

Table 4. List of Excluded Studies and Reason for Exclusion

Study	Reasons for exclusion*
Abdelfattah et al., 2018 ¹	Conference abstract
Abdillahi et al., 2014 ²	No GA subgroups of interest
Allingham et al., 2015 ³	Conference abstract
Applegate et al., 2015 ⁴	No necessary outcome data
Batioğlu et al., 2014 ⁵	No GA subgroups of interest
Bearely et al., 2011 ⁶	No GA subgroups of interest
Bhisitkul et al., 2015 ⁷	No untreated GA group
Biarnes et al., 2015 ⁸	No GA subgroups of interest
Brader et al., 2013 ⁹	No untreated GA group
Brader et al., 2015 ¹⁰	Conference abstract
Brunner et al., 2013 ¹¹	No untreated GA group
Caire et al., 2014 ¹²	No GA subgroups of interest
Chakravarthy et al., 2018 ¹³	No necessary outcome data
Chew et al., 2014 ¹⁴	No necessary outcome data
Christenbury et al., 2018 ¹⁵	No untreated GA group
Colijn et al., 2017 ¹⁶	No GA subgroups of interest
Dolz-Marco et al., 2018 ¹⁷	No GA subgroups of interest
Domalpally et al., 2016 ¹⁸	No GA subgroups of interest
Dreyhaupt et al., 2005 ¹⁹	No GA subgroups of interest
Dreyhaupt et al., 2007 ²⁰	No GA subgroups of interest
Ebneter et al., 2016 ²¹	No necessary outcome data
Farinha et al., 2019 ²²	No necessary outcome data
Fleckenstein et al., 2010 ²³	No GA subgroups of interest
Fleckenstein et al., 2011 ²⁴	No GA subgroups of interest
Fleckenstein et al., 2015 ²⁵	Conference abstract
Gensler et al., 2018 ²⁶	No GA subgroups of interest
Goerdt et al., 2017 ²⁷	Conference abstract
Grassmann et al., 2015 ²⁸	No GA subgroups of interest
Grunwald et al., 2017 ²⁹	No untreated GA group
Hecht et al., 2017 ³⁰	Conference abstract
Ho et al., 2017 ³¹	Conference abstract
Holz et al., 2001 ³²	No untreated GA group
Holz et al., 2007 ³³	No GA subgroups of interest
Holz et al., 2016 ³⁴	No GA subgroups of interest
Issa et al., 2016 ³⁵	No GA subgroups of interest
Jaffe et al., 2015 ³⁶	No GA subgroups of interest
Jaffe et al., 2019 ³⁷	No necessary outcome data
Jeong et al., 2014 ³⁸	No GA subgroups of interest
Joachim et al., 2013 ³⁹	No necessary outcome data
Kapre et al., 2015 ⁴⁰	No necessary outcome data
Kimel et al., 2016 ⁴¹	No necessary outcome data
Klein et al., 2010 ⁴²	No GA subgroups of interest
Krogh Nielsen et al., 2019 ⁴³	No GA subgroups of interest
Krogh Nielsen et al., 2019 ⁴⁴	No GA subgroups of interest
Lee et al., 2013 ⁴⁵	No GA subgroups of interest
Lindblad et al., 2009 ⁴⁶	No necessary outcome data
Lindner et al., 2015 ⁴⁷	No GA subgroups of interest
Lindner et al., 2016 ⁴⁸	Conference abstract
Lindner et al., 2017 ⁴⁹	No necessary outcome data
Lindner et al., 2018 ⁵⁰	No necessary outcome data
Marques et al., 2016 ⁵¹	No necessary outcome data
Mata et al., 2013 ⁵²	No GA subgroups of interest
Mauschitz., 2012 ⁵³	No GA subgroups of interest
Meleth et al., 2011 ⁵⁴	No GA subgroups of interest
Mones et al., 2017 ⁵⁵	No necessary outcome data
Moussa et al., 2013 ⁵⁶	No necessary outcome data
Nassisi et al., 2019 ⁵⁷	No GA subgroups of interest
Nittala et al., 2017 ⁵⁸	Conference abstract
Petrou et al., 2015 ⁵⁹	No GA subgroups of interest

Study	Reasons for exclusion
Pfau et al., 2016 ⁶⁰	Conference abstract
Pfau et al., 2018 ⁶¹	No GA subgroups of interest
Pilotto et al., 2013 ⁶²	No GA subgroups of interest
