

Supplementary Information for

**Microglial IRF5-IRF4 Regulatory Axis Regulates Neuroinflammation
After Cerebral Ischemia and Impacts Stroke Outcomes**

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Supplementary Information Text

Behavioral Assessment

All behavioral tests were performed by a blinded investigator.

Neurological Deficit Scores

3d after reperfusion, neurological deficit scores were assessed by a 4-point scale (1, 2): 0-no deficit; 1-forelimb weakness, torso turning to the ipsilateral side when held by the tail; 2-circling to the affected side; 3-unable to bear weight on affected side and 4-no spontaneous activity or barrel rolling.

Corner Test

The mouse entered a corner that was made by moving two card board pieces at an angle of 30 degrees in front of the nose. Contact with the vibrissae led to a rear and the direction in which the mouse turned was recorded. Normal mice do not exhibit a turning preference, but after ischemia, mice have a turning preference to the non-impaired side (right side by our MCAO model). The percentage of right turns was calculated for twenty trials in each sitting. The corner test has been used to detect both sensory and motor abnormalities in the stroke model in young animals (3, 4).

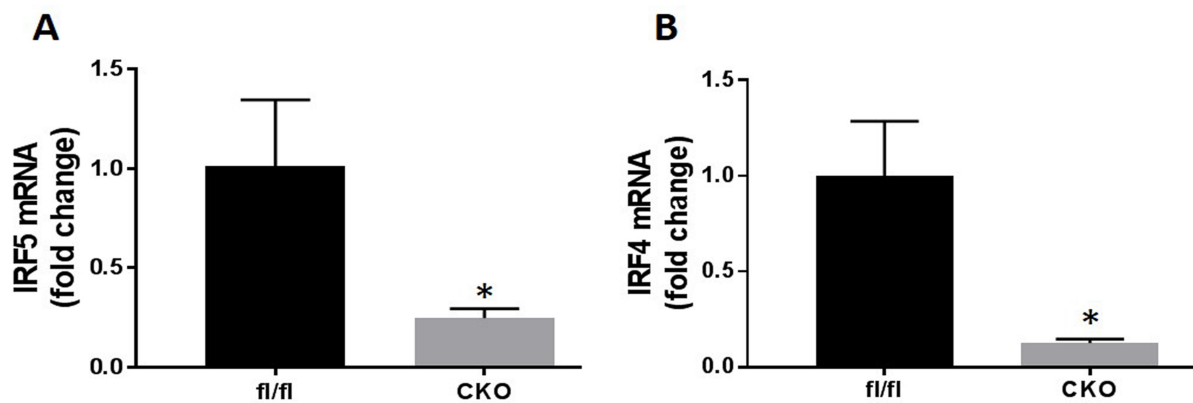
Hanging Wire Test

A slight modification was made to the previously used Wire Hand test (5). A wire cage (top dimensions, 18 inch × 9 inch) with its edges taped off was used for this experiment. The mouse was placed on the center of the wire lid and the lid was

slowly inverted and placed on top of the cage. The wire lid was 9 inch above the cage bedding. Latency to fall from the wire was recorded and scored. The time out period was 90 seconds.

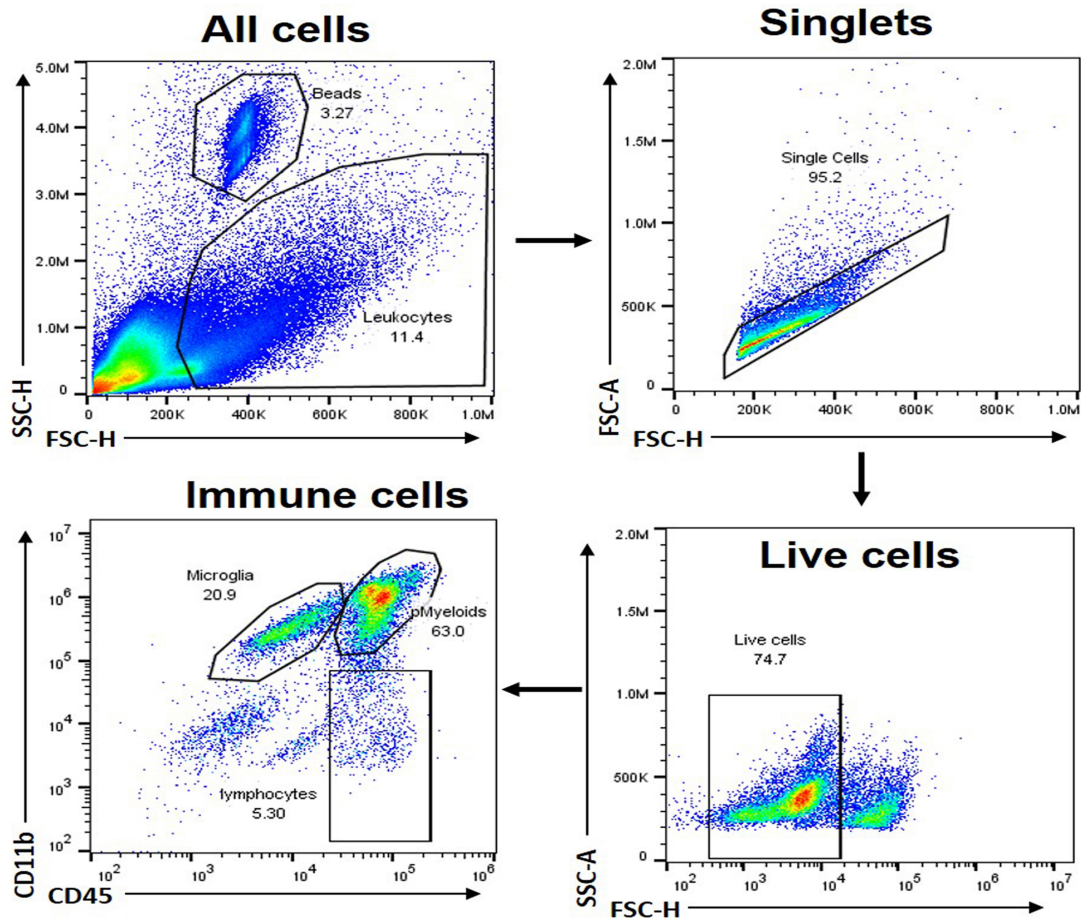
Supplementary Figures:

Supplementary figure 1:



