

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®. 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	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 Global Unique ID								
BB0038	Female	NEI_INVJV598FEK	C C	G G	G G	G G	G G	T T	G G	G G
BB0045	Female	NEI_INVAK015ZMD	C C	G G	G G	G G	G G	T T	G G	G G
BB0064	Male	NEI_INVYL918KAQ	C C	G G	G G	G G	G G	T T	G G	G G
BB0066	Male	NEI_INVKC994LW9	C C	G G	T T	A A	G G	T T	G G	G G
BB0072	Female	NEI_INVUC504JMY	C C	G G	T T	A A	G G	T T	G G	G G
BB0073	Male	NEI_INVDL673ZK9	C C	G G	T T	A A	G G	T T	G G	G G
BB0088	Female	NEI_INVWT178JJM	C C	G G	T T	A A	G G	T T	G G	G G
BB0108	Female	NEI_INVBV755HXA	C C	G G	G G	G G	G G	T T	G G	G G
BB0109	Female	NEI_INVNR296CYT	C C	G G	T T	A A	G G	T T	G G	G G
BB0125	Female	NEI_INVZU179UFZ	C C	G G	T T	A A	G G	T T	G G	G G
BB0152	Female	NEI_INVGA152TUJ	C C	G G	G G	G G	G G	T T	G G	G G
BB0001	Female	NEI_INVCX895BFT	T T	A A	G G	G G	G A	T T	G G	G G
BB0004	Male	NEI_INVPY034NRJ	C C	G G	G G	G G	G A	T T	A G	C G
BB0005	Male	NEI_INVRY242CJ2	T C	A G	G G	G G	G G	T T	A G	C G
BB0008	Female	NEI_INVPB517GP2	C C	G G	G G	G G	G G	T T	G G	C G

BB0011	Female	NEI_INVFV999WUX	C C	G G	G G	G G	A G	T T	G G	G G
BB0012	Female	NEI_INVDP557YDB	C C	G G	T T	A A	G G	T T	G A	G C
BB0013	Male	NEI_INVJM427HTY	C C	G G	G G	G G	G G	T T	G G	C G
BB0015	Female	NEI_INVBV549CAE	C C	G G	T T	A A	G G	T T	A G	G C
BB0016	Female	NEI_INVUG883TTP	C C	G G	T T	A A	G G	A T	G G	G G
BB0017	Female	NEI_INVTT607VPZ	C C	G G	G G	G G	G G	T T	G A	C G
BB0018	Male	NEI_INVMR061ZP7	C C	G G	G G	G G	G G	T T	G G	G G
BB0019	Male	NEI_INVNN710LNC	T C	G G	G G	G G	G A	T T	G G	G G
BB0020	Female	NEI_INVPP803MKG	T C	A G	T T	A A	G G	T T	G G	C G
BB0021	Female	NEI_INVAX305JG1	C C	G G	T T	A A	G G	T T	G A	G C
BB0022	Male	NEI_INVYW416YUE	C C	G G	G G	G G	G G	T T	G A	G C
BB0026	Male	NEI_INVPH217TJ6	C C	G G	T T	A A	G G	T T	A G	C G
BB0027	Male	NEI_INVVD905WMW	T T	G G	G G	G G	G G	T T	A G	C G
BB0037	Male	NEI_INVDT811TFL	C C	G G	G G	G G	G G	A T	A G	C G
BB0039	Male	NEI_INVpz471VEE	C C	G G	G G	G G	G G	T T	A G	C G
BB0049	Male	NEI_INVBU289YLF	C C	G G	G G	G G	G G	T T	G A	C G
BB0050	Male	NEI_INVET286PZK	C C	G G	G G	G G	G G	T T	G A	G C
BB0053	Male	NEI_INVKG133LKA	C C	G G	T T	A A	G G	T T	A G	C G
BB0054	Female	NEI_INVWL824ULZ	C C	G G	G G	G G	G G	T T	G A	G C
BB0058	Male	NEI_INVPF230ZV2	C C	G G	G G	G G	A G	T T	G G	G G
BB0060	Male	NEI_INVHP501DVV	C C	G G	G G	G G	G G	T T	G A	G C
BB0062	Female	NEI_INVRY304VA4	C C	G G	G G	G G	G G	T T	A G	C C
BB0067	Female	NEI_INVUH997BJF	T C	A G	T T	A A	G G	T T	A G	C G
BB0068	Female	NEI_INVDN527ZEC	C C	G G	T T	A A	G G	T T	G A	G C
BB0076	Male	NEI_INVRG382LY8	T T	A A	G G	G G	G G	T T	G G	G G
BB0078	Male	NEI_INVDK034ZAP	C C	G G	T T	A A	G G	T T	A A	C C
BB0082	Male	NEI_INVVJ782FV0	T C	G G	T T	A A	G G	T T	G A	G C
BB0090	Female	NEI_INVGV294DUM	C C	G G	T T	A A	G G	T T	G A	G C
BB0092	Female	NEI_INVYX914HRV	C C	G G	G G	G G	G G	T T	A G	C G
BB0098	Male	NEI_INVNF982GGP	T T	G G	G G	G G	G G	T T	G A	G C
BB0100	Female	NEI_INVCX806HTC	C C	G G	G G	G G	G G	T T	A A	C C

