**Supplement Table 1.** Donor Characteristics and Clinical Information [A]

| Disease State [B] | Sample [C] (n) | Sex | | Age | Time [D] | Cause of Death (n) [E] |
|---|---|---|---|---|---|---|
| | | M | F | Mean ± SD | Mean ± SD | |
| No AMD | 31 | 14 | 17 | 65 ± 11 | 19 ± 5 | ACE (2), ALS (1), ABI (3), Cancer (8), CHF(2), CVA (2), Heart Failure (3) ICH/ICB (2), Organ Failure (2), Pneumonia (2), PE (1), Sepsis (3) |
| AMD | 49 | 30 | 19 | 75 ± 11 | 20 ± 3 | ACE (3), CABG (1),Cancer (10), CHF (4), COPD (1),CVA (4),Heart Failure (7), Organ Failure(3), Pneumonia (4), PE (1), Respiratory Failure (1), Sepsis (9), Unknown (1) |

ABI = Anoxic Brain Injury; ACE = acute myocardial event; ALS=amyotrophic lateral sclerosis; CABG= coronary artery bypass grafting; CHF = congestive heart failure. COPD = chronic obstructive pulmonary disease; CVA = cerebrovascular accident (stroke); Heart failure = Myocardial infarction or cardiac arrest; ICH/ ICB = Intracerebral hemorrhage/ Intracerebral bleed; Organ failure=kidney and/or multiple organ failure; PE= pulmonary embolism.

[A] Information supplied by Minnesota Lions Eye Bank.

[B] Minnesota Grading System (MGS) was used to evaluate the presence or absence of AMD in eye bank eyes (Olsen 2004).

[C] Sample number indicates the total donors used in the current study for each MGS stage.

[D] The time from death to freezing is provided in hours.

[E] The number of donors for each cause of death is indicated in parentheses.

**Supplement Table 2. Antibodies used for Immunohistochemistry and Western Immunoblotting.**

| Antibody | Type | Assay | Dilution | Company |
|---|---|---|---|---|
| RPE65 | P | W | 1:2000 | Dr. T. Michael Redmond, NEI |
| Bestrophin | M | W, I | 1:1000, 1:500 | Novus Biologicals, Littleton, CO |
| CRABP | M | I | 1:250 | Sigma-Aldrich, St. Louis, MO |
| CRALBP | M | W, I | 1:1000, 1:500 | Novus Biologicals, Littleton, CO |
| NaK ATPase | M | W, I | 1:1000, 1:250 | Novus Biologicals, Littleton, CO |
| MCT3 | P | W | 1:200 | Santa Cruz Biotechnology, Dallas, TX |
| Ezrin | P | W | 1:1000 | Cell Signaling, Danvers, MA |
| ZO-1 | M | I | 1:100 | Life Technologies, Grand Island, NY |
| Otx2 | P | I | 1:500 | EMD Millipore, Darmstadt, Germany |
| MiTF | M | I | 1:200 | Abcam, Cambridge, MA |
| CD31 | M | W | 1:1000 | Cell Signaling, Danvers, MA |
| CD45 | M | W | 1:1000 | Cell Signaling, Danvers, MA |
| Mast Cell Tryptase | M | W | 1:1000 | Novus Biologicals, Littleton, CO |
| B-Actin | M | W | 1:5000 | Santa Cruz Biotechnology, Dallas, TX |
| SRXN1 | P | W | 1:1000 | Abcam, Cambridge, MA |
| GPX1 | M | W | 1:1000 | Cell Signaling, Danvers, MA |
| PRDX3 | P | W | 1:1000 | Abcam, Cambridge, MA |
| GST π | M | W | 1:5000 | Novus Biologicals, Littleton, CO |
| Catalase | M | W | 1:2000 | Sigma-Aldrich, St.Louis, MO |
| PGC1α | M | W | 1:1000 | EMD Millipore, Darmstadt, Germany |
| PPARα | M | W | 1:1000 | Abcam, Cambridge, MA |
| CuZnSOD (SOD1) | P | W | 1:1000 | Stressgen, Victoria, BC Canada |
| MnSOD (SOD2) | P | W | 1:1000 | Abcam, Cambridge, MA |

Monoclonal (M), polyclonal (P), Immunohistochemistry (I), Western Immunoblotting (W).