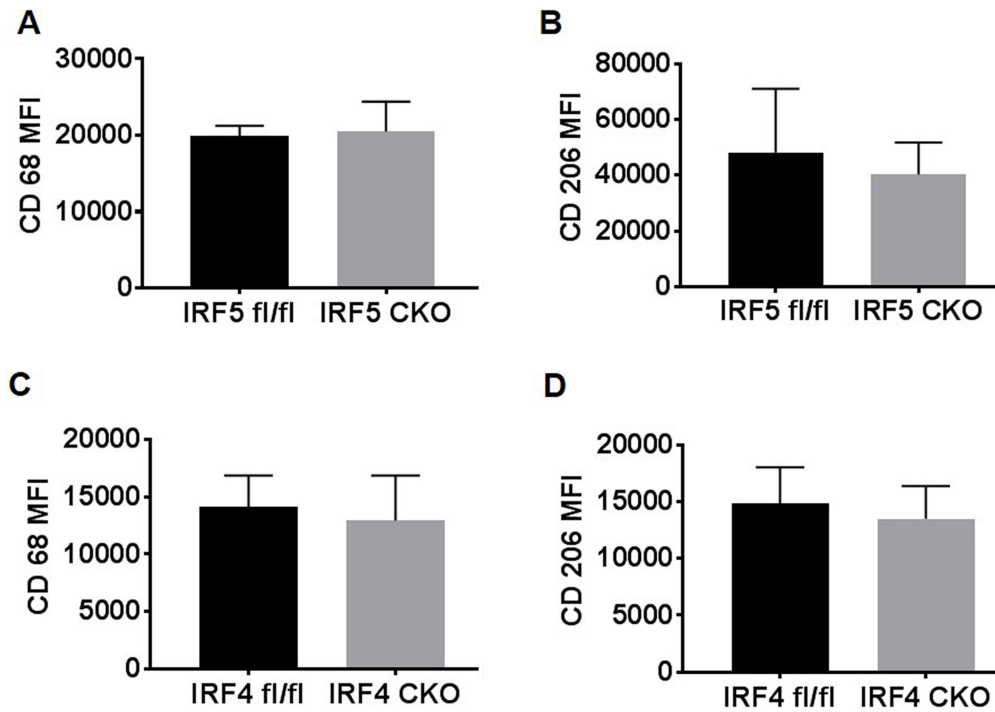
Flow sorted IRF5 or IRF4 CKO microglia had “near null” mRNA level of IRF5 (**A**) or IRF4 (**B**) respectively compared to their flox controls (fl/fl). N=5/group; * $P < 0.01$ vs. flox control.

Supplementary figure 2:



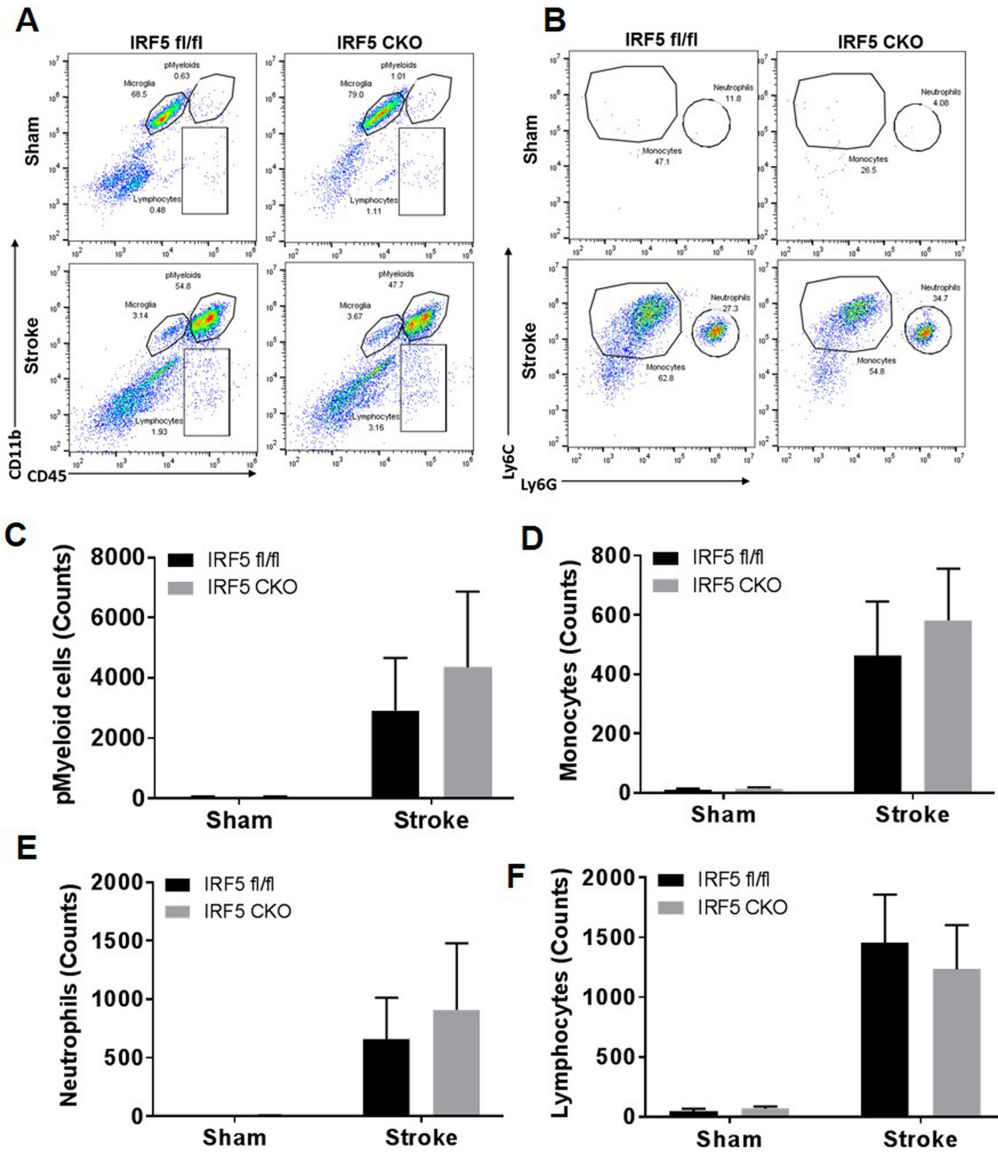
Gating strategy to sequentially separate single cells, live cells, and leukocytes (including microglia).

