# EUROSPITAL
# GENETIC TESTING PRODUCT LINE

*KNOWING GENETIC PREDISPOSITION TO HELP DISEASE PREVENTION*

***XeliGen Lyo*** ***DiabeGen - I step*** ***DiabeGen - II step*** ***LactoGen***

EGT EUROSPITAL GENETIC TESTING PRODUCT LINE

Eurospital DIAGNOSTIC

## What is genetic predisposition

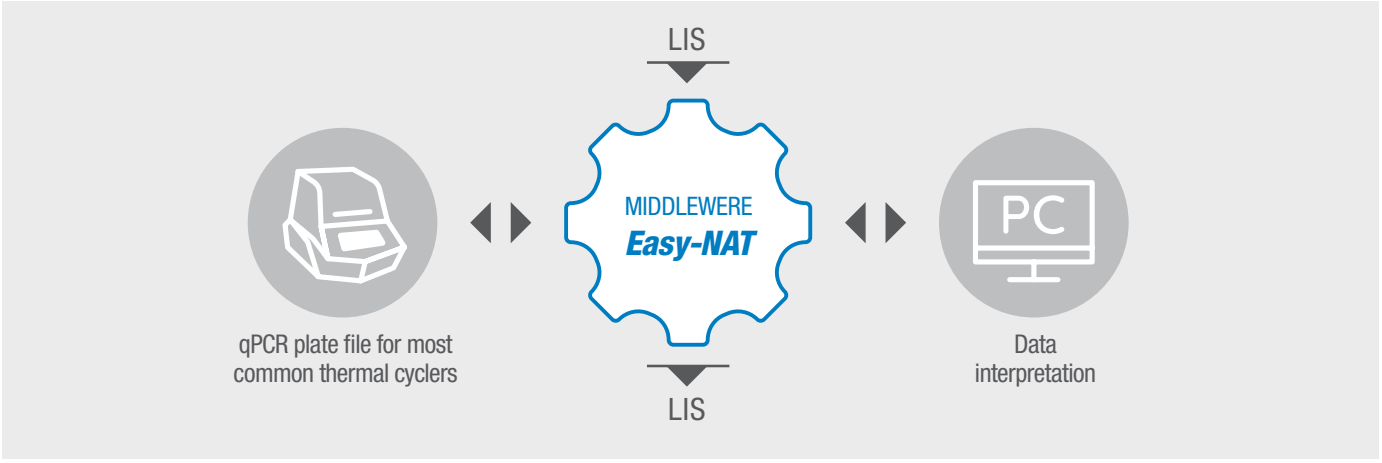
The human genome is made of more than 20,000 genes, each of them harboring the information necessary to determine specific phenotypic traits of the organism. Each gene can have small variants that bring diversity to the genome albeit keeping its funcionality, but sometimes they can also determine a genetic predisposition to a dysfunction that can lead to a pathological condition. The onset of the pathology is usually caused by an external trigger like diet, environment, bad habits or severe illness. The majority of subjects genetically predisposed to certain pathological conditions are generally unaware of their situation.

In order to determine genetic predisposition to certain pathologies, like coeliac disease, type I diabetes mellitus (T1D) and lactose intolerance, genetic testing represents an easy and non-invasive solution. Coeliac disease is a chronic inflammation of the intestine that affects about 1% of the population, triggered by the ingestion of food containing gluten, in subjects that have specific HLA alleles. Individuals genetically predisposed to develop coeliac disease develop an autoimmune response against a self-enzyme (tTG) resulting in a chronic inflammation. Type I diabetes is also correlated to HLA alleles, which in this case can either protect or predispose to the disease, that is characterized by a high concentration of glucose in the blood after food ingestion, due to an insulin deficiency. Type I diabetes usually occurs in children with an incidence of 5-10% of the total worldwide cases of diabetes. A less life-threatening condition, nonetheless very unpleasant, is lactose intolerance, which affects more than half of the world population, although the incidence may vary according to ethnicity. Lactose intolerance is characterized by gastrointestinal disorders that arise following the ingestion of lactose, which is not metabolized due to a lack of the lactase enzyme, not synthesized in subjects bearing the lactase non persistence allele.

An early diagnosis with genetic testing would make the subject aware of the genetic predisposition, allowing to take steps to adapt the daily habits and improve the life standard so to delay or even prevent the development of the most severe symptoms and the onset of the disease. A genetic predisposition is not a death sentence or guarantee that someone will become sick. The diagnosis is an indicator that the disease can be triggered. Millions of people with genetic predispositions go on to live long, healthy, disease-free lives.

