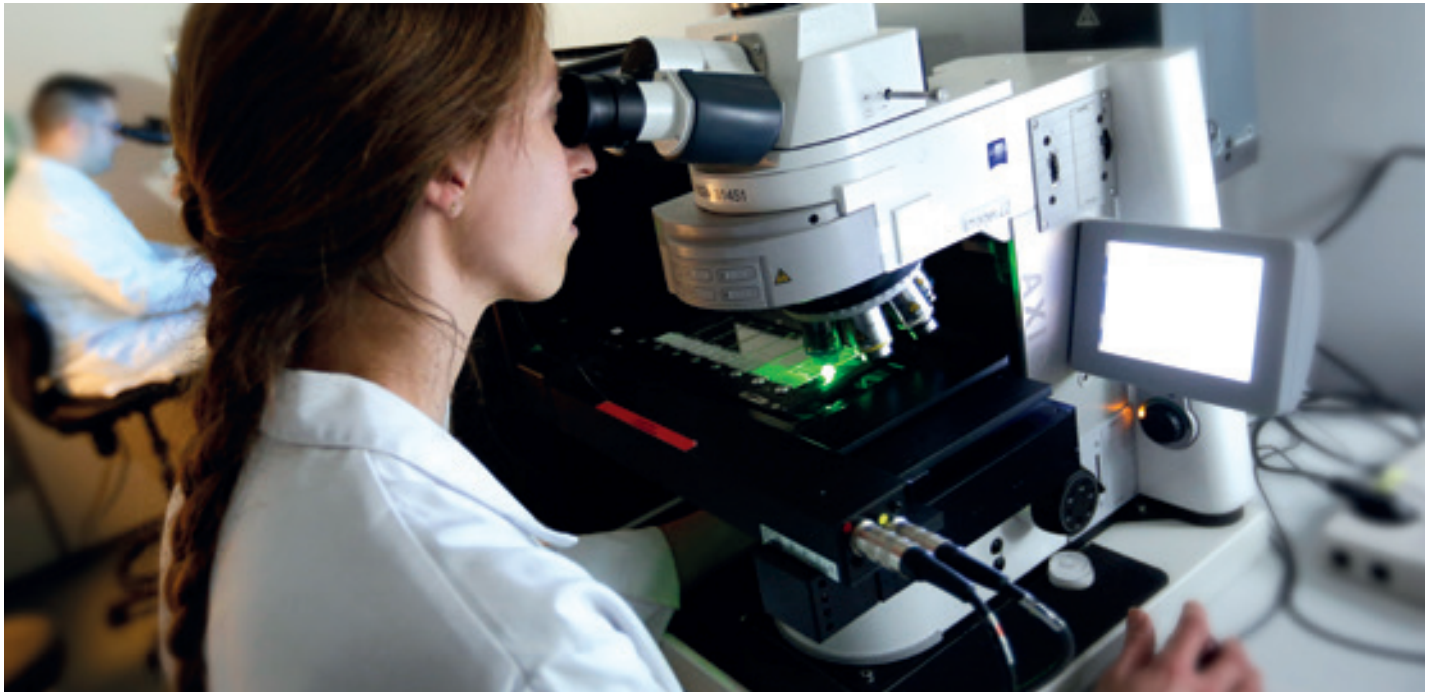
AREAS OF ACTIVITY

AGRI-FOOD AND NUTRIGENOMICS

Ascires Sistemas Genómicos' agri-food division also relies on an important technological base, from simpler molecular biology techniques to omic ones. Through this area, Ascires Sistemas Genómicos provides the industry with the necessary molecular tools with regard to the safety, authenticity and composition of food.

Ascires Sistemas Genómicos contributes with the latest analytical techniques to confirm the traceability and quality of products throughout the food chain; it also provides tools to ensure compliance with the legislative framework with regard to transgenically modified organisms, species authentication, allergens and screening for plant species.

In this area, Ascires Sistemas Genómicos was part of the largest international genome sequencing project, the "International Tomato Genome Sequencing Project", developed in Spain in 2005.