## Supplement Table 3. Primers for qPCR Analysis

| Gene | Gene ID | | Sequence 5'-3' | Amplicon (bp) | Annealing Temp |
|---|---|---|---|---|---|
| **Cell Characterization** | | | | | |
| **MITF** | 4286 | Forward | CCCAGTTCATGCAACAGAGAG | 79 | 59 |
| | | Reverse | GCAGAGGGAAGGGTGGTG | | |
| **RPE65** | 6121 | Forward | CGTATGGACTTGGCTTGAATC | 129 | 59 |
| | | Reverse | CTGGGTGAGAAACAAAGATGG | | |
| **PMEL17** | 6490 | Forward | TGATGGCTGTGGTCCTTGC | 94 | 59 |
| | | Reverse | CAGTGACTGCTGCTATGTGG | | |
| **PEDF** | 5176 | Forward | TATCACCTTAACCAGCCTTTCA | 83 | 59 |
| | | Reverse | GGGTCCAGAATCTTGCCAATG | | |
| **TYRP1** | 7306 | Forward | GATTCCACTCTAATAAGCCCAAA | 198 | 59 |
| | | Reverse | TTCCAAGCACTGAGCGACAT | | |
| **BEST1** | 7439 | Forward | TAGAACCATCAGCGCCGTC | 261 | 59 |
| | | Reverse | TGAGTGTAGTGTGTATGTTGG | | |
| **RBP1** | 5947 | Forward | CAGGTTGGGAAGGAGTTTGA | 168 | 59 |
| | | Reverse | TGGTGGCGTGTGACTGTAAT | | |
| **GAPDH** | 2597 | Forward | GAGTCAACGGATTTGGTCGT | 185 | 59 |
| | | Reverse | GACAAGCTTCCCGTTCTCAG | | |
| **mtDNA Content** | | | | | |
| **Total mtDNA Set 1** | 4550 | Forward | CCCCACAAACCCCATTACTAAACCCA | 222 | 55 |
| | | Reverse | TTTCATCATGCGGAGATGTTGGATGG | | |
| **Total mtDNA Set 2** | 4519 | Forward | CAGTGAAATTGACCTGCCCGTGAA | 191 | 55 |
| | | Reverse | TCTTAGCATGTACTGCTCGGAGGT | | |
| **β-globin** | 3043 | Forward | CTTGGGTTTCTGATAGGCAC | 147 | 60 |
| | | Reverse | CTTAGGGTTGCCCATAACAG | | |
| **Oxidative Stress Response** | | | | | |
| **ARBP** | 6175 | Forward | CGACCTGGAAGTCCAACTAC | 109 | 58 |
| | | Reverse | ATCTGCTGCATCTGCTTG | | |
| **HO-1** | 3162 | Forward | CCAGCGGGCCACAACAAAGT | 262 | 58 |
| | | Reverse | GCCTTCAGTGCCCACGGTAAGG | | |
| **NQO1** | 1728 | Forward | AAAGGACCCTTCCGGAGTAA | 222 | 58 |
| | | Reverse | CCATCCTTCCAGGATTTGAA | | |
| **SOD2** | 6648 | Forward | GTGTGGGAGCACGCTTACTA | 153 | 58 |
| | | Reverse | AGAGCTTAACATACTCAGCATAACG | | |
| **CAT** | 847 | Forward | GATAGCCTTCGACCCAAGCAAC | 201 | 58 |
| | | Reverse | TGATTGTCCTGCATGCACATCG | | |
| **SOD1** | 6647 | Forward | GTGCAGGTCCTCACTTTAATCCTC | 212 | 58 |
| | | Reverse | ACCTTTGCCCAAGTGATCTGC | | |
| **NRF2** | 4780 | Forward | TCCAGTCAGAAACCAGTGGAT | 107 | 58 |
| | | Reverse | GAATGTCTGCGCCAAAAGCTG | | |
| **PGC1α** | 10891 | Forward | GTCACCACCCAAATCCTTAT | 131 | 59 |
| | | Reverse | ATCTACTGCCTGGAGACCTT | | |
| **PPARα** | 5465 | Forward | ATCGAATGTAGAATCTGCGGG | 116 | 60 |
| | | Reverse | TCGCACTTGTCATACACCAG | | |
| **CYTC** | 54205 | Forward | CTTCGGAGCGGGAGTGTTCG | 229 | 59 |
| | | Reverse | CAGATGATGCCTTTGTTCTTATTG | | |
| **PPARγ** | 5468 | Forward | AGGCGAGGGCGATCTTGACAG | 150 | 59 |
| | | Reverse | GATGCGGATGGCCACCTCTTT | | |
| **GPX1** | 2876 | Forward | CCAGTCGGTGTATGCCTTCTC | 107 | 61 |
| | | Reverse | CGAGAATGTGGCGTCCCTC | | |