## Easy-NAT: Software for an easier handling and interpretation of genetic tests

***Easy-NAT*** is a proprietary software developed by Eurospital with the aim of easing the management of Eurospital genetic tests. ***Easy-NAT*** not only receives patients' data from the LIS and associates the requested genetic analysis, but also sends the program to the PCR thermal cycler and retrieves the data at the end of the run. The biggest advantage of using ***Easy-NAT*** is having a tool that automatically analyses the results and provides a report with their interpretation. Results can be finally sent back to the LIS.

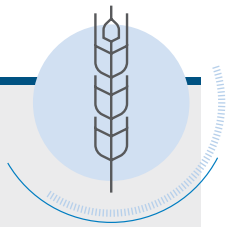



## Main features

- Set up with all the EGT tests: XeliGen Lyo, DiabeGen I and II, LactoGen
- Bidirectional communication with LIS for patient's data and results
- Specific test plate set up
- Bidirectional communication with thermal cyclers
- Data retrieval after reactions
- Data analysis and interpretation
- Test report

## *Eurospital solution*

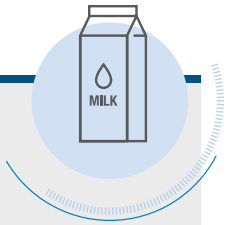
Eurospital Genetic Testing Product Line (EGT) provides a portfolio of **genetic tests in Real Time PCR (RT PCR)** that can be adapted to any open platform real time thermal cycler. Decades of experience in the identification and diagnosis of coeliac patients allowed Eurospital to develop the ***XeliGen Lyo*** kit, the only genetic test on the market able not only to identify the individuals bearering the alleles for coeliac disease, but also to stratify the risk to develop the pathology. Since the HLA alleles responsible for coeliac disease are linked to those of type I diabetes, Eurospital has further developed ***DiabeGen***, the genetic test for the identification of alleles that either predispose to or protect against type I diabetes. Eurospital portfolio of genetic tests related to gastroenterology diseases is completed with ***LactoGen***, the easy and non-invasive genetic test with the highest specificity for the identification of lactose intollerant subjects.



### *XeliGen Lyo*

*(REF. 9186L - 24 TEST)*

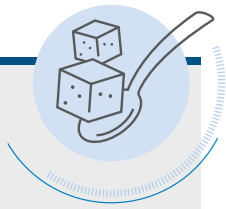
- RT PCR test for the determination of DQ2 and DQ8 genotypes involved in the predisposition to develop coeliac disease
- Test can be run on DNA extracted from human peripheral blood
- Single use reagent strips, loadable directly into the thermal cycler
- Lyophilized reagents for an easier use and longer stability at room temperature
- Classification of patients into 5 distinct groups for the stratification of the risk to develop the disease




### *LactoGen*

*(REF. 9241 - 32 TEST)*

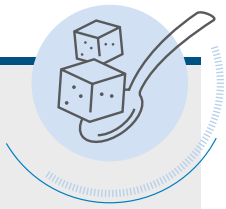
- RT PCR test for the determination of the alleles responsible for lactose intolerance
- Test can be run on DNA extracted from human blood or buccal swabs
- No pain for the analyzed subject
- Easy and fast
- No need for further analysis



### *DiabeGen - I step*

*(REF. 9192 - 12 TEST)*

- RT PCR test for defining genetic predisposition to the development of or protection against type I diabetes
- Test can be run on DNA extracted from human blood
- Determined alleles: DRB1*04, DRB1*03, DQB1*03:02, DQB1*02
- Determination of the protective allele DQB1*06:02



### *DiabeGen - II step*

*(REF. 9193 - 12 TEST)*

- RT PCR test for the high resolution determination of the DRB1*04 allele in subjects resulting at risk to develop type I diabetes after DiabeGen I step analysis
- Test can be run on DNA extracted from human blood
- To be run on subjects underwent the analysis with ***DiabeGen I step*** or ***XeliGen Lyo***

More information and scientific references on:
**www.eurospital.com**

**Eurospital SpA**
Via Flavia 122, 34147 Trieste, Italy
Phone +39 040 8997.1 - Fax +39 040 280944
www.eurospital.com - info@eurospital.it