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News Release

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Grape Consumption Benefits Eye Health in Human Study of Older Adults *Grape intake improved macular pigment accumulation and downregulated harmful biomarkers*

Fresno, CA – In a recent randomized, controlled human study, consuming grapes for 16 weeks improved key markers of eye health in older adults. The study, published in the scientific journal *Food & Function* looked at the impact of regular consumption of grapes on macular pigment accumulation and other biomarkers of eye health.¹ This is the first human study on this subject, and the results reinforce earlier, preliminary studies where consuming grapes was found to protect retinal structure and function.²

Science has shown that an aging population has a higher risk of eye disease and vision problems. Key risk factors for eye disease include 1) oxidative stress and 2) high levels of ocular advanced glycation end products (AGEs). AGEs may contribute to many eye diseases by damaging the vascular components of the retina, impairing cellular function, and causing oxidative stress. Dietary antioxidants can decrease oxidative stress and inhibit the formation of AGEs, with possible beneficial effects on the retina, such as an improvement in Macular Pigment Optical Density (MPOD). Grapes are a natural source of antioxidants and other polyphenols.

In this new study, 34 human subjects consumed either grapes (equivalent to 1 ½ cups of grapes per day) or a placebo for 16 weeks. The grape eaters showed a significant increase in MPOD, plasma antioxidant capacity, and total phenolic content compared to those on placebo. Those who didn't consume grapes saw a significant increase in harmful AGEs, as measured in the skin.

"Our study is the first to show that grape consumption beneficially impacts eye health in humans which is very exciting, especially with a growing aging population," said Dr. Jung Eun Kim. "Grapes are an easy, accessible fruit that studies have shown can have a beneficial impact in normal amounts of just 1 ½ cups per day."

¹ Hu, W., Zheng, R., Feng, Y., Tan, D., Chung-Tsing, G.C., Su, X., and Kim, J.E. (2023). Impacts of regular consumption of grapes on macular pigment accumulation in Singapore older adults: a randomized, controlled trial. Food Funct. 14, 8321-8330. Doi: 10.1039/d3fo02105j

² Patel, A.K., Davis, A., Rodriguez, M.E., Agron, S., Hackam, A.S. (2016). Protective effects of a grape-supplemented diet in a mouse model of retinal degeneration. Nutrition, 32, 384-390. Doi: 10.1016/j.nut.2015.09.017