“Expression of concern” – publication bias for positive preclinical cardioprotection studies

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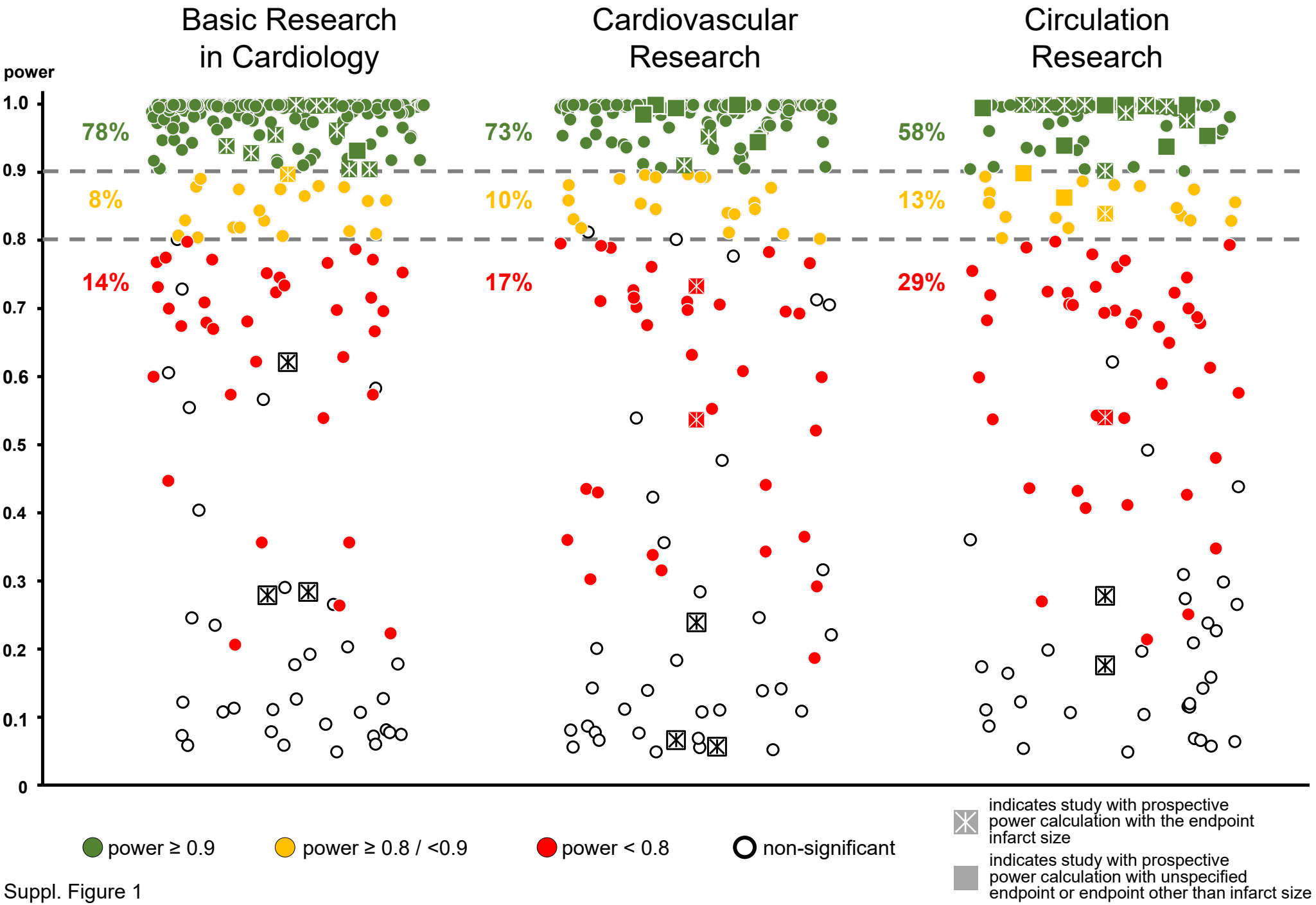
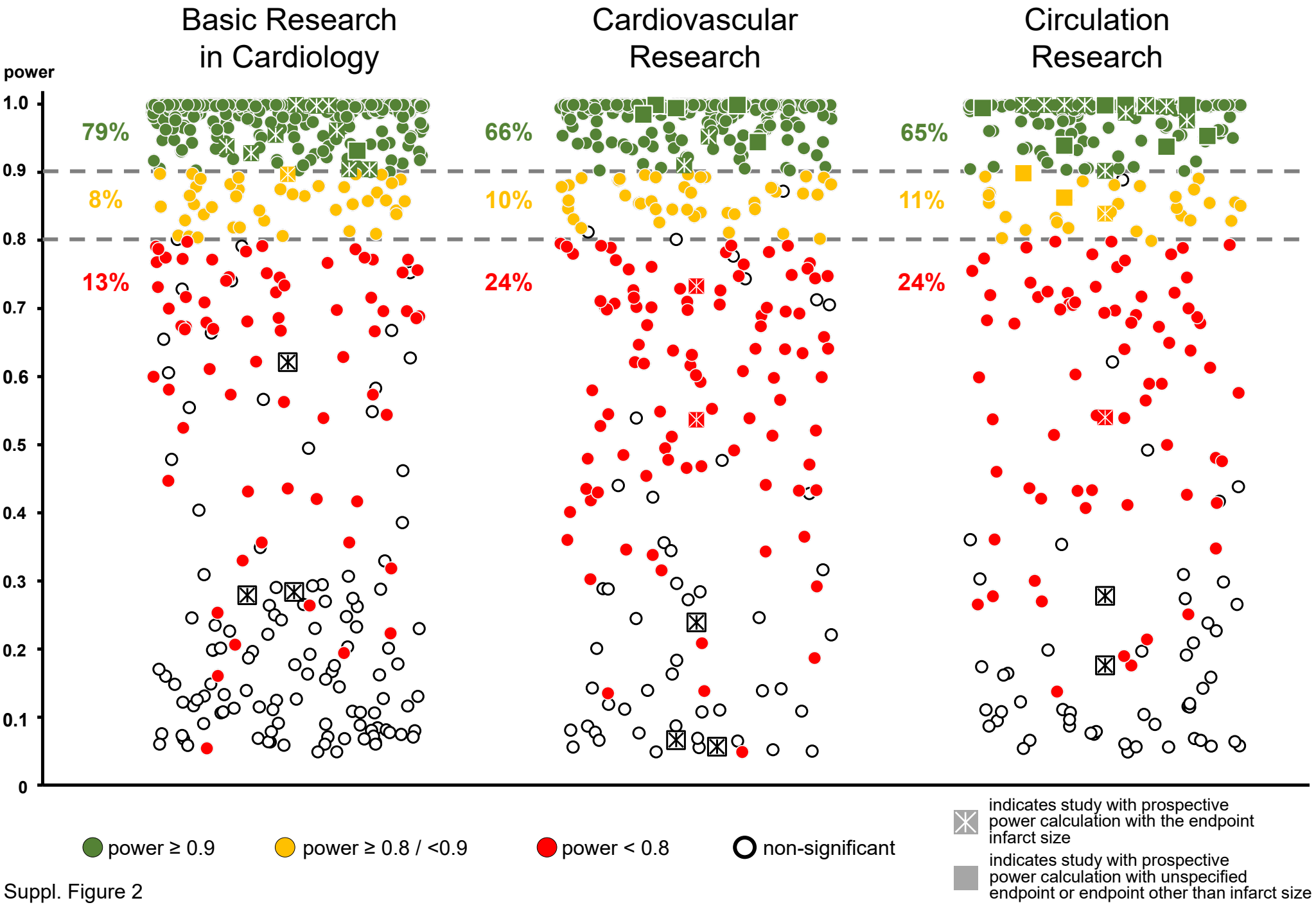
Supplemental data



Suppl. Figure 1

Suppl. Figure 1: Scatterplot of the retrospectively calculated statistical power for a significance level of α = 0.05 of infarct size data sets which were published between 2013 and 2023 in preclinical papers in Basic Research in Cardiology, Cardiovascular Research and Circulation Research. Only infarct size measured by TTC-staining, MRI, SPECT, or histologic techniques and the most reasonable primary infarct size data sets were considered. Closed symbols indicate data with reported statistical significance, open symbols without statistical significance. Square symbols indicate data from studies with a prospective power calculation.



Suppl. Figure 2

Suppl. Figure 2: Scatterplot of the retrospectively calculated statistical power for a significance level of α = 0.05 of infarct size data sets which were published between 2013 and 2023 in preclinical papers in Basic Research in Cardiology, Cardiovascular Research and Circulation Research. All available data sets on infarct size were used. Closed symbols indicate data with reported statistical significance, open symbols without statistical significance. Square symbols indicate data from studies with a prospective power calculation.

Basic Research in Cardiology								
ref.	species	I/R timing	intervention	method	effect	p-value	power	note
[1]	mouse	60 min / 24 h	WT vs CypD KO	TTC	↓	<0.01	1.00	
[1]	mouse	60 min / 24 h	WT vs NIM811	TTC	↓	<0.01	0.70	
[1]	mouse	60 min / 24 h	WT vs TUDCA	TTC	↓	<0.01	0.70	
[1]	mouse	60 min / 24 h	WT vs NIM811+TUDCA	TTC	→	n.s.	0.11	
[2]	mouse	30 min / 120 min	con vs PoCo	TTC	↓	<0.05	*	
[2]	mouse	30 min / 120 min	con vs iliomast	TTC	↓	<0.05	*	
[2]	mouse	30 min / 120 min	con vs PoCo (CyPD KO)	TTC	→	n.s.	*	
[2]	mouse	30 min / 120 min	con vs iliomast (CypD KO)	TTC	↓	<0.05	*	
[2]	mouse	30 min / 120 min	con vs iliomast	TTC	↓	<0.05	*	
[2]	mouse	30 min / 120 min	con vs iliomast (CypD KO)	TTC	↓	<0.05	*	
[3]	rabbit	30 min / 120 min	pla vs RIPC	TTC	↓	0.019	0.94	
[4]	rat	35 min / 60 min	con vs RIC	TTC	↓	<0.001	1.00	
[4]	rat	35 min / 60 min	RIC vs AMD+RIC	TTC	↑	<0.05	0.76	
[5]	rat	30 min / 120 min	con vs IPC	TTC	↓	<0.05	1.00	
[5]	rat	30 min / 120 min	con vs CsA	TTC	↓	<0.05	1.00	
[5]	rat	30 min / 120 min	con vs isoflurane	TTC	↓	<0.05	1.00	
[5]	rat	30 min / 120 min	con vs PoCo	TTC	→	n.s.	0.58	
[5]	rat	30 min / 120 min	con vs post-CsA	TTC	→	n.s.	0.61	
[5]	rat	30 min / 120 min	con vs post-isoflurane	TTC	↓	<0.05	1.00	
[6]	rat	30 min / 120 min	sedentary vs exercise	TTC	↓	<0.05	0.91	
[6]	rat	30 min / 120 min	exercise vs exercise+LNAME	TTC	↑	<0.05	0.44	
[6]	rat	30 min / 120 min	sedentary vs exercise	TTC	↓	<0.05	0.89	
[6]	rat	30 min / 120 min	exercise vs exercise+BH4	TTC	↑	<0.05	1.00	
[7]	rat	30 min / 120 min	veh vs incision	TTC	↓	<0.001	1.00	
[7]	rat	30 min / 120 min	veh vs bradykinin	TTC	↓	<0.001	1.00	
[7]	rat	30 min / 120 min	veh vs ePKC	TTC	↓	<0.001	1.00	
[7]	rat	30 min / 120 min	TAT vs TAT+incision	TTC	↓	<0.001	1.00	
[7]	rat	30 min / 120 min	veh vs ePKC	TTC	↓	<0.05	1.00	
[7]	rat	30 min / 120 min	veh+T10 vs gammaPKC	TTC	↓	<0.001	1.00	
[7]	rat	30 min / 120 min	ePKC during I vs incision after I	TTC	↑	<0.001	1.00	
[7]	rat	30 min / 120 min	incision during I vs incision after I	TTC	↑	<0.001	1.00	
[8]	mouse	40 min / 60 min	con vs GW3965	TTC	↓	<0.01	1.00	
[9]	mouse	45 min / 24 h	WT vs famotidine	TTC	↓	<0.05	0.73	
[9]	mouse	45 min / 24 h	WT vs amthamine	TTC	↑	<0.05	1.00	
[9]	mouse	45 min / 24 h	WT+amthamine vs WT+amthamine+famotidine	TTC	↓	<0.05	0.94	
[9]	mouse	45 min / 24 h	WT vs H2R KO	TTC	↓	<0.05	0.99	
[9]	mouse	perm / 24 h	WT vs famotidine	TTC	↓	<0.05	0.79	
[9]	mouse	perm / 24 h	WT vs amthamine	TTC	↑	<0.05	1.00	
[9]	mouse	perm / 24 h	WT+amthamine vs WT+amthamine+famotidine	TTC	↓	<0.05	0.93	
[9]	mouse	perm / 24 h	WT vs H2R KO	TTC	↓	<0.05	0.90	
[10]	mouse	60 min / 24 h	WT con vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	WT DGaIN vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	WT H154 vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	WT 1612 vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	WT IL10ab DGaIN vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	WT IL10ab 1668 vs WT1668	TTC	↓	<0.05	1.00	
[10]	mouse	60 min / 24 h	TLR9-D D-GaIN vs WT1668	TTC	↓	<0.05	0.99	
[10]	mouse	60 min / 24 h	TLR9-D 1668 vs WT1668	TTC	↓	<0.05	0.90	
[10]	mouse	60 min / 24 h	WTcon vs WT IL10ab DGaIN	TTC	↑	<0.05	1.00	
[10]	mouse	60 min / 24 h	WTcon vs WT IL10ab 1668	TTC	↑	<0.05	0.99	
[10]	mouse	60 min / 24 h	WTcon vs TLR9-D D-GaIN	TTC	↓	<0.05	0.90	
[11]	mouse	30 min / 120 min	con vs PoCo	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs Bay60	TTC	↓	<0.05	0.99	
[11]	mouse	30 min / 120 min	con vs MitoSNO	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs Bay58	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs sidenafil	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs PoCo +QDO	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs PoCo (PGI KO)	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs Bay60 (PGI KO)	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs MitoSNO (PGI KO)	TTC	↓	<0.05	1.00	
[11]	mouse	30 min / 120 min	con vs Bay58 (PGI KO)	TTC	→	n.s.	0.08	
[11]	mouse	30 min / 120 min	con vs sidenafil (PGI KO)	TTC	→	n.s.	0.26	
[11]	mouse	30 min / 120 min	con vs PoCo +QDO (PGI KO)	TTC	↓	<0.05	1.00	
[12]	mouse	30 min / 24 h	con vs Notch1 KO	TTC	↑	<0.01	0.98	
[12]	mouse	30 min / 24 h	veh vs EUK 134	TTC	↓	<0.01	0.97	
[12]	mouse	30 min / 24 h	veh vs JAGGD1	TTC	↓	<0.01	0.92	
[13]	mouse	40 min / 60 min	con vs diabetic	TTC	↑	<0.01	1.00	
[13]	mouse	40 min / 60 min	diabetic vs diabetic+insulin	TTC	↓	<0.01	0.87	
[13]	mouse	40 min / 60 min	diabetic+insulin vs diabetic+insulin+comp C	TTC	↑	<0.01	0.96	
[13]	mouse	40 min / 60 min	WT vs APN -/-	TTC	↑	<0.01	1.00	
[13]	mouse	40 min / 60 min	WT+insulin vs APN -/- +insulin	TTC	↑	<0.01	0.88	
[14]	rat	30 min / 120 min	con vs PoCo	NTB	↓	<0.01	1.00	
[14]	rat	30 min / 120 min	con vs Diazoxide	NTB	↓	<0.01	1.00	
[15]	mouse	40 min / 60 min	fl/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.0001	1.00	
[15]	mouse	40 min / 60 min	fl/fl+4-OHT vs cre/fl+4-OHT	TTC	↓	<0.0001	1.00	
[15]	mouse	40 min / 60 min	cre/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.0001	1.00	
[15]	mouse	40 min / 60 min	(fl/fl+oil) ctrl vs IPC	TTC	↓	<0.05	0.96	
[15]	mouse	40 min / 60 min	(fl/fl+oil) ctrl vs DZX	TTC	↓	<0.05	0.93	
[15]	mouse	40 min / 60 min	(fl/fl+4-OHT) ctrl vs IPC	TTC	↓	<0.05	0.96	
[15]	mouse	40 min / 60 min	(fl/fl+4-OHT) vs DZX	TTC	↓	<0.05	0.77	
[15]	mouse	40 min / 60 min	(cre/fl+oil ctrl) vs IPC	TTC	↓	<0.05	0.77	
[15]	mouse	40 min / 60 min	(cre/fl+oil ctrl) vs DZX	TTC	→	n.s.	0.19	
[15]	mouse	40 min / 60 min	(ctrl) fl/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00	
[15]	mouse	40 min / 60 min	(ctrl) fl/fl+4-OHT vs cre/fl+4-OHT	TTC	↓	<0.001	1.00	
[15]	mouse	40 min / 60 min	(ctrl) cre/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00	