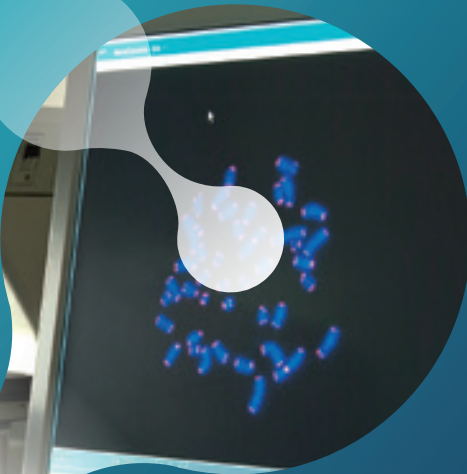
AREAS OF ACTIVITY

R&D&I

In this area of activity, Ascires Sistemas Genómicos develops not only ad hoc research projects that involve real solutions for current and future challenges through genomics, but also technology and knowledge transfer projects.



Its aim is to make personalised medicine a reality, so that the firm works on managing innovation and designing prototypes for effective application to the clinical and diagnostic reality, inspired by the search to optimise diagnoses.

The company collaborates with international teams by addressing any development in the field of genomic and transcriptomic research, including all stages of research in the process, from bioinformatics to identifying individual genes.



TECHNOLOGY PARTNER

*ASCIRES SISTEMAS GENÓMICOS
TRANSFORMS ADVANCES IN SEQUENCING
INTO NEW GENOMIC AND GENETIC TOOLS
TO GENERATE COMPREHENSIVE ANALYTICAL
AND DIAGNOSTIC SOLUTIONS.*



The technical and human capacity of Ascires Sistemas Genómicos allows to offer personalised services of genetic analysis and diagnosis internalising the process at our facilities. At the same time, with GeneSGKits®, physicians and researchers from across the world can acquire autonomy for analysis, bioinformatic interpretation and diagnosis.

In this way, physician partners can choose how to approach each part of the cycle, through Ascires Sistemas Genómicos, internally at their own facilities, with Ascires Sistemas Genómicos' technological support and/or knowledge transfer.

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KITS

Ascires Sistemas Genómicos designs custom self-testing products for diagnosis: GeneSGKits®. Products, which are the result of the search for the best diagnostic support tool based on the progress of sequencing techniques, to be used by clinicians around the world in their own laboratories.

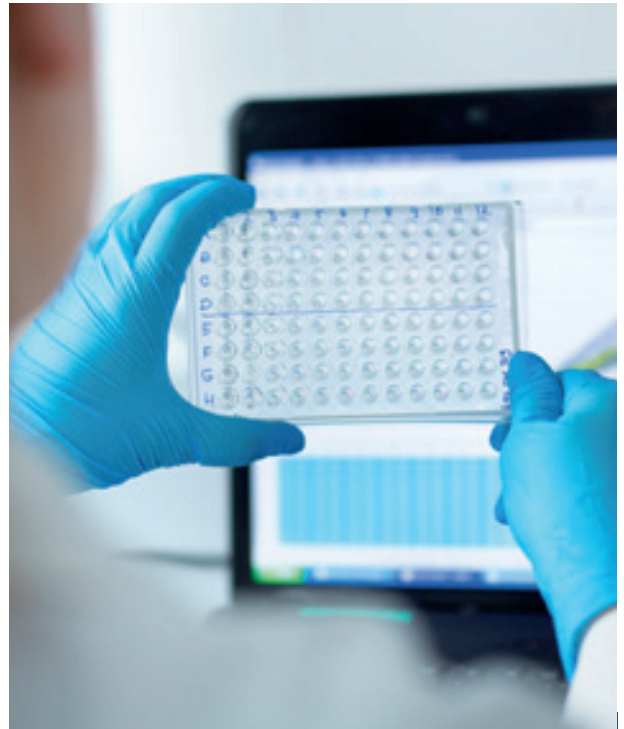
The GeneSGKits® range, which is constantly expanding, now comprises more than 25 references for thousands of diseases.

