

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 (AREDS2) and were selected by NEI. The initial lines have mutations in genes that are known to confer high risk towards developing AMD. The AREDS2 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<sup>®</sup>. 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](mailto:repository@nyscf.org) indicating which line(s) you would like to obtain and outlining a brief research plan.

Gene			CFH	CFH	ARMS2	HTRA1	CFB	CFB	C3	C3
Coding			H402Y	V62I	A69S	NC	R32L	L9H	P314R	R102S
Location			1:196690107	1:196673103	10:122454932	10:122461028	6:31946403	6:31946247	19:6713251	19:6718376
Non-Risk			T	A	G	G	A	A	G	C
Risk			C	G	T	A	G	T	A	G
rsID			rs1061170	rs800292 (A/G)	rs10490924 (G/T)	rs11200638 (A/G)	rs641153	rs4151667 (A/T)	rs1047286 (A/G)	rs2230199 (C/G)
NYSCF ID	SEX	NEI AREDS2 ID								
BB0038	Female	AR2_4202	C C	G G	G G	G G	G G	T T	G G	G G
BB0045	Female	AR2_3542	C C	G G	G G	G G	G G	T T	G G	G G
BB0064	Male	AR2_3080	C C	G G	G G	G G	G G	T T	G G	G G
BB0066	Male	AR2_1280	C C	G G	T T	A A	G G	T T	G G	G G
BB0072	Female	AR2_1639	C C	G G	T T	A A	G G	T T	G G	G G
BB0073	Male	AR2_2791	C C	G G	T T	A A	G G	T T	G G	G G
BB0088	Female	AR2_3816	C C	G G	T T	A A	G G	T T	G G	G G
BB0108	Female	AR2_3927	C C	G G	G G	G G	G G	T T	G G	G G
BB0109	Female	AR2_3205	C C	G G	T T	A A	G G	T T	G G	G G
<b>BB0125</b>	<b>Female</b>	<b>AR2_3814</b>	<b>C C</b>	<b>G G</b>	<b>T T</b>	<b>A A</b>	<b>G G</b>	<b>T T</b>	<b>G G</b>	<b>G G</b>
BB0152	Female	AR2_0821	C C	G G	G G	G G	G G	T T	G G	G G
BB0004	Male	AR2_3998	C C	G G	G G	G G	G A	T T	A G	C G
BB0005	Male	AR2_0139	T C	A G	G G	G G	G G	T T	A G	C G
BB0008	Female	AR2_4172	C C	G G	G G	G G	G G	T T	G G	C G

BB0011	Female	AR2_1759	C C	G G	G G	G G	A G	T T	G G	G G
BB0012	Female	AR2_2321	C C	G G	T T	A A	G G	T T	G A	G C
BB0013	Male	AR2_0101	C C	G G	G G	G G	G G	T T	G G	C G
BB0015	Female	AR2_1970	C C	G G	T T	A A	G G	T T	A G	G C
BB0016	Female	AR2_3984	C C	G G	T T	A A	G G	A T	G G	G G
BB0018	Male	AR2_2632	C C	G G	G G	G G	G G	T T	G G	G G
BB0020	Female	AR2_0581	T C	A G	T T	A A	G G	T T	G G	C G
BB0021	Female	AR2_1984	C C	G G	T T	A A	G G	T T	G A	G C
BB0022	Male	AR2_2223	C C	G G	G G	G G	G G	T T	G A	G C
BB0026	Male	AR2_2727	C C	G G	T T	A A	G G	T T	A G	C G
BB0027	Male	AR2_2780	T T	G G	G G	G G	G G	T T	A G	C G
BB0039	Male	AR2_0199	C C	G G	G G	G G	G G	T T	A G	C G
BB0049	Male	AR2_4178	C C	G G	G G	G G	G G	T T	G A	C G
BB0050	Male	AR2_1019	C C	G G	G G	G G	G G	T T	G A	G C
BB0053	Male	AR2_0449	C C	G G	T T	A A	G G	T T	A G	C G
BB0054	Female	AR2_0953	C C	G G	G G	G G	G G	T T	G A	G C
BB0058	Male	AR2_3958	C C	G G	G G	G G	A G	T T	G G	G G
BB0060	Male	AR2_2597	C C	G G	G G	G G	G G	T T	G A	G C
BB0062	Female	AR2_1611	C C	G G	G G	G G	G G	T T	A G	C C
BB0067	Female	AR2_2682	T C	A G	T T	A A	G G	T T	A G	C G
BB0068	Female	AR2_3750	C C	G G	T T	A A	G G	T T	G A	G C
BB0076	Male	AR2_1267	T T	A A	G G	G G	G G	T T	G G	G G
BB0078	Male	AR2_2699	C C	G G	T T	A A	G G	T T	A A	C C
<b>BB0082</b>	<b>Male</b>	<b>AR2_1320</b>	<b>T C</b>	<b>G G</b>	<b>T T</b>	<b>A A</b>	<b>G G</b>	<b>T T</b>	<b>G A</b>	<b>G C</b>
BB0090	Female	AR2_0259	C C	G G	T T	A A	G G	T T	G A	G C
BB0092	Female	AR2_1889	C C	G G	G G	G G	G G	T T	A G	C G
BB0098	Male	AR2_0299	T T	G G	G G	G G	G G	T T	G A	G C
BB0100	Female	AR2_2297	C C	G G	G G	G G	G G	T T	A A	C C
BB0102	Female	AR2_1760	T C	G G	G G	G G	G G	T T	G G	G G
<b>BB0104</b>	<b>Female</b>	<b>AR2_3777</b>	<b>T C</b>	<b>G G</b>	<b>G G</b>	<b>G G</b>	<b>G G</b>	<b>T T</b>	<b>G A</b>	<b>G C</b>

