Supplementary Figure 1. Comparison of baseline GA area in study and fellow eyes as measured at study baseline. Baseline ocular measurements in the study eye and fellow eye for each participant completing 24 months of study follow-up (n = 8) were plotted on the y-axis (study eye) and x-axis (fellow eye). Non-linear regression to the Y = X line was performed and the goodness-of-fit $R^2$ values computed for baseline GA areas between study and fellow eyes as measured from color fundus photographs (A), SLO autofluorescence images (B), and mFC autofluorescence images (C).
Supplementary Figure 2. Change in GA area measurement on fundus autofluorescence in the study and fellow eyes from baseline for all participants completing 24 months of study follow up (n = 8). (A, B) Change in GA area from baseline to Month 24 for each participant in study and fellow eyes, as measured using a modified fundus camera (mFC) (A) and a scanning laser ophthalmoscope (SLO) (B). (C, D) Mean absolute increase in GA area from baseline at 6, 12, 18, and 24 months as measured using mFC (C) and SLO (D). (E, F) Mean percentage increase in GA area from baseline at 6, 12, 18, and 24 months as measured using mFC (E) and SLO (F). P values indicate results of a two-tailed paired t-test.
Supplementary Figure 3. Mean and percentage changes in square root transformations of GA area measurements in the study and fellow eyes from baseline for all participants completing 24 months of study follow up (n = 8). Mean and percentage changes in square root transformations of GA area measurements were performed on color fundus photography (CFP) (A, B), modified fundus camera (mFC) autofluorescence imaging (C, D), and scanning laser ophthalmoscope (SLO) autofluorescence imaging (E, F). P values indicate results of a two-tailed paired t-test.
Supplementary Figure 4. Change in total drusen area in study and fellow eyes from baseline for all participants completing 24 months of follow-up (n = 8). (A) Absolute change in drusen area from baseline for each participant at Month 24 for study and fellow eyes. (B) Mean change in total drusen area from baseline at 12 and 24 months. P values indicate results of a two-tailed paired t-test.
### Supplementary Table 1. Eligibility and Exclusion Criteria

#### Subject-level inclusion criteria
- Age ≥ 55 years
- Clinical diagnosis of advanced atrophic age-related macular degeneration
- Able to understand and sign protocol’s informed consent document
- Female participants must be considered post-menopausal and must not be breast-feeding.
- Willingness to undergo subconjunctival injections

#### Subject-level exclusion criteria
- Inability to undergo study procedures or attend follow-up visits
- Enrollment in another investigational study and actively receiving study therapy
- Actively receiving chemotherapy treatment
- History of cancer (other than a non-melanoma skin cancer) diagnosed within the past five years
- Having a condition that, in the opinion of the investigator, would preclude participation in the study (e.g., unstable medical status including blood pressure and glycemic control)
- Having laboratory values outside normal limits and considered clinically significant by the investigator
- Present use of ocular or systemic medications known to be toxic to the lens, retina, or optic nerve
- Currently taking one of the following drugs: amprenavir, atazanvir, clarithromycin, darunavir, delavirdine, erythromycin, fluconazole (at doses of 200mg or greater), fluvoxamine, indinavir, itraconazole, ketoconazole, nefazodone, nelfinavir, posaconazole, quinupristin, ritonavir, saquinavir, telithromycin, troleandomycin, verapamil or voriconazole.

#### Ocular inclusion criteria (to be fulfilled by both eyes)
- Have at least ½ disc area (approximately 1 mm²) of GA compatible with AMD present in each eye
- Have at least one large druse (≥ 125 μm) in each eye
- Area of GA can be imaged in its entirety and is not contiguous with any areas of peripapillary atrophy
- Have visual acuity between 20/20 and 20/400 in each eye
- Currently taking immunosuppressive medication
- Adequate media clarity for quality fundus photographs

#### Ocular exclusion criteria (applies to either eye)
- History of other ocular disease that can confound the outcome of the study (e.g., diabetic retinopathy with 10 or more hemorrhages or microaneurysms, uveitis, pseudovitelliform macular degeneration/severe myopia)
- Topical treatment for advanced AMD within one month prior to enrollment other than AREDS vitamin supplementation
- Intravitreal injection of any other agent (not an anti-VEGF) within four months prior to study enrollment
- Expectation of ocular surgery during the course of the trial
- Lens removal in the last three months or YAG laser capsulotomy within the last month
- Chronic requirement for ocular medications for diseases that may affect the outcome of the study
- History of laser, photodynamic therapy (PDT)
- History of intravitreal injection of any agent (e.g., anti-VEGF, triamcinolone)
- History of ocular herpes simplex virus (HSV)
- History of a vitrectomy