SERVICE

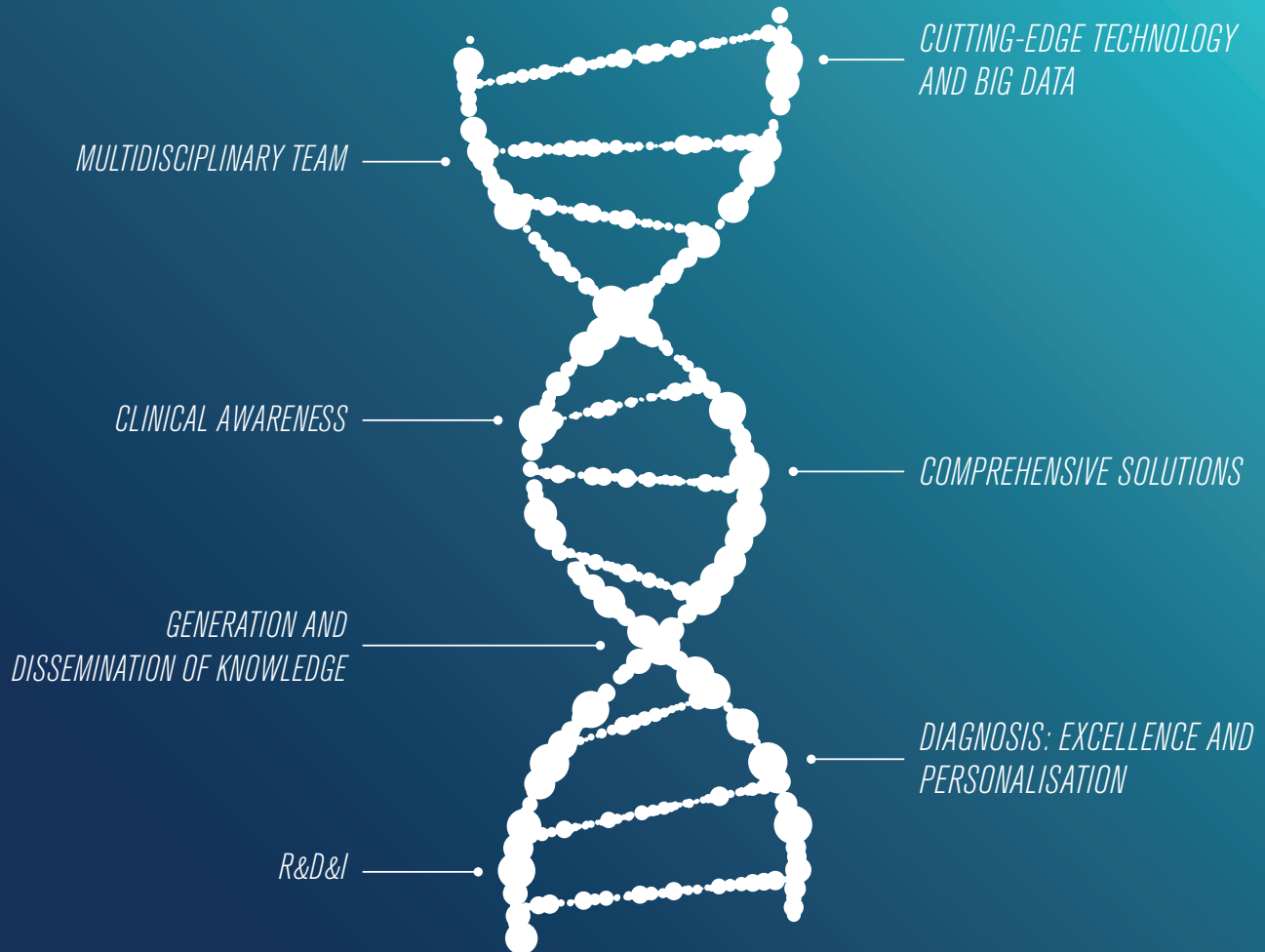
Ascires Sistemas Genómicos has advanced analytical tools to provide a specialised genetic analysis and study service, including sample processing and analysis, bioinformatic processing, clinical interpretation and issuance of the relevant diagnostic reports.

