

# PRODUCT

Portfolio of next-generation ophthalmic image identification and analysis platform.

### INDICATION

For efficient prediction, diagnosis and treatment of ophthalmic diseases.

#### VALUE PROPOSITION

- Automated disease detection and characterization.
- Optimized diagnosis efficacy.
- Fast and accurate risk stratification.
- Individualized treatment.

### INTELLECTUAL PROPERTY

Multiple Patents Issued and Pending.

#### **RELATED PUBLICATIONS**

Li, H.H., et al. (2020). ARVO Journals, <u>Translational Vision</u> <u>Science & Technology, 9 (52).</u>

#### **CONTACT INFORMATION**

Sonja O'Malley Sr. Director Business Development and Domain Lead, Digital Health <u>omalles@ccf.org</u> 216.618.0741

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# **Ophthalmic Technology Portfolio**

Inventors: Justin Ehlers, MD, Sunil Srivastava, MD, Duriye Damla Sevgi, Jon Whitney, Jordan Bell Cole Eye Institute

# UNMET NEED

Image quality and objective quantitative assessment of angiographic imaging are currently lacking, creating a clinical problem around therapeutic assessment and monitoring. Image quality is critical to efficient diagnosis, risk stratification and treating ophthalmic disease. In practice, low-quality retinal images are produced due to insufficient contrast, lighting, patient movement, signal occlusion, etc. The core platform technology identifies quality images and utilizes validated machine learning models as the foundation advancing the characterization of the eye. The complex characterization and pattern analysis create an activity fingerprint with value in treatment assessment, planning, and monitoring.

# SOLUTION

A multi-faceted, comprehensive image selection based on the quality of the image and analysis suite provides predictive insights for risk stratification for clinical trial enrichment and patient-focused precision medicine opportunities. The suite of technologies includes:

- Angiographic Imaging Biomarkers in Posterior Segment Ophthalmic Diseases.
- Systems and Methods for Analysis of Ocular Inflammation.
- Vascular Parameters for Image Quality Assessment and Selection.
- Quantitative Ultra-widefield Angiography Assessment enhanced vascular feature assessment and segmentation.
- Automated Optical Coherence Tomography (OCT) Quality Assessment Tool using image feature extraction, machine learning (ML) classifier and ML-based confidence segmentation.
- Automated ML-Enabled Feature Extraction with Compartmental Mapping, Zonal and Panmacular Metrics – retinal fluid characterization.
- Deep Learning Platform for SD-OCT Image Characterization detects and quantifies geographic atrophy and perilesional characterization.
- Dry AMD analysis suite id progression risk and therapeutic response.
- Automated Detection for EZ Abnormalities.