Supplementary figure 3:



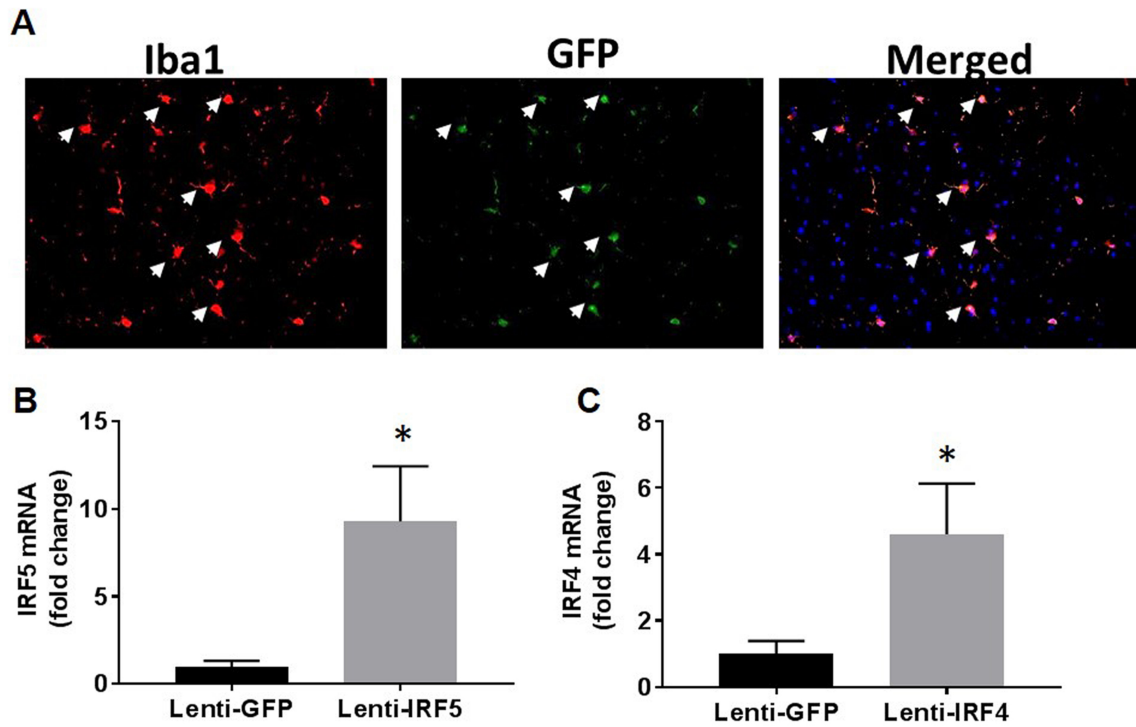
No significant difference was seen in CD68/CD206 expression on infiltrating monocytes between CKO vs. floxed mice for either IRF5 CKO (**A&B**) or IRF4 CKO (**C&D**) strain. N=5 for Lenti-GFP control and 6 for lenti-IRF4 or -IRF5 group.

Supplementary figure 4:



Representative flow plots of gating strategy for immune cell infiltration in IRF5 CKO mice brains after stroke: **(A)** Microglia, pMyeloid cells, and lymphocytes; **(B)** Monocytes and neutrophils. No significant difference was seen in absolute counts of infiltrating pMyeloid cells **(C)**, monocytes **(D)**, neutrophils **(E)** and lymphocytes **(F)** in stroke brains of IRF5 CKO vs. floxed mice. N=5 for Lenti-GFP control and 6 for lenti-IRF4 or -IRF5 group.

Supplementary figure 5:



Validation of lentivirus effects on target protein expression. **(A)** IHC staining showed lenti-GFP induced GFP expression in WT microglia 28 days after GFP-lentivirus injection. 40x; scale bar=100 μ m. Lenti-IRF4 **(B)** and lenti-IRF5 **(C)** injection induced overexpression of IRF4 and IRF5 in flow sorted microglia, evaluated by mRNA level with RT-PCR. Arrows indicate microglia. N=5/group; * P <0.01 vs. lenti-GFP.

References

1. Al Mamun A, *et al.* (2018) Interferon regulatory factor 4/5 signaling impacts on microglial activation after ischemic stroke in mice. *Eur J Neurosci* 47(2):140-149.
2. Liu F, Benashski SE, Xu Y, Siegel M, & McCullough LD (2012) Effects of chronic and acute oestrogen replacement therapy in aged animals after experimental stroke. *J Neuroendocrinol* 24(2):319-330.
3. Li X, *et al.* (2004) Chronic behavioral testing after focal ischemia in the mouse: functional recovery and the effects of gender. *Exp Neurol* 187(1):94-104.
4. Manwani B, *et al.* (2011) Functional recovery in aging mice after experimental stroke. *Brain Behav Immun* 25(8):1689-1700.
5. Ji S, *et al.* (2009) Acute neuroprotection by pioglitazone after mild brain ischemia without effect on long-term outcome. *Exp Neurol* 216(2):321-328.

Table S1. Statistics reporting

FIGURE	n	DATA STRUCTURE	TEST USED	STATISTICS	P VALUE
1B	21 microglia images (Control, OGD ⁻ LPS ⁻ IL ⁻⁴) 24 microglia images (OGD ⁺ LPS ⁺ IL ⁻⁴) 32 microglia images (OGD ⁺ LPS ⁻ IL ⁻⁴) Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,74)}=10.61$	ANOVA $p<0.0001$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0001$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0001$
1C	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=11.98$	ANOVA $p<0.0001$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0064$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0092$
1D	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=1.39$	ANOVA $p<0.0003$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0007$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0005$
1E	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=19.28$	ANOVA $p<0.0009$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0152$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0161$
1F	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=26.69$	ANOVA $p<0.0003$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0009$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0016$
1G	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=0.9046$	ANOVA $p<0.0002$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0064$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0003$
1H	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=3.156$	ANOVA $p<0.0020$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0051$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0032$
1I	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test); Tukey post hoc	$F_{(2,8)}=11.79$	ANOVA $p<0.0041$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p=0.0047$ OGD ⁺ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0028$
1J	Randomly sampled from 3 independent cultures	Non-normal distribution	One-way ANOVA on ranks (Brown-Forsythe test);	$F_{(2,8)}=0.7144$	ANOVA $p<0.0001$ OGD ⁻ LPS ⁻ IL ⁻⁴ vs OGD ⁺ LPS ⁺ IL ⁻⁴ , $p<0.0183$