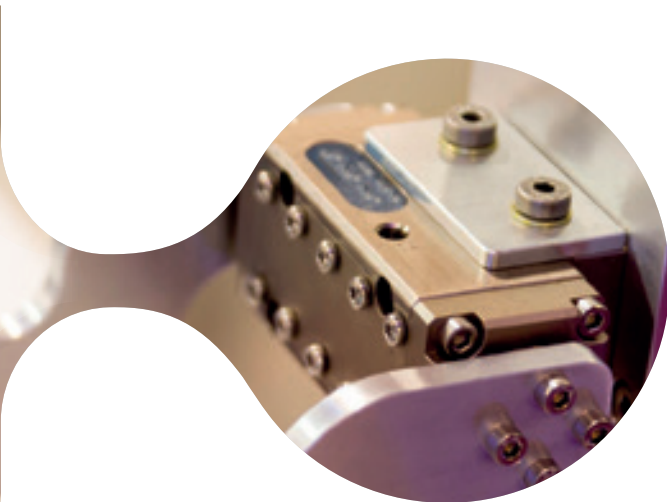
It develops processes that combine different techniques and tools, as well as the latest technology in genomics and genetics. These workflows and information make it easier for specialists to generate diagnoses of maximum reliability and quality, in the shortest possible time.

Ascires Sistemas Genómicos has the ability and experience to diagnose thousands of genetic diseases with more than 20 panels. At the same time, Ascires Sistemas Genómicos generates custom services to respond to the needs and challenges of clients, providing personalised analysis and diagnostic services.



WHY Ascires Sistemas Genómicos IS DIFFERENT?





MULTIDISCIPLINARY TEAM

Ascires Sistemas Genómicos' team is made up of more than 100 (30% PhD) experienced professionals from different fields such as biology, medicine, genetics, engineering, pharmacology and bioinformatics.

Recognised professional trajectories with a common base: patient support as a motivation, passion for research and concern to generate and share knowledge.

- Over 400 papers in leading scientific journals.
- Participation in hundreds of international and national conferences.
- Training activities aimed at universities, health personnel, patients and employees.

CLINICAL AWARENESS

Ascires Sistemas Genómicos, with a multidisciplinary structure, belongs to a biomedical group with more than 50 years of experience. Ascires Sistemas Genómicos offers the best technology for the diagnosis, prognosis, prevention and new treatment models of genetic diseases in the different medical specialties.

Ascires Sistemas Genómicos has a great awareness in terms of patients and medical and research work, always with the aim of working as technology partners of clinicians from different medical specialties.



GENERATION AND DISSEMINATION OF KNOWLEDGE

Ascires Sistemas Genómicos works to reinvent itself daily and drive the genomics sector. Its purpose is to achieve personalised diagnoses and treatments and to make them available to society.

It has collaborative agreements with more than 15 leading institutions and organisations in Spain, such as CNIO, Hospital Gregorio Marañón, Idibell Biomedical Research Institute, Fundación Ramón y Cajal, MD Anderson Cancer Center and CNIC, among others.

Ascires Sistemas Genómicos' outreach and training work is established through different activities in collaboration with the university and academic field, including the Clinical Bioinformatics Course, the only one in Europe, and University Professors with the Polytechnic University of Valencia and Pompeu Fabra University.

R&D&I

Ascires Sistemas Genómicos transforms knowledge into business innovation. To this end, we reinvest in R&DI an average of 10% of annual turnover, which is a firm commitment that culminates in the development of new services and products that respond to the challenges posed by our clients, partners and the market itself.

