

**Table S1.** *Postmortem* Donor History

| <b>Donors</b> | <b>Experimental Group</b> | <b>Age</b> | <b>Sex</b> | <b>Significant Medical Conditions</b>                        | <b>Ocular History</b> |
|---------------|---------------------------|------------|------------|--------------------------------------------------------------|-----------------------|
| 1             | Control/non-diabetic      | 51         | M          | HTN, non-invasive eye surgery                                |                       |
| 2             | Control/non-diabetic      | 52         | M          | HTN, high cholesterol                                        |                       |
| 3             | Control/non-diabetic      | 46         | F          | Obesity                                                      |                       |
| 4             | Control/non-diabetic      | 52         | M          |                                                              |                       |
| 5             | Control/non-diabetic      | 56         | F          |                                                              |                       |
| 6             | Control/non-diabetic      | 41         | F          |                                                              |                       |
| 7             | Control/non-diabetic      | 37         | M          |                                                              |                       |
| 8             | Control/non-diabetic      | 56         | M          | HTN, lupus                                                   |                       |
| 9             | Control/non-diabetic      | 48         | F          | Obesity, CAD                                                 |                       |
| 10            | Control/non-diabetic      | 68         | M          | Coronary artery bypass graft,<br>HTN                         |                       |
| 11            | Diabetic                  | 62         | F          | Dialysis, HTN, stroke                                        | DR                    |
| 12            | Diabetic                  | 60         | F          | Obesity                                                      | DR, laser OS          |
| 13            | Diabetic                  | 67         | M          | IDDM 10yrs, toe amputation,<br>dialysis                      | DR, laser OS          |
| 14            | Diabetic                  | 71         | M          | IDDM, dialysis, Parkinson's<br>Disease, altered mental state | DR, glaucoma          |
| 15            | Diabetic                  | 73         | M          | IDDM 25yrs, dialysis, toe<br>amputation                      | DR, laser OS & OD     |
| 16            | Diabetic                  | 57         | F          | ESRD, IDDM 10yrs, obesity                                    | DR                    |
| 17            | Diabetic                  | 49         | M          | Leg amputation                                               | DR                    |
| 18            | Diabetic                  | 52         | M          | Dialysis                                                     | DR                    |
| 19            | Diabetic                  | 72         | M          | NDDM 10yrs, pancreatic cancer                                | Edema                 |
| 20            | Diabetic                  | 68         | F          | Alzheimer's, right lung mass                                 | DR                    |

HTN, hypertension; IDDM, insulin-dependent diabetes mellitus; NDDM, noninsulin-dependent diabetes mellitus; ESRD, end-stage renal disease; OS, oculus sinister (left eye); OD, oculus dexter (right eye)

**Table S2.** Average body weight and blood glucose levels in control and diabetic mice

|               | <i>ADAM17flox</i> |               | <i>ADAM17Cre-flox</i> |               |
|---------------|-------------------|---------------|-----------------------|---------------|
|               | Control           | Diabetic      | Control               | Diabetic      |
| Body Weight   | 35.5±0.82         | 28.8±0.82*    | 35.0±0.71             | 26.8±0.28*    |
| Blood glucose | 114.3±13.89       | 496.2±31.59** | 116.0±8.97            | 451.2±30.82** |

\*p<0.001 compared to corresponding control; \*\*p<0.0001 compared to corresponding control.