			Tukey post hoc		OGD ⁺ LPS ⁺ IL-4 ⁻ vs OGD ⁺ LPS ⁺ IL-4 ⁻ , p=0.0083 OGD ⁺ LPS ⁺ IL-4 ⁺) vs OGD ⁺ LPS ⁺ IL-4 ⁻ , p<0.0001
2C	36 microglia images (Scrambled siRNA) 42 microglia images (IRF5 SiRNA) 48 microglia images (IRF4 SiRNA) Sample from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: F _(1,8) =8.266, p<0.001 Row (Scrambled vs siRNA) factor: F _(1,8) =151.7, p=0.2740 Column (Normoxia vs OGD) Factor: F _(1,8) =39.91, p=0.0006	Normoxia:Scramble siRNA vs. Normoxia:IRF5 siRNA, p=0.0011 Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p<0.0001 Normoxia:Scramble siRNA vs. OGD:IRF5 siRNA, p<0.0001 Normoxia:IRF5 siRNA vs. OGD:Scramble siRNA, p=0.0169 Normoxia:IRF5 siRNA vs. OGD:IRF5 siRNA, p=0.0009
2D	36 microglia images (Scrambled siRNA) 42 microglia images (IRF5 SiRNA) Sampled from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: F _(1,8) =150.8, p<0.0001 Row (Scrambled vs siRNA) factor: F _(1,8) =164.4, p=0.0010 Column (Normoxia vs OGD) Factor: F _(1,8) =164.4, p=0.0005	Normoxia:Scramble siRNA vs. Normoxia:IRF5 siRNA, p=0.0098 Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p=0.0053 Normoxia:Scramble siRNA vs. OGD:IRF5 siRNA, p=0.0004 Normoxia:IRF5 siRNA vs. OGD:Scramble siRNA, p=0.9978 Normoxia:IRF5 siRNA vs. OGD:IRF5 siRNA, p<0.0001 OGD:Scramble siRNA vs. OGD:IRF5 siRNA, p<0.0001
2E	36 microglia images (Scrambled siRNA) 48 microglia images (IRF4 SiRNA) Sampled from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: F _(1,8) =164.4, p<0.001 Row (Scrambled vs siRNA) factor: F _(1,8) =1.379, p=0.2740 Column (Normoxia vs OGD) Factor: F _(1,8) =29.43, p=0.0006	Normoxia:Scramble siRNA vs. Normoxia:IRF4 siRNA, p=0.0047 Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p=0.0002 Normoxia:Scramble siRNA vs. OGD:IRF4 siRNA, p=0.0096 Normoxia:IRF4 siRNA vs. OGD:Scramble siRNA, p=0.0974 Normoxia:IRF4 siRNA vs. OGD:IRF4 siRNA, p<0.0001 OGD:Scramble siRNA vs. OGD:IRF4 siRNA, p<0.0001
2F	36 microglia images (Scrambled siRNA) 48 microglia images (IRF4 SiRNA) Sampled from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: F _(1,8) =2.226, p=0.1741 Row (Scrambled vs siRNA) factor: F _(1,8) =4.081, p=0.0780 Column (Normoxia vs OGD) Factor: F _(1,8) =28.79, p=0.0007	Normoxia:Scramble siRNA vs. Normoxia:IRF4 siRNA, p=0.0076 Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p=0.2070 Normoxia:Scramble siRNA vs. OGD:IRF4 siRNA, p=0.0048 Normoxia:IRF4 siRNA vs. OGD:Scramble siRNA, p=0.2441 Normoxia:IRF4 siRNA vs. OGD:IRF4 siRNA, 0.9995 OGD:Scramble siRNA vs. OGD:IRF4 siRNA, p=0.1435

2G	Sampled from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	<p>Interaction: F_(2,17)=54.87, p<0.0001</p> <p>Row (Scrambled vs IRF5-siRNA/IRF4-siRNA) factor: F_(1,17)=34.03, p<0.0001</p> <p>Column (Normoxia vs OGD) Factor: F_(2,17)=73.21, p<0.0001</p>	<p>Normoxia:Scramble siRNA vs. Normoxia:IRF4 siRNA, p=0.4768</p> <p>Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p=0.9047</p> <p>Normoxia:Scramble siRNA vs. OGD:IRF5 siRNA, p<0.0001</p> <p>Normoxia:Scramble siRNA vs. OGD:IRF4 siRNA, p=0.2024</p> <p>Normoxia:IRF5 siRNA vs. Normoxia:IRF4 siRNA, p=0.5055</p> <p>Normoxia:IRF5 siRNA vs. OGD:Scramble siRNA, p=0.9397</p> <p>Normoxia:IRF5 siRNA vs. OGD:IRF5 siRNA, p<0.0001</p> <p>Normoxia:IRF5 siRNA vs. OGD:IRF4 siRNA, p=0.2030</p> <p>Normoxia:IRF4 siRNA vs. OGD:Scramble siRNA, p=0.9489</p> <p>Normoxia:IRF4 siRNA vs. OGD:IRF5 siRNA, p<0.0001</p> <p>Normoxia:IRF4 siRNA vs. OGD:IRF4 siRNA, p=0.9854</p> <p>OGD:Scramble siRNA vs. OGD:IRF5 siRNA, p<0.0001</p> <p>OGD:Scramble siRNA vs. OGD:IRF4 siRNA, p=0.6592</p> <p>OGD:IRF5 siRNA vs. OGD:IRF4 siRNA, p<0.0001</p>
2H	Sampled from 3 independent cultures	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	<p>Interaction: F_(2,17)=34.02, p<0.0001</p> <p>Row (Scrambled vs IRF5-siRNA/IRF4-siRNA) factor: F_(1,17)=204.7, p<0.0001</p> <p>Column (Normoxia vs OGD) Factor: F_(2,17)=33.33, p<0.0001</p>	<p>Normoxia:Scramble siRNA vs. Normoxia:IRF5 siRNA, p>0.9999</p> <p>Normoxia:Scramble siRNA vs. Normoxia:IRF4 siRNA, p=0.9944</p> <p>Normoxia:Scramble siRNA vs. OGD:Scramble siRNA, p=0.0026</p> <p>Normoxia:Scramble siRNA vs. OGD:IRF5 siRNA, p=0.0007</p> <p>Normoxia:Scramble siRNA vs. OGD:IRF4 siRNA, p<0.0001</p> <p>Normoxia:IRF5 siRNA vs. Normoxia:IRF4 siRNA, p=0.9993</p> <p>Normoxia:IRF5 siRNA vs. OGD:Scramble siRNA, p=0.0039</p> <p>Normoxia:IRF5 siRNA vs. OGD:IRF5 siRNA, p=0.0010</p> <p>Normoxia:IRF5 siRNA vs. OGD:IRF4 siRNA, p<0.0001</p> <p>Normoxia:IRF4 siRNA vs. OGD:Scramble siRNA, p=0.0020</p> <p>Normoxia:IRF4 siRNA vs. OGD:IRF5 siRNA, p=0.0005</p>

