ALGORITHM FOR THE DIFFERENTIAL DIAGNOSIS OF DIABETES BASED ON SERUM BIOMARKERS

A research group from IBIMA, Hospital Regional de Málaga and CIBER has developed a new algorithm for the diagnosis of MODY HFN1A diabetes based on serum biomarkers

The Need

MODY HNF1A diabetes is the most common monogenic diabetes in young adults. These patients are often misdiagnosed as type 2 diabetes, which leads to inadequate treatment.

At present, the gold standard for diagnosis is genetic testing, but these methods are costly, take time, and are not always available in routine clinical practice.

There is therefore a need for more accessible and cost-effective diagnostic strategies that can support early and accurate identification of these patients.

The Solution

The algorithm provides a method based on serum biomarkers that can distinguish between MODY 3 and type 2 diabetes.

The techniques required to determine these biomarkers are simpler, faster, and less expensive than genetic sequencing, and do not require complex bioinformatics.

This allows quicker diagnosis and better use of resources, improving patient care and enabling identification of affected relatives.

Innovative Aspects

- First algorithm described that combines these specific serum biomarkers to differentiate MODY 3 from type 2 diabetes.
- Provides a cost-effective and faster alternative to genetic sequencing.
- Can be used as a pre-test to improve the selection of patients for genetic confirmation.
- Helps assign pathogenic value to new or uncertain variants detected through sequencing.
- Adaptable to different contexts: useful both in centers with limited resources and in advanced hospitals.
- Simplifies laboratory work since it avoids the need for complex bioinformatic analysis.
- Supports precision medicine by enabling more personalized and accessible diagnosis.

Stage of Development:

Preclinical stage, with initial validation performed on serum biomarkers in laboratory settings

Intellectual Property:

- PCT application filed.

Aims

Looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this asset.

Contact details

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