BB0105	Male	AR2_2579	C C	G G	G G	G G	A G	T T	A G	C G
BB0106	Male	AR2_3645	C C	G G	T T	A A	G G	T T	G G	G G
<b>BB0114</b>	<b>Female</b>	<b>AR2_0212</b>	<b>T C</b>	<b>G G</b>	<b>T T</b>	<b>A A</b>	<b>G G</b>	<b>T T</b>	<b>G A</b>	<b>G C</b>
BB0118	Female	AR2_1837	T T	A G	G G	G G	G G	T A	G A	G C
BB0120	Female	AR2_2341	C C	G G	T T	A A	G G	T T	G G	G G
BB0124	Male	AR2_3638	C C	G G	G G	G G	G G	T T	G G	G G
BB0126	Male	AR2_0784	C C	G G	G G	G G	A G	T T	G G	G G
BB0127	Male	AR2_0337	C C	G G	T T	A A	G G	T A	G G	G G
BB0128	Male	AR2_0948	T T	G G	G G	G G	G G	T T	A G	C G
BB0129	Male	AR2_2835	C C	G G	G G	G G	G G	T T	A A	C C
BB0134	Male	AR2_1621	T T	G A	G G	G G	G A	T T	G G	G G
BB0138	Male	AR2_3137	C C	G G	G G	G G	G G	T T	G A	G C
BB0142	Male	AR2_2728	C C	G G	G G	G G	G G	T T	G G	G G
BB0144	Female	AR2_4193	C C	G G	T T	A A	G G	T T	A A	C C
BB0148	Female	AR2_1824	C C	G G	G G	G G	G G	T T	G A	G C
BB0156	Female	AR2_0984	C C	G G	G G	G G	A G	T T	G G	G G
BB0161	Female	AR2_1236	C C	G G	T T	A A	G G	T T	G G	G C
<b>BB0166</b>	<b>Male</b>	<b>AR2_0647</b>	<b>C C</b>	<b>G G</b>	<b>T T</b>	<b>A A</b>	<b>G G</b>	<b>T T</b>	<b>G A</b>	<b>G C</b>
BB0174	Male	AR2_3447	C C	G G	T T	A A	G G	T T	G A	G G
BB0176	Male	AR2_3436	C C	G G	T T	A A	A G	T T	G A	G C
BB0178	Female	AR2_3723	C C	G G	G G	G G	G G	T T	A A	C C

\*Note, cell lines in **bold** are from patients with rare variants.

Over the next few months, an additional 8 AREDS2 AMD-patient derived iPSC lines will become available for distribution on a rolling basis, as well as matching isogenic control iPSCs.

Location of alleles is based on Genome Reference Consortium Human Build 38 ([https://www.ncbi.nlm.nih.gov/assembly/GCF\\_000001405.26/](https://www.ncbi.nlm.nih.gov/assembly/GCF_000001405.26/)) and are reported on the forward strand.