BB0102	Female	NEI_INVUE470VKE	T C	G G	G G	G G	G G	T T	G G	G G
BB0104	Female	NEI_INVGD595YF6	T C	G G	G G	G G	G G	T T	G A	G C
BB0105	Male	NEI_INVHV513ET7	C C	G G	G G	G G	A G	T T	A G	C G
BB0106	Male	NEI_INVHW865CLU	C C	G G	T T	A A	G G	T T	G G	G G
BB0114	Female	NEI_INVCT185BEZ	T C	G G	T T	A A	G G	T T	G A	G C
BB0118	Female	NEI_INVBY126WZ3	T T	A G	G G	G G	G G	T A	G A	G C
BB0119	Male	NEI_INVPP205YPG	T T	G G	G G	G G	G G	T A	G G	G G
BB0120	Female	NEI_INVYW459MF9	C C	G G	T T	A A	G G	T T	G G	G G
BB0124	Male	NEI_INVYG757KWV	C C	G G	G G	G G	G G	T T	G G	G G
BB0126	Male	NEI_INVEY640HB0	C C	G G	G G	G G	A G	T T	G G	G G
BB0127	Male	NEI_INVJX610THH	C C	G G	T T	A A	G G	T A	G G	G G
BB0128	Male	NEI_INVRG976YA1	T T	G G	G G	G G	G G	T T	A G	C G
BB0129	Male	NEI_INVRK457MHB	C C	G G	G G	G G	G G	T T	A A	C C
BB0132	Female	NEI_INVUB951FG5	C C	G G	T T	A A	G G	T T	A G	C G
BB0134	Male	NEI_INVLD046NK8	T T	G A	G G	G G	G A	T T	G G	G G
BB0138	Male	NEI_INVJB230RR8	C C	G G	G G	G G	G G	T T	G A	G C
BB0142	Male	NEI_INVLE758AK0	C C	G G	G G	G G	G G	T T	G G	G G
BB0144	Female	NEI_INVPD655BHB	C C	G G	T T	A A	G G	T T	A A	C C
BB0148	Female	NEI_INVPT942TZ7	C C	G G	G G	G G	G G	T T	G A	G C
BB0156	Female	NEI_INVZE004FFK	C C	G G	G G	G G	A G	T T	G G	G G
BB0161	Female	NEI_INVVT705VG5	C C	G G	T T	A A	G G	T T	G G	G C
BB0166	Male	NEI_INVJE514PN1	C C	G G	T T	A A	G G	T T	G A	G C
BB0174	Male	NEI_INVHL979NTQ	C C	G G	T T	A A	G G	T T	G A	G G
BB0176	Male	NEI_INVXE066GBB	C C	G G	T T	A A	A G	T T	G A	G C
BB0178	Female	NEI_INVEM093CBP	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 3 AREDS2 AMD-patient derived iPSC lines will become available. Matching isogenic control iPSCs for the first 11 lines will become available within the next year.

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