Pilotto et al., 2013 ⁶³	No GA subgroups of interest
Pilotto et al., 2015 ⁶⁴	No GA subgroups of interest
Pilotto et al., 2016 ⁶⁵	No GA subgroups of interest
Pipis et al., 2015 ⁶⁶	No necessary outcome data
Pitetta et al., 2017 ⁶⁷	No untreated GA group
Prahs et al., 2010 ⁶⁸	Conference abstract
Reumueller et al., 2019 ⁶⁹	No GA subgroups of interest
Rosenfeld et al., 2019 ⁷⁰	No necessary outcome data
Sayegh et al., 2017 ⁷¹	No GA subgroups of interest
Schatz et al., 1989 ⁷²	No necessary outcome data
Schmitz-Valckenberg et al., 2006 ⁷³	No GA subgroups of interest
Schmitz-Valckenberg et al., 2011 ⁷⁴	No GA subgroups of interest
Schmitz-Valckenberg et al., 2016 ⁷⁵	No GA subgroups of interest
Scholl et al., 2009 ⁷⁶	Overlapping dataset
Simader et al., 2014 ⁷⁷	No GA subgroups of interest
Spaide et al., 2019 ⁷⁸	No necessary outcome data
Staurenghi et al., 2018 ⁷⁹	Conference abstract
Sunness et al., 1999 ⁸⁰	No GA subgroups of interest
Sunness et al., 2007 ⁸¹	No GA subgroups of interest
Thorell et al., 2015 ⁸²	No necessary outcome data
Thulliez et al., 2019 ⁸³	No GA subgroups of interest
Varma et al., 2018 ⁸⁴	No necessary outcome data
Wang et al., 2015 ⁸⁵	Conference abstract
Weber et al., 2015 ⁸⁶	Conference abstract
Willoughby et al., 2015 ⁸⁷	No untreated GA group
Wong et al., 2010 ⁸⁸	No GA subgroups of interest
Wong et al., 2013 ⁸⁹	No GA subgroups of interest
Wurzelmann et al., 2015 ⁹⁰	Conference abstract
Wykoff et al., 2018 ⁹¹	Conference abstract
Xu et al., 2013 ⁹²	No GA subgroups of interest
Yasukawa et al., 2019 ⁹³	No untreated GA group
Yates et al., 2015 ⁹⁴	Conference abstract
Yehoshua et al., 2014 ⁹⁵	No GA subgroups of interest
Yehoshua et al., 2015 ⁹⁶	Conference abstract
Yehoshua et al., 2015 ⁹⁷	No GA subgroups of interest

GA = geographic atrophy

* "No GA subgroups of interest" represents studies did not classify patients into unifocal and multifocal GA subgroups; "No necessary outcome data" represents studies did not report necessary data for meta-analysis (e.g. GA lesion size at baseline and at follow-up in each subgroup); "No untreated GA group" represents studies did not include at least 5 patients with GA and without any ocular intervention.

References:

1. Abdelfattah NS, Sadda J, Wang ZY, et al. Geographic atrophy measurements in fundus autofluorescence versus infrared reflectance imaging in dry age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2018;59(9).
2. Abdillahi H, Enzmann V, Wittwer VV, et al. Vitreoretinal interface changes in geographic atrophy. *Ophthalmology* 2014;121(9):1734-9.
3. Allingham MJ, Izatt D, Nie Q, et al. Robust, easy-to-use, semiautomated software quantifies lesion rim area hyperautofluorescence and predicts progression of geographic atrophy. *Invest Ophthalmol Vis Sci* 2015;56(7):2829-.
4. Applegate CA, Sunness JS. Circularity index and other morphologic features as risk factors for the progression of geographic atrophy (GA) from AMD. *Invest Ophthalmol Vis Sci* 2015;56(7):2852-.
5. Batioğlu F, Oğuz YG, Demirel S, Özmet E. Geographic atrophy progression in eyes with age-related macular degeneration: Role of fundus autofluorescence patterns, fellow eye and baseline atrophy area. *Ophthalmic Res* 2014;52(2):53-9.
