**“An AI-based digital twins’ approach to advance ophthalmic diagnostics”**

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Imagine a world where we can create virtual 3D models of almost anything using the Metaverse. Just like how digital twin technology replicates real-world objects, we want to use this technology to create a digital twin of the human eye. By combining artificial intelligence (AI) with various data sources, including genetics, sensors, and patient records, our goal is to revolutionize eye care.

We plan to build AI-driven models that learn from decades of patient data, specifically focusing on the eye. This wealth of information will help doctors make more informed treatment decisions, ultimately leading to better patient outcomes. Combining the Metaverse and AI will empower doctors to create highly personalized interventions for each individual.

We want to use AI to create a digital twin of a living human eye. We'll analyze diverse images from various eye scans, like optical coherence tomography and angiography. These images will train AI models to recognize patterns associated with different eye diseases. The result will be a digital replica of a patient's eye, allowing us to understand better and predict the impact of various treatments.

As a first step, we aim to apply this technology to improve clinical trials for eye diseases and drug discovery. By using AI to align diverse clinical data, including genetics and imaging, we can enhance the accuracy of these trials. Once successful, we can use the digital twin for educational purposes and even enable virtual outpatient consultations.

Our project seeks to harness the power of the Metaverse and AI to transform eye care. By creating digital twins of patients' eyes, we hope to usher in a new era of personalized medicine, where treatments are tailored to each individual for the best possible outcomes. Your support can help us turn this vision into a reality and make a lasting impact on eye health.