## Major Resources Table

### Animals (in vivo studies)

| Species | Vendor or Source | Background Strain | Sex | Persistent ID / URL |
|---------|------------------|-------------------|-----|---------------------|
| Mouse: C57BL/6 strain males for WT and miGFREO | Breeding for experimental animal is in University of Leeds | C57BL/6 | male | www.criver.com |

### Genetically Modified Animals

| Species | Vendor or Source | Background Strain | Other Information | Persistent ID / URL |
|---------|------------------|-------------------|-------------------|---------------------|
| Parent - Male | mouse | Breeding for experimental animal is in University of Leeds | C57Bl6 was from Charles River, initially | criver.com |
| Parent - Female | mouse | Breeding for experimental animal is in University of Leeds | C57Bl6 was from Charles River, initially | genoway.com |

### Antibodies

| Target antigen | Vendor or Source | Catalog # | Working concentration | Persistent ID / URL |
|----------------|------------------|-----------|-----------------------|---------------------|
| eNOS           | BD Biosciences; Mouse | #610297 | 1:1000 | https://wwwbdbiosciences.com/en-us/products/reagents/microscopy-imaging-reagents/imunofluorescence-reagents/purified-mouse-anti-enos-nos-type-ii.610297 |
| eNOS-pS1177    | Cell Signaling; Rabbit | #9570 | 1:1000 | https://www.cellsignal.co.uk/products/primary-antibodies/phospho-enos-ser1177-c9c3-rabbit-mab/9570 |
| Akt            | BD Biosciences; Mouse | #610861 | 1:1000 | https://wwwbdbiosciences.com/en-us/products/reagents/mic |
|                |          |        |                                                                 |
|----------------|----------|--------|-----------------------------------------------------------------|
| Akt-pS473      | Cell     | #4060  | 1:1000                                                          |
|                | Signaling; Rabbit |        | https://www.cellsignal.co.uk/products/primary-antibodies/phospho-akt-ser473-d9e-xp-rabbit-mab/4060 |
| ERK-phospho (Thr202/Tyr204) | Cell     | #9101  | 1:1000                                                          |
|                | Signaling; Rabbit |        | https://www.cellsignal.co.uk/products/primary-antibodies/phospho-p44-42-mapk-er1-2-thr202-tyr204-antibody/9101?_=16266830986678Ntt=9101&tahead=true |
| Tubulin        | Santa Cruz Biotech; mouse | sc-5286 | 1:3000                                                          |
|                |          |        | https://www.scbt.com/p/alpha-tubulin-antibody-b-7 |
| Beta-Actin     | Santa Cruz Biotech; mouse | sc-47778 | 1:3000                                                          |
|                |          |        | https://www.scbt.com/p/beta-actin-antibody-ac-15 |
| Nox2           | AbCam; rabbit | ab129068 | 1:1000                                                          |
|                |          |        | https://www.abcam.com/nox2gp91phox-antibody-epr6991-ab129068.html |
| Nox2           | BD Biosciences; mouse | #611414 | 1:1000                                                          |
|                |          |        | https://www.bdbiosciences.com/en-us/products/reagents/microscopy-imaging-reagents/immunofluorescence-reagents/purified-mouse-anti-gp91-phox.611414 |
| Insulin Receptor | Cell     | #3025  | 1:100                                                          |
|                | Signaling; Rabbit |        | https://www.cellsignal.co.uk/products/primary-antibodies/insulin-receptor-b-4b8-rabbit-mab/3025 |
| IGF1 receptor  | Cell     | #9750  | 1:100                                                          |
|                | Signaling; Rabbit |        | https://www.cellsignal.co.uk/products/primary-antibodies/igf-i-receptor-b-d23h3-xp-rabbit-mab/9750 |
| Phospho-INSR (Tyr1334) | Thermo Fisher | 44-809G | 1:1000                                                          |
|                |          |        | https://www.thermofisher.com/antibody/product/Phospho-INSR-Tyr1334-Antibody-Polyclonal/44-809G |
| Antibody                        | Vendor or Source                      | Dilution | Persistent ID / URL                                                                 |
|--------------------------------|---------------------------------------|----------|-------------------------------------------------------------------------------------|
| Anti-Phospho-tyrosine, 4G10    | Sigma-Aldrich, Millipore              | 1:2000   | https://www.sigmaaldrich.com/GB/en/product/mm/051050x                               |
| ECL Mouse IgG, HRP             | Amersham                              | 1:5000   | https://www.cytivalifesciences.com/en/us/shop/protein-analysis/blotting-and-detection/blotting-standards-and-reagents/amersham-ecl-hrp-conjugated-antibodies-p-06260#overview |
| ECL Rabbit IgG, HRP            | Amersham                              | 1:5000   | https://www.sigmaaldrich.com/GB/en/product/sigma/gena9341ml?gclid=Cj0KaQwLb7jwCQiwxdSHBhCdARRIsAG6zhIXgbjejPWWL4Va1TIPAO-xVjw9D-07PwRLEESEPZJUNQelUpHlu9IMaAjrVEALw_wcB |
| eNOS-Ty657                     | ECM Biosciences; Rabbit               | 1:1000   | https://ecmbio.com/products/np4031                                                  |
| NOX4                           | Kind gift from prof Ajay Shah; Rabbit | 1:2000   | Santos CX et al. EMBO J. 2016; 35:319-34                                             |
| ERK                            | Cell Signaling; Mouse                 | 1:1000   | https://www.cellsignal.co.uk/products/primary-antibodies/p44-42-mapk-erk1-2-i34f12-mouse-mab/4696 |

### Cultured Cells

| Name                              | Vendor or Source                  | Sex (F, M, or unknown) | Persistent ID / URL |
|-----------------------------------|-----------------------------------|------------------------|---------------------|
| Human Umbilical Vein Endothelial Cells (HUVECs) | Lonza Catalog #: CC-2935 | F                      |                     |
| Saphenous Vein Endothelial cells  | Gift of Dr Karen Porter           | F and M                |                     |
### Data & Code Availability

| Description                                                                 | Source / Repository | Persistent ID / URL |
|-----------------------------------------------------------------------------|---------------------|---------------------|
| All datasets generated or analyzed during this study are included in the published article. All data are available from the Lead Contact upon reasonable request. |                     |                     |