Functional Retinal Imaging Using Adaptive Optics Swept-Source OCT

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Abstract: Optoretinography has potential to measure photoreceptor function objectively and noninvasively. Its sensitivity to disease-related dysfunction depends essentially on the amount of variation in the responses among cones, individuals, and measurements. Our study uses AO-SS-OCT with 3D cellular resolution to measure phase changes in response to stimulus flashes in the human retina. We aim to quantify these sources of response variation, to establish a reliable baseline for assessing visual dysfunction in clinical populations. Preliminary results are presented here.