[15]	mouse	40 min / 60 min	(IPC) fl/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00
[15]	mouse	40 min / 60 min	(IPC) fl/fl+4-OHT vs cre/fl+4-OHT	TTC	↓	<0.001	0.87
[15]	mouse	40 min / 60 min	(IPC) cre/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00
[15]	mouse	40 min / 60 min	(DZX) fl/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00
[15]	mouse	40 min / 60 min	(DZX) fl/fl+4-OHT vs cre/fl+4-OHT	TTC	↓	<0.001	0.67
[15]	mouse	40 min / 60 min	(DZX) cre/fl+oil vs cre/fl+4-OHT	TTC	↓	<0.001	1.00
[16]	mouse	30 min / 24 h	con vs ctrp9	TTC	↓	<0.01	1.00
[17]	rat	30 min / 24 h	veh vs GIK	TTC	↓	<0.05	0.99
[17]	rat	30 min / 24 h	GK vs GIK	TTC	↓	<0.05	1.00
[17]	rat	30 min / 24 h	(GIK) NDRG2 scramble vs NDRG2 KO	TTC	↑	<0.05	0.97
[18]	mouse	30 min / 120 min	con vs GAP19	TTC	↓	<0.05	0.60
[18]	mouse	30 min / 120 min	con vs GAP19i130A	TTC	→	n.s.	0.20
[19]	rat	60 min / 120 min	con vs vagal stimulation	TTC	↓	<0.01	0.98
[20]	mouse	45 min / 24 h	con vs BRL37344	TTC	↓	<0.05	0.77
[20]	mouse	45 min / 2 h	con vs BRL37344 (WT)	TTC	↓	<0.05	0.69
[20]	mouse	45 min / 2 h	con vs BRL37344 (CypD KO)	TTC	→	n.s.	0.07
[20]	mouse	45 min / 2 h	con (WT) vs BRL 37344 (CyPD KO)	TTC	↓	<0.05	0.69
[20]	pig	60 min / 7 d	con vs BRL37344	MRI	↓	<0.05	0.71
[21]	mouse	30 min / 60 min	PBS vs RIPC	TTC	↓	<0.05	0.86
[21]	mouse	30 min / 60 min	PBS vs miR-Co+RIPC	TTC	↓	<0.01	0.97
[21]	mouse	30 min / 60 min	PBS vs anti-miR144+RIPC	TTC	→	n.s.	0.20
[21]	mouse	30 min / 60 min	PBS vs anti-miR144	TTC	→	n.s.	0.09
[21]	mouse	30 min / 60 min	PBS vs miR-Co	TTC	→	n.s.	0.73
[21]	mouse	30 min / 60 min	PBS vs miR144 dy1	TTC	↓	<0.05	0.96
[21]	mouse	30 min / 60 min	PBS vs miR144 dy3	TTC	↓	<0.05	1.00
[22]	mouse	30 min / 24 h	con vs NRLP3 siRNA	TTC	↓	<0.05	0.78
[22]	mouse	30 min / 24 h	con vs BAY 117082	TTC	↓	<0.05	0.81
[23]	rat	30 min / 240 min	con vs HPC	TTC	↓	<0.05	1.00
[23]	rat	30 min / 240 min	capzasepine vs HPC+capsacepine	TTC	↓	<0.05	0.97
[23]	rat	30 min / 240 min	HPC vs HPC+capsacepine	TTC	↑	<0.05	0.20
[24]	rabbit	30 min / 120 min	(rabbit plasma dialysate) sham vs li-RIPC	TTC	↓	<0.01	0.81
[24]	rabbit	30 min / 120 min	(rabbit plasma dialysate) sham vs Tens	TTC	↓	<0.01	0.99
[24]	mouse	30 min / 60 min	(human plasma dialysate) pre li-IPC vs post-li-IPC	TTC	↓	<0.01	1.00
[24]	mouse	30 min / 60 min	(human plasma dialysate) pre TENS vs post-TENS	TTC	↓	<0.01	0.98
[24]	mouse	30 min / 60 min	(human plasma dialysate) pre TENS vs post-TENS	TTC	↓	<0.01	0.98
[24]	mouse	30 min / 60 min	(human plasma dialysate) pre TENS vs pre TENS+naloxone	TTC	↑	<0.05	0.95
[24]	mouse	30 min / 60 min	(human plasma dialysate) pre TENS+naloxone vs post-TENS+naloxone	TTC	→	n.s.	0.23
[25]	mouse	60 min / 24 h	BC+/EC+ vs BC-/EC+	TTC	↑	<0.01	0.98
[25]	mouse	60 min / 24 h	ETU- vs ETU+ (BC+/EC+)	TTC	↑	<0.001	1.00
[25]	mouse	60 min / 24 h	ETU- (BC+/EC+) vs ETU- (BC-/BC+)	TTC	↑	<0.05	1.00
[26]	mouse	perm / 3 wk	veh vs anti IL6	TTC	→	n.s.	0.08
[26]	mouse	perm / 3 wk	veh vs anti IL6	Histo	↑	<0.05	0.85
[27]	mouse	30 min / 60 min	WT vs WT+PoCo	NTB	↓	<0.01	0.98
[27]	mouse	30 min / 60 min	WT vs Mel OE	NTB	↓	<0.05	0.95
[27]	mouse	30 min / 60 min	WT vs Mel OE+PoCo	NTB	↓	<0.05	1.00
[27]	mouse	30 min / 60 min	Mel OE vs Mel OE+PoCo	NTB	→	n.s.	0.30
[27]	mouse	30 min / 60 min	Mel OE vs Mel OE+wortmannin	NTB	↑	<0.05	0.53
[27]	mouse	30 min / 60 min	Mel OE vs Mel OE+U0126	NTB	↑	<0.05	0.55
[28]	mouse	30 min / 120 min	WT vs GAB1 KO	TTC	↑	<0.05	0.89
[29]	rat	perm / 1 mo	con vs cardiospheres	Histo	↓	<0.05	0.75
[29]	rat	perm / 6 mo	con vs cardiospheres	Histo	↓	<0.05	0.16
[30]	mouse	60 min / 24 h	WT vs IFR9 KO	TTC	↓	<0.05	1.00
[30]	mouse	60 min / 24 h	WT vs IFR9 OE	TTC	↑	<0.05	0.99
[31]	mouse	perm / 1 wk	DKK3 +/+ vs DKK3 -/-	Histo	↑	<0.05	0.99
[31]	mouse	perm / 1 wk	WT vs csOE DKK3	Histo	↓	<0.05	0.99
[32]	rat	20/45 min / 120 min	i20 vs i45	TTC	↑	<0.05	0.99
[32]	rat	30 min / 120 min	con vs PoCo 10s	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 10min	TTC	↓	<0.05	0.99
[32]	rat	30 min / 120 min	con vs PoCo 10s	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 10 min	TTC	↓	<0.05	0.98
[32]	rat	30 min / 120 min	con vs PoCo 30 min	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 45 min	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 60 min	TTC	→	n.s.	0.66
[32]	rat	30 min / 120 min	con vs PoCo 10 s	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 10 min	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	PoCo 10s vs PoCo 10 s+PD	TTC	↑	<0.01	1.00
[32]	rat	30 min / 120 min	PoCo 10 s vs PoCo 10 s+LY	TTC	↑	<0.01	1.00
[32]	rat	30 min / 120 min	PoCo 10 s vs PoCo 10 s+AG	TTC	→	n.s.	0.09
[32]	rat	30 min / 120 min	PoCo 10min vs PoCo 10 min+PD	TTC	→	n.s.	0.29
[32]	rat	30 min / 120 min	PoCo 10 min vs PoCo 10 min+LY	TTC	→	n.s.	0.31
[32]	rat	30 min / 120 min	PoCo 10 min vs PoCo 10 min+AG	TTC	→	n.s.	0.15
[32]	rat	30 min / 120 min	con vs PoCo 10 s	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 10 min	TTC	↓	<0.01	0.99
[32]	rat	30 min / 120 min	con vs PoCo 30 min	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	con vs PoCo 45 min	TTC	↓	<0.01	1.00
[32]	rat	30 min / 120 min	PoCo 10 s vs PoCo 10 s+5HD	TTC	↑	<0.05	0.93
[32]	rat	30 min / 120 min	PoCo 10 min vs PoCo 10 min+5HD	TTC	↑	<0.05	0.90
[32]	rat	30 min / 120 min	PoCo 30 min vs PoCo 30 min+5HD	TTC	→	n.s.	0.13
[32]	rat	30 min / 120 min	PoCo 45 min vs PoCo 45 min+5HD	TTC	→	n.s.	0.07
[33]	mouse	perm / 3 d	WT vs p66shc KO	Histo	→	n.s.	0.18
[34]	rat	30 min / 24 h	con vs PKG Ia	TTC	↓	<0.05	1.00
[34]	rat	30 min / 24 h	PKG Ia+PAG vs PKG-Ia	TTC	↓	<0.05	1.00
[34]	rat	30 min / 24 h	K390A vs PKG-Ia	TTC	↓	<0.05	1.00
[34]	rat	30 min / 24 h	PAG vs PKG-Ia	TTC	↓	<0.05	1.00
[34]	rat	30 min / 24 h	PKG-Ia+KT5823 at reperfusion vs PKG-Ia	TTC	↓	<0.05	0.85
[34]	rat	30 min / 24 h	KT5823 at reperfusion vs PKG-Ia	TTC	↓	<0.05	1.00
[34]	rat	30 min / 24 h	con vs PKG-Ia+KT5823 at reperfusion	TTC	↓	<0.05	0.61
[34]	rat	30 min / 24 h	PKG Ia vs PKG-Ia+KT5823 at reperfusion	TTC	↑	<0.05	0.85

[34]	rat	30 min / 24 h	PKG Ia+PAG vs PKG-Ia+KT5823 at reperfusion	TTC	↓	<0.05	0.93	
[34]	rat	30 min / 24 h	K390A vs PKG-Ia+KT5823 at reperfusion	TTC	↓	<0.05	0.56	
[34]	rat	30 min / 24 h	PAG vs PKG-Ia+KT5823 at reperfusion	TTC	↓	<0.05	0.97	
[34]	rat	30 min / 24 h	KT5823 at reperfusion vs PKG-Ia+KT at reperfusion	TTC	↓	<0.05	0.94	
[35]	mouse	30 min / 60 min	C57 vs db/db DMSO	TTC	↑	<0.05	1.00	
[35]	mouse	30 min / 60 min	C57 vs db/db RAPA	TTC	↓	<0.001	1.00	
[35]	mouse	30 min / 60 min	db/db DMSO vs db/db RAPA	TTC	↓	<0.001	1.00	
[35]	mouse	30 min / 60 min	DMSO vs RAPA	TTC	↓	<0.001	1.00	
[35]	mouse	30 min / 60 min	RAPA vs DMSO(STAT3 def)	TTC	↑	<0.001	1.00	
[36]	mouse	30 min / 48 h	WT vs miR155 -/-	TTC	↓	<0.05	0.68	
[37]	rat	30 min / 90 min	con vs prolame	TTC	↓	<0.05	0.97	
[37]	rat	30 min / 90 min	con vs 17ß-estradiol	TTC	↓	<0.05	0.22	
[37]	rat	30 min / 90 min	prolame vs prolame+LNAME	TTC	↑	<0.05	1.00	
[37]	rat	30 min / 90 min	prolame vs 17ß-estradiol	TTC	↑	<0.05	0.25	
[38]	mouse	perm / 4 wk	WT vs CARD3 KO	Histo	↓	<0.05	1.00	
[38]	mouse	perm / 4 wk	WT vs CARD3 OE	Histo	↑	<0.05	1.00	
[39]	mouse	perm / 24 h	WT vs csOE MCP1	TTC	→	n.s.	0.13	
[39]	mouse	perm / 28 d	WT vs csOE MCP1	Histo	↓	<0.05	1.00	
[40]	mouse	perm / 4 wk	con vs exendin	TTC	→	n.s.	0.08	
[41]	mouse	35 min / 60 min	WT vs MLS-STAT3E	TTC	↓	<0.05	1.00	
[41]	mouse	30 min / 24 h min	WT vs MLS-STAT3E	TTC	↓	<0.05	1.00	
[42]	mouse	30 min / 60 min	euglycemia vs hyperglycemia	TTC	↑	<0.05	0.99	
[42]	mouse	30 min / 60 min	SPLX (EG vs HG)	TTC	→	n.s.	0.20	
[42]	mouse	30 min / 60 min	SPLX+SPAT (EG vs HG)	TTC	↑	<0.05	1.00	
[42]	mouse	30 min / 60 min	SPLX+SPAT EG vs SPLX+HGSPAT+EG	TTC	↑	<0.05	0.89	
[43]	mouse	45 min / 60 min	WT vs IB-MECA	TTC	↓	<0.05	0.98	
[43]	mouse	45 min / 60 min	WT vs A3AR KO	TTC	↓	<0.05	0.82	
[43]	mouse	45 min / 60 min	WT vs A3AR KO+IB-MECA	TTC	↓	<0.05	1.00	
[43]	mouse	45 min / 60 min	B6/B6 vs B6/B6+IB-MECA	TTC	↓	<0.05	1.00	
[43]	mouse	45 min / 60 min	A2A KO/B6 vs B6/B6+IB-MECA	TTC	↓	<0.05	1.00	
[43]	mouse	45 min / 60 min	A2A KO/B6*IB-MECA vs B6/B6+IB-MECA	TTC	↓	<0.05	0.99	
[44]	pig	45 min / 120 min	con vs vns	TTC	↓	<0.05	0.68	
[45]	woodchuck	60 min / 120 min	summer pla vs summer IPC	TTC	↓	<0.05	0.97	
[45]	woodchuck	60 min / 120 min	summer pla vs winter IPC (room temp)	TTC	↓	<0.05	1.00	
[45]	woodchuck	60 min / 120 min	summer pla vs winter IPC (hibernation)	TTC	↓	<0.05	1.00	
[45]	woodchuck	60 min / 120 min	summer pla vs winter+IPC	TTC	↓	<0.05	1.00	
[45]	woodchuck	60 min / 120 min	winter+L-NA vs winter (room temp)	TTC	↓	<0.05	1.00	
[45]	woodchuck	60 min / 120 min	winter+L-NA vs winter (hibernation)	TTC	↓	<0.05	1.00	
[45]	woodchuck	60 min / 120 min	winter+L-NA vs winter+IPC	TTC	↓	<0.05	1.00	
[46]	rat	30 min / 120 min	con vs cangrelor	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs endo III 4 mg pre	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs endo III+cangrelor	TTC	↓	<0.005	1.00	
[46]	rat	30 min / 120 min	cangrelor vs endo III+cangrelor	TTC	↓	<0.001	0.98	
[46]	rat	30 min / 120 min	endo III 4 mg pre vs endo III+cangrelor	TTC	↓	<0.001	0.99	
[46]	rat	30 min / 120 min	con vs endo III 4 mg at rep	TTC	↓	<0.001	0.99	
[46]	rat	30 min / 120 min	con vs endo III 8 mg at rep	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs endo III 8 mg at rep+cangrelor	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs endo III 8 mg 10 min rep	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	cangrelor vs endo III 8 mg at rep+cangrelor	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	endo III 4 mg rep vs endo III 8 mg rep+cangrelor	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	endo III 8 mg rep vs endo III 8 mg rep+cangrelor	TTC	↓	<0.002	1.00	
[46]	rat	30 min / 120 min	con vs endo III 4 mg pre+wortmannin	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs endo III 4 mg pre+SPT	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	endo III 4 mg pre vs endo III 4 mg pre+PD96059	TTC	↑	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs DNASE 16	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs DNASE 32	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs DNASE+cangrelor	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs DNASE+PD	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs DNASE+endo III	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	DNASE+cangrelor vs cangrelor	TTC	↑	0.006	0.98	
[46]	rat	30 min / 120 min	DNASE+cangrelor vs DNASE16	TTC	↑	<0.02	0.77	
[46]	rat	30 min / 120 min	DNASE+cangrelor vs DNASE32	TTC	↑	<0.02	0.98	
[46]	rat	30 min / 120 min	DNASE+endo III vs DNASE16	TTC	↑	<0.01	0.81	
[46]	rat	30 min / 120 min	DNASE+endo III vs DNASE32	TTC	↑	<0.01	0.98	
[46]	rat	30 min / 120 min	DNASE+endo III vs Endo III	TTC	↑	<0.01	0.99	
[46]	rat	30 min / 120 min	con vs DNASE333	TTC	↓	<0.001	1.00	
[46]	rat	30 min / 120 min	con vs mtDNA	TTC	↑	<0.001	1.00	
[47]	pig	60 min / 180 min	con vs CsA	TTC	↓	0.008	0.99	①
[47]	pig	60 min / 180 min	con vs PoCo	TTC	↓	0.016	0.92	①
[48]	pig	90 min / 21 d	normal cholesterol diet vs high cholesterol diet	TTC	↑	<0.05	0.57	
[48]	mouse	60 min / 0 min	WT vs LRP5-/-	Histo	↑	<0.05	0.67	
[48]	mouse	60 min / 0 min	WT vs LRP5-/-	Histo	↑	<0.05	0.42	
[49]	dog	60 min / 600 min	non.hypoxic vs intermittent hypoxia	TTC	↓	<0.001	1.00	
[49]	dog	60 min / 600 min	intermittent hypoxia vs intermittend hypoxia+naltrindole	TTC	↑	<0.001	1.00	
[49]	dog	60 min / 600 min	intermittent hypoxia vs intermittend hypoxia+NAC	TTC	↑	<0.001	1.00	
[49]	dog	60 min / 600 min	intermittent hypoxia vs uniterrupted hypoxia	TTC	↑	<0.001	1.00	
[50]	mouse	45 min / 24 h	con vs DMS	TTC	↓	<0.05	0.88	
[50]	mouse	45 min / 24 h	con vs DMS+PC61	TTC	→	n.s.	0.20	
[50]	mouse	45 min / 24 h	con vs DMS+IgG	TTC	↓	<0.05	0.87	
[50]	mouse	45 min / 24 h	con vs DMS+LY	TTC	→	n.s.	0.17	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO	TTC	↓	<0.05	0.88	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO+DMS	TTC	↓	<0.05	0.95	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO+DMS+nonTREGS (wt)	TTC	→	n.s.	0.08	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO+DMS+nonTREGS (wt) +TREGS (wt)	TTC	↓	<0.05	0.79	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO+DMS+TREGS (WT)	TTC	↓	<0.05	0.94	
[50]	mouse	45 min / 24 h	WT vs RAG2 KO +DMS+nonTREGS (wt) +TREGS (AKT1+/-)	TTC	→	n.s.	0.06	
[51]	mouse	45 min / 24 h	WT vs Caspase KO	TTC	→	n.s.	0.13	
[52]	mouse	25 min / 60 min	con vs RIPC 2 cyc	TTC	→	n.s.	0.13	

