



Artificial intelligence in
the service of medicine



TRANSMURAL
BIOTECH

Design and commercialization of artificial intelligence algorithms for image and clinical data analysis.

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REGULATORIES

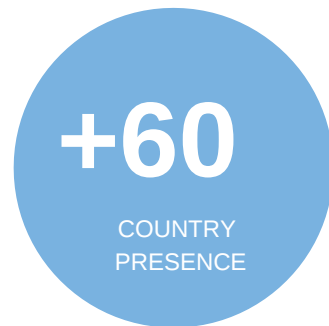
ENISO 13485, 27001, 9000EC
DECLARATION OF CONFORMITY
ACCORDING TO THE MEDICAL
DEVICE DIRECTIVE 93/42/EEC AND
ITS AMENDMENT 2007/47/ECHL7
FHIR





Transmural Biotech started as a spin off of the Hospital Clinic de Barcelona and the Universitat de Barcelona created at the end of 2009 by medical and engineering professionals. Our expertise is focused on developing innovative medical technologies, based on image analysis and processing, to provide health professionals with additional information that current technologies cannot provide and substantially improve the quality of the service they can offer to the patient. In 2019 we entered the ranking of the 20 most innovative companies in the world according to “Technology Innovators” and we are one of the most relevant digital companies according to “The Silicon Review”.

PWC valued the company at €68 million. We have received several awards in the field of biotechnology: Most Promising Innovation in Digital Medicine award granted by NODE Health, Most Promising Innovation in Digital Medicine award by quantusFLM, International benchmark company in AI (Hospitalar Sao Paulo 2019) and Top 10 European AI solution providers (Healthcare tech).



Mission



- Transmural Biotech develops innovative products and services in the clinical field by applying image analysis technologies that enable personalized, cost-effective, non-invasive and efficient medicine.



- We are one of the top 20 biotechnology companies in the world.
- International spirit: We are committed to global distribution.



- At the forefront: We develop image-based medical technologies through artificial intelligence.
- Two basic platforms: image-based AI and algorithms as a predictive basis for medical diagnosis.



- Committed to medicine: We are committed to personalized, predictive, non-invasive, fast and reliable diagnosis. We have scientific prescribers of international reference in different fields of medicine.

Vision



We are fully committed to the development of biotechnology excellence and are committed to the ethical commercialization of medical technologies that will substantially improve patient care.



Technological

We are specialists in image analysis and processing using Artificial Intelligence.

All our projects have our own coordination, planning and consultancy.



Clinic

We develop diagnostic technologies to improve clinical care for patients.

We have clinical prescribers of international reference such as BCNATAL.



Business

Identification and development of business models based on the use of new technologies such as the Internet to maximize the accessibility and competitiveness of our products.



Transversals

Our solutions are applicable in different fields of medicine, improving the diagnosis of maternal-fetal, oncological, dermatological or ophthalmological pathologies, among others.



quantusPR is an innovative artificial intelligence-based tool created to optimize the work of radiologists. It automates the assessment of compliance with PI-RADS v2.1 guidelines, performs prostate gland segmentation and detects potential suspicious lesions, allowing radiologists to perform faster and more accurate analyses.

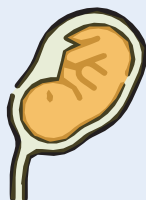


This quantus has been developed to assist in the study of pathological anatomy, which is the branch of medicine that studies diseases by analyzing changes in the body's tissues and organs. Its objective is to identify the alterations that indicate the presence of diseases, being essential for medical diagnosis.

Using techniques such as biopsies and autopsies, pathologists examine samples under the microscope to detect cellular and molecular lesions, which helps to understand the cause and evolution of diseases.

Products

GYNECOLOGY OBSTETRICS



Transmural Biotech has developed the first 100% non-invasive fetal lung maturity test, based on the analysis of an ultrasound image of the fetal lungs. An alternative to amniocentesis, easy to use and offering reliable results in a few minutes. In addition,

quantusFLM manages to adapt the use of corticosteroids to each specific clinical case. It eliminates the indiscriminate use of corticosteroids which, according to all independent scientific sources, has very adverse effects on the development of the baby and its subsequent adolescent and adult life.

www.quantusFLM.org

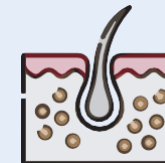


Whether a baby will be born prematurely or at full term remains the biggest unknown in an otherwise normal pregnancy. Spontaneous preterm birth is the leading cause of prematurity, a condition suffered by at least 15 million babies a year. Current procedures and tests to determine the risk of preterm birth are outdated and have a very low yield.

It is the first test for the early detection of spontaneous preterm labor based on the analysis of an ultrasound image of the cervix. It provides the opportunity to avoid the variability of current tests by simplifying the process and making it more efficient thanks to Artificial Intelligence.

www.quantusPREMATURITY.org

DERMATOLOGY



Non-invasive, fast and easy-to-use test for the detection of malignant dermatological lesions from dermoscopic images. Its technology is based on the quantitative analysis of the texture of the dermoscopic image.