6. Bearely S, Khanifar AA, Lederer DE, et al. Use of fundus autofluorescence images to predict geographic atrophy progression. *Retina* 2011;31(1):81-6.
7. Bhisitkul RB, Mendes TS, Rofagha S, et al. Macular atrophy progression and 7-year vision outcomes in subjects from the ANCHOR, MARINA, and HORIZON studies: the SEVEN-UP study. *Am J Ophthalmol* 2015;159(5):915-24.e2.
8. Biarnes M, Arias L, Alonso J, et al. Increased fundus autofluorescence and progression of geographic atrophy secondary to age-related macular degeneration: The GAIN Study. *Am J Ophthalmol* 2015;160(2):345-53.e5.
9. Brader HS, Ying GS, Martin ER, et al. Characteristics of incident geographic atrophy in the complications of age-related macular degeneration prevention trial. *Ophthalmology* 2013;120(9):1871-9.
10. Brader HS, Pistilli M, Ying G-S, Maguire MG. Early progression of geographic atrophy in the complications of age-related macular degeneration prevention trial (CAPT). *Invest Ophthalmol Vis Sci* 2015;56(7):3790-.
11. Brunner S, Mora A, Fonseca J, et al. Monitoring of drusen and geographic atrophy area size after cataract surgery using the MD3RI tool for computer-aided contour drawing. *Ophthalmologica* 2013;229(2):86-93.
12. Caire J, Recalde S, Velazquez-Villoria A, et al. Growth of geographic atrophy on fundus autofluorescence and polymorphisms of CFH, CFB, C3, FHR1-3, and ARMS2 in age-related macular degeneration. *JAMA Ophthalmol* 2014;132(5):528-34.
13. Chakravarthy U, Bailey CC, Johnston RL, et al. Characterizing disease burden and progression of geographic atrophy secondary to age-related macular degeneration. *Ophthalmology* 2018;125(6):842-9.
14. Chew EY, Clemons TE, Agron E, et al. Ten-year follow-up of age-related macular degeneration in the age-related eye disease study: AREDS report no. 36. *JAMA Ophthalmol* 2014;132(3):272-7.
15. Christenbury JG, Phasukkijwatana N, Gilani F, et al. Progression of macular atrophy in eyes with type 1 neovascularization and age-related macular degeneration receiving long-term intravitreal anti-vascular endothelial growth factor therapy an optical coherence tomographic angiography analysis. *Retina* 2018;38(7):1276-88.
16. Colijn JM, Buitendijk GHS, Prokofyeva E, et al. Prevalence of age-related macular degeneration in europe. The past and the future. *Ophthalmology* 2017.
17. Dolz-Marco R, Balaratnasingam C, Messinger JD, et al. The border of macular atrophy in age-related macular degeneration: a clinicopathologic correlation. *Am J Ophthalmol* 2018;193:166-77.
18. Domalpally A, Danis R, Agron E, et al. Evaluation of geographic atrophy from color photographs and fundus autofluorescence images: Age-Related Eye Disease Study 2 report number 11. *Ophthalmology* 2016;123(11):2401-7.
19. Dreyhaupt J, Mansmann U, Pritsch M, et al. Modelling the natural history of geographic atrophy in patients with age-related macular degeneration. *Ophthalmic Epidemiol* 2005;12(6):353-62.
20. Dreyhaupt J, Dolar-Szczasny J, Bindewald A, et al. Discovery of factors influencing the growth of geographic atrophy in patients with age-related macular degeneration. *Methods Inf Med* 2007;46(4):432-9.
21. Ebnetter A, Jaggi D, Wolf S, Zinkernagel M. Inner nuclear layer thickness predicts geographic atrophy progression in age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2016;57(12):34-.
22. Farinha CVL, Cachulo ML, Alves D, et al. Incidence of age-related macular degeneration in the central region of portugal: The coimbra eye study - Report 5. *Ophthalmic Res* 2019;61(4):226-35.
23. Fleckenstein M, Schmitz-Valckenberg S, Adrión C, et al. Tracking progression with spectral-domain optical coherence tomography in geographic atrophy caused by age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2010;51(8):3846-52.

