# METHOD FOR THE DIFFERENTIAL DIAGNOSIS OF SYMPTOMATIC VERSUS ASYMPTOMATIC CAROTID STENOSIS

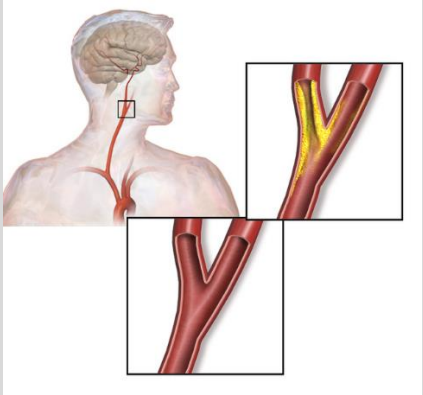
**Diagnosis method of patients suffering from carotid stenosis and the correct classification among the several manifestations of this disease.**

## BACKGROUND

Atheromatous disease is the first cause of death and dependency in developed countries. Carotid stenosis is one of the most prevalent and significant causes of stroke. Surgical treatment, mainly including carotid endarterectomy (CEA) and stent implantation (stenting), is effective in symptomatic carotid stenosis >70% (class I evidence), with a marginal benefit in stenosis of 50-70%, and arguable benefit in patients with asymptomatic stenosis >70%.

Identification of biological predictors of vulnerable plaque would permit the identification of high and low risk patients, allowing a better selection of patients to indicate surgical or intensive medical treatment.

Although several efforts have been conducted to find non-invasive biomarkers for carotid stenosis and for discriminating among the several manifestations of the disease, there is still a need of alternative reliable markers, improving correct diagnosis and associated therapeutic approaches.



## THE TECHNOLOGY

The present invention is a **panel of biomarkers** that individually and combined allow correct classification among subjects suffering from **symptomatic carotid stenosis and asymptomatic carotid stenosis**. This can serve to design diagnostic tools to detect subjects with carotid stenosis and treat them accordingly.

The proposed biomarkers, which are expressed proteins detectable in biofluid samples (i.e. plasma, serum, whole blood) are reliable biomarkers, since they have been identified by comparing those differentiating biomarkers in atheromatous plaque between symptomatic and asymptomatic subjects.

Thus, they do represent an indication of the risk of suffering stroke or other neurological events associated.

## STATE OF DEVELOPMENT

*In vitro* studies with human samples have been performed.

## INTELLECTUAL PROPERTY

A PCT patent has been filed (PCT/EP2020/063907), priority date: May 19th 2019

## MARKET OPPORTUNITY

Pharmaceutical sector and clinical diagnosis sector.

## RESEARCH TEAM

Dr. Joaquín Serena (IDIBGI)
Dr. Tomas Sobrino (Servizio Galego de Saúde)
Dr. José Castillo (FIDIS)

## MORE INFORMATION

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## COMMERCIAL OPPORTUNITY

We are looking for a partner for product development, clinical prospective studies and/or patent licensing.


## CONTACT

Business Development Unit
T.+34.872.98.70.87
bdu@idibgi.org



## KEYWORDS

stroke, carotid stenosis, biomarker, diagnosis, prevention.


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