

REVOLUTIONIZING EARLY DETECTION OF GLAUCOMA BY IMAGING ANALISYS

√100% non-invasive
√ Reliable results in 10 minutes
√ Excellent Sensitivity and specificity values

AN UNRESOLVED CLINICAL NEED

- Glaucoma along with macular degeneration and diabetic retinopathy are the leading causes of blindness worldwide.
- Early detection makes a difference; however, most people affected have no symptoms in the early stages of the disease.
- Diagnosis requires a complete eye examination, which is not always possible.
- Automated image-based detection and diagnosis techniques could be very beneficial in this field, reducing the cost of the evaluations, the complexity and price of the necessary equipment.

quantusGL - ANALYSIS AND CLASSIFICATION OF RETINAL FUNDUS IMAGING FOR GLAUCOMA RISK ASSESSMENT.

- Non-invasive: quantusGL is based on the analysis of a fundus photograph of the retina taken by an ocular radiographer, this providing the opportunity to avoid the need of an invasive technique to predict the risk of glaucoma.
- Fast: quantusGL generates accurate results in just few minutes.

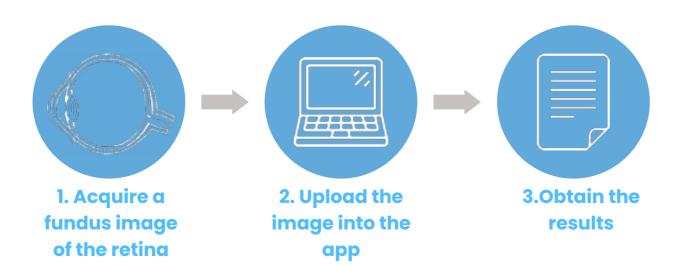
	Sensitivity	Specificity
Ophthalmoscopy	47%	94%
Optical Disc Photography	73%	89%
Retinal Tomography Heidelberg II	86%	89%
C quantus GL	84,1%	95,8%

^{*} Sensitivity: Proportion of negative cases correctly identified by the algorithm. It is the number of items correctly identified as negative out of the total number of negatives.

^{*} Specificity: Proportion of positive cases correctly identified by the algorithm. It is the number of items correctly identified as positive over the actual total number of positives.

How to use quantusGL?

Using quantusGL is simple, requiring only 3 steps:



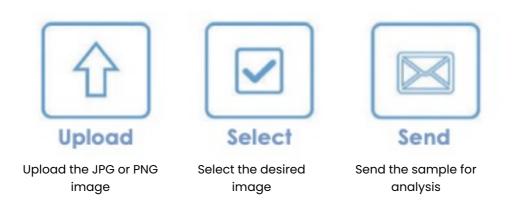
Step 1: Acquire an eye fundus imaging

quantusGL requires an eye fundus image in JPG or PNG format taken with an ocular radiographer, which takes certain photographs of the eye, both in panoramic image and in more magnified areas. There is a simple guide available within the app that shows how to perform these acquisitions.

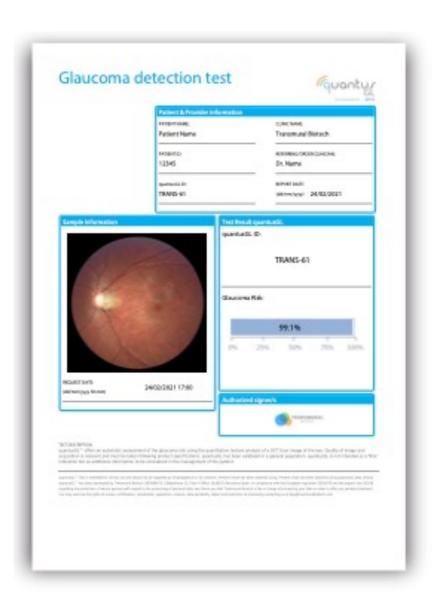


Step 2: Use quantusGL app to analyze the image

The app is a simple tool that allows the user to send the image that wants to be analyzed by following three simple steps:



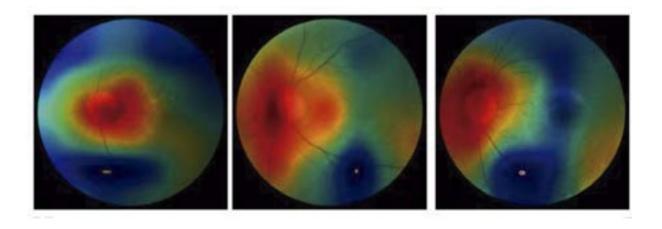
Step 3: Obtain the result within few minutes.



WHEN TO USE quantusGL

quantusGL is a non-invasive, fast and easy-to-use test that allows the detection of glaucoma through an eye fundus imaging. Its technology is based on the quantitative analysis of the texture of the fundus imaging obtained by ocular retinography. By simply analyzing and classifying images, quantusGL determines within minutes the probability of glaucoma.

quantusGL design has been focused on general population with the purpose of being a tool for the detection of glaucoma Moreover, it allows the screening of patients with risk factors and the prioritization in waiting lists. The possibilities of using the product will be diverse, ranging from a medical office ophthalmology or optometry unit.



The specialist classifies the images using visual patterns and quantusGL gives a percentage of the risk of glaucoma, based on the analysis and classification of background images of the retina of both eyes and the additional clinical information associated with the image.

AN INNOVATIVE MEDICAL SOLUTION

- ✓ Unrestricted 24-hours access: Through an internet connection it is possible to use quantusGL and review the results at any time and from anywhere.
- ✓ No installation required: It does not require the download or installation of any software.
- **Hight compatibility:** quantusGL is compatible with most browsers. It can be used for web-based as well as primary devices of ophthalmology, optometry and primary care.

quantusGL OFFERS HIGH ECONOMIC VALUE

- √ NO initial investment in infrastructure required!
- √ Pay-as-you-go: Pay only for each test you order!
- ✓ Add more value to your clinic and increase your profits!



WHY DOES quantusGL WORK?

An automated support tool requires minimal or no input from the physician to obtain a result. Over the past few years, research has been focused on automated algorithms to improve current imaging-based clinical diagnosis. The rise of Artificial Intelligence techniques, and especially Deep Learning, has increased the number of studies using this type of algorithm in diagnostic ophthalmology. Published studies show that glaucoma detection using trained Deep Learning models can achieve high accuracy in diverse populations and provide quantitative comparisons of how model performance can vary across data sets consisting of glaucoma of different severity of disease and ethnicity.

quantusGL is a cutting-edge Artificial Intelligence method, based on the newest generation of Deep Learning. Different studies carried out have proven the existing correlation between the quantitative analysis method proposed by quantusGL.

Published studies show that glaucoma detection using trained Deep Learning models can achieve high accuracy in diverse populations. quantusGL technology is based on performing quantitative analysis of the texture of the ocular fundus image obtained by means of an ocular retinography. This analysis allows to identify patterns associated with specific pathologies and to determine the risk of the presence of a specific pathology. quantusGL is presented as a novel method of Artificial Intelligence to identify patterns associated with specific pathologies and to determine the risk of glaucoma. the tests and tools According several studies used ophthalmologists give an individual sensitivity of 39-50% and the combination of several of them is necessary to obtain a more accurate diagnosis. Therefore quantusGL, which has a sensitivity of 84% is ideal to assist in the diagnosis of glaucoma.









Effective

Fast

No commitment Contact us!





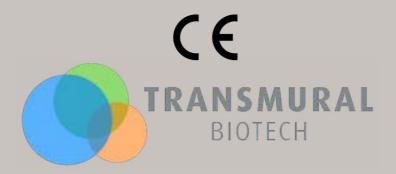




Email.: sales@transmuralbiotech.com







+34 931 190 929

+34 626 667 989

Transmural Biotech S.L., CIF: B65084675. C/Beethoven 15 Planta 4 Desp. 18 08021 Barcelona