24. Fleckenstein M, Schmitz-Valckenberg S, Adrión C, et al. Progression of age-related geographic atrophy: role of the fellow eye. *Invest Ophthalmol Vis Sci* 2011;52(9):6552-7.
25. Fleckenstein M, Nadal J, Fimmers R, et al. Modeling progression in terms of visual loss in geographic atrophy secondary to age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2015;56(7):2822-.
26. Gensler G, Clemons TE, Domalpally A, et al. Treatment of geographic atrophy with intravitreal sirolimus: The Age-Related Eye Disease Study 2 ancillary study. *Ophthalmology retina* 2018;2(5):441-50.
27. Goerdt L, Pfau M, Lindner M, et al. Lesion area, perimeter and diameter as prognostic markers for the progression of geographic atrophy (GA) secondary to age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2017;58(8):40-.
28. Grassmann F, Fleckenstein M, Chew EY, et al. Clinical and genetic factors associated with progression of geographic atrophy lesions in age-related macular degeneration. *PLoS ONE [Electronic Resource]* 2015;10(5):e0126636.
29. Grunwald JE, Pistilli M, Daniel E, et al. Incidence and growth of geographic atrophy during 5 years of comparison of age-related macular degeneration treatments trials. *Ophthalmology* 2017;124(1):97-104.
30. Hecht A, Pollreisz A, Told R, et al. Evaluation of choriocapillaris (CC) density and RPE morphology in geographic atrophy (GA) due to age-related macular degeneration (AMD) in a one year follow-up including optical coherence tomography angiography (OCTA) and polarization sensitive OCT (PS-OCT). *Invest Ophthalmol Vis Sci* 2017;58(8):386-.
31. Ho Q, Mackowski M, Kerr K, et al. Comparison of three baseline measures to predict geographic atrophy progression rate in clinical studies. *Invest Ophthalmol Vis Sci* 2017;58(8):2343-.
32. Holz FG, Bellman C, Staudt S, et al. Fundus autofluorescence and development of geographic atrophy in age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2001;42(5):1051-6.
33. Holz FG, Bindewald-Wittich A, Fleckenstein M, et al. Progression of geographic atrophy and impact of fundus autofluorescence patterns in age-related macular degeneration. *Am J Ophthalmol* 2007;143(3):463-72.e2.
34. Holz F. Efficacy and safety results from a randomized, controlled, two-year study of emixustat hydrochloride in patients with geographic atrophy secondary to age-related macular degeneration (S.E.A.T.T.L.E. Study). *Ophthalmologica* 2016;236 (Supplement 1):4.
35. Issa PC, Gliem M, Mueller PL, et al. Frequency, phenotype and progression of geographic atrophy associated with pseudoxanthoma elasticum, a model disease for a diseased Bruch's membran. *Invest Ophthalmol Vis Sci* 2016;57(12):2151-.
36. Jaffe GJ, Schmitz-Valckenberg S, Boyer D, et al. Randomized trial to evaluate tandospirone in geographic atrophy secondary to age-related macular degeneration: The GATE study. *Am J Ophthalmol* 2015;160(6):1226-34.
37. Jaffe GJ, Ying GS, Toth CA, et al. Macular morphology and visual acuity in year five of the comparison of age-related macular degeneration treatments trials. *Ophthalmology* 2019;126(2):252-60.
38. Jeong YJ, Hong IH, Chung JK, et al. Predictors for the progression of geographic atrophy in patients with age-related macular degeneration: fundus autofluorescence study with modified fundus camera. *Eye* 2014;28(2):209-18.
39. Joachim N, Mitchell P, Kifley A, et al. Incidence and progression of geographic atrophy: observations from a population-based cohort. *Ophthalmology* 2013;120(10):2042-50.
40. Kapre AW, Kimel M, Bressler N, et al. Sensitivity of functional reading independence (FRI) index to change in size of geographic atrophy. *Value Health* 2015;18 (3):A184.
41. Kimel M, Leidy NK, Tschosik E, et al. Functional reading independence (FRI) index: A new patient-reported outcome measure for patients with geographic atrophy. *Invest Ophthalmol Vis Sci* 2016;57(14):6298-304.
42. Klein ML, Ferris FL, 3rd, Francis PJ, et al. Progression of geographic atrophy and genotype in age-related macular degeneration. *Ophthalmology* 2010;117(8):1554-9, 9.e1.
