Figure S1

A

B

Blank I/R

n = 15, 617
n = 38,084

46.19% ROD
5.18% CONE
18.18% CBC
7.32% RBC
11.05% AC
10.23% Mag
0.31% HC
0.57% RGC
0.36% VEC
0.48% MoMg
0.08% Neutrophil
0.02% T&DC

C

% in retina cells

P = 0.9822
P = 0.1884
P = 0.0269
P = 0.0575
P = 0.0146
P = 0.3368
P = 0.01019

D

E

Rho in total cells

Rho in ROD subset

F

ROD-SC0

P = 0.0269

ROD-SC1

P = 0.0575

ROD-SC3

P = 0.0146

G

H

Inflammation-related pathways in CONE subclusters

Inflammation-related pathways in ROD subclusters
Figure S2

A. Subclusters

B. Groups

C. % in Mag

D. Mag-SC0

E. Mag-SC2

F. Expression

G. GO and pathway analysis in Mag subclusters

Response to interferon-gamma -
Oxidative stress -
Regulated Necrosis -
Ferroptosis -
Iron uptake and transport -
MAPK signaling pathway -
Apoptotic signaling pathway -
Neuron projection extension -
Neuron projection morphogenesis -
Neuronal System -

H. Number

-Log$_{10}$P

Number

0

20

40

60

0

10

20

30

40

50

60

70

80

90

100
Figure S3

A

DEGs in I/R/Blank
- Downregulated
- Unchanged
- Upregulated

B

SEMA3 signaling pathway network
Sender
Receiver
Mediator
Influencer

ROD
Myeloid
Neutrophil
CONE
CBC
Mag
RBC
AC
T&DC
RGC
VEC

Contribution of each L−R pair
Sema3a = (Nrp1+Plxna2)
Sema3c = (Nrp1+Plxna2)
Sema3c = Pldnd1
Sema3e = Pldnd1

Relative contribution

C

Microglia
Inflammatory response score
Ferroptosis score

D

Gene expression of IGF signaling
lgf1
lgf1r

E

Gene expression of NT signaling
Banf1
Ntrk2

F

SEMA3 signaling pathway network
Sender
Receiver
Mediator
Influencer

ROD
Myeloid
Neutrophil
CONE
CBC
Mag
RBC
AC
T&DC
RGC
VEC

Contribution of each L−R pair
Sema3a = (Nrp1+Plxna2)
Sema3c = (Nrp1+Plxna2)
Sema3c = Pldnd1
Sema3e = Pldnd1

Relative contribution

G

TNF signaling pathway network

H

Contribution of each L−R pair

I

Cell viability

J

Blank
I/R
Fer-1

K

Cell viability

(ug/ml of Fer-1) 0 0.6 3 15 75

ns

****
Figure S4

A

B

unsorted sorted

0% 20% 40% 60% 80%

microglia proportion (%)

****

unsorted sorted

80%

60%

40%

20%

0%