

The New York Stem Cell Foundation (NYSCF) Research Institute and the NIH National Eye Institute (NEI) have generated iPSCs from age-related macular degeneration (AMD) patients, which are available for distribution to the vision research community. The patients are enrolled in the Age-Related Eye Disease Study (AREDS) and were selected by NEI. The initial lines have mutations in genes that are known to confer high risk towards developing AMD. The AREDS iPSC cohort will have its extensive clinical and medical data available to researchers and the hope is that phenotypic correlations with these lines will spur a better understanding of how AMD starts and progresses. PBMCs were isolated from whole blood, reprogrammed to iPSCs via Sendai virus, monoclonalized, expanded, and QC assays performed using the NYSCF Global Stem Cell Array®. iPSCs will be distributed with an SOP for thawing and expansion and a Certificate of Analysis (CoA).

To request any of the below iPSC lines, please email repository@nyscf.org indicating which line(s) you would like to obtain and outlining a brief research plan.

Gene			CFH	CFH	CFB	CFB	ARMS2	HTRA1	C3	C3
Coding			V62I	H402Y	L9H	R32L	A69S	NC	P314R	R102S
Location*			1:196673103	1:196690107	6:31946247	6:31946403	10:122454932	10:122461028	19:6713251	19:6718376
Non-Risk			A	T	A	A	G	G	G	C
Risk**			G	C	T	G	T	A	A	G
rsID			rs800292	rs1061170	rs4151667	rs641153	rs10490924	rs11200638	rs1047286	rs2230199
NYSCF ID	SEX	NEI ARD2 ID								
BB0064	Male	AR2_3080	GIG	CIC	TIT	GIG	GIG	GIG	GIG	GIG
BB0152	Female	AR2_0821	GIG	CIC	TIT	GIG	GIG	GIG	GIG	GIG
BB0045	Female	AR2_3542	GIG	CIC	TIT	GIG	GIG	GIG	GIG	GIG
BB0108	Female	AR2_3927	GIG	CIC	TIT	GIG	GIG	GIG	GIG	GIG
BB0038	Female	AR2_4202	GIG	CIC	TIT	GIG	GIG	GIG	GIG	GIG
BB0072	Female	AR2_1639	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG
BB0125	Female	AR2_3814	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG
BB0088	Female	AR2_3816	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG
BB0109	Female	AR2_3205	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG
BB0066	Male	AR2_1280	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG
BB0073	Male	AR2_2791	GIG	CIC	TIT	GIG	TIT	AIA	GIG	GIG

Additionally, over the next few months, an additional 62 AREDS AMD-patient derived iPSC lines will become available for distribution on a rolling basis. Over the next 6-9 months, RPE progenitors from all iPSC lines will become available for distribution.

*Location of alleles is based on Genome Reference Consortium Human Build 38 (https://www.ncbi.nlm.nih.gov/assembly/GCF_000001405.26/)

**Note, alleles are reported for the forward strand