[52]	mouse	25 min / 60 min	con vs RIPC 4 cyc	TTC	↓	<0.05	0.94
[52]	mouse	25 min / 60 min	con vs RIPC 6 cyc	TTC	↓	<0.001	1.00
[52]	mouse	25 min / 60 min	con vs RIPC 8 cyc	TTC	↓	<0.05	1.00
[52]	mouse	25 min / 60 min	4 cy vs RIPC 6 cyc	TTC	→	n.s.	0.27
[52]	mouse	25 min / 60 min	RIPC 6 cyc vs RIPC 8 cyc	TTC	→	n.s.	0.20
[52]	mouse	25 min / 60 min	con vs RIPC 2min occ	TTC	↓	<0.05	0.97
[52]	mouse	25 min / 60 min	con vs RIPC 5 min occ	TTC	↓	<0.05	1.00
[52]	mouse	25 min / 60 min	con vs RIPC 10 min occ	TTC	→	n.s.	0.09
[52]	mouse	25 min / 60 min	RIPC 2min occ vs RIPC 5min occ	TTC	→	n.s.	0.08
[52]	mouse	25 min / 60 min	con vs RIPC 4cyc-1limb	TTC	↓	<0.001	0.99
[52]	mouse	25 min / 60 min	con vs RIPC 4 cyc-2limb	TTC	↓	<0.05	0.95
[52]	mouse	25 min / 60 min	RIPC 4 cyc-1limb vs RIPC 4 cyc-2limb	TTC	→	n.s.	0.07
[52]	mouse	25 min / 60 min	con vs RIPC 6cyc-1limb	TTC	↓	<0.001	1.00
[52]	mouse	25 min / 60 min	con vs RIPC 6cyc-2limb	TTC	↓	<0.0001	1.00
[52]	mouse	25 min / 60 min	RIPC 6cyc-1limb vs RIPC 6cyc-2limb	TTC	→	n.s.	0.25
[52]	mouse	25 min / 60 min	con vs RIPC 0.5h delay to isch	TTC	↓	<0.001	1.00
[52]	mouse	25 min / 60 min	con vs RIPC 1.5h delay to isch	TTC	↓	<0.0001	1.00
[52]	mouse	25 min / 60 min	con vs RIPC 2h delay to isch	TTC	→	n.s.	0.16
[52]	mouse	25 min / 60 min	con vs RIPC 2.5h delay to isch	TTC	→	n.s.	0.11
[52]	mouse	25 min / 60 min	con vs IPC	TTC	↓	<0.0001	1.00
[53]	mouse	40 min / 85 min	con vs HFS (hig-Fat-Sucrose)	TTC	↑	<0.05	0.97
[53]	mouse	40 min / 85 min	HFS vs HFS+exercise	TTC	↓	<0.05	0.75
[53]	mouse	40 min / 120 min	con vs HFS (hig-Fat-Sucrose)	TTC	↑	<0.05	0.67
[53]	mouse	40 min / 120 min	HFS vs HFS+exercise	TTC	↓	<0.05	0.67
[53]	mouse	40 min / 120 min	con vs BRL37344 (ß3-stim)	TTC	↓	<0.05	0.92
[53]	mouse	40 min / 120 min	con vs HFS	TTC	↑	<0.05	1.00
[53]	mouse	40 min / 120 min	HFS vs HFS+BRL37344	TTC	→	n.s.	0.12
[53]	mouse	40 min / 85 min	HFS vs HFS+1400W (iNOS inh)	TTC	↓	<0.05	0.93
[54]	mouse	perm / 7 d	saline vs ROFA (1 mm)	Histo	→	n.s.	0.48
[54]	mouse	perm / 7 d	saline vs ROFA (1.5 mm	Histo	→	n.s.	0.29
[54]	mouse	perm / 7 d	saline vs ROFA (2 mm)	Histo	↑	<0.05	1.00
[54]	mouse	perm / 7 d	saline vs ROFA (2.5 mm)	Histo	→	n.s.	0.66
[54]	mouse	perm / 7 d	saline vs ROFA (3 mm)	Histo	↑	<0.05	1.00
[55]	rat	35 min / 60 min	con donor hearts vs RIC donor hearts	TTC	↓	<0.01	0.97
[55]	rat	35 min / 60 min	prp-dialysate (con) vs prp-dialysate (RIC)	TTC	↓	<0.01	0.99
[55]	rat	35 min / 60 min	ppp-dialysate (con) vs ppp-dialysate (RIC)	TTC	↓	<0.001	1.00
[55]	rat	35 min / 60 min	sham vagotomy con dialysate vs sham vagotomy+RIC dialysate	TTC	↓	<0.05	1.00
[55]	rat	35 min / 60 min	sham vagotomy+con dialysate vs vagotomy+con dialysate	TTC	→	n.s.	0.57
[55]	rat	35 min / 60 min	sham vagotomy+con dialysate vs vagotomy+RIC dialysate	TTC	→	n.s.	0.07
[55]	rat	35 min / 60 min	con (dialysate) vs RIC (dialysate)	TTC	↓	<0.05	1.00
[55]	rat	35 min / 60 min	con (dialysate) vs hexamethonium	TTC	→	n.s.	0.06
[55]	rat	35 min / 60 min	con (dialysate) vs RIC+hexamethonium	TTC	→	n.s.	0.39
[55]	rat	35 min / 60 min	con (dialysate) vs atropine	TTC	→	n.s.	0.16
[55]	rat	35 min / 60 min	con (dialysate) vs RIC+atropine	TTC	→	n.s.	0.63
[56]	mouse	30 min / 180 min	con vs solid lipid nanoparticles	TTC	↓	<0.001	1.00
[57]	mouse	40 min / 60 min	con vs SPLX (40 min I)	TTC	↓	<0.05	1.00
[57]	mouse	50 min / 60 min	con vs SPLX (50 min I)	TTC	↓	<0.05	1.00
[57]	mouse	40 min / 60 min	con vs SPLX (40 min I)	TTC	↓	<0.05	1.00
[57]	mouse	40 min / 60 min	SPLX vs SPLX+SPAT	TTC	↑	<0.05	1.00
[57]	mouse	40 min / 60 min	con vs SPLX+SPAT	TTC	→	n.s.	0.16
[57]	mouse	20 min / 60 min	SPLX vs SPLX+SPAT	TTC	→	n.s.	0.06
[57]	mouse	20 min / 60 min	con vs 10-IHH	TTC	→	n.s.	0.20
[57]	mouse	20 min / 60 min	con vs 40-IHH	TTC	↑	<0.05	1.00
[57]	mouse	20 min / 60 min	10-IHH vs 40-IHH	TTC	↑	<0.05	1.00
[57]	mouse	20 min / 60 min	40-IHH vs 40-IHH+SPLX	TTC	↓	<0.05	1.00
[57]	mouse	20 min / 60 min	40-IHH+SPLX vs 40-IHH+SPLX+SPAT	TTC	↑	<0.05	1.00
[57]	mouse	20 min / 60 min	40-IHH (H mgB1- vs H mgB1+)	TTC	↑	<0.05	1.00
[58]	mouse	60 min / 24 h	WT vs SIRT6 +/-	TTC	↑	<0.05	0.97
[58]	mouse	45 min / 60 min	WT vs SIRT6 +/-	TTC	↑	<0.001	1.00
[58]	mouse	60 min / 24 h	WT+Ad-null vs SIRT6+/- +Ad-null	TTC	↑	<0.001	1.00
[58]	mouse	60 min / 24 h	WT+Ad-null vs SIRT6+/- +Ad-SIRT6	TTC	↓	<0.001	1.00
[58]	mouse	60 min / 24 h	SIRT6+/- +Ad-null vs SIRT6+/- +Ad-SIRT6	TTC	↓	<0.001	1.00
[59]	mouse	30 min / 24 h	PBS vs mouse EVs baseline	TTC	↓	<0.05	1.00
[59]	mouse	30 min / 24 h	PBS vs mouse EVs after swimming	TTC	↓	<0.05	1.00
[59]	mouse	30 min / 24 h	PBS vs hum. plasma EVs exercise	TTC	↓	<0.05	1.00
[60]	mouse	perm / 24 h	WT vs GLO1 OE	TTC	→	n.s.	0.18
[60]	mouse	perm / 4 wk	WT vs GLO1 OE	Histo	↓	0.038	0.75
[61]	mouse	perm / 21 d	young vs old (empty-v)	Histo	↑	<0.001	0.95
[61]	mouse	perm / 21 d	old (empty V) vs old+GDF11	Histo	↓	<0.05	0.54
[62]	mouse	30 min / 120 min	con vs GAP26	TTC	↓	<0.05	0.67
[62]	mouse	30 min / 120 min	con vs GAP19	TTC	↓	<0.05	0.62
[62]	mouse	30 min / 120 min	con vs RRNY	TTC	↓	<0.01	0.99
[62]	mouse	30 min / 120 min	GAP19 vs RRNY	TTC	↓	<0.05	0.99
[63]	rat	30 min / 60 min	con vs PoCo	TTC	↓	<0.05	1.00
[63]	rat	30 min / 60 min	PoCo vs PoCo+methyl-ß cyclodextrin	TTC	↑	<0.05	0.58
[64]	pig	45 min / 1 wk	con vs 12 min	MRI	→	n.s.	0.29
[64]	pig	45 min / 1 wk	con vs 17 min	MRI	→	n.s.	0.09
[65]	mouse	45 min / 24 h	con vs AZP-531	TTC	↓	<0.001	0.98
[65]	mouse	45 min / 24 h	con vs CsA	TTC	↓	<0.01	0.70
[65]	mouse	45 min / 24 h	con vs UAG	TTC	↓	<0.001	1.00
[66]	mouse	8 h / 0	MI vs MI+antagomiR143	TTC	↓	<0.01	1.00
[66]	mouse	8 h / 0	MI vs MI+neg. con	TTC	→	n.s.	0.19
[67]	mouse	30 min / 24 h	con vs DCCI (1d)	TTC	↓	<0.05	0.92
[67]	mouse	30 min / 7 d	con vs DCCI (7d)	Histo	↓	<0.05	0.92
[68]	rat	perm / 3 d	MI vs MI+iVPCs (endo)	Histo	↓	<0.05	0.45
[68]	rat	perm / 3 d	MI vs MI+iVPCs+PLGA (endo)	Histo	↓	<0.05	0.42
[68]	rat	perm / 3 d	MI vs MI+iVPCs (epi)	Histo	↓	<0.05	0.36
[68]	rat	perm / 3 d	MI vs MI+iVPCs+PLGA (epi)	Histo	↓	<0.05	0.32