It has been designed with a clear focus on the general population, and is intended to be a tool for the detection of malignant skin lesions (melanoma, basal cell cancer or squamous cell cancer), being of great help in the screening of patients with risk factors and prioritization of waiting lists.

www.quantusSKIN.org

Advantages

- **Non-invasive:** It is performed on the basis of an anonymized clinical image (ultrasound, radiography, mammography, etc.).
- **Reliable and safe:** Our tests have excellent sensitivity and specificity values.
- **Speed:** You will receive the results report in a matter of minutes.
- **Compatible with HL7 FHIR protocol** through our servers.
- **Available from our online platform 24 hours a day, 7 days a week.**

OFTALMOLOGY



Easy to use test for specialists that allows them to analyze and classify images, determining the probability of glaucoma in just a few minutes, from fundus images of the retina.

It is of great help in the screening of patients with risk factors and in the prioritization of waiting lists, being the possibilities of using the product diverse, ranging from a medical office in primary care to the ophthalmology or optometry unit.

www.quantusGL.org



Easy to use test for specialists that allows them to analyze and classify images, determining the probability of presenting diabetic retinopathy in just a few minutes, from retinal fundus images.

It has been designed with a clear focus on the diabetic population, and is of great help in the screening of patients with risk factors and in the prioritization of waiting lists.

www.quantusRT.org



Test for the automatic detection of pathological markers (microcysts and hyperreflective dots) as risk markers of diabetic retinopathy, from optical coherence tomography (OCT) images.

It has been designed as a tool to assist clinicians by performing a quantitative analysis of OCT slices and providing an automatic assessment of the presence of the aforementioned pathological markers.

www.quantusRT-OCT.org

RADIODIAGNOSIS



Test for the early detection of breast pathologies, developed in collaboration with the Basque Health Service Osakidetza and the Biodonostia Institute Association.

Based on a mammography study in two perspectives (craniocaudal (CC) and oblique mid-lateral (OML)), it can detect the presence of malignant nodules or microcalcifications, thus helping to identify the risk of breast cancer.

Malignant microcalcifications, thus helping to identify the risk of breast cancer by granting a category that determines the probability of malignancy of the analyzed breast, based on sensitivity values.

It has been designed as a tool to assist clinicians, especially in mass screening processes of patients with risk factors, in the early detection of breast pathologies and in the prioritization of waiting lists.

www.quantusMM.org



Test for the automatic detection of osteoporosis and osteopenia developed in collaboration with the Río Hortega Hospital in Valladolid and the Ramón y Cajal University Hospital in Madrid, Spain.

Based on a hip X-ray, it classifies the images into different classes according to the risk of osteoporosis or osteopenia.

It has been designed as a tool to help clinicians, which can be used at different times in clinical practice.

www.quantusOS.org

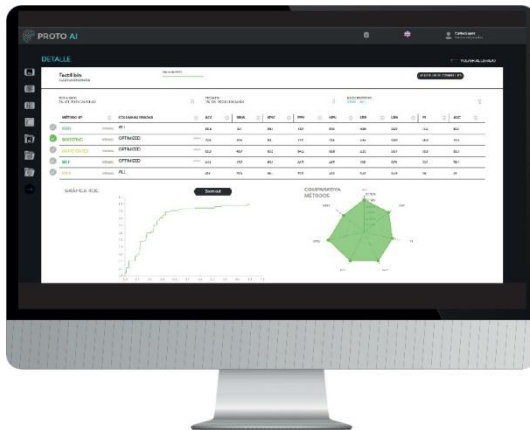


Test for the automatic detection of 3 pulmonary pathologies (atelectasis, consolidation and pneumothorax) from chest X-ray images.

It has been designed for a general population as a tool to help clinicians, giving an automatic assessment of chest X-rays.

www.quantusTX.org

AI support solutions



Create your customized AI projects easily.

- The ideal Development and Validation Platform to apply Artificial Intelligence to your practice.
- With the needs of AI users in mind, PROTO provides access to all the tools necessary to CREATE, TEST and IMPLEMENT data or image AI solutions that create REAL IMPACT in your clinic.
- Create your own image datasets, tag them for use and establish the ground truth for each image. Set up and test segmentation, binary classification, multiple classification or regression networks to get the best results. Compare the different runs to select the network you have learned best based on the prevalence and needs of your project.

Anyone who wants to apply AI to their dataset and images can use the PROTO AI platform thanks to its simple, agile and easy-to-use design, using Machine Learning and Deep Learning algorithms.



Manages and collaborates for the creation of AI research-oriented image datasets

- The best tool for collecting, storing and validating image sets for research use, as well as a PACS image search and display tool.
- Create your own image datasets, labeling them, adding variables or delineations (ROI: Region of Interest) to each image.
- Properly validate image classification and delineation through quality control workflows.
- Interact with your colleagues by setting up work-sharing meetings to make the best decisions together when classifying or validating a result.

biobanco.transmuralbiotech.com



Collaborate with us





Developing tomorrow's medical technologies today



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