					Normoxia:IRF4 siRNA vs. OGD:IRF4 siRNA, p<0.0001 OGD:Scramble siRNA vs. OGD:IRF5 siRNA, p=0.9827 OGD:Scramble siRNA vs. OGD:IRF4 siRNA, p<0.0001 OGD:IRF5 siRNA vs. OGD:IRF4 siRNA, p<0.0001
3B	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 7 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,17)}=22.86$, p=0.0002 Row (Sham vs Stroke) factor: $F_{(1,17)}=148.9$, p<0.0001 Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,17)}=31.96$, p<0.0001	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, p=0.9440 Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, p=0.0004 Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, p<0.0001 Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, p=0.0014 Sham:IRF5 CKO vs. Stroke:IRF5 CKO, p<0.0001 Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, p<0.0001
3C	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 7 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,17)}=25.53$, p<0.0001 Row (Sham vs Stroke) factor: $F_{(1,17)}=92.58$, p<0.0001 Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,17)}=23.46$, p=0.0002	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, p=0.9910 Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, p<0.0001 Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, p=0.1530 Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, p<0.0001 Sham:IRF5 CKO vs. Stroke:IRF5 CKO, p=0.0208 Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, p<0.0001
3E	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6-7 mice (Stroke IRF5 fl/fl) 6-7 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,17)}=33.63$, p<0.0001 Row (Sham vs Stroke) factor: $F_{(1,17)}=34.97$, p<0.0001 Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,17)}=18.5$, p=0.0005	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, p=0.7701 Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, p<0.0001 Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, p=0.6801 Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, p<0.0001 Sham:IRF4 CKO vs. Stroke:IRF4 CKO, p=0.9998 Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, p<0.0001
3F	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 6-7 mice (Stroke IRF4 fl/fl) 6-7 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,17)}=14.45$, p=0.0014 Row (Sham vs Stroke) factor: $F_{(1,17)}=64.78$, p<0.0001 Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,17)}=26.36$, p<0.0001	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, p=0.8309 Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, p=0.0397 Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, p<0.0001 Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, p=0.2157 Sham:IRF4 CKO vs. Stroke:IRF4 CKO, p<0.0001 Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, p<0.0001
4B	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 11 mice (Stroke IRF5 fl/fl)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=1.092$, p=0.3065 Row (Sham vs Stroke) factor: $F_{(1,24)}=48.75$, p<0.0001	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, p=0.0412 Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, p<0.0001 Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, p=0.0461

	8-9 mice (Stroke IRF5 CKO)			Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,24)}=8.828$, $p=0.0066$	Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0020$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0052$
4C	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 11 mice (Stroke IRF5 fl/fl) 8-9 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=1.341$, $p=0.2583$ Row (Sham vs Stroke) factor: $F_{(1,24)}=11.53$, $p=0.0024$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,24)}=10.56$, $p=0.0034$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.0681$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.3944$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.9996$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.0004$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0199$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.2348$
4E	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 11 mice (Stroke IRF5 fl/fl) 8-9 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=2.746$, $p=0.1105$ Row (Sham vs Stroke) factor: $F_{(1,24)}=3.973$, $p=0.0577$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,24)}=0.9833$, $p=0.3313$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.9787$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.9949$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.1880$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.8887$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0781$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0909$
4F	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 8 mice (Stroke IRF5 fl/fl) 8 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,20)}=18.76$, $p=0.0003$ Row (Sham vs Stroke) factor: $F_{(1,20)}=16.07$, $p=0.0007$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,20)}=8.929$, $p=0.0073$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.8432$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.9957$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0004$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.8871$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p<0.0001$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.0001$
4H	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 10 mice (Stroke IRF4 fl/fl) 8-9 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=1.360$, $p=0.2560$ Row (Sham vs Stroke) factor: $F_{(1,24)}=10.47$, $p=0.0038$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,24)}=7.839$, $p=0.0104$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.0471$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.4216$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0010$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.9908$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.0352$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0045$
4I	4 mice (Sham IRF4 fl/fl) 3 mice (Sham IRF4 CKO) 10 mice (Stroke IRF4 fl/fl)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=0.0224$, $p=0.8821$ Row (Sham vs Stroke) factor: $F_{(1,24)}=2.432$, $p=0.1320$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.036$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.6274$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0115$

	8-9 mice (Stroke IRF4 CKO)			Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,24)}=10.67$, $p=0.0030$	Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.6286$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.7527$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0356$
4K	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 10 mice (Stroke IRF4 fl/fl) 8-9 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,22)}=6.887$, $p=0.0155$ Row (Sham vs Stroke) factor: $F_{(1,22)}=7.775$, $p=0.0107$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,22)}=7.210$, $p=0.0135$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p>0.9999$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.0047$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.9999$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.0043$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.9994$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0005$
4L	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 10 mice (Stroke IRF4 fl/fl) 8-9 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,22)}=2.509$, $p=0.1274$ Row (Sham vs Stroke) factor: $F_{(1,22)}=23.99$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,22)}=21.50$, $p=0.0001$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.028$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.0008$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.9977$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.1187$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$
5B	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=18.2$, $p=0.0005$ Row (Sham vs Stroke) factor: $F_{(1,18)}=45.14$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=18.45$, $p=0.0004$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p>0.9999$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.2882$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.3899$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p<0.0001$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$
5C	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=17.44$, $p=0.0006$ Row (Sham vs Stroke) factor: $F_{(1,18)}=35.82$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=17.47$, $p=0.0006$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p>0.9999$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.5624$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.6126$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p<0.0001$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$
5D	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=59.81$, $p<0.0001$ Row (Sham vs Stroke) factor: $F_{(1,18)}=70.71$, $p<0.0001$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p>0.9999$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.9595$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.9685$

				Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=60.08$, $p<0.0001$	Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p<0.0001$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$
5E	4 mice (Sham IRF4 fl/fl) 4 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=0.5823$, $p=0.4565$ Row (Sham vs Stroke) factor: $F_{(1,18)}=128.3$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=1.454$, $p=0.2455$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.9915$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p<0.0001$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p<0.0001$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.4294$
5F	5 mice (Sham IRF5 fl/fl) 5 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=13.33$, $p=0.0018$ Row (Sham vs Stroke) factor: $F_{(1,18)}=54.54$, $p<0.0001$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,18)}=11.05$, $p=0.0038$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.9960$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0457$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0720$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.0001$
5G	5 mice (Sham IRF5 fl/fl) 5 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=1.189$, $p=0.2899$ Row (Sham vs Stroke) factor: $F_{(1,18)}=13.73$, $p<0.0001$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,18)}=1.342$, $p=0.2618$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p>0.9999$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.0008$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0252$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.0008$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0228$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.3684$
5H	5 mice (Sham IRF5 fl/fl) 5 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=0.1190$, $p=0.7342$ Row (Sham vs Stroke) factor: $F_{(1,18)}=77.40$, $p<0.0001$ Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,18)}=0.4526$, $p=0.5097$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.9960$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p<0.0001$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.8735$
5I	5 mice (Sham IRF5 fl/fl) 5 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=34.90$, $p<0.0001$ Row (Sham vs Stroke) factor: $F_{(1,18)}=124.5$, $p<0.0001$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p<0.0001$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.0290$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.001$

