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DIAGNOS to Present Cutting-Edge AI Solutions for Retinal Health at ARVO 2024

BROSSARD, Quebec, Canada, May 6, 2024 - (GLOBE NEWSWIRE) -- Diagnos Inc. (“DIAGNOS” or “the Company”) (TSX Venture: ADK) (OTCQB: DGNOF), a provider of healthcare services in early detection of certain critical health issues, in collaboration with ETS, École de Technologie Supérieure, is proud to announce its participation in the Association for Research in Vision and Ophthalmology (ARVO) 2024 Annual Meeting. DIAGNOS will showcase its latest advancements in artificial intelligence applied to retinal imaging, aiming to revolutionize the way retinal anomalies are detected and diagnosed.

During ARVO 2024, DIAGNOS will present three groundbreaking topics:

1) AI-Assisted Automated Screening of Retinal Anomalies in OCT Images: A Deep Learning Approach
2) All that Glitters is not Gold: Are Current Retina Foundation Models Able to Efficiently Detect Hypertensive Retinopathy?
3) Domain Generalization for Diabetic Retinopathy Grading through Vision-Language Foundation Models

OCT Model:
DIAGNOS Convolutional Neural Network (CNN) models, based on OCT images, have achieved remarkable accuracy in identifying subtle changes in retinal morphology indicative of various diseases, such as macular edema, diabetic retinopathy, and age-related macular degeneration. These models, trained on large-scale datasets, extract relevant features from images automatically, enabling early detection of retinal anomalies. Early intervention facilitated by these models has the potential to prevent or delay vision loss and associated complications.

Hypertensive Retinopathy:
The early detection of Hypertensive Retinopathy (HR) is crucial to prevent irreversible damage to the retinal microcirculation as well as risk prediction tools in cardiovascular disease prevention. DIAGNOS is utilizing Foundation Models, pre-trained on diverse datasets and tasks, to achieve high accuracy in identifying early cases of HR. These computer-aided systems offer a cost-effective solution for disease screening using fundus images, providing objective assessments and assisting clinicians in timely intervention.

Vision Language Foundation Model:
DIAGNOS is exploring a foundation model for color fundus images able to encode images and text information through vision language encoders, driven by expert knowledge supervision via prompt descriptions. This interdisciplinary approach at the intersection of computer vision, natural language processing and medical imaging, aimed at improving the diagnosis and management of diabetic retinopathy through advanced machine learning techniques. DIAGNOS is at the forefront of innovation in the AI world applied to medical systems.

These innovative AI systems provide objective assessments and assist clinicians in interpreting complex Retinal Fundus and OCT images. By enhancing diagnostic confidence and reducing variability in interpretation among practitioners, DIAGNOS is pioneering a new era in retinal healthcare.

"We are excited to present our latest advancements in AI-driven retinal imaging at ARVO 2024," said **Yves-Stéphane Couture, COO at DIAGNOS Inc.** "Our goal is to empower clinicians with cutting-edge tools that enable early detection and intervention, ultimately improving patient outcomes in retinal health."

Here are the titles of our presentations with the link to the ARVO program.

1) AI-Assisted Automated Screening of Retinal Anomalies in OCT Images: A Deep Learning Approach. Hadi Chakor, Waziha Kabir, Riadh Kobbi, Jihed Chelbi, Marc-André Racine, Julio Silva-Rodríguez, Balamurali Murugesan, Jose Dolz and Ismail Ben Ayed.

2) All that glitters is not gold: are current retina foundation models able to efficiently detect hypertensive retinopathy? Julio Silva-Rodríguez, Hadi Chakor, Riadh Kobbi, Balamurali Murugesan, Waziha Kabir, Jihed Chelbi, Marc-André Racine, Jose Dolz and Ismail Ben Ayed

3) Domain generalization for diabetic retinopathy grading through vision-language foundation models. Balamurali Murugesan, Julio Silva-Rodríguez, Hadi Chakor, Riadh Kobbi, Waziha Kabir, Jihed Chelbi, Marc-André Racine, Jose Dolz and Ismail Ben Ayed.

Program link: https://eppro02.ativ.me/src/EventPilot/php/express/web/planner.php?id=ARVO24

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.

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

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