One of the aims of Ascires Sistemas Genómicos is to make translational medicine a reality. It works to provide society, health and agri-food professionals, and the research and scientific community with the most advanced applications of genetic analysis and diagnosis.

Ascires Sistemas Genómicos has a long history in the field of genomic and transcriptomic research. In 2005 it began its research activity by collaborating in major international projects of the genome sequencing of different organisms. Since then, it has participated in more than 30 national and international R&D&I projects aimed at health, biotechnology, agrigenomics, information



COMPREHENSIVE SOLUTIONS

Ascires Sistemas Genómicos is the only international company able to diagnose genetically throughout the human life cycle, from sperm, embryo and foetus, to adult and death, under the strictest international ethical standards.

Ascires Sistemas Genómicos studies new needs and applies new technologies in the daily practice of both diagnoses and research. Also, the design of Ascires Sistemas Genómicos' operational and working structure is designed to respond to each case in an individualised way.

Our complete portfolio of services and products allows Ascires Sistemas Genómicos to act as unique providers, comprehensively covering the needs of genetic and genomic analyses, providing individualised solutions both in diagnoses and in research projects.





*THE PATIENT AND ITS
QUALITY OF LIFE IS THE
CENTER OF OUR ACTIVITY*



CUTTING-EDGE TECHNOLOGY AND BIG DATA

Ascires Sistemas Genómicos' laboratories are equipped with the most advanced technology for precision genetic analysis and diagnosis (NGS platforms, Sanger and Arrays, capillary sequencers and equipment for DNA extraction). It incorporates innovative technologies to provide complete answers in a single test, helping to shorten diagnostic time and increasing the quality of results.

With over 10 years of experience in bioinformatics, Ascires Sistemas Genómicos focuses on the treatment, filtering and processing of genetic and genomic information, directly influencing the optimisation of clinical diagnoses and research.

The company has developed a system of algorithms: the GeneSystems platform, which has CE marking for in vitro diagnostic use. It is a helpful tool for clinicians and researchers to understand how different genes influence a disease. GeneSystems incorporates DBNLVar, a database of variants based on the company's more than 20 years of diagnostic experience.

DIAGNOSIS: EXCELLENCE AND PERSONALISATION

Ascires Sistemas Genómicos has the knowledge, accumulates the experience and makes the latest technology available to continue working towards excellence in precision diagnosis, personalised medicine and health.

As a biomedical group, our multidisciplinary approach allows to align medical and scientific criteria to look for explanations and individualised treatments for diseases in different medical specialties, combining the most advanced techniques in diagnostic imaging and genetic diagnosis.

Quality is a constant in Ascires Sistemas Genómicos. Its solidity and reliability are supported by various national and international accreditation and certification programmes, including the CLIA for diagnostic testing and participation in clinical trials in the USA.

It has the ISO 9001 and ISO 13485 certifications for genetic diagnoses and medical devices, ISO 17025 accreditation for agri-food products and ISO 15189 accreditation for your genetic laboratory.

In addition, all our GeneSGKits® based on targeted resequencing technology have CE marking for diagnostic use. Likewise, with GeneSystems, registered as a medical device with CE marking.