43. Krogh Nielsen M, Subhi Y, Molbech CR, et al. Patients with a fast progression profile in geographic atrophy have increased CD200 expression on circulating monocytes. *Clin Exp Ophthalmol* 2019;47(1):69-78.
44. Krogh Nielsen M, Subhi Y, Molbech CR, et al. Systemic levels of interleukin-6 correlate with progression rate of geographic atrophy secondary to age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2019;60(1):202-8.
45. Lee JY, Lee DH, Lee JY, Yoon YH. Correlation between subfoveal choroidal thickness and the severity or progression of nonexudative age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2013;54(12):7812-8.
46. Lindblad AS, Lloyd PC, Clemons TE, et al. Change in area of geographic atrophy in the age-related eye disease study: AREDS report number 26. *Arch Ophthalmol* 2009;127(9):1168-74.
47. Lindner M, Boker A, Mauschitz MM, et al. Directional kinetics of geographic atrophy progression in age-related macular degeneration with foveal sparing. *Ophthalmology* 2015;122(7):1356-65.

48. Lindner M, Lambertus S, Bax NM, et al. Comparison of retinal pigment epithelium atrophy progression in late-onset stargardt disease and age-related macular degeneration. *Ophthalmologica* 2016;236 (Supplement 1):15.
49. Lindner M, Nadal J, Mauschitz MM, et al. Combined fundus autofluorescence and near infrared reflectance as prognostic biomarkers for visual acuity in foveal-sparing geographic atrophy/visual acuity in foveal-sparing GA. *Invest Ophthalmol Vis Sci* 2017;58(6):BIO61-BIO7.
50. Lindner M, Kosanetzky S, Pfau M, et al. Local progression kinetics of geographic atrophy in age-related macular degeneration are associated with atrophy border morphology. *Invest Ophthalmol Vis Sci* 2018;59(4):AMD12-AMD8.
51. Marques MF, Marques JP, Gil JQ, et al. Treatment of RAP lesions in clinical practice: A 5 year follow-up. *Ophthalmologica* 2016;236 (Supplement 1):17.
52. Mata NL, Lichter JB, Vogel R, et al. Investigation of oral fenretinide for treatment of geographic atrophy in age-related macular degeneration. *Retina* 2013;33(3):498-507.
53. Mauschitz MM, Fonseca S, Chang P, et al. Topography of geographic atrophy in age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2012;53(8):4932-9.
54. Meleth AD, Mettu P, Agron E, et al. Changes in retinal sensitivity in geographic atrophy progression as measured by microperimetry. *Invest Ophthalmol Vis Sci* 2011;52(2):1119-26.
55. Monés J, Biarnés M. Geographic atrophy phenotype identification by cluster analysis. *Br J Ophthalmol* 2017;bjophthalmol-2017-310268.
56. Moussa K, Lee JY, Stinnett SS, Jaffe GJ. Spectral domain optical coherence tomography-determined morphologic predictors of age-related macular degeneration-associated geographic atrophy progression. *Retina* 2013;33(8):1590-9.
57. Nassisi M, Baghdasaryan E, Borrelli E, et al. Choriocapillaris flow impairment surrounding geographic atrophy correlates with disease progression. *PLoS One* 2019;14(2):e0212563.
58. Nittala MG, Hariri AH, Uji A, et al. Effect of human central nervous system stem cells subretinal transplantation on progression of geographic atrophy secondary to non neovascular age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2017;58(8):29-.
59. Petrou PA, Cunningham D, Shimel K, et al. Intravitreal sirolimus for the treatment of geographic atrophy: Results of a phase I/II clinical trial. *Invest Ophthalmol Vis Sci* 2015;56(1):330-8.
60. Pfau M, Lindner M, Goerdt L, et al. The perimeter as predictor for the progression of geographic atrophy (GA) secondary to age-related macular degeneration (AMD). *Invest Ophthalmol Vis Sci* 2016;57(12):1613-.
61. Pfau M, Lindner M, Goerdt L, et al. Prognostic value of shape-descriptive factors for the progression of geographic atrophy secondary to age-related macular degeneration. *Retina* 2019;39(8):1527-40.
