

THE GENETICS OF ARMD

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- I. Introduction/Review of Genetics
- II. Complement Factors and ARMD
 - a. Overview of Complement System
 - b. Complement Factor H
 - i. Y402H Variant
 - c. Complement Component 3
 - d. Complement Factor I
- III. Cholesterol Metabolizing Enzymes
 - a. Hepatic Lipase Gene (LIPC)
 - b. Lipoprotein Lipase Gene (LPL)
 - c. Cholesterol Ester Transferase Gene (CETP)
 - d. ABC-Binding Cassette A1 Gene (ABCA1)
- IV. Oxidative Stress
 - a. Age-Related Maculopathy Susceptibility 2 Gene (ARMS2)
 - i. Expressed in retinal mitochondria
- V. Extracellular Matrix
 - a. Metalloproteinase 3 (TIMP3)
 - i. Predictor for development of wet ARMD
- VI. Use of genetics to predict AMD Progression Risk
 - a. Assessment of multiple genetic risk factors
 - b. Effect on clinical decision making
 - i. Exam Frequency
 - ii. OCT
 - iii. Fundus Photography
 - iv. Nutritional Supplements
 1. AREDS
 2. Fish Oil
 3. Resveratrol
 4. Macular Pigments
 - v. Referral to Retina Specialist
 - vi. Home PHP
 - vii. Amsler Grid
- VII. Sources of ARMD Genetic Testing