	6 mice (Stroke IRF5 CKO)			Column (IRF5 fl/fl vs IRF5 CKO) Factor: $F_{(1,18)}=045.99$, $p<0.0001$	Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0079$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.0001$
5J	5 mice (Sham IRF4 fl/fl) 5 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=2.614$, $p=0.1233$ Row (Sham vs Stroke) factor: $F_{(1,18)}=122.7$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=21.43$, $p=0.0002$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.2106$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p<0.0001$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p<0.0001$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.0013$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p<0.0001$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0011$
5K	5 mice (Sham IRF4 fl/fl) 5 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=0.0737$, $p=0.7890$ Row (Sham vs Stroke) factor: $F_{(1,18)}=1.333$, $p=0.2633$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=0.0547$, $p=0.8176$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p>0.9999$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.9229$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.7613$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.9138$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.7465$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.7465$
5L	5 mice (Sham IRF4 fl/fl) 5 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=8.6660$, $p=0.0087$ Row (Sham vs Stroke) factor: $F_{(1,18)}=22.85$, $p=0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=9.3310$, $p=0.0068$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.9998$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.5757$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0002$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.6227$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.0002$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0016$
5M	5 mice (Sham IRF4 fl/fl) 5 mice (Sham IRF4 CKO) 6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,18)}=5.83$, $p=0.0266$ Row (Sham vs Stroke) factor: $F_{(1,18)}=26.73$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,18)}=3.515$, $p=0.0771$	Sham:IRF4 fl/fl vs. Sham:IRF4 CKO, $p=0.9828$ Sham:IRF4 fl/fl vs. Stroke:IRF4 fl/fl, $p=0.2437$ Sham:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0005$ Sham:IRF4 CKO vs. Stroke:IRF4 fl/fl, $p=0.1218$ Sham:IRF4 CKO vs. Stroke:IRF4 CKO, $p=0.0002$ Stroke:IRF4 fl/fl vs. Stroke:IRF4 CKO, $p=0.0243$
6A	7 mice (Stroke IRF5 fl/fl)	Non-normal distribution	t test (two-tailed)	$t_{(11)}=4.203$ (Cortex) $t_{(11)}=3.800$ (Striatum)	fl/fl vs CKO, $p=0.0018$ (Cortex)

	6 mice (Stroke IRF5 CKO)			$t_{(11)}=5.279$ (Hemisphere)	fl/fl vs CKO, $p=0.0035$ (Striatum) fl/fl vs CKO, $p=0.0004$ (Hemisphere)
6B	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.545$ (30 days)	fl/fl vs CKO, $p=0.1765$ (30 days)
6C	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=4.595$ (3 days) $t_{(10)}=0.5044$ (30 days)	fl/fl vs CKO, $p=0.0010$ (3 days) fl/fl vs CKO, $p=0.6249$ (30 days)
6D	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=5.571$ (3 days) $t_{(10)}=1.313$ (30 days)	fl/fl vs CKO, $p=0.0002$ (3 days) fl/fl vs CKO, $p=0.2159$ (30 days)
6E	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.2050$ (3 days) $t_{(10)}=2.8600$ (30 days)	fl/fl vs CKO, $p=0.2560$ (3 days) fl/fl vs CKO, $p=0.0169$ (30 days)
6F	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.7090$ (3 days) $t_{(10)}=2.431$ (30 days)	fl/fl vs CKO, $p=0.1182$ (3 days) fl/fl vs CKO, $p=0.0354$ (30 days)
6G	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.946$ (30 days)	fl/fl vs CKO, $p=0.0779$ (30 days)
6H	6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.4220$ (30 days)	fl/fl vs CKO, $p=0.1855$ (30 days)
6I	6-7 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(11)}=1.015$ (Cortex) $t_{(11)}=3.338$ (Striatum) $t_{(11)}=1.507$ (Hemisphere)	fl/fl vs CKO, $p=0.3318$ (Cortex) fl/fl vs CKO, $p=0.0066$ (Striatum) fl/fl vs CKO, $p=0.1660$ (Hemisphere)
6J	6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=3.763$ (30 days)	fl/fl vs CKO, $p=0.0037$ (30 days)
6K	6-7 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=2.863$ (3 days) $t_{(10)}=0.542$ (30 days)	fl/fl vs CKO, $p=0.0143$ (3 days) fl/fl vs CKO, $p=0.5995$ (30 days)
6L	6-7 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=3.087$ (3 days) $t_{(10)}=4.065$ (30 days)	fl/fl vs CKO, $p=0.0103$ (3 days) fl/fl vs CKO, $p=0.0019$ (30 days)
6M	6-7 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=2.370$ (3 days) $t_{(10)}=4.065$ (30 days)	fl/fl vs CKO, $p=0.0393$ (3 days) fl/fl vs CKO, $p=0.0005$ (30 days)
6N	6-7 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=2.477$ (3 days) $t_{(10)}=8.437$ (30 days)	fl/fl vs CKO, $p=0.0307$ (3 days) fl/fl vs CKO, $p<0.0001$ (30 days)
6O	6 mice (Stroke IRF4 fl/fl)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=0.238$ (30 days)	fl/fl vs CKO, $p=0.8161$ (30 days)

	6 mice (Stroke IRF4 CKO)				
6P	6 mice (Stroke IRF4 fl/fl) 6 mice (Stroke IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=3.507$ (30 days)	fl/fl vs CKO, $p=0.0057$ (30 days)
7B	4 mice (Sham Lenti-IRF4) 4 mice (Sham Lenti-GFP) 4 mice (Sham Lenti-IRF5) 7 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=0.025$, $p=0.9725$ Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,24)}=6.298$, $p=0.0063$ Column (Sham vs Stroke) Factor: $F_{(1,24)}=20.82$, $p=0.0001$	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, $p=0.1434$ Lenti-IRF4:Sham vs. Lenti-GFP:Sham, $p=0.9583$ Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, $p=0.0250$ Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, $p=0.3182$ Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, $p=0.0004$ Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, $p=0.5865$ Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, $p=0.8561$ Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, $p>0.9999$ Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, $p=0.0314$ Lenti-GFP:Sham vs. Lenti-GFP:Stroke, $p=0.1556$ Lenti-GFP:Sham vs. Lenti-IRF5:Sham, $p=0.7968$ Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, $p=0.0038$ Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, $p=0.8389$ Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, $p=0.5572$ Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, $p=0.0903$
7C	4 mice (Sham Lenti-IRF4) 4 mice (Sham Lenti-GFP) 4 mice (Sham Lenti-IRF5) 7 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,24)}=1.939$, $p=0.1649$ Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,24)}=8.959$, $p=0.0012$ Column (Sham vs Stroke) Factor: $F_{(1,24)}=40.49$, $p<0.0001$	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, $p=0.0007$ Lenti-IRF4:Sham vs. Lenti-GFP:Sham, $p=0.9997$ Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, $p=0.0123$ Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, $p=0.7527$ Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, $p=0.9858$ Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, $p=0.0003$ Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, $p=0.9341$ Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, $p<0.0001$ Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, $p=0.0006$ Lenti-GFP:Sham vs. Lenti-GFP:Stroke, $p=0.1556$ Lenti-GFP:Sham vs. Lenti-IRF5:Sham, $p=0.8917$ Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, $p=0.9202$ Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, $p=0.0004$

					Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, p=0.0178 Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, p=0.2830
7E	4 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 4 mice (Sham Lenti-IRF5) 7 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,21)}=1.347$, p=0.2815 Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,21)}=2.575$, p=0.1000 Column (Sham vs Stroke) Factor: $F_{(1,21)}=9.732$, p=0.0052	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, p=0.9417 Lenti-IRF4:Sham vs. Lenti-GFP:Sham, p=0.9913 Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, p=0.9732 Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, p=0.0472 Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, p=0.6147 Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, p>0.9999 Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, p<0.9557 Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, p=0.0807 Lenti-GFP:Sham vs. Lenti-GFP:Stroke, p=0.0328 Lenti-GFP:Sham vs. Lenti-IRF5:Sham, p=0.9874 Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, p=0.0110 Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, p=0.9809 Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, p=0.0399 Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, p=0.0232
7F	3 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 3 mice (Sham Lenti-IRF5) 6 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,22)}=7.584$, p=0.0031 Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,22)}=7.725$, p=0.0029 Column (Sham vs Stroke) Factor: $F_{(1,22)}=101.1$, p<0.0001	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, p=0.0137 Lenti-IRF4:Sham vs. Lenti-GFP:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, p=0.0005 Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, p=0.0265 Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, p=0.5232 Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, p=0.0143 Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-GFP:Sham vs. Lenti-GFP:Stroke, p=0.0011 Lenti-GFP:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, p=0.0005

					Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, p=0.0068 Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, p<0.0001
7G	3 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 3 mice (Sham Lenti-IRF5) 6 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,22)}=4.349$, p=0.0230 Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,22)}=4.467$, p=0.0211 Column (Sham vs Stroke) Factor: $F_{(1,22)}=50.54$, p<0.0001	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, p=0.0124 Lenti-IRF4:Sham vs. Lenti-GFP:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, p=0.0259 Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, p=0.1664 Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, p=0.9173 Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, p=0.1290 Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, p<0.0017 Lenti-GFP:Sham vs. Lenti-GFP:Stroke, p=0.0387 Lenti-GFP:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, p=0.0271 Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, p=0.0498 Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, p<0.0001
7H	3 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 3 mice (Sham Lenti-IRF5) 6 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,22)}=8.035$, p=0.0019 Row (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) factor: $F_{(1,22)}=7.992$, p=0.020 Column (Sham vs Stroke) Factor: $F_{(1,22)}=50.54$, p<0.0001	Lenti-IRF4:Sham vs. Lenti-IRF4:Stroke, p=0.0005 Lenti-IRF4:Sham vs. Lenti-GFP:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-GFP:Stroke, p<0.0001 Lenti-IRF4:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-IRF4:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-IRF4:Stroke vs. Lenti-GFP:Sham, p=0.0018 Lenti-IRF4:Stroke vs. Lenti-GFP:Stroke, p=0.3391 Lenti-IRF4:Stroke vs. Lenti-IRF5:Sham, p=0.0008 Lenti-IRF4:Stroke vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-GFP:Sham vs. Lenti-GFP:Stroke, p<0.0001 Lenti-GFP:Sham vs. Lenti-IRF5:Sham, p>0.9999 Lenti-GFP:Sham vs. Lenti-IRF5:Stroke, p<0.0001 Lenti-GFP:Stroke vs. Lenti-IRF5:Sham, p<0.0001 Lenti-GFP:Stroke vs. Lenti-IRF5:Stroke, p=0.0216

					Lenti-IRF5:Sham vs. Lenti-IRF5:Stroke, $p < 0.0001$
8B	6 mice (Stroke Lenti-IRF4) 6 mice (Stroke Lenti-GFP) 5 mice (Stroke Lenti-IRF5)	Non-normal distribution	t test (two-tailed)	$t_{(11)}=2.234$ (Lenti-IRF4 vs Lenti-GFP, Cortex) $t_{(11)}=0.4118$ (Lenti-IRF4 vs Lenti-GFP, Striatum) $t_{(11)}=1.505$ (Lenti-IRF4 vs Lenti-GFP, Hemisphere) $t_{(11)}=4.028$ (Lenti-IRF5 vs Lenti-GFP, Cortex) $t_{(11)}=1.028$ (Lenti-IRF5 vs Lenti-GFP, Striatum) $t_{(11)}=4.427$ (Lenti-IRF5 vs Lenti-GFP, Hemisphere)	Lenti-IRF4 vs Lenti-GFP, $p=0.0472$ (Cortex) Lenti-IRF4 vs Lenti-GFP, $p=0.6884$ (Striatum) Lenti-IRF4 vs Lenti-GFP, $p=0.1604$ (Hemisphere) Lenti-IRF5 vs Lenti-GFP, $p=0.0770$ (Cortex) Lenti-IRF5 vs Lenti-GFP, $p=0.0919$ (Striatum) Lenti-IRF5 vs Lenti-GFP, $p=0.0017$ (Hemisphere)
8C	4 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 4 mice (Sham Lenti-IRF5) 7 mice (Stroke Lenti-IRF4) 6 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,23)}=2.990$, $p=0.0678$ Row (Sham vs Stroke) factor: $F_{(1,23)}=172.6$, $p < 0.0001$ Column (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) Factor: $F_{(1,23)}=2.990$, $p=0.0678$	Sham:Lenti-GFP vs. Sham:Lenti-IRF4, $p > 0.9999$ Sham:Lenti-GFP vs. Sham:Lenti-IRF5, $p > 0.9999$ Sham:Lenti-GFP vs. Stroke:Lenti-GFP, $p < 0.0001$ Sham:Lenti-GFP vs. Stroke:Lenti-IRF4, $p < 0.0001$ Sham:Lenti-GFP vs. Stroke:Lenti-IRF5, $p < 0.0001$ Sham:Lenti-IRF4 vs. Sham:Lenti-IRF5, $p > 0.9999$ Sham:Lenti-IRF4 vs. Stroke:Lenti-GFP, $p < 0.0001$ Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF4, $p < 0.0001$ Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF5, $p < 0.0001$ Sham:Lenti-IRF5 vs. Stroke:Lenti-GFP, $p < 0.0001$ Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF4, $p < 0.0001$ Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF5, $p < 0.0001$ Stroke:Lenti-GFP vs. Stroke:Lenti-IRF4, $p=0.8501$ Stroke:Lenti-GFP vs. Stroke:Lenti-IRF5, $p=0.0225$ Stroke:Lenti-IRF4 vs. Stroke:Lenti-IRF5, $p=0.0062$
8D	4 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 3 mice (Sham Lenti-IRF5) 7 mice (Stroke Lenti-IRF4) 5 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,23)}=4.225$, $p=0.0274$ Row (Sham vs Stroke) factor: $F_{(1,23)}=28.88$, $p < 0.0001$ Column (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) Factor: $F_{(1,23)}=0.944$, $p=0.4036$	Sham:Lenti-GFP vs. Sham:Lenti-IRF4, $p > 0.9999$ Sham:Lenti-GFP vs. Sham:Lenti-IRF5, $p=0.9425$ Sham:Lenti-GFP vs. Stroke:Lenti-GFP, $p=0.4741$ Sham:Lenti-GFP vs. Stroke:Lenti-IRF4, $p=0.3072$ Sham:Lenti-GFP vs. Stroke:Lenti-IRF5, $p=0.0012$ Sham:Lenti-IRF4 vs. Sham:Lenti-IRF5, $p=0.9772$

