# ThromboNIM®

**Genetic Innovation** for thrombophilia studies





### Why ThromboNIM®?

#### The state of the art genetic test for thrombophilia

- · Analizes 24 genetic variants
- Studies the genes involved in the conventional and alternative genetic pathways for thrombophilia



#### clinical report geared to ginecologist and hematologists:

- · Optimized thrombophilia risk assesment
  - Studies a noticeable number of genetic variants for an adjusted estimate.
  - Clinical interpretation of results. Stablish a Genetic Risk Scoring, GRS, based on criteria observed in the genomic positions studied.
  - Risk assesment adjusted to nature and frequence of the identified genetic variants.
  - Explains the estimated impact based on the current knowledge of the identified variants.
- Revised nomenclature considering guidelines criteria

The best Strategy for thrombosis prevention

Hand in hand with NIMGenetics, the leading company in genetic diagnosis with professionals accredited by Spanihs Association for Human Genetics, AEGH

### **Thrombophilia**

#### What is it?

Clinical condition characterized by a predisposition to thrombosis or the presence of alterations in genes involved in the hemostasis process

### Thrombophilia is associated with an increased risk of (1-2):

- · Deep vein thrombosis
- · Pulmonary embolism
- Stroke
- · Acute myocardial infarction
- Miscarriages and other obstetric complications

# Analizes 24 genetic variants in 18 genes associated to an increased risk of thrombophilia

Genetic factors(3-4)

### Alterations observed in genes that code for:

- Coagulation factors
- Proteins involved in fibrinolysis
- Platelet proteins
- Plasma proteins, lipoproteins, etc.

Hereditary thrombophilia is involved in more than a half of the thrombosis cases<sup>(6)</sup>.

### Prophylaxis based on mitigating environmental risk factors is essential for these patients $^{(7)}$ .

- (1) Mälarstig A and Hamsten A (2010). Curr Atheroscler Rep 12:159–166
- (2) Simcox LE et al (2015). Int. J. Mol. Sci 16: 28418-28428.
- (3) Hotoleanu C (2017). Adv Exp Med Biol 906:253-272.
- (4) Morange PE et al. (2015). Thromb Haemost 14(5):910-9.
- (5) Martinelli I, et al. (2014). Nat Rev Cardiol 11(3):140-56.
- (6) Kreidy R (2014). Int J Vasc Med 2014:859726.
- (7) Stevens SM et al. (2016). J Thromb Thrombolysis 41(1):154-64.

#### **RISK CONDITIONS**

#### **Personal factors**

- Pregnancy
- · Obesity
- · Advanced age
- · Smoking

#### **Associated pathologies**

- · chronic inflammatory disease
- Cancer
- · Diabetes

#### **External factors**

· Long-term bedridden

#### **Treatments**

- Oral contraceptives
- · IVF cycles
- · Hormone replacement therapy

## ThromboNIM®

#### **Hereditary thrombophilia** genetic test

Factor V

Factor XI

**Factor XII** 

**Factor XIII** 

**Antithrombin** 

Gamma fibrinogen

Prothrombin

AB0

CYP4V2

**PROCR** 

(NG1

SERPINE1 (PAI-1)

SERPINC1

ADRB2

GP6

**MTHFR** 

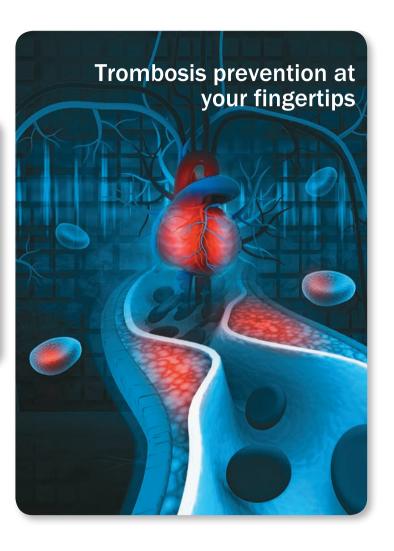
LPL

SERPINA10

SLC44A2

#### Sample shipping conditions

- Sample: 3-5 ml Peripheral blood with EDTA or stabilized saliva
- Document requirements: Informed consent & order form
- Turn Around Time: 15 working days



### When is a thrombophilia genetic test indicated?



Vein thrombosis background.

Other increased risk conditions: Pregnancy, obesity, smoking, ,advanced age,thrombophilia linked pathologies, long term bedridden

#### Thromboembolism personal background:

- · Deep vein thrombosis or recurrent thrombophlebitis
- · Pulmonary embolism
- · Recurrent miscarriage

Oral contraceptives, hormone replacement therapy and IVF cycles.





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NIMGenetics is a Genetic Diagnosis centre authorised by the Department of Health and Consumption of the Community of Madrid, registered in the corresponding Register under number CS 10673

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