ASCIRES BIOMEDICAL GROUP

50 YEARS OF EXPERIENCE IN PRECISION DIAGNOSIS

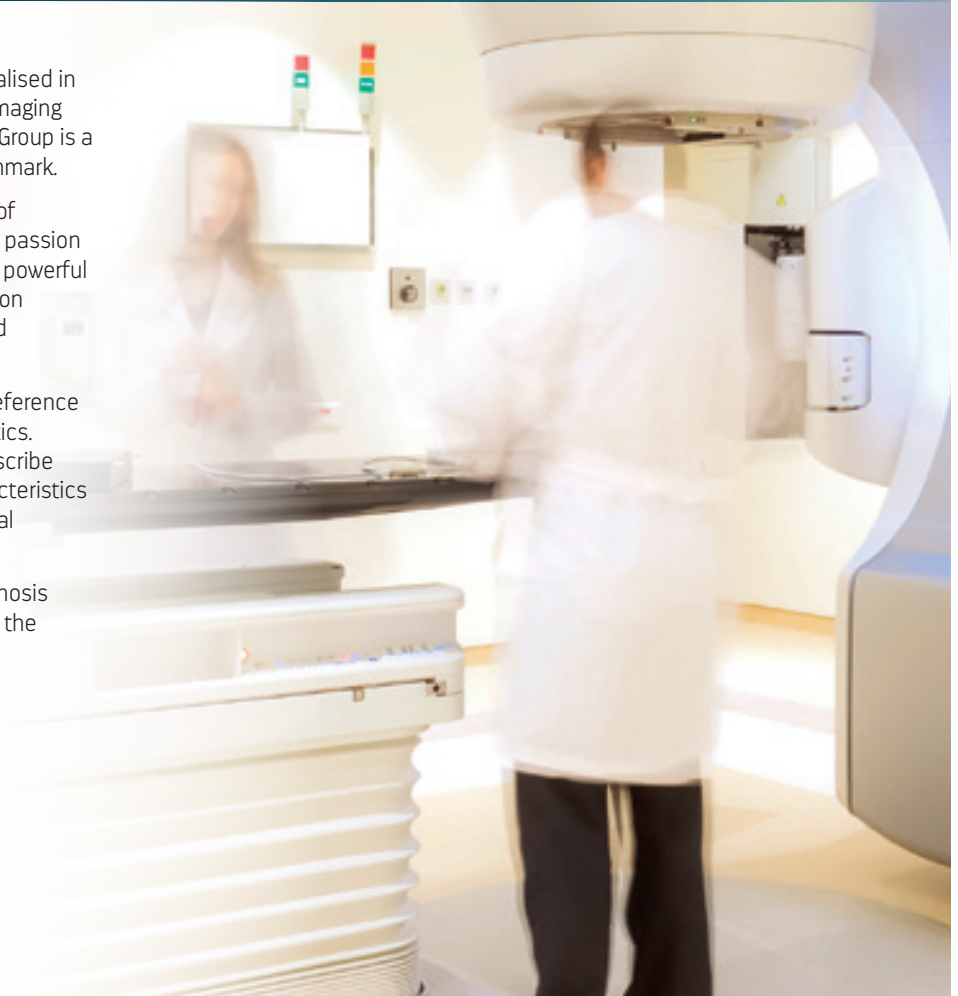
Ascires Group is a biomedical group specialised in combining two leading fields, diagnostic imaging and genetic diagnosis, fields in which the Group is a leader in Spain and an international benchmark.

The multidisciplinary approach of a team of professionals, together with technological passion and big data, form the basis on which this powerful imaging/genetics tandem rests for precision diagnosis and more effective personalised treatments.

In the treatment area, Ascires Group is a reference group in radiotherapy and pharmacogenetics. These specialties help to identify and prescribe treatments and drugs based on the characteristics of patients and their responses and clinical courses.

Prevention, the prediction of an early diagnosis and the personalisation of treatments are the inspiration for Ascires Group's R&D&I.

 ASCIRES



QUAES FOUNDATION

As a result of a commitment to the patient, Ascires Sistemas Genómicos is one of the drivers of the QUAES Foundation. A non-profit biomedical organisation that drives medical research involving scientists and medical professionals as well as patients themselves and their families. Now collaborating with 60 Spanish patient associations, QUAES provides a new way to investigate by combining the patient's voice, precision diagnosis and the rigour of universities and research centres.

Ascires Sistemas Genómicos participates in this way, through the QUAES Foundation, in different training and outreach projects, aimed at the scientific community and at patients and families. For the company, it is essential to educate patients so that they know how genomics may help them.

For Ascires Sistemas Genómicos, the challenge of genomics is to help healthy populations, by helping healthy people to prevent transferring diseases to their children. Here, bioethics is a fundamental criterion in that patients own their decisions, but they must have full knowledge of their true situations, always within the strictest compliance with legislation





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