					Sham:Lenti-IRF4 vs. Stroke:Lenti-GFP, p=0.4913 Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF4, p=0.3297 Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF5, p=0.0023 Sham:Lenti-IRF5 vs. Stroke:Lenti-GFP, p=0.1266 Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF4, p=0.0737 Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF5, p=0.0003 Stroke:Lenti-GFP vs. Stroke:Lenti-IRF4, p=0.9979 Stroke:Lenti-GFP vs. Stroke:Lenti-IRF5, p=0.0244 Stroke:Lenti-IRF4 vs. Stroke:Lenti-IRF5, p=0.0776
8E	4 mice (Sham Lenti-IRF4) 3 mice (Sham Lenti-GFP) 4 mice (Sham Lenti-IRF5) 6 mice (Stroke Lenti-IRF4) 6 mice (Stroke Lenti-GFP) 6 mice (Stroke Lenti-IRF5)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,23)}=1.276$, p=0.2982 Row (Sham vs Stroke) factor: $F_{(1,23)}=400.6$, p<0.0001 Column (Lenti-GFP vs Lenti-IRF5 vs Lenti-IRF4) Factor: $F_{(1,23)}=2.906$, p=0.0750	Sham:Lenti-GFP vs. Sham:Lenti-IRF4, p=0.9999 Sham:Lenti-GFP vs. Sham:Lenti-IRF5, p=0.9423 Sham:Lenti-GFP vs. Stroke:Lenti-GFP, p<0.0001 Sham:Lenti-GFP vs. Stroke:Lenti-IRF4, p<0.0001 Sham:Lenti-GFP vs. Stroke:Lenti-IRF5, p<0.0001 Sham:Lenti-IRF4 vs. Sham:Lenti-IRF5, p>0.9999 Sham:Lenti-IRF4 vs. Stroke:Lenti-GFP, p<0.0001 Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF4, p<0.0001 Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF4, p<0.0001 Sham:Lenti-IRF4 vs. Stroke:Lenti-IRF5, p<0.0001 Sham:Lenti-IRF5 vs. Stroke:Lenti-GFP, p<0.0001 Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF4, p<0.0001 Sham:Lenti-IRF5 vs. Stroke:Lenti-IRF5, p<0.0001 Stroke:Lenti-GFP vs. Stroke:Lenti-IRF4, p=0.0672 Stroke:Lenti-GFP vs. Stroke:Lenti-IRF5, p=0.0850 Stroke:Lenti-IRF4 vs. Stroke:Lenti-IRF5, p=0.0871
S1A	5 mice (IRF5 fl/fl) 5 mice (IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(7)}=2.557$	fl/fl vs CKO, p=0.0377
S1B	4 mice (IRF4 fl/fl) 5 mice (IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(7)}=3.466$	fl/fl vs CKO, p=0.0105
S3A	6 mice (IRF5 fl/fl) 6 mice (IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=0.341$	fl/fl vs CKO, p=0.7402
S3B	6 mice (IRF5 fl/fl) 6 mice (IRF5 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=0.514$	fl/fl vs CKO, p=0.6180
S3C	6 mice (IRF4 fl/fl) 6 mice (IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=0.619$	fl/fl vs CKO, p=0.5496
S3D	6 mice (IRF4 fl/fl) 6 mice (IRF4 CKO)	Non-normal distribution	t test (two-tailed)	$t_{(10)}=1.296$	fl/fl vs CKO, p=0.2360
S4C	4 mice (Sham IRF5 fl/fl)	Non-normal distribution	Ordinary TWO-way	Interaction: $F_{(1,16)}=0.118$, p=0.7357	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, p>0.9999

	4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)		ANOVA; Tukey multiple post hoc	Row (Sham vs Stroke) factor: $F_{(1,16)}=22.37$, $p=0.0002$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,16)}=0.1252$, $p=0.7281$	Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.0311$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0117$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.0318$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0119$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.9449$
S4D	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,16)}=1.257$, $p=0.2787$ Row (Sham vs Stroke) factor: $F_{(1,16)}=60.94$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,16)}=1.342$, $p=0.2637$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p>0.9999$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.0012$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.0012$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p<0.0001$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.3081$
S4E	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,16)}=0.8161$, $p=0.3797$ Row (Sham vs Stroke) factor: $F_{(1,16)}=21.73$, $p=0.0003$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,16)}=0.8421$, $p=0.3724$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p>0.9999$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p=0.0735$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.0057$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p=0.0749$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p=0.0058$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.4943$
S4F	4 mice (Sham IRF5 fl/fl) 4 mice (Sham IRF5 CKO) 6 mice (Stroke IRF5 fl/fl) 6 mice (Stroke IRF5 CKO)	Non-normal distribution	Ordinary TWO-way ANOVA; Tukey multiple post hoc	Interaction: $F_{(1,16)}=0.3946$, $p=0.5388$ Row (Sham vs Stroke) factor: $F_{(1,16)}=85.81$, $p<0.0001$ Column (IRF4 fl/fl vs IRF4 CKO) Factor: $F_{(1,16)}=0.215$, $p=0.6491$	Sham:IRF5 fl/fl vs. Sham:IRF5 CKO, $p=0.9996$ Sham:IRF5 fl/fl vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 fl/fl, $p<0.0001$ Sham:IRF5 CKO vs. Stroke:IRF5 CKO, $p<0.0001$ Stroke:IRF5 fl/fl vs. Stroke:IRF5 CKO, $p=0.8235$
S5B	5 mice (Lenti-GFP) 5 mice (Lenti-IRF4)	Non-normal distribution	t test (two-tailed)	$t_{(8)}=5.209$	Lenti-GFP vs Lenti-IRF4, $p=0.0008$
S5C	5 mice (Lenti-GFP) 5 mice (Lenti-IRF4)	Non-normal distribution	t test (two-tailed)	$t_{(8)}=5.558$	Lenti-GFP vs Lenti-IRF5, $p=0.0004$