# DIAGNOS Delivers World Class Results in the MICCAI2021 Contest: GAMMA

written by Raj Shah | October 29, 2021

October 28, 2021 (Source) – DIAGNOS Inc. ("**DIAGNOS**" or "the **Company**") (TSX Venture: ADK) (OTCQB: DGNOF) (FRA: 4D4A), a leader in early detection of certain critical health issues, announces that its AI platform has delivered world-class results in the GAMMA (*G*laucoma gr*A*ding from *M*ulti-*M*odality im*A*ges) contest, held in conjunction with The Medical Image Computing and Computer-Assisted Intervention Society 2021 (MICCAI2021) conference.

In total 566 teams from around the world participated in this competition where three (3) AI-driven tasks were being evaluated.

1) *Grading glaucoma using multi-modality data.* **(DIAGNOS placed 8th overall)**

In this task, the teams aimed to analyze clinical data of two modalities, 2D fundus images and 3D OCT scanning volumes, and classify the samples into three categories according to visual features: no glaucoma, early glaucoma, and moderate or advanced glaucoma.

**DIAGNOS was the only one, of the top 8 teams, that competed with a marketed, commercialized system. DIAGNOS used the same platform that it currently uses for diabetic retinopathy screening, which is marketed worldwide, while the others were principally from academic institutions.**

2) *Localization of macula fovea in fundus images.* **(DIAGNOS placed 1st overall)**

The objective of this task was to predict the coordinate value of the fovea in the 2D fundus image. Localizing the fovea with high accuracy in colour fundus photographs is very important. It is the anatomical landmark in automated analysis of retinal diseases.

3) *Segmentation of optic disc and cup in fundus images.* **(DIAGNOS placed 1st overall)**

The purpose of this task was to segment the optic disc and cup region in 2D fundus images. The optic disc and optic cup segmentation are used to separate these two parts of the retinal image. It allows the calculation of the cup/disc ratio for diagnosing glaucoma as well as for monitoring it.

"We are extremely pleased with our performance in this competition which brought together 566 participating teams from around the world. This achievement places DIAGNOS at the top of Artificial Intelligence companies as we continue to be cutting edge technology leaders for the detection of major retinal pathologies," said **Mr. Riadh Kobbi, Vice-President – Business Intelligence at DIAGNOS.**

"This type of high calibre competition resembles the Olympics. When you position yourself on the podium, among more than 500 international teams, it is no accident. This is the result of many years of hard work and the accumulation of advanced knowledge in AI," said **Mr. Ismail Ben Ayed, associate professor at ETS (Ecole de Technologie Supérieure).**

"We are very proud to have established a strong technical team at DIAGNOS to be able to compete worldwide in the Artificial

Intelligence space. This is a world-class competition. AI-driven analysis of retina Fundus images and OCT (Optical Coherence Tomography) images is the new medical standard in the detection and monitoring of serious vision-threatening diseases. At DIAGNOS, we are investing heavily in R&D and in our strategic alliance with ETS (Ecole de Technologie Supérieure) to maintain our leadership in this space. Delivering top-tier results in this competition demonstrates DIAGNOS' technical excellence," explained **Mr. André Larente, CEO of DIAGNOS.**

**About MICCAI**

The Medical Image Computing and Computer-Assisted Intervention Society (the MICCAI Society) is dedicated to the promotion, preservation and facilitation of research, education and practice in the field of medical image computing and computer-assisted medical interventions including biomedical imaging and medical robotics. The Society achieves this aim through the organization and operation of annual high-quality international conferences, workshops, tutorials and publications that promote and foster the exchange and dissemination of advanced knowledge, expertise and experience in the field produced by leading institutions and outstanding scientists, physicians and educators around the world. The MICCAI Society is committed to maintaining high academic standards and independence from any personal, political or commercial interests.

Additional information is available at http://www.miccai.org/

**About the GAMMA Challenge**

The GAMMA Challenge is an international ophthalmology competition held by Baidu at the MICCAI2021 seminar OMIA8. MICCAI is a comprehensive academic conference in the fields of medical image computing and computer-assisted intervention and is the top conference in these fields. OMIA is an Ophthalmic

Medical Image Analysis seminar organized by Baidu at the MICCAI conference, which has been held for eight sessions so far.

Additional information available at: https://aistudio.baidu.com/aistudio/competition/detail/90/0/introduction

Competition results: https://aistudio.baidu.com/aistudio/competition/detail/90/0/submit-result

**About DIAGNOS**

DIAGNOS is a publicly traded Canadian corporation dedicated to early detection of critical health problems based on its FLAIRE Artificial Intelligence (AI) platform. FLAIRE allows for quick modifying and developing of applications such as CARA (Computer Assisted Retina Analysis). CARA's image enhancement algorithms provide sharper, clearer and easier-to-analyze retinal images. CARA is a cost-effective tool for real-time screening of large volumes of patients. CARA has been cleared for commercialization by the following regulators: Health Canada, the FDA (USA), CE (Europe), COFEPRIS (Mexico) and Saudi FDA (Saudi Arabia).

Additional information is available at www.diagnos.com and www.sedar.com.

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