62. Pilotto E, Guidolin F, Convento E, et al. Fundus autofluorescence and microperimetry in progressing geographic atrophy secondary to age-related macular degeneration. *Br J Ophthalmol* 2013;97(5):622-6.
63. Pilotto E, Benetti E, Convento E, et al. Microperimetry, fundus autofluorescence, and retinal layer changes in progressing geographic atrophy. *Can J Ophthalmol* 2013;48(5):386-93.
64. Pilotto E, Guidolin F, Convento E, et al. Progressing geographic atrophy: choroidal thickness and retinal sensitivity identify two clinical phenotypes. *Br J Ophthalmol* 2015;99(8):1082-6.
65. Pilotto E, Convento E, Guidolin F, et al. Microperimetry features of geographic atrophy identified with en face optical coherence tomography. *JAMA Ophthalmology* 2016;134(8):873-9.
66. Pipis A, Touliou E, Pillunat LE, Augustin AJ. Effect of the blue filter intraocular lens on the progression of geographic atrophy. *Eur J Ophthalmol* 2015;25(2):128-33.
67. Pitetta S, Nittala MG, Hariri AH, et al. Effect of drusen volume index on geographic atrophy progression in subjects with dry age related macular degeneration. *Invest Ophthalmol Vis Sci* 2017;58(8):380-.
68. Prahs P, Walter A, Regler R, et al. Selective retina therapy (SRT) in patients with geographic atrophy due to age-related macular degeneration. *Graefes Arch Clin Exp Ophthalmol* 2010;248(5):651-8.
69. Reumueller A, Sacu S, Karantonis MG, et al. Semi-automated quantification of geographic atrophy with blue-light autofluorescence and spectral-domain optical coherence tomography: a comparison between the region finder and the advanced retinal pigment epithelium tool in the clinical setting. 2019.
70. Rosenfeld PJ, Dugel PU, Holz FG, et al. Corrigendum. *Ophthalmology* 2019;126(3):471-2.
71. Sayegh RG, Sacu S, Dunavolgyi R, et al. Geographic atrophy and foveal-sparing changes related to visual acuity in patients with dry age-related macular degeneration over time. *Am J Ophthalmol* 2017;179:118-28.
72. Schatz H, McDonald HR. Atrophic macular degeneration. Rate of spread of geographic atrophy and visual loss. *Ophthalmology* 1989;96(10):1541-51.

73. Schmitz-Valckenberg S, Bindewald-Wittich A, Dolar-Szczasny J, et al. Correlation between the area of increased autofluorescence surrounding geographic atrophy and disease progression in patients with AMD. *Invest Ophthalmol Vis Sci* 2006;47(6):2648-54.
74. Schmitz-Valckenberg S, Brinkmann CK, Alten F, et al. Semiautomated image processing method for identification and quantification of geographic atrophy in age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2011;52(10):7640-6.
75. Schmitz-Valckenberg S, Sahel JA, Danis R, et al. Natural history of geographic atrophy progression secondary to age-related macular degeneration (Geographic Atrophy Progression Study). *Ophthalmology* 2016;123(2):361-8.
76. Scholl HP, Fleckenstein M, Fritzsche LG, et al. CFH, C3 and ARMS2 are significant risk loci for susceptibility but not for disease progression of geographic atrophy due to AMD. *PLoS ONE [Electronic Resource]* 2009;4(10):e7418.
77. Simader C, Sayegh RG, Montuoro A, et al. A longitudinal comparison of spectral-domain optical coherence tomography and fundus autofluorescence in geographic atrophy. *Am J Ophthalmol* 2014;158(3):557-66.e1.
78. Spaide RF, Yannuzzi L, Freund KB, et al. Eyes with subretinal drusenoid deposits and no drusen: Progression of macular findings. *Retina (Philadelphia, Pa)* 2019;39(1):12-26.
79. Staurenghi G, Holekamp N, Mones J, et al. Natural history of geographic atrophy secondary to age-related macular degeneration: Proxima A data from the 1-year analysis of 100 patients. *Invest Ophthalmol Vis Sci* 2018;59(9).
80. Sunness JS, Gonzalez-Baron J, Applegate CA, et al. Enlargement of atrophy and visual acuity loss in the geographic atrophy form of age-related macular degeneration. *Ophthalmology* 1999;106(9):1768-79.