[69]	mouse	perm / 7 d	con vs IL10	TTC	→	n.s.	0.08
[70]	mouse	48 h / 28 d	WT vs iNOS -/-	TTC	→	n.s.	0.06
[71]	rat	30 min / 120 min	con vs paroxetine	TTC	→	n.s.	0.27
[72]	rat	30 min / 60 min	con vs 0.25x	TTC	→	n.s.	0.07
[72]	rat	30 min / 60 min	con vs 0.5x	TTC	→	n.s.	0.74
[72]	rat	30 min / 60 min	con vs 0.75x	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 1x	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 2x	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs IPC	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs <3 kDa	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 3-5 kDa	TTC	→	n.s.	0.67
[72]	rat	30 min / 60 min	con vs 5-10 kDa	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs <10 kDa	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 10-30 kDa	TTC	→	n.s.	0.75
[72]	rat	30 min / 60 min	con vs 30-50 kDa	TTC	→	n.s.	0.23
[72]	rat	30 min / 60 min	con vs >50 kDa	TTC	→	n.s.	0.12
[72]	rat	30 min / 60 min	5-10 vs 5-10+chelerytrine	TTC	↑	<0.001	1.00
[72]	rat	30 min / 60 min	5-10 vs 5-10+glibenclamide	TTC	↑	<0.001	1.00
[72]	rat	30 min / 60 min	5-10 vs 5-10+5-HD	TTC	↑	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 5-10 kDa	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 5-10 Hphob	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 5-10 Hphil	TTC	↓	<0.05	0.36
[72]	rat	30 min / 60 min	con vs 5-10 kDa	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs HSP10	TTC	↓	<0.001	1.00
[72]	rat	30 min / 60 min	con vs 5-10+PU-H71	TTC	↓	<0.05	0.97
[72]	rat	30 min / 60 min	HSP10 vs HSP10+PU-H-71	TTC	↑	<0.001	0.97
[72]	rat	30 min / 60 min	5-10 vs 5-10+PU-H71	TTC	↑	<0.01	1.00
[73]	rat	35 min / 60 min	con vs hexamethonium	TTC	→	n.s.	0.25
[73]	rat	35 min / 60 min	con vs IPC	TTC	↓	<0.05	1.00
[73]	rat	35 min / 60 min	con vs IPC +hex	TTC	↓	<0.05	0.43
[73]	rat	35 min / 60 min	IPC vs IPC +hex	TTC	↑	<0.05	0.91
[73]	rat	35 min / 60 min	con vs IPC	TTC	↓	<0.05	1.00
[73]	rat	35 min / 60 min	con vs IPC +atropine	TTC	→	n.s.	0.79
[73]	rat	35 min / 60 min	IPC vs IPC +atropine	TTC	↑	<0.05	1.00
[73]	rat	35 min / 60 min	con vs IPC (effluent)	TTC	↓	<0.05	0.82
[73]	rat	35 min / 60 min	IPC (eff) vs IPC (eff)+hex	TTC	↑	<0.05	0.94
[74]	pig	40 min / 240 min	pla vs coversin	TTC	↓	0.03	0.83
[75]	mouse	perm / 2 wk	WT vs Sema3A KO	Histo	→	n.s.	0.12
[76]	mouse	40 min / 120 min	con vs 1x IPC	TTC	→	n.s.	0.17
[76]	mouse	40 min / 120 min	con vs 4x IPC	TTC	↓	<0.01	0.99
[76]	mouse	40 min / 120 min	con vs IPC (PI3kK inh. dur. prot.)	TTC	↓	<0.001	1.00
[76]	mouse	40 min / 120 min	con vs IPC +G326 (PI3kK inh. dur. prot.)	TTC	↓	<0.001	1.00
[76]	mouse	40 min / 120 min	con vs IPC +BYL719 (PI3kK inh. dur. prot.)	TTC	↓	<0.001	0.99
[76]	mouse	40 min / 120 min	con vs IPC (PI3kK inh. dur. rep.)	TTC	↓	<0.001	1.00
[76]	mouse	40 min / 120 min	con vs IPC +G326 (PI3kK inh. dur. rep.)	TTC	→	n.s.	0.14
[76]	mouse	40 min / 120 min	con vs IPC +BYL719 (PI3kK inh. dur. rep.)	TTC	→	n.s.	0.12
[76]	mouse	40 min / 120 min	con vs IPC (PI3kK inh. dur. rep.)	TTC	↓	<0.001	0.95
[76]	mouse	40 min / 120 min	con vs IPC +G326 (PI3kK inh. dur. rep.)	TTC	→	n.s.	0.11
[76]	mouse	40 min / 120 min	con vs bradykinin	TTC	↓	<0.001	1.00
[76]	mouse	40 min / 120 min	con vs insulin	TTC	↓	<0.001	1.00
[76]	mouse	40 min / 120 min	con vs insulin+G326	TTC	→	n.s.	0.35
[77]	rat	20 min / 120 min	sham vs nephrectomy	TTC	↑	<0.05	0.86
[78]	pig	120 min / 3 d	con vs intermittent pacing	MRI	→	n.s.	0.05
[78]	pig	120 min / 37 d	con vs intermittent pacing	MRI	→	n.s.	0.40
[79]	mouse	45 min / 24 h	WT vs Suv39h1 -/-	TTC	↓	<0.01	0.95
[79]	mouse	45 min / 24 h	WT vs Suv39h2 -/-	TTC	→	n.s.	0.24
[79]	mouse	45 min / 24 h	veh vs chaetocin	TTC	↓	<0.001	1.00
[80]	rat	60 min / 120 min	veh vs ticagrelor	TTC	↓	0.01999	0.92
[80]	rat	60 min / 120 min	veh vs VX-765	TTC	↓	0.01999	1.00
[80]	rat	60 min / 120 min	veh vs IPOC	TTC	↓	0.01999	0.92
[80]	rat	60 min / 120 min	veh vs cangrelor+VX-765	TTC	↓	0.01999	1.00
[80]	rat	60 min / 120 min	veh vs ticagrelor+VX-765	TTC	↓	0.01999	1.00
[80]	rat	60 min / 120 min	veh vs ticagrelor+IPOC	TTC	↓	0.01999	0.84
[80]	rat	60 min / 120 min	ticagrelor vs cangrelor+VX-765	TTC	↓	<0.001	1.00
[80]	rat	60 min / 120 min	ticagrelor vs ticagrelor+VX-765	TTC	↓	<0.001	1.00
[80]	rat	60 min / 120 min	ticagrelor vs ticagrelor+IPOC	TTC	↑	<0.001	0.06
[80]	rat	60 min / 3 d	chronic veh vs chronic cangrelor+VX-765	TTC	↓	<0.001	1.00
[80]	rat	40 min / 120 min	veh vs VX-765	TTC	↓	<0.001	1.00
[80]	rat	40 min / 90 min	veh vs VRT-043198	TTC	↓	<0.001	1.00
[81]	pig	60 min / 180 min	con vs IPC	TTC	↓	<0.05	1.00
[81]	pig	60 min / 180 min	con vs PoCo	TTC	↓	<0.05	1.00
[81]	pig	60 min / 180 min	con vs RIPC	TTC	↓	<0.05	1.00
[82]	mouse	60 min / 120 min	con vs IPC	TTC	↓	<0.001	1.00
[82]	mouse	60 min / 120 min	con vs VASP-/-	TTC	↓	<0.001	1.00
[82]	mouse	60 min / 120 min	con vs IPC+VASP -/-	TTC	↓	<0.001	1.00
[82]	mouse	60 min / 120 min	VASP -/- vs IPC	TTC	↓	<0.001	1.00
[82]	mouse	60 min / 120 min	IPC vs IPc+VASP -/-	TTC	↑	<0.001	1.00
[82]	mouse	60 min / 120 min	IPC vs IPC+VASP KO	TTC	→	n.s.	0.50
[83]	pig	60 min / 120 min	con vs LC-VNS	TTC	↓	<0.05	1.00
[83]	pig	60 min / 120 min	con vs LC-VNS+LtVNX	TTC	↓	<0.05	1.00
[83]	pig	60 min / 120 min	con vs LC-VNS+RtVNX	TTC	↓	<0.05	1.00
[83]	pig	60 min / 120 min	con vs LC-VNS+atropine	TTC	→	n.s.	0.27
[83]	pig	60 min / 120 min	LC-VNS+LC-VNS vs LC-VNS+RtVNX	TTC	↑	<0.05	1.00
[83]	pig	60 min / 120 min	LC-VNS+LtVNX vs LC-VNS+RtVNX	TTC	↑	<0.05	1.00
[83]	pig	60 min / 120 min	LC-VNS vs atropine	TTC	↑	<0.05	1.00
[83]	pig	60 min / 120 min	LtVNX vs atropine	TTC	↑	<0.05	1.00
[83]	pig	60 min / 120 min	RtVNX vs atropine	TTC	↑	<0.05	1.00
[84]	rat	45 min / 120 min	lean con vs lean RIPC	TTC	↓	<0.01	1.00

[84]	rat	45 min / 120 min	lean con vs fatty con	TTC	→	n.s.	0.06	
[84]	rat	45 min / 120 min	lean con vs fatty RIPC	TTC	→	n.s.	0.11	
[85]	mouse	40 min / 120 min	con vs GNTN patch (before isch)	TTC	↓	<0.001	1.00	
[85]	mouse	40 min / 120 min	con vs RIPC	TTC	↓	<0.001	0.98	
[85]	mouse	40 min / 120 min	con vs GNTN patch (before rep)	TTC	↓	<0.01	1.00	
[86]	mouse	30 min / 24 h	WT vs Spry1 cKO	TTC	↓	<0.05	0.83	
[86]	mouse	30 min / 24 h	Spry fl/fl vs Spry1 cKO	TTC	↓	<0.01	0.99	
[87]	pig	60 min / 180 min	pla vs IPC	TTC	↓	<0.05	1.00	
[87]	pig	60 min / 180 min	pla vs RIPC	TTC	↓	<0.05	1.00	
[87]	pig	60 min / 180 min	pla vs RPER	TTC	↓	<0.05	1.00	
[87]	pig	60 min / 180 min	pla vs PoCo	TTC	↓	<0.05	1.00	
[88]	pig	60 min / 120 min	con vs canagliflozin	TTC	↓	<0.05	0.81	
[89]	rat	30 min / 24 h	con vs RIPC	TTC	↓	<0.05	0.94	
[89]	rat	30 min / 24 h	con vs ED5 SCR-RIPC	TTC	↓	<0.05	1.00	
[89]	rat	30 min / 24 h	RIPC vs ED5-RIPC	TTC	↑	<0.0001	1.00	
[89]	rat	30 min / 24 h	ED5-RIPC vs ED5 SCR-RIPC	TTC	↓	<0.0001	1.00	
[90]	mouse	30 min / 24 h	WT-contol vs WT-linagliptin	TTC	↓	<0.001	1.00	
[90]	mouse	30 min / 24 h	WT-contol vs WT-exendin-4	TTC	↓	<0.001	0.99	
[90]	mouse	30 min / 24 h	db/db-contol vs db/db-linagliptin	TTC	↓	<0.001	1.00	
[90]	mouse	30 min / 24 h	db/db-contol vs db/db-exendin	TTC	↓	<0.001	1.00	
[91]	mouse	30 min / 24 h	(L5) WT/WT vs OE/OE+DOX	TTC	→	n.s.	0.15	
[91]	mouse	30 min / 24 h	(L5) WT/WT vs WT/WT+NS398	TTC	→	n.s.	0.22	
[91]	mouse	30 min / 24 h	(L5) WT/WT vs WT/OE	TTC	→	n.s.	0.16	
[91]	mouse	30 min / 24 h	(L5) WT/WT vs OE/OE	TTC	↓	<0.05	0.88	
[91]	mouse	30 min / 24 h	(L5) WT/WT vs OE/OE+NS398	TTC	→	n.s.	0.06	
[91]	mouse	30 min / 24 h	(L7) WT/WT vs WT/OE	TTC	→	n.s.	0.15	
[91]	mouse	30 min / 24 h	(L7) WT/WT vs OE/OE	TTC	↓	<0.05	1.00	
[91]	mouse	30 min / 24 h	(L8) WT/WT vs WT/OE	TTC	→	n.s.	0.13	
[91]	mouse	30 min / 24 h	(L8) WT/WT vs OE/OE	TTC	↓	<0.05	1.00	
[92]	rabbit	30 min / 180 min	con vs discrete hypothermia	TTC	↓	<0.05	1.00	
[92]	rabbit	30 min / 180 min	con vs continuous hypothermia	TTC	↓	<0.05	1.00	
[92]	rabbit	30 min / 180 min	discrete hypothermia vs continuous hypothermia	TTC	↓	<0.05	1.00	
[92]	rabbit	30 min / 180 min	con vs malonate	TTC	↓	<0.05	0.98	
[92]	rabbit	30 min / 180 min	malonate vs malonate+discrete hypothermia	TTC	↓	<0.05	1.00	
[92]	mouse	30 min / 120 min	normotherm vs hypotherm	TTC	↓	<0.05	1.00	
[93]	rat	30 min / 180 min	veh vs GDF11	TTC	↓	<0.05	1.00	
[93]	rat	30 min / 180 min	GDF11 vs FST+GDF11	TTC	↑	<0.05	0.99	
[93]	rat	30 min / 180 min	GDF11 vs FST	TTC	↑	<0.05	1.00	
[94]	rat	40 min / 28 d	28d vs 28d+INFa	Histo	↑	0.002	0.91	
[94]	rat	40 min / 4 d	4d vs 4d+INFa	Histo	→	n.s.	0.28	
[95]	mouse	25 min / 40 min	con vs E2 (male)	TTC	↓	<0.05	0.77	
[95]	mouse	25 min / 40 min	con vs E2 (OVX-female)	TTC	↓	<0.05	0.88	
[95]	mouse	25 min / 40 min	male vs fem	TTC	↓	<0.05	0.85	
[96]	rat	30 min / 120 min	con vs H2O2-Poc	TTC	↓	<0.001	1.00	
[96]	rat	30 min / 120 min	con vs Ctrl+AG490	TTC	→	n.s.	0.07	
[96]	rat	30 min / 120 min	con H2O2-Poc+AG490	TTC	→	n.s.	0.07	
[96]	rat	30 min / 120 min	H2O2-POC vs H2O2-POC+AG490	TTC	↑	<0.001	1.00	
[97]	rat	40 min / 120 min	con vs RIC	TTC	↓	<0.05	0.99	
[97]	rat	40 min / 120 min	RIC vs 1MT	TTC	↑	<0.05	0.97	
[97]	rat	40 min / 120 min	RIC vs RIC+1MT	TTC	↑	<0.05	0.87	
[98]	pig	90 min / 24 h	con vs DFP	MRI	→	n.s.	0.11	
[98]	pig	90 min / 1 wk	con vs DFP	MRI	→	n.s.	0.25	
[98]	pig	90 min / 28 d	con vs DFP	MRI	→	n.s.	0.07	
[99]	rat	30 min / 120 min	Veh vs RIC	TTC	↓	<0.001	0.99	
[99]	rat	30 min / 120 min	Veh vs emricasan	TTC	↓	<0.001	0.98	
[99]	rat	30 min / 120 min	Veh vs background drugs	TTC	↓	<0.001	0.95	
[99]	rat	30 min / 120 min	Veh vs background drugs+RIC	TTC	↓	<0.01	0.97	
[99]	rat	30 min / 120 min	Veh vs background drugs+emricasan	TTC	↓	<0.001	1.00	
[99]	rat	30 min / 120 min	background drugs vs background drugs+emricasan	TTC	↓	<0.01	0.86	
[99]	rat	30 min / 120 min	Veh vs background drugs	TTC	↓	<0.001	1.00	
[99]	rat	30 min / 120 min	Veh vs background drugs+wortmannin	TTC	→	n.s.	0.31	
[99]	rat	30 min / 120 min	Veh vs emricasan	TTC	↓	<0.01	0.99	
[99]	rat	30 min / 120 min	Veh vs emricasan+wortmannin	TTC	↓	<0.01	0.99	
[99]	rat	30 min / 120 min	background drugs vs background drugs+wortmannin	TTC	↑	<0.01	0.96	
[100]	mouse	60 min / min	con vs NEU1 OE	Histo	→	n.s.	0.09	
[101]	mouse	perm / 1 wk	con vs M0-Exo	TTC	→	n.s.	0.11	
[102]	pig	30 min / 1 wk	con vs metoprolol	MRI	↓	<0.05	0.79	②
[102]	pig	35 min / 1 wk	con vs metoprolol	MRI	↓	<0.05	0.93	②
[102]	pig	40 min / 1 wk	con vs metoprolol	MRI	↓	<0.01	0.98	②
[102]	pig	45 min / 1 wk	con vs metoprolol	MRI	↓	<0.01	0.90	②
[102]	pig	50 min / 1 wk	con vs metoprolol	MRI	↓	<0.01	0.99	②
[103]	mouse	45 min / 0 min	con vs iv-atorvastatin	TTC	↓	<0.05	1.00	
[103]	mouse	45 min / 0 min	con vs AMPK inhibition	TTC	↑	<0.05	0.79	
[103]	mouse	45 min / 0 min	con vs IV-ß-OH-simvastatin	TTC	↓	<0.05	1.00	
[103]	rat	perm / 30 d	con vs iv-atorvastatin	Histo	↓	<0.05	0.94	
[104]	rat	30 min / 120 min	con vs RIPC	TTC	↓	<0.05	0.90	
[104]	rat	30 min / 120 min	con vs UAG	TTC	↓	<0.05	0.93	
[104]	rat	30 min / 120 min	con vs RIPC +AG490	TTC	→	n.s.	0.13	
[104]	rat	30 min / 120 min	con vs UAG-AG490	TTC	→	n.s.	0.06	
[104]	rat	30 min / 120 min	RIPC vs RIPC +AG490	TTC	↑	<0.05	1.00	
[104]	rat	30 min / 120 min	UAG vs RIPC +AG490	TTC	↑	<0.05	1.00	
[104]	rat	30 min / 120 min	RIPC +AG490 vs UAG+AG490	TTC	→	n.s.	0.13	
[104]	rat	30 min / 120 min	RIPC vs UAG+AG490	TTC	↑	<0.05	0.97	
[104]	rat	30 min / 120 min	UAG vs UAG+AG490	TTC	↑	<0.05	0.98	
[105]	mouse	45 min / 3 d	renal innervated vs denervated	TTC	↓	<0.001	0.63	
[106]	rat	30 min / 120 min	veh vs bradykinin	TTC	↓	<0.05	0.81	
[106]	rat	30 min / 120 min	veh vs small extracellular vesicles	TTC	↓	<0.05	0.84	
[107]	mouse	perm / 1 wk	WT vs sFRP2 OE	Histo	↓	<0.05	0.99	

