

## A Method for the Diagnosis of Blinding Eye Disease using Image Content and an Archive of Diagnosed Human Patient Data

### **Disclosure Number**

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### **Technology Summary**

This invention disclosure describes a technology for the rapid, computer-assisted diagnosis of blinding eye disease. Advances in the imaging of ocular anatomy and pathology now provide digital data to diagnose and quantify specific diseases such as diabetic retinopathy (DR). Visual disability and blindness have a profound socioeconomic impact upon the diabetic population and DR is the leading cause of new blindness in working-age adults in the industrialized world. Our invention provides a method that measures image content from diagnosed patient data in a large patient archive to make a statistical diagnosis of the degree of disease state that may exist in a previously undiagnosed patient and the characterization of the disease type. These methods apply to a broad range of human retinal pathologies so long as they impact the pigmentation of the retina or the morphology of major retinal structures such as the optic disc, macula/fovea regions, and the vascular arcades.

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