81. Sunness JS, Margalit E, Srikanth D, et al. The long-term natural history of geographic atrophy from age-related macular degeneration: enlargement of atrophy and implications for interventional clinical trials. *Ophthalmology* 2007;114(2):271-7.
82. Thorell MR, Goldhardt R, Nunes RP, et al. Association between subfoveal choroidal thickness, reticular pseudodrusen, and geographic atrophy in age-related macular degeneration. *Ophthalmic Surgery, Lasers & Imaging Retina* 2015;46(5):513-21.
83. Thulliez M, Motulsky EH, Feuer W, et al. En face imaging of geographic atrophy using different swept-source oct scan patterns. *Ophthalmol Retina* 2019;3(2):122-32.
84. Varma R, Souied EH, Tufail A, et al. Maximum reading speed in patients with geographic atrophy secondary to age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2018;59(4):AMD195-AMD201.
85. Wang F, Fries M, Wurzelmann JI, et al. Patient-reported visual function in patients with geographic atrophy secondary to age-related macular degeneration (AMD): Baseline characteristics of the BAM114341 cohort. *Invest Ophthalmol Vis Sci* 2015;56 (7):2811.
86. Weber BH, Fleckenstein M, Chew EY, et al. Genetic and clinical factors associated with progression of geographic atrophy in age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2015;56(7):2828-.
87. Willoughby AS, Ying GS, Toth CA, et al. Subretinal Hyperreflective Material in the Comparison of Age-Related Macular Degeneration Treatments Trials. *Ophthalmology* 2015;122(9):1846-53.e5.
88. Wong WT, Kam W, Cunningham D, et al. Treatment of geographic atrophy by the topical administration of OT-551: results of a phase II clinical trial. *Invest Ophthalmol Vis Sci* 2010;51(12):6131-9.
89. Wong WT, Dresner S, Forooghian F, et al. Treatment of geographic atrophy with subconjunctival sirolimus: results of a phase I/II clinical trial. *Invest Ophthalmol Vis Sci* 2013;54(4):2941-50.
90. Wurzelmann JI, Lopez FJ, Fries M, et al. SNPs associated with complement factor I do not predict 4-month lesion growth rate in geographic atrophy. *Invest Ophthalmol Vis Sci* 2015;56(7):2850-.
91. Wykoff CC, Grossi FV. APL-2, a complement C3 inhibitor, slows the growth of geographic atrophy secondary to AMD: 18-month results of a phase 2 trial (FILLY). *Invest Ophthalmol Vis Sci: ASSOC RESEARCH VISION OPHTHALMOLOGY INC 12300 TWINBROOK PARKWAY, ROCKVILLE ...*, 2018; v. 59.
92. Xu L, Blonska AM, Pumariega NM, et al. Reticular macular disease is associated with multilobular geographic atrophy in age-related macular degeneration. *Retina* 2013;33(9):1850-62.
93. Yasukawa T, Mori R, Sawa M, et al. Fundus autofluorescence and retinal sensitivity in fellow eyes of age-related macular degeneration in Japan. *PLoS ONE [Electronic Resource]* 2019;14(2):e0213161.
94. Yates PA, Holbrook K, Reichel E, et al. Designing a clinical study to evaluate potential therapeutics for geographic atrophy secondary to non-exudative age-related macular degeneration. *Invest Ophthalmol Vis Sci* 2015;56(7):2835-.
95. Yehoshua Z, Alexandre De Amorim Garcia Filho C, Nunes RP, et al. Systemic complement inhibition with eculizumab for geographic atrophy in age-related macular degeneration: The COMPLETE study. *Ophthalmology* 2014;121(3):693-701.

96. Yehoshua Z, de Amorim Garcia Filho CA, Nunes RP, et al. Association between growth of geographic atrophy (GA) and the complement factor I (CFI) Locus. *Invest Ophthalmol Vis Sci* 2015;56(7):2845-.
97. Yehoshua Z, de Amorim Garcia Filho CA, Nunes RP, et al. Comparison of geographic atrophy growth rates using different imaging modalities in the complete study. *Ophthalmic Surg Lasers Imaging Retina* 2015;46(4):413-22.