[107]	mouse	perm / 1 wk	sFRP2-WT vs sFRP2 OE+ABSEF	Histo	→	n.s.	0.33
[107]	mouse	perm / 1 wk	sFRP2 OE vs sFRP2 OE+ABSEF	Histo	↑	<0.05	0.94
[108]	pig	90 min / 2 d	con vs MSC	MRI	→	n.s.	0.80
[108]	pig	90 min / 7 d	con vs MSC	MRI	↓	<0.05	1.00
[109]	mouse	45 min / 0-24h	PKcs-f/f vs PKcs-cKO	TTC	↓	<0.05	1.00
[109]	mouse	45 min / 0-24h	BL-1/DNA-PKcs-f/f vs DNA-PKcs-cKO	TTC	↓	<0.05	1.00
[109]	mouse	45 min / 0-24h	DNA-PKcs-cKO vs DANN-PKcs/BL-1-cKO	TTC	↑	<0.05	1.00
[109]	mouse	45 min / 0-24h	WT vs BL-1 OE	TTC	↓	<0.05	1.00
[110]	mouse	45 min / 1 wk	scramble pept. vs TAG-23	TTC	↓	<0.0001	1.00
[110]	mouse	45 min / 1 wk	scramble pept. vs TAG-23	Histo	↓	<0.05	1.00
[111]	pig	60 min / 120 min	con vs DMX-10001	TTC	→	n.s.	0.55
[111]	pig	60 min / 120 min	con vs DMX-10001 (w.o. outlier)	TTC	→	n.s.	0.62
[112]	mouse	45 min / 120 min	con vs IPC	TTC	↓	<0.05	0.72
[112]	mouse	45 min / 120 min	CX43-MAPKmut vs CX43-MAPKmut+IPC	TTC	↓	<0.05	1.00
[112]	mouse	45 min / 120 min	CX43-PKCmut vs CX43-PKCmut+IPC	TTC	↓	<0.05	1.00
[112]	mouse	45 min / 120 min	CX43-CK1mut-con vs CX43-CK1mut-IPC	TTC	→	n.s.	0.06
[113]	mouse	30 min / 24 h	pla vs GUE1654-0.3 mg/kg	TTC	↓	<0.05	0.70
[113]	mouse	30 min / 24 h	pla vs GUE1654-1 mg/kg	TTC	↓	<0.01	0.90
[113]	mouse	30 min / 24 h	pla vs GUE1654-3 mg/kg	TTC	↓	<0.01	0.98
[113]	mouse	30 min / 24 h	pla vs metoprolol	TTC	↓	<0.01	1.00
[113]	mouse	30 min / 24 h	con vs BCAT1 OE	TTC	↓	<0.01	0.96
[113]	mouse	30 min / 24 h	con vs BCAT2 OE	TTC	↓	<0.01	1.00
[114]	mouse	45 min / 6 h	AAV9-NC vs AAV9-HINT2	TTC	↓	<0.05	0.97
[114]	mouse	45 min / 6 h	AAV9-NC vs AAV9-NC+Ru360	TTC	↓	<0.05	1.00
[114]	mouse	45 min / 6 h	AAV9-HINT2 vs AAV9-HINT2+spermine	TTC	↑	<0.05	0.75
[115]	rat	30 min / 120 min	con vs PoCo	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	con vs T3-100 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	con vs T3-200 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	con vs T3-300 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	con vs T3-500 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	PoCo vs T3-100 µg	TTC	↑	<0.01	1.00
[115]	rat	30 min / 120 min	T3-300 µg vs T3-100 µg	TTC	↑	<0.01	1.00
[115]	rat	30 min / 120 min	T3-500 µg vs T3-100 µg	TTC	↑	<0.01	0.98
[115]	rat	30 min / 120 min	T3-200 µg vs T3-100 µg	TTC	→	n.s.	0.05
[115]	rat	30 min / 120 min	RISK-BL vs T3-300 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	SAFE-BL vs T3-300 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	T3-300 µg+PI3K-BL vs T3-300 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	T3-300 µg+ERK-BL vs T3-300 µg	TTC	↓	<0.001	0.98
[115]	rat	30 min / 120 min	T3-300 µg+RISK-BL vs T3-300 µg	TTC	↓	<0.001	1.00
[115]	rat	30 min / 120 min	T3-300 µg+SAFE-BL vs T3-300 µg	TTC	→	n.s.	0.18
[115]	rat	30 min / 120 min	con vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	1.00
[115]	rat	30 min / 120 min	RISK-BL vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	1.00
[115]	rat	30 min / 120 min	SAFE-BL vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	1.00
[115]	rat	30 min / 120 min	T3-300 µg-Pi3K-BL vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	0.99
[115]	rat	30 min / 120 min	T3-300 µg-ERK-BL vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	0.88
[115]	rat	30 min / 120 min	T3-300 µg-RISK-BL vs T3-300 µg+SAFE-BL	TTC	↓	<0.01	1.00
[116]	mouse	perm / 8 wk	con vs LncHrt	Histo	↓	<0.05	0.73
[117]	mouse	45 min / 120 min	empty vector vs overexpression vector	TTC	↑	<0.001	0.95
[117]	mouse	45 min / 120 min	con vs ZIP7 cKO	TTC	↓	<0.001	1.00
[117]	mouse	45 min / 120 min	con vs siZIP7	TTC	↓	<0.001	1.00
[117]	mouse	45 min / 120 min	ZIP7 cKO vs ZIP7 cKO+siPINK1	TTC	↑	<0.001	1.00
[117]	mouse	45 min / 120 min	ZIP7 cKO vs siPINK1	TTC	↑	<0.001	1.00
[117]	mouse	45 min / 120 min	siZIP7 vs ZIP7 cKO+siPINK1	TTC	↑	<0.001	1.00
[117]	mouse	45 min / 120 min	siZIP7 vs siPINK1	TTC	↑	<0.001	1.00
[118]	mouse	perm / 28 d	WT vs NPPA-AS KO	Histo	↓	<0.05	1.00
[119]	mouse	60 min / 6 wk	PBS vs clondronate	SPECT	↑	0.0496	0.68
[120]	rat	25 min / 60 min	h RBC vs STEMI RBC	TTC	↓	<0.001	1.00
[120]	rat	25 min / 60 min	STEMI RBC vs STEMI RBC+LNAME	TTC	↑	<0.01	1.00
[120]	rat	25 min / 60 min	STEMI RBC vs STEMI RBC+ODQ	TTC	↑	<0.01	0.97
[120]	rat	25 min / 60 min	STEMI RBC vs KT5823+STEMI RBC	TTC	↑	<0.001	1.00
[120]	rat	25 min / 60 min	STEMI RBC vs STEMI RBC+MRS2211	TTC	↑	<0.01	1.00
[120]	rat	25 min / 60 min	h RBC vs h RBC+mATP	TTC	↓	<0.001	1.00
[120]	rat	25 min / 60 min	h RBC+mATP vs h RBC+mATP+ODQ	TTC	↑	<0.05	0.78
[120]	rat	25 min / 60 min	h RBC+mATP vs h RBC+mATP+MRS211	TTC	↑	<0.001	1.00
[121]	pig	60 min / 180 min	con vs IPC	TTC	→	n.s.	0.28
[122]	mouse	30 min / 120 min	con vs EMPA	TTC	↓	<0.01	0.99
[122]	mouse	30 min / 120 min	con vs DAPA	TTC	↓	<0.001	0.99
[122]	mouse	30 min / 120 min	con vs ERTU	TTC	→	n.s.	0.56
[122]	mouse	30 min / 120 min	con (2) vs stattic	TTC	→	n.s.	0.23
[122]	mouse	30 min / 120 min	con (2) vs EMPA	TTC	↓	<0.001	0.99
[122]	mouse	30 min / 120 min	EMPA vs EMPA+stattic	TTC	↑	<0.05	0.78
[122]	mouse	30 min / 120 min	con (2) vs DAPA	TTC	↓	<0.001	0.98
[122]	mouse	30 min / 120 min	stattic vs DAPA	TTC	↓	<0.01	0.92
[122]	mouse	30 min / 120 min	DAPA vs DAPA+stattic	TTC	↑	<0.05	0.74
[122]	mouse	30 min / 120 min	wortmannin vs EMPA	TTC	↓	<0.01	0.96
[122]	mouse	30 min / 120 min	EMPA vs EMPA+wortmannin	TTC	→	n.s.	0.46
[122]	mouse	30 min / 120 min	wortmannin vs DAPA	TTC	↓	<0.001	0.95
[122]	mouse	30 min / 120 min	DAPA vs DAPA+wortmannin	TTC	↑	<0.05	0.77
[123]	mouse	35 min / 24 h	con vs p-selectin deficiency	TTC	→	n.s.	0.11
[124]	rat	30 min / 120 min	con vs FC	TTC	↓	<0.0001	0.96
[124]	rat	30 min / 120 min	con vs HM3Dq	TTC	↑	<0.0001	1.00
[124]	rat	30 min / 120 min	con vs HM4Di	TTC	↓	<0.0001	1.00
[124]	rat	30 min / 120 min	con vs CPZ	TTC	↓	<0.0001	1.00
[124]	rat	30 min / 120 min	con vs L70306	TTC	↓	<0.0001	0.91
[124]	rat	30 min / 120 min	con vs CGPR8-37	TTC	↓	<0.0001	0.91
[125]	mouse	30 min / 24 h	veh vs 0.15 mg ML-SI3	TTC	↓	<0.001	1.00
[125]	mouse	30 min / 24 h	veh vs 1.5 mg ML-SI3	TTC	↓	<0.001	1.00
[125]	mouse	30 min / 24 h	0.15 mg vs 1.5 mg ML-SI3	TTC	↓	<0.001	1.00

[125]	mouse	30 min / 24 h	con vs ML-SI3	Histo	↓	<0.05	1.00	
[125]	mouse	30 min / 24 h	1D AAV-cTNT-vector vs 1D OE-AAV-cTNT-TRPML1	TTC	↑	<0.05	0.90	
[125]	mouse	30 min / 24 h	IR-1D AAV-cTNT-vector vs 1D OE-AAV-cTNT-TRPML1V432P	TTC	↑	<0.001	0.94	
[125]	mouse	30 min / 24 h	IR-1D AAV-cTNT-vector vs NAC-1D OE-AAV-cTNT-vector	TTC	↓	<0.001	1.00	
[125]	mouse	30 min / 24 h	IR-1D OE-AAV-cTNT-TRPML1 vs NAC-1D OE-AAV-cTNT-TRPML1	TTC	↓	<0.001	1.00	
[125]	mouse	30 min / 24 h	IR-1D OE-AAV-cTNT-TRPML1V432P vs NAC-1D OE-AAV-cTNT-TRPML1V432P	TTC	→	n.s.	0.23	
[126]	mouse	perm / 24 h	veh vs EMPA 10 mg	Histo	↓	<0.05	0.87	
[126]	mouse	perm / 24 h	veh vs EMPA 30 mg	Histo	↓	<0.001	1.00	
[126]	mouse	perm / 24 h	WT vs Nhe1 KO	TTC	↓	<0.05	0.73	
[126]	mouse	perm / 24 h	Nhe1 KO vs EMPA	TTC	→	n.s.	0.24	
[127]	mouse	30 min / 40 min	veh vs ARP	TTC	↓	0.026	0.98	
[127]	mouse	30 min / 40 min	veh vs ONO	TTC	↓	0.026	0.92	
[128]	rat	30 min / 28 d	con vs RIC	TTC	↓	<0.05	1.00	
[128]	rat	perm / 28 d	Exo vs Exo+RIC	TTC	↓	<0.05	1.00	
[129]	pig	60 min / 180 min	con vs metoprolol	TTC	→	n.s.	0.28	
[130]	rat	40 min / 120 min	pla vs imatinib	TTC	↓	0.002	0.96	
[130]	rat	45 min / 180 min	pla vs imatinib	TTC	↓	0.013	0.85	
[130]	rat	45 min / 180 min	pla vs imatinib	MRI	↓	0.008	0.90	
[131]	mouse	45 min / 24 h	pla vs rivaroxaban	TTC	→	n.s.	0.08	②
[132]	rat	perm / 7 d	saline vs CNO	Histo	↓	<0.05	0.80	
[133]	mouse	perm / 5 wk	WT vs Smyd1a OE	Histo	↓	<0.05	0.81	
[134]	mouse	perm / 28 d	Tet ON vs Tet OFF	Histo	↓	<0.05	0.21	
[135]	mouse	perm / 14 wk	WT vs GSK3a KO	Histo	↓	0.026	0.93	
[136]	mouse	40 min / 24 h	veh vs CY-09	TTC	↓	<0.01	0.57	
[136]	mouse	40 min / 24 h	CY-09 vs CY-09 delayed	TTC	↑	<0.05	0.33	
[136]	mouse	40 min / 24 h	WT vs NLRP3 -/-	TTC	↓	<0.001	1.00	
[136]	mouse	40 min / 24 h	SPLX vs WT-SPAT	TTC	↑	<0.05	0.69	
[136]	mouse	40 min / 24 h	WT SPAT vs NLRP3-/- SPAT	TTC	↓	<0.01	0.72	
[136]	mouse	40 min / 24 h	SPLX vs WT-SPAT+Spl-leuKO	TTC	↑	<0.001	0.93	
[136]	mouse	40 min / 24 h	WT SPAT vs NLRP3-/- SPAT +Spl leuKO	TTC	↑	<0.01	0.89	
[137]	mouse	perm / 28 d	WT vs CD34 KO	Histo	↓	<0.05	0.27	
[138]	mouse	30 min / 4 h	veh vs GI-Y1 25 mg/kg (2h pre)	TTC	↓	<0.001	0.84	
[138]	mouse	30 min / 4 h	veh vs GI-Y1 50 mg/kg (2h pre)	TTC	↓	<0.001	1.00	
[138]	mouse	30 min / 4 h	veh vs GI-Y1 50 mg/kg (1 min rep)	TTC	↓	<0.01	0.85	
[138]	mouse	30 min / 2 wk	veh vs GI-Y1 50 mg/kg (1 min rep)	TTC	↓	<0.001	0.94	
[138]	mouse	30 min / 4 h	WT vs Gsdmd KO	TTC	↓	<0.01	1.00	
[138]	mouse	30 min / 4 h	WT vs GSdmd KO+GI-Y1	TTC	↓	<0.01	0.98	

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ref.	species	I/R timing	intervention	method	effect	p-value	power	note
[139]	rat	25 min / 120 min	sedentary vs excercise (untreated)	TTC	↓	<0.05	0.91	
[139]	rat	25 min / 120 min	exercise vs excercise+BCNU	TTC	↑	<0.05	1.00	
[139]	rat	25 min / 120 min	sedentary vs exercise	TTC	↓	<0.05	1.00	
[139]	rat	25 min / 120 min	sedentary vs excercise+bendavia	TTC	↓	<0.05	0.86	
[139]	rat	25 min / 120 min	sedentary vs excercise+moto TEMPO	TTC	↓	<0.05	1.00	
[140]	mouse	45 min / 24 h	WT vs TRPM2 KO	TTC	↓	<0.01	1.00	
[140]	mouse	60 min / 120 min	heart +/+ 0 vs heart +/+ PMN+/+	TTC	↑	<0.05	1.00	
[140]	mouse	60 min / 120 min	heart +/+ 0 vs heart +/+ PMN-/-	TTC	↑	<0.05	0.98	
[140]	mouse	60 min / 120 min	heart +/+ PMN+/+ vs heart +/+ PMN-/-	TTC	↓	<0.05	1.00	
[140]	mouse	60 min / 120 min	heart -/- 0 vs heart -/- PMN+/+	TTC	↑	<0.05	1.00	
[140]	mouse	60 min / 120 min	heart -/- 0 vs heart -/- PMN-/-	TTC	↑	<0.05	0.92	
[140]	mouse	60 min / 120 min	heart +/+ PMN+/+ vs heart -/- PMN-/-	TTC	↓	<0.05	1.00	
[140]	mouse	60 min / 120 min	heart +/+ PMN-/- vs heart -/- PMN-/-	TTC	↓	<0.05	0.54	
[140]	mouse	45 min / 120 min	mouse +/+ PMN 0 vs mouse -/- PMN 0	TTC	↓	<0.05	0.99	
[140]	mouse	45 min / 120 min	mouse -/- PMN 0 vs mouse +/+ PMN +/+	TTC	↑	<0.05	1.00	
[140]	mouse	45 min / 120 min	mouse -/- PMN 0 vs mouse +/+ PMN-/-	TTC	↑	<0.05	1.00	
[140]	mouse	45 min / 120 min	mouse -/- PMN 0 vs mouse +/+ PMN-/-	TTC	↑	<0.05	0.96	
[140]	mouse	45 min / 120 min	mouse -/- PMN +/+ vs mouse -/- PMN-/-	TTC	↓	<0.05	0.78	
[140]	mouse	45 min / 120 min	mouse +/+ PMN-/- vs mouse -/- PMN-/-	TTC	↓	<0.05	0.99	
[140]	mouse	45 min / 120 min	mouse -/- PMN 0 vs mouse -/- PMN +/+	TTC	↑	<0.05	0.98	
[140]	mouse	45 min / 120 min	mouse -/- PMN +/+ vs mouse -/- PMN -/-	TTC	↑	<0.05	0.05	
[141]	mouse	30 min / 24 h	con vs Nucleolin OE Line52	TTC	↓	<0.05	0.37	
[141]	mouse	30 min / 24 h	con vs Nucleolin OE Line86	TTC	↓	<0.05	0.81	
[141]	mouse	30 min / 24 h	con vs nucleolin OE	TTC	↓	<0.05	0.99	
[141]	mouse	30 min / 24 h	Nucleolin OE vs Nucleolin OE+ZnPP	TTC	↑	<0.05	0.77	
[142]	mouse	perm / 24 h	WT vs human hspa12b gene OE	TTC	↓	<0.01	1.00	
[143]	mouse	perm / 14 d	saline vs parthenogenetic ESCs	Histo	→	n.s.	0.80	
[144]	mouse	perm / 24 h	WT vs CD13 KO	TTC	→	n.s.	0.05	
[145]	mouse	35 min / 60 min	WT vs ASC KO	TTC	→	n.s.	0.14	
[145]	mouse	35 min / 60 min	WT vs NLRP3 KO	TTC	↓	<0.05	0.77	
[146]	rat	perm / 8 wk	con vs SV-rSkM	Histo	→	n.s.	0.06	
[146]	rat	perm / 8 wk	WT-rSkM vs SV-rSkM	Histo	↓	<0.05	0.62	
[147]	mouse	60 min / 240 min	LmiR-con vs LmiR146a	TTC	↓	<0.05	0.99	
[147]	mouse	60 min / 240 min	con vs LmiR146a	TTC	↓	<0.05	1.00	
[148]	rat	35 min / 60 min	con vs IPC (3mo db Goto-Kakisaki)	TTC	↓	<0.005	1.00	
[148]	rat	35 min / 60 min	con vs IPC (8mo db Goto-Kakisaki)	TTC	↓	<0.005	0.97	
[148]	rat	35 min / 60 min	con vs IPC (12mo db Goto-Kakisaki)	TTC	→	n.s.	0.18	
[148]	rat	35 min / 60 min	con vs IPC (18mo db Goto-Kakisaki)	TTC	→	n.s.	0.36	
[148]	rat	35 min / 60 min	con vs IPC (3mo nd Wistar)	TTC	↓	<0.001	1.00	
[148]	rat	35 min / 60 min	con vs IPC (8mo nd Wistar)	TTC	↓	<0.005	0.99	
[148]	rat	35 min / 60 min	con vs IPC (12mo nd Wistar)	TTC	↓	<0.001	1.00	
[148]	rat	35 min / 60 min	con vs IPC (18mo nd Wistar)	TTC	↓	<0.005	0.71	
[149]	rat	30 min / 120 min	con vs IPC	TTC	↓	<0.01	1.00	
[149]	rat	30 min / 120 min	IPC vs IPC +L-NAME	TTC	↑	<0.01	1.00	
[149]	rat	30 min / 120 min	IPC vs IPC +LY	TTC	↑	<0.01	1.00	
[149]	rat	30 min / 120 min	IPC vs IPC +H89	TTC	↑	<0.01	1.00	
[150]	rat	perm / 1 wk	EV-F vs EV-CPC-HD	Histo	↓	<0.05	0.47	
[150]	rat	perm / 1 wk	PBS vs EV-CPC-HD	Histo	↓	<0.05	0.19	

[151]	rat	35 min / 120 min	con vs BAY41-2272 3µ	TTC	↓	<0.05	0.91
[151]	rat	35 min / 120 min	con vs BAY41-2272 3µ LNAME	TTC	↓	<0.05	0.76
[151]	rat	35 min / 120 min	con vs BAY41-2272 3µ+CPTIO	TTC	↓	<0.05	0.47
[151]	rat	35 min / 120 min	con vs NOC9 1 n	TTC	↓	<0.05	0.64
[151]	rat	35 min / 120 min	con vs NOC9 10 n	TTC	↓	<0.01	0.95
[151]	rat	35 min / 120 min	con vs NOC9 100 n	TTC	↓	<0.001	1.00
[151]	rat	35 min / 120 min	con vs NOC9 1 µ	TTC	↓	<0.001	1.00
[151]	rat	35 min / 120 min	con vs BAY60-2770 5 n	TTC	↓	<0.01	0.86
[151]	rat	35 min / 120 min	con vs BAY60-2770 500 n	TTC	↓	<0.01	0.87
[151]	rat	35 min / 120 min	con vs BAY60-2770 50 n	TTC	↓	<0.01	0.75
[151]	rat	35 min / 120 min	con vs BAY60-2770 1 µ	TTC	↓	<0.01	0.76
[151]	rat	35 min / 120 min	con vs BAY60+ODQ	TTC	↓	<0.01	0.96
[151]	rat	35 min / 120 min	con vs BAY60+C-PTIO	TTC	↓	<0.01	0.70
[151]	rat	35 min / 120 min	con vs BAY60+BAY41	TTC	↓	<0.05	0.49
[152]	mouse	30 min / 24 h	WT vs C5aR -/-	TTC	↓	0.017	0.69
[152]	mouse	30 min / 24 h	WT/WT BM vs C5aR-/- C5aR-/- BM	TTC	↓	0.05	0.66
[152]	mouse	30 min / 24 h	WT/WT BM vs WT C5aR-/- BM	TTC	↓	0.05	0.92
[153]	mouse	30 min / 24 h	SENEP +/+ vs SENEP +/-	TTC	↑	<0.01	0.95
[154]	mouse	30 min / 24 h	WT vs TMLeD/LeD	TTC	↑	<0.01	0.97
[154]	mouse	30 min / 24 h	WT+hydroxycarbamide vs TMLeD/LeD+hydroxycarbamide	TTC	↑	<0.01	1.00
[155]	rat	40 min / 2 h	con vs PoCo	TTC	↓	<0.05	1.00
[155]	rat	40 min / 2 h	con vs HMR1766 100nM	TTC	↓	<0.05	0.91
[155]	rat	40 min / 2 h	kbr7943 vs PoCo+KBR7943	TTC	↑	<0.05	1.00
[155]	rat	40 min / 2 h	con vs Ataciugat 0.1 ug/kg	TTC	↓	<0.05	0.78
[155]	rat	40 min / 2 h	con vs thapsigarin	TTC	↓	<0.05	1.00
[155]	rat	40 min / 2 h	con vs KT5720	TTC	↓	<0.05	0.96
[155]	rat	40 min / 2 h	con vs KN93	TTC	↓	<0.05	1.00
[155]	rat	40 min / 2 h	PoCo vs PoCo+KT5823	TTC	↑	<0.05	1.00
[156]	rat	30 min / 24 h	con vs IPC	TTC	↓	<0.05	0.94
[156]	rat	30 min / 24 h	nucleolin OEneg vs nucleolin Oeneg+IPC	TTC	↓	<0.05	0.98
[156]	rat	30 min / 24 h	nucleolin OE vs nucleolin OE+IPC	TTC	→	n.s.	0.25
[156]	rat	30 min / 24 h	nucleolin OEneg vs nucleolin OE	TTC	↓	<0.05	0.94
[157]	mouse	30 min / 24 h	sham vs early IPC (WT)	TTC	↓	<0.05	1.00
[157]	mouse	30 min / 24 h	sham vs late IPC (WT)	TTC	↓	<0.05	1.00
[157]	mouse	30 min / 24 h	sham vs early IPC (NOX1-/y)	TTC	↓	<0.05	0.99
[157]	mouse	30 min / 24 h	sham vs late IPC (NOX1-/y)	TTC	→	n.s.	0.16
[158]	mouse	perm / 14 d	PBS vs EPO-primed mob-PBMC	Histo	↓	<0.05	1.00
[158]	mouse	perm / 14 d	veh-primed mob-PBMC vs EPO-primed mob-PBMC	Histo	↓	<0.05	0.89
[159]	mouse	30 min / 24 h	fem XX vs fem XY (gonadectomized)	TTC	↓	<0.01	0.90
[159]	mouse	30 min / 24 h	fem XX vs male XY (gonadectomized)	TTC	↓	<0.05	0.97
[159]	mouse	30 min / 24 h	male XX vs female XY (gonadectomized)	TTC	↓	<0.05	0.64
[159]	mouse	30 min / 24 h	male XX vs male XY (gonadectomized)	TTC	↓	<0.05	0.85
[159]	mouse	30 min / 60 min	fem XX vs fem XY (gonadectomized)	TTC	↓	<0.05	0.79
[159]	mouse	30 min / 60 min	fem XX vs male XY (gonadectomized)	TTC	↓	<0.05	0.88
[159]	mouse	30 min / 60 min	male XX vs female XY (gonadectomized)	TTC	↓	<0.05	0.51
[159]	mouse	30 min / 60 min	male XX vs male XY (gonadectomized)	TTC	↓	<0.05	0.65
[159]	mouse	30 min / 60 min	fem XX vs fem X0	TTC	↓	<0.05	0.43
[159]	mouse	30 min / 60 min	fem XX vs male XY	TTC	↓	<0.05	0.34
[159]	mouse	30 min / 60 min	male XXY vs female X0	TTC	↓	<0.05	0.58
[159]	mouse	30 min / 60 min	male XXY vs male XY	TTC	↓	<0.05	0.47
[160]	mouse	30 min / 28 d	No DOX vs DOX pre MI (rtTA-CnAß1 mice)	Histo	↓	<0.05	0.71
[160]	mouse	30 min / 28 d	No DOX vs DOX post-MI (rtTA-CnAß1 mice)	Histo	↓	<0.05	0.90
[160]	mouse	30 min / 28 d	NoDox vs Dox pre MI (rtTA mice)	Histo	→	n.s.	0.08
[161]	mouse	perm / 24 h	WT vs RIP3 -/-	MRI	→	n.s.	0.11
[162]	mouse	30 min / 24 h	Tie2Cre+ApoE-/- vs Cx40-del	TTC	↑	<0.05	0.85
[162]	mouse	30 min / 24 h	Cx40fl/flApoE-/- vs Cx40-del	TTC	↑	<0.05	0.81
[162]	mouse	30 min / 24 h	Cx40-del vs Cx40-del+methotrexate	TTC	↓	<0.05	0.98
[163]	rat	30 min / 24 h	DMSO vs GSK360A	TTC	↓	<0.05	0.89
[163]	rat	30 min / 24 h	DMSO vs GSK360A+ctrl peptide	TTC	→	n.s.	0.25
[163]	mouse	30 min / 24 h	WT vs MHC-cre tamoxifen	TTC	↓	<0.05	0.90
[164]	rat	20 min / 120 min	nitrite vs nitrite+pki	TTC	↑	<0.01	0.99
[165]	mouse	60 min / 28 d	WT vs CXCR3 KO	Histo	→	n.s.	0.11
[166]	mouse	45 min / 1 wk	con vs miR-con	TTC	→	n.s.	0.07
[166]	mouse	45 min / 1 wk	con vs miR-125b	TTC	↓	<0.05	1.00
[166]	mouse	45 min / 1 wk	WT vs miR-125b OE	TTC	↓	<0.05	1.00
[166]	mouse	45 min / 1 wk	WT vs anti miR-125	TTC	↑	<0.05	0.73
[166]	mouse	45 min / 1 wk	anti miR con vs anti miR-125b	TTC	↑	<0.05	0.88
[167]	mouse	perm / 28 d	WT vs E2F1 -/-	Histo	↓	<0.01	1.00
[168]	mouse	perm / 4 wk	MI vs MI+AdsiScr	Histo	→	n.s.	0.09
[168]	mouse	perm / 4 wk	MI vs MI+AdsiPeli1	Histo	↓	<0.05	0.97
[169]	pig	40 min / 120 min	con vs RIC	TTC	↓	<0.001	0.99
[169]	pig	40 min / 120 min	con vs GIK	TTC	↓	<0.001	0.93
[169]	pig	40 min / 120 min	con vs RIC+GIK	TTC	↓	<0.001	1.00
[169]	pig	40 min / 120 min	con vs exenatide	TTC	↓	<0.001	1.00
[169]	pig	40 min / 120 min	con vs RIC+exenatide	TTC	↓	<0.001	1.00
[170]	mouse	45 min / 3 h	WT vs Rip22/2 KO	TTC	↑	<0.05	0.60
[171]	mouse	perm / 25 wk	WT vs FLNA KO	Histo	↑	<0.001	0.97
[172]	rabbit	30 min / 180 min	con vs PoCo	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	PoCo vs NaHs	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	PoCo vs PoCo+NaHS	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs NaHS	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs NaHs+TAT	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs PoCo +TAT	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs NaHS+5HD	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs NaHS+glibenclamide	TTC	↓	<0.05	1.00
[172]	rabbit	30 min / 180 min	con vs NaHS+LNaME	TTC	↓	<0.05	1.00
[172]	mouse	30 min / 120 min	con vs PoCo 3x10s	TTC	↓	<0.05	1.00
[172]	mouse	30 min / 120 min	con vs PoCo 6x10s	TTC	↓	<0.05	1.00

[172]	mouse	30 min / 120 min	con vs NaHS	TTC	↓	<0.05	1.00	
[172]	mouse	30 min / 120 min	con vs NaHS	TTC	↓	<0.05	1.00	
[173]	rat	30 min / 120 min	con vs H2O2-PC	TTC	↓	<0.01	1.00	
[173]	rat	30 min / 120 min	con vs UCP3 OE	TTC	↓	<0.01	0.99	
[173]	rat	30 min / 120 min	H2O2-PC vs UCP3+H2O2-PC	TTC	↑	<0.05	0.98	
[173]	rat	30 min / 120 min	H2O2-PC vs H2O2-PC+ATR	TTC	↑	<0.05	0.95	
[173]	rat	30 min / 120 min	H2O2-PC vs UCP3 OE+ATR	TTC	↑	<0.01	0.95	
[173]	rat	30 min / 120 min	H2O2-PC vs H2O2-PC+WM	TTC	↑	<0.05	0.94	
[173]	rat	30 min / 120 min	UCP3 OE vs UCP3 OE+WM	TTC	↑	<0.05	0.60	
[173]	rat	30 min / 120 min	WM vs WM+H2O2-PC	TTC	↓	<0.05	0.73	
[173]	rat	30 min / 120 min	WM vs WM+UCP3 OE	TTC	↓	<0.05	0.75	
[174]	mouse	30 min / 120 min	Veh vs NED-K	TTC	↓	<0.05	0.80	
[174]	mouse	30 min / 120 min	WT vs TCP1 KO	TTC	↓	<0.05	0.86	
[175]	mouse	30 min / 24 h	con vs LSN2792613	TTC	↓	0.03	0.73	
[176]	mouse	30 min / 60 min	con vs renalase	TTC	↓	<0.05	1.00	
[176]	mouse	30 min / 60 min	con vs renalase siRNA	TTC	↓	<0.05	0.96	
[176]	mouse	30 min / 60 min	con vs HIF1a siRNA	TTC	↑	<0.05	1.00	
[176]	mouse	30 min / 60 min	con vs HIF1a siRNA+veh	TTC	↑	<0.05	1.00	
[176]	mouse	30 min / 60 min	con vs HIF1a siRNA+renalase	TTC	↓	<0.05	0.98	
[177]	mouse	perm / 24 h	con vs chronic hind limb ischemia	TTC	↑	<0.05	1.00	
[177]	mouse	perm / 24 h	con vs chronic hind limb ischemia	Histo	↑	<0.05	0.89	
[178]	mouse	perm / 48 h	WT vs Gadd45 KO	TTC	→	n.s.	0.22	
[179]	rat	30 min / 120 min	con vs RIPER	TTC	↓	<0.001	1.00	
[179]	rat	30 min / 120 min	RIPER vs cervical vagotomy+RIPER	TTC	↑	<0.01	1.00	
[179]	rat	30 min / 120 min	RIPER vs subdiaphragmatic vagotomy+RIPER	TTC	↑	<0.01	1.00	
[179]	rat	30 min / 120 min	con vs IPC	TTC	↓	<0.001	1.00	
[179]	rat	30 min / 120 min	con vs IPC +Exendin(9-39)	TTC	↓	<0.001	1.00	
[179]	rat	30 min / 120 min	con vs RIPC	TTC	↓	<0.001	1.00	
[179]	rat	30 min / 120 min	con vs RIPER	TTC	↓	<0.001	1.00	
[179]	rat	30 min / 120 min	RIPC vs RIPC+Exendin(9-39)	TTC	↑	<0.01	0.97	
[179]	rat	30 min / 120 min	RPER vs RPER+Exendin(9-39)	TTC	↑	<0.01	1.00	
[180]	mouse	45 min / 24 h	AKIP OE vs WT	TTC	↓	<0.05	0.80	
[181]	pig	75 min / 1 wk	rADAMTS13 vs con	Histo	→	n.s.	0.32	
[182]	mouse	perm / 28 d	MI vs MI+BAPN	Histo	↓	<0.01	0.61	
[183]	mouse	45 min / 180 min	KCNE2 +/+ vs KCNE2 -/-	TTC	↓	<0.05	0.78	
[183]	mouse	45 min / 180 min	KCNE2 +/+ vs KCNE2 -/-	TTC	↓	<0.05	0.88	
[183]	mouse	45 min / 180 min	KCNE2 +/+ vs KCNE2 +/+ +SB216763	TTC	↓	<0.05	0.77	
[183]	mouse	45 min / 180 min	KCNE2 +/+ vs KCNE2 -/- +SB216763	TTC	↓	<0.05	0.84	
[184]	mouse	perm / 28 d	WT vs IL-12p35 KO	Histo	↓	<0.05	1.00	
[185]	mouse	perm / 14 d	WT vs LRG KO	Histo	↑	<0.01	0.92	
[186]	rat	perm / 4 wk	veh+MI+rAAV9 vs SEN195+MI+rAAV9	Histo	↓	<0.01	0.99	
[187]	mouse	30 min / 24 h	WT vs ApoM OE	TTC	↓	0.01	0.93	
[187]	mouse	30 min / 60 min	con vs S1P	TTC	↓	0.01	1.00	
[188]	mouse	20 min / 90 min	con vs NaHS	TTC	↓	<0.01	1.00	
[188]	mouse	20 min / 90 min	con vs SNAP	TTC	↓	<0.01	1.00	
[188]	mouse	20 min / 90 min	con vs NaHS+SNAP	TTC	↓	<0.01	1.00	
[188]	mouse	20 min / 90 min	con vs 10uM SNAP	TTC	↓	<0.05	0.64	
[188]	mouse	20 min / 90 min	con vs 100uM NaHS	TTC	↓	<0.05	0.69	
[188]	mouse	20 min / 90 min	con vs 10uM SNAP+100uM NaHS	TTC	↓	<0.01	0.96	
[188]	mouse	20 min / 90 min	10uM SNAP vs 10uM SNAP+100uM NaHS	TTC	↓	<0.05	0.89	
[188]	mouse	20 min / 90 min	100uM NaHS vs 10uM SNAP+100uM NaHS	TTC	↓	<0.05	0.75	
[188]	mouse	20 min / 90 min	10uM SNAP+100uM NaHS vs 10uM SNAP+100uM NaHS+C-PTIO	TTC	↑	<0.01	0.99	
[189]	mouse	perm / 4 wk	MI+ND vs MI+MK-0626	Histo	→	n.s.	0.29	
[190]	mouse	35 min / 60 min	con vs malonate	TTC	↓	0.001	0.99	
[191]	mouse	35 min / 60 min	BL plasma vs postRIC plasma	TTC	↓	<0.05	0.79	
[191]	mouse	35 min / 60 min	con vs glycine 3mmol	TTC	↓	<0.05	0.90	
[192]	mouse	perm / 1 wk	anti-mIR con vs anti miR-5325p	Histo	↑	<0.001	1.00	
[193]	mouse	30 min / 120 min	con vs PF431396A	TTC	↓	<0.05	1.00	
[193]	mouse	30 min / 120 min	con vs PF431396B	TTC	↓	<0.05	1.00	
[194]	mouse	perm / 24 h	WT vs periostin KO	TTC	→	n.s.	0.05	
[195]	mouse	perm / 28 d	scramble vs LNA-anti miR-375	Histo	↓	<0.001	1.00	
[196]	rat	30 min / 120 min	saline vs heparin	TTC	↓	<0.05	0.95	②
[196]	rat	30 min / 120 min	saline vs FGF1	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	saline vs heparin+FGF1	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	saline vs FGF1DHBS	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	saline vs FGF1DHBS +heparin	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	heparin vs FGF1	TTC	↓	<0.05	0.63	②
[196]	rat	30 min / 120 min	heparin vs FGF1DHBS	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	FGF1 vs FGF1DHBS	TTC	↓	<0.05	0.86	②
[196]	rat	30 min / 120 min	FGF1 vs FGF1DHBS +heparin	TTC	↓	<0.05	0.14	②
[196]	rat	30 min / 120 min	FGF1+heparin vs FGF1	TTC	↓	<0.05	0.42	②
[196]	rat	30 min / 120 min	FGF1+heparin vs FGF1DHBS	TTC	↓	<0.05	1.00	②
[196]	rat	30 min / 120 min	FGF1+heparin vs FGF1DHBS+heparin	TTC	↓	<0.05	0.84	②
[197]	rat	30 min / 24 h	con vs SNJ-1945	TTC	↓	0.005	0.94	
[198]	mouse	30 min / 24 h	con vs serelaxin pretreatment	TTC	↓	<0.05	1.00	
[198]	mouse	30 min / 24 h	con vs serelaxin pretreatment (eNOS KO)	TTC	→	n.s.	0.43	
[198]	mouse	30 min / 24 h	con vs eNOS KO	TTC	→	n.s.	0.42	
[198]	mouse	30 min / 24 h	con vs serelaxin with reperfusion	TTC	↓	<0.05	1.00	
[198]	mouse	30 min / 24 h	con vs serelaxin with reperfusion (eNOS KO)	TTC	→	n.s.	0.29	
[198]	mouse	30 min / 24 h	con vs eNOS KO	TTC	→	n.s.	0.29	
[199]	mouse	perm / 28 d	Exo ct vs Exo isch	Histo	→	n.s.	0.06	
[200]	mouse	40 min / 24 h	con vs glutamate	TTC	↓	0.0063	1.00	
[200]	mouse	40 min / 24 h	glutamate vs glutamate+YM298198	TTC	→	n.s.	0.05	
[200]	mouse	40 min / 24 h	con vs DHPG	TTC	↓	<0.01	1.00	
[200]	mouse	40 min / 24 h	DHPG vs DHPG+YM298198	TTC	→	n.s.	0.27	
[200]	mouse	40 min / 60 min	con vs PoCo	TTC	↓	<0.0001	1.00	
[200]	mouse	40 min / 60 min	con vs DHPH	TTC	↓	<0.05	1.00	
[200]	mouse	40 min / 60 min	con vs DHPH+PoCo	TTC	↓	<0.01	1.00	

[200]	mouse	40 min / 60 min	con vs PoCo +YM298198	TTC	→	n.s.	0.44
[201]	mouse	30 min / 120 min	WT vs Arrb2 KO	TTC	↓	<0.01	0.98
[201]	mouse	30 min / 120 min	WT vs Arrb2 OE	TTC	↑	<0.05	0.83
[202]	mouse	perm / 14 d	con vs topiramate	TTC	→	n.s.	0.09
[203]	rat	60 min / 28 d	Exo-F vs Exo-BMC	Histo	↓	<0.01	0.86
[203]	rat	60 min / 28 d	Exo-CpC vs Exo-BMC	Histo	↑	<0.05	0.21
[203]	rat	60 min / 28 d	Exo-CpC vs Exo-F	Histo	↑	<0.01	0.97
[204]	rat	perm / 28 d	PBS vs EV	Histo	↑	<0.05	0.88
[204]	rat	perm / 28 d	PBS vs STG+EV	Histo	↑	<0.01	1.00
[204]	rat	perm / 28 d	PBS vs STG+EPC	Histo	↑	<0.01	1.00
[204]	rat	perm / 28 d	STG vs STG+EV	Histo	↑	<0.01	0.98
[204]	rat	perm / 28 d	STG vs STG+EPC	Histo	↑	<0.01	0.99
[205]	mouse	30 min / 180 min	con vs RIPC (STAT5 fl/fl)	TTC	↓	<0.01	1.00
[206]	mouse	perm / 1 wk	con vs tb4	MRI	→	n.s.	0.54
[207]	mouse	perm / 1 wk	saline vs EGF-A	Histo	↓	<0.05	0.99
[207]	mouse	perm / 1 wk	saline vs Pep2-8	Histo	↓	<0.05	0.99
[207]	mouse	perm / 1 wk	WT vs PCSK9 -/-	Histo	↓	<0.05	0.97
[208]	mouse	30 min / 120 min	WT vs pkn1 KO	TTC	↑	<0.001	1.00
[209]	mouse	30 min / 120 min	con vs PoCo (CM NO-GC +/fl)	TTC	↓	<0.001	1.00
[209]	mouse	30 min / 120 min	PoCo (CM NO-GC +/fl) vs PoCo (CM NO-GC -/fl)	TTC	↑	<0.001	1.00
[209]	mouse	30 min / 120 min	PoCo+cinaciugat (CM NO-GC +/fl) vs PoCo+cinaciugat (CM NO-GC -/fl)	TTC	↑	<0.001	1.00
[209]	mouse	30 min / 120 min	PoCo+sildenafil (CM NO-GC +/fl) vs PoCo +sildenafil (CM NO-GC -/fl)	TTC	↑	<0.001	1.00
[209]	mouse	30 min / 120 min	PoCo+TAD (CM NO-GC +/fl) vs PoCo+TAD (CM NO-GC -/fl)	TTC	↑	<0.001	1.00
[209]	mouse	30 min / 120 min	con vs NS11021 (+/fl)	TTC	↓	<0.001	1.00
[209]	mouse	30 min / 120 min	con vs NS11021 (-/fl)	TTC	↓	<0.001	1.00
[210]	mouse	35 min / 60 min	con vs acetaldehyde	TTC	↓	<0.05	0.89
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs acetaldehyde	TTC	↓	<0.05	0.59
[210]	mouse	35 min / 60 min	WT vs ALDH2*2 KI+acetaldehyde	TTC	↑	<0.05	0.79
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs ALDH2*2 KI +acetaldehyde	TTC	↑	<0.05	0.87
[210]	mouse	35 min / 60 min	con vs ETOH	TTC	↓	<0.05	0.97
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs WT+ ETOH	TTC	↓	<0.05	1.00
[210]	mouse	35 min / 60 min	WT vsALDH2*2 KI + ETOH	TTC	↑	<0.05	0.62
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs ALDH2*2 KI + ETOH	TTC	↑	<0.05	0.55
[210]	mouse	35 min / 60 min	WT vs WT+ ETOH+ALDA	TTC	↓	<0.05	0.91
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs WT+ ETOH+ALDA	TTC	↓	<0.05	0.99
[210]	mouse	35 min / 60 min	WT vsALDH2*2 KI + ETOH+ALDA	TTC	↓	<0.05	0.46
[210]	mouse	35 min / 60 min	ALDH2*2 KI vs ALDH2*2 KI + ETOH*ALDA	TTC	↓	<0.05	0.75
[210]	mouse	35 min / 60 min	ALDH2*2 KI +ETOH vs ALDH2*2 KI +ETOH+ALDA	TTC	↓	<0.05	1.00
[210]	mouse	35 min / 60 min	con vs CVT	TTC	↑	<0.05	1.00
[210]	mouse	35 min / 60 min	CVT vs con ETOH	TTC	↓	<0.05	1.00
[210]	mouse	35 min / 60 min	CVT vs CVT+ETOH	TTC	↑	<0.05	1.00
[211]	pig	60 min / 3 d	con vs clopidogrel	MRI	↓	<0.05	1.00
[211]	pig	60 min / 3 d	con vs ticagrelor	MRI	↓	<0.05	1.00
[211]	pig	60 min / 42 d	con vs clopidogrel	MRI	→	n.s.	0.78
[211]	pig	60 min / 42 d	con vs ticagrelor	MRI	↓	<0.05	1.00
[211]	pig	60 min / 3 d	clopidogrel vs ticagrelor	MRI	↓	<0.05	1.00
[211]	pig	60 min / 3 d	clopidogrel vs ticagrelor	MRI	↓	<0.05	1.00
[211]	pig	60 min / 42 d	3d vs 42d (con)	MRI	↓	<0.05	1.00
[211]	pig	60 min / 42 d	3d vs 42d (clopidogrel)	MRI	↓	<0.05	1.00
[211]	pig	60 min / 42 d	3d vs 42d (ticagrelor)	MRI	↓	<0.05	1.00
[211]	pig	60 min / 42 d	con vs clopidogrel	TTC	→	n.s.	0.87
[211]	pig	60 min / 42 d	con vs ticagrelor	TTC	↓	<0.05	1.00
[211]	pig	60 min / 42 d	clopidogrel vs ticagrelor	TTC	↓	<0.05	1.00
[212]	mouse	45 min / 24 h	young vs aged	TTC	↑	<0.05	0.44
[212]	mouse	45 min / 24 h	young vs aged in SIRT1 KO	TTC	↑	<0.05	0.32
[212]	mouse	45 min / 24 h	young vs aged	TTC	↑	<0.05	0.43
[212]	mouse	45 min / 24 h	aged vs aged+AAVSirt1	TTC	↓	<0.05	0.36
[212]	mouse	45 min / 24 h	young vs aged (veh)	TTC	↑	<0.05	0.93
[212]	mouse	45 min / 24 h	young veh vs aged A769662	TTC	↑	<0.05	0.70
[212]	mouse	45 min / 24 h	young A769223 vs aged A769662	TTC	↑	<0.05	0.35
[212]	mouse	45 min / 24 h	aged veh vs aged A769662	TTC	↓	<0.05	0.60
[212]	mouse	45 min / 24 h	veh vs A769662 (icSIRT1 KO)	TTC	↓	<0.05	0.70
[213]	mouse	20 min / 60 min	WT vs MtCK OE	TTC	↓	0.045	0.40
[213]	mouse	45 min / 24 h	WT vs MtCK OE	TTC	↓	<0.0001	1.00
[214]	mouse	perm / 8 wk	WT vs apn KO	Histo	→	n.s.	0.71
[215]	mouse	perm / 14 d	con vs sympathetic denervation	Histo	→	n.s.	0.08
[216]	mouse	30 min / 120 min	veh vs NTG A	TTC	↓	<0.01	1.00
[216]	mouse	30 min / 120 min	NTG A vs NTG-tolerant	TTC	↑	<0.01	1.00
[216]	mouse	30 min / 120 min	veh vs NTG B	TTC	↓	<0.05	1.00
[216]	mouse	30 min / 120 min	veh vs CypD-/-	TTC	↓	<0.01	1.00
[216]	mouse	30 min / 120 min	veh vs CypD-/- +NTG B	TTC	↓	<0.001	1.00
[216]	mouse	30 min / 120 min	NTG B vs eNOS-/-	TTC	↑	<0.001	1.00
[216]	mouse	30 min / 120 min	NTG B vs eNOS-/- +NTG B	TTC	↑	<0.01	1.00
[216]	mouse	30 min / 120 min	veh vs ApOE -/- +NTG B	TTC	↓	<0.01	1.00
[216]	mouse	30 min / 120 min	NTG B vs ApOE-/-	TTC	↑	<0.05	1.00
[216]	mouse	30 min / 120 min	ApOE-/- vs ApOE -/- +NTG B	TTC	↓	<0.01	1.00
[217]	mouse	perm / 1 wk	p110βFlx vs p110β-Tie2	TTC	↓	<0.05	0.94
[217]	mouse	perm / 24 h	p110ß-aMHC vs P110ß-FLX	TTC	↑	<0.05	0.71
[217]	mouse	perm / 1 wk	p110ß-aMHC vs P110ß-FLX	TTC	↑	<0.05	0.53
[218]	mouse	30 min / 24 h	saline vs TAK-242 1 mg	TTC	→	n.s.	0.30
[218]	mouse	30 min / 24 h	saline vs TAK-242-NP 3 mg	TTC	↓	<0.001	1.00
[219]	mouse	45 min / 120 min	con vs HC067047	TTC	↓	<0.05	0.70
[220]	mouse	perm / 3 mo	WT vs tenascin-c KO	Histo	→	n.s.	0.20
[221]	mouse	45 min / 24 h	con vs AM-001 8 mg	TTC	↓	<0.01	0.94
[221]	mouse	45 min / 24 h	veh WT vs AM-001 8 mg WT	TTC	↓	<0.001	1.00
[221]	mouse	45 min / 24 h	veh WT vs veh Epac1 -/-	TTC	↓	<0.001	1.00
[221]	mouse	45 min / 24 h	veh WT vs AM-001 8 mg Epac1 -/-	TTC	↓	<0.001	1.00
[222]	mouse	30 min / 120 min	WT vs TGSGLT1-KO	TTC	↓	<0.05	0.85

[222]	mouse	20 min / 120 min	WT vs TGSGLT1 OE	TTC	↓	<0.05	0.34
[223]	mouse	perm / 5 d	con vs cxcl4	TTC	→	n.s.	0.07
[224]	rat	30 min / 120 min	con vs isoflurane	TTC	↓	<0.05	1.00
[224]	rat	30 min / 120 min	isoflurane vs nVEGF	TTC	↑	<0.05	1.00
[224]	rat	30 min / 120 min	isoflurane vs isoflurane +nVEGF	TTC	↑	<0.05	0.94
[224]	rat	30 min / 120 min	isoflurane vs IgG	TTC	↑	<0.05	1.00
[224]	rat	30 min / 120 min	nVEGF+ISO vs IgG+isoflurane	TTC	↓	<0.05	0.64
[224]	rat	30 min / 120 min	con vs IgG+isoflurane	TTC	↓	<0.05	0.99
[224]	rat	30 min / 120 min	IgG vs IgG+Isoflurane	TTC	↓	<0.05	0.94
[225]	rat	45 min / 24 h	con vs H/R-Exo	TTC	↓	<0.05	1.00
[225]	rat	45 min / 24 h	con vs H/R-p-Exo	TTC	↓	<0.01	1.00
[225]	rat	45 min / 24 h	H/R-Exo vs H/R-p-Exo	TTC	↓	<0.01	1.00
[226]	mouse	perm / 14 d	con vs Rat IgG	Histo	→	n.s.	0.12
[226]	mouse	perm / 14 d	con vs CAG/CATZ/Rae-1e mice	Histo	↓	<0.05	0.89
[227]	rabbit	30 min / 180 min	con vs Bio A	TTC	↓	<0.01	1.00
[227]	rabbit	30 min / 180 min	con vs Bio B	TTC	↓	<0.01	0.98
[227]	rabbit	30 min / 180 min	con vs MLS2776	TTC	↓	<0.001	1.00
[227]	rabbit	30 min / 180 min	con vs MLS2777	TTC	↓	<0.001	1.00
[227]	rabbit	30 min / 180 min	con vs MLS2778	TTC	↓	<0.001	1.00
[227]	rabbit	30 min / 180 min	con vs MLS2779	TTC	↓	<0.001	1.00
[227]	rabbit	30 min / 120 min	con vs MLS2776	TTC	↓	<0.001	1.00
[227]	rabbit	30 min / 120 min	con vs MLS2778	TTC	↓	<0.001	1.00
[227]	mouse	30 min / 120 min	con vs MLS2776+CsA	TTC	↓	<0.0001	1.00
[227]	mouse	30 min / 120 min	con vs MLS2778+CsA	TTC	↓	<0.0001	1.00
[227]	mouse	30 min / 120 min	con vs CsA	TTC	↓	<0.0001	1.00
[227]	mouse	30 min / 120 min	CsA vs MLS2776	TTC	↓	<0.001	1.00
[227]	mouse	30 min / 120 min	CsA vs MLS2778	TTC	↓	<0.001	1.00
[227]	mouse	30 min / 120 min	CsA vs MLS2776+CsA	TTC	↓	<0.0001	1.00
[227]	mouse	30 min / 120 min	CsA vs MLS2778+CsA	TTC	↓	<0.0001	1.00
[228]	mouse	perm / 28 d	DMSO vs JZL184	TTC	↑	<0.05	0.96
[229]	mouse	perm / 14 d	con vs Sp-8-pCPT	Histo	↓	<0.05	0.79
[230]	mouse	30 min / 24 h	FITC-NP vs PIO-NP 0.1 mg/kg	TTC	↓	<0.05	0.87
[230]	mouse	30 min / 24 h	FITC-NP vs PIO-NP 0.3 mg/kg	TTC	↓	<0.01	0.99
[230]	mouse	30 min / 24 h	FITC-NP vs PIO-NP 1 mg/kg	TTC	↓	<0.01	1.00
[230]	mouse	30 min / 24 h	FITC-NP vs PIO-NP 3 mg/kg	TTC	↓	<0.01	1.00
[230]	pig	60 min / 24 h	saline vs PIO-NP	TTC	↓	<0.005	1.00
[230]	pig	60 min / 24 h	FITC-NP vs PIO-NP	TTC	↓	<0.005	0.94
[231]	mouse	25 min / 120 min	con vs empagliflozin (with insulin)	TTC	→	n.s.	0.07
[231]	mouse	25 min / 120 min	con vs cariporide (with insulin)	TTC	→	n.s.	0.24
[231]	mouse	25 min / 120 min	con vs empagliflozin (w.o. insulin)	TTC	→	n.s.	0.06
[231]	mouse	25 min / 120 min	con vs cariporide (w.o. insulin)	TTC	↓	<0.05	0.73
[232]	mouse	15 min / 30 min	WT vs SD2814D	TTC	→	n.s.	0.71
[232]	mouse	15 min / 30 min	WT vs PLNKO	TTC	↑	<0.05	0.98
[232]	mouse	15 min / 30 min	WT vs SDKO	TTC	↑	<0.05	1.00
[232]	mouse	15 min / 30 min	SD2814D vs SDKO	TTC	↑	<0.05	1.00
[232]	mouse	15 min / 30 min	PLNKO vs SDKO	TTC	↑	<0.05	0.95
[233]	mouse	perm / 7 d	WT vs Hspb1 -/-	TTC	↑	<0.01	1.00
[234]	mouse	60 min / 1 wk	WT vs Ldlr-E06-scFv OE	TTC	↓	0.023	0.95
[235]	mouse	45 min / 3 d	PBS vs MSC-Exo	TTC	↓	<0.0001	0.84
[235]	mouse	45 min / 3 d	PBS +CL2MDP vs MSC-Exo	TTC	↓	<0.0001	1.00
[235]	mouse	45 min / 3 d	PBS +CL2MDP vs MSC-Exo+CL2MDP	TTC	↓	<0.05	0.48
[235]	mouse	45 min / 3 d	MSC-Exo vs MSC-Exo+CL2MDP	TTC	↑	<0.001	0.70
[236]	mouse	40 min / 60 min	con vs Tat-DAXXp-scramble	TTC	→	n.s.	0.08
[236]	mouse	40 min / 60 min	con vs Tat-DAXXp	TTC	↓	<0.01	0.99
[236]	mouse	40 min / 60 min	Tat-DAXXp-scaramble vs Tat-DAXXp	TTC	↓	<0.05	0.50
[236]	mouse	40 min / 60 min	Tat 1 mg vs Tat-DAXXp 1 mg	TTC	↓	<0.0001	0.62
[236]	mouse	40 min / 60 min	Tat 1 mg vs Tat-DAXXp 10 mg	TTC	↓	<0.01	0.48
[236]	mouse	40 min / 60 min	Tat-DAXXp-scramble 1 mg vs TD 1 mg	TTC	↓	<0.01	0.57
[236]	mouse	40 min / 24 h	Tat 1 mg vs Tat-DAXXp 1 mg	TTC	↓	<0.01	0.49
[236]	mouse	40 min / 24 h	Tat 1 mg vs Tat-DAXXp 10 mg	TTC	↓	<0.001	0.55
[236]	mouse	40 min / 24 h	Tat-DAXXp scramble 1 mg vs Tat-DAXXp 1 mg	TTC	↓	<0.05	0.67
[237]	mouse	40 min / 24 h	WT vs TXNIP KO	TTC	↓	<0.01	0.68
[237]	mouse	40 min / 24 h	WT vs TXNIP OE	TTC	↑	<0.01	0.70
[238]	rat	perm / 28 d	con vs MSC-Exo	Histo	↓	<0.001	0.98
[238]	rat	perm / 28 d	con vs MSC-ATV-Exo	Histo	↓	<0.0001	1.00
[238]	rat	perm / 28 d	MSC-Exo vs MSC-ATV-Exo	Histo	↓	<0.01	0.96
[238]	rat	perm / 28 d	con vs MSC-ATV-Exo	Histo	↓	<0.0001	1.00
[238]	rat	perm / 28 d	MSC-ATV-Exo vs MSC-ATV(Si)-Exo	Histo	↑	<0.01	0.96
[238]	rat	perm / 28 d	con vs MSC-(H19)-Exo	Histo	↓	<0.001	0.97
[239]	mouse	perm / 28 d	con vs WT-hiSPC-CM	Histo	↓	<0.05	0.88
[239]	mouse	perm / 28 d	con vs CDH2-hiSPC-CM	Histo	↓	<0.05	1.00
[239]	mouse	perm / 28 d	WT-hiSPC-CM vs CDH2-hiSPC-CM	Histo	↓	<0.05	1.00
[240]	rat	perm / 5 wk	medium MI vs large MI	Histo	↑	<0.05	0.85
[240]	rat	perm / 5 wk	medium MI+PBI vs large MI+PBI	Histo	↑	<0.05	1.00
[241]	mouse	30 min / 60 min	con vs rapamycin (c57)	TTC	↓	<0.001	1.00
[241]	mouse	30 min / 60 min	con vs rapamycin (db/db)	TTC	↓	<0.001	1.00
[241]	mouse	30 min / 60 min	con (c57) vs con (db/db)	TTC	↑	<0.001	0.79
[242]	mouse	perm / 30 d	MI vs MI+CPCs	Histo	↓	0.0096	0.95
[243]	mouse	60 min / 240 min	veh vs PVS	TTC	↓	<0.0001	0.44
[244]	mouse	20 min / 90 min	WT vs CypD KI C202s	TTC	↓	<0.001	0.94
[244]	mouse	20 min / 90 min	WT vs CypD KI C202s (DMSO)	TTC	↓	<0.001	1.00
[244]	mouse	20 min / 90 min	WT vs WT+CsA	TTC	↓	<0.001	1.00
[244]	mouse	20 min / 90 min	WT vs CypD KI C202s (CsA)	TTC	→	n.s.	0.35
[245]	rat	perm / 28 d	con vs B8B2+ CSCs	Histo	↓	<0.05	0.70
[246]	mouse	perm / 28 d	WT vs S1PR1 KO	Histo	↑	<0.05	1.00
[247]	mouse	perm / 28 d	con vs febuxostat	Histo	→	n.s.	0.07
[248]	rat	perm / 6 wk	con vs ANG1-hiPSC-aCM	Histo	↓	0.029	0.91
[249]	mouse	30 min / 24 h	WT vs SETD KO	TTC	↓	0.0039	0.85

[250]	mouse	perm / 24 h	WT vs GRK5 OE	TTC	→	n.s.	0.14	
[251]	mouse	45 min / 24 h	con vs selectin-targeting glycocalyx mimetic	TTC	↓	<0.05	0.63	
[252]	mouse	perm / 21 d	WT vs FUCCI R26Rp-mice	Histo	→	n.s.	0.14	
[253]	mouse	20 min / 90 min	WT vs Ogfod1 KO	TTC	↓	0.0001	1.00	
[253]	mouse	40 min / 24 h	WT vs Ogfod1 KO	TTC	↓	0.028	0.90	
[253]	mouse	20 min / 90 min	WT vs WT+carnosine	TTC	↓	<0.0001	0.83	
[254]	rat	30 min / 90 min	con vs CAA0225	TTC	↓	<0.05	1.00	
[254]	mouse	45 min / 2 wk	con vs CAA0225	TTC	↓	<0.05	0.87	
[254]	mouse	30 min / 120 min	con vs CAA0225	TTC	↓	<0.05	0.52	
[255]	mouse	perm / 21 d	WT vs FGF10 +/-	Histo	↑	<0.001	0.71	
[255]	mouse	perm / 5d	WT vs FGF10 +/-	Histo	↑	<0.01	0.51	
[255]	mouse	perm / 21 d	con vs DOX	Histo	↓	<0.05	0.29	
[256]	mouse	60 min / 120 min	con vs hydralacine	TTC	↓	0.0003	1.00	
[256]	mouse	60 min / 120 min	con vs hydralacine	TTC	↓	0.0083	0.89	
[257]	mouse	perm / 4 wk	WT vs Col1a2Cre(ER) OE	Histo	↓	0.0103	0.91	
[257]	mouse	perm / 4 wk	R26 Yap5SA vs Col1a2 cre(ER) OE	Histo	↑	0.0482	0.64	
[258]	rat	45 min / 120 min	con vs mCBS	TTC	↓	<0.05	0.30	
[258]	rat	45 min / 120 min	con vs IPC	TTC	↓	<0.001	0.99	
[258]	rat	30 min / 120 min	veh vs histones 20ug	TTC	↑	<0.05	0.98	
[258]	rat	30 min / 120 min	histones 10ug vs histones 20ug	TTC	↑	<0,01	1.00	
[258]	rat	30 min / 120 min	veh vs HIPe	TTC	↓	<0.01	0.84	
[259]	mouse	perm / 48 h	PBS vs IL-5	TTC	↓	<0.05	0.82	
[259]	mouse	perm / 28 d	PBS vs IL-5	Histo	↓	<0.05	0.94	
[259]	mouse	perm / 28 d	PBS vs PBS +TRFK5	Histo	↑	<0.05	0.96	
[259]	mouse	perm / 28 d	PBS vs IL5+TRFK5	Histo	↑	<0.05	0.87	
[259]	mouse	perm / 28 d	IL5 vs TRFK5+PBS	Histo	↑	<0.05	1.00	
[259]	mouse	perm / 28 d	IL5 vs TRFK5+IL5	Histo	↑	<0.05	1.00	
[260]	mouse	perm / 24 h	con vs miR126 antagomir	TTC	↓	<0.01	0.43	
[261]	pig	45 min / 1 wk	normothermia vs hypothermia	MRI	→	n.s.	0.11	
[262]	mouse	perm / 24 wk	con vs ferric carboxymaltose	Histo	→	n.s.	0.14	
[263]	mouse	0	WT vs 146a-5p -/-	TTC	↑	<0.001	1.00	
[263]	mouse	perm / 1 wk	adult vs aging	Histo	↑	<0.01	0.99	
[264]	rat	perm / 21 d	MI vs early RvD1	Histo	↓	0.009	1.00	
[265]	pig	60 min / 180 min	pla vs IPC (female)	TTC	↓	0.0003	0.91	
[265]	pig	60 min / 180 min	pla vs IPC (castrated male)	TTC	↓	0.0179	0.54	
[265]	pig	60 min / 180 min	pla vs IPC (male)	TTC	↓	<0.0001	0.95	
[266]	mouse	perm / 8 wk	WT vs clock D19/D19	Histo	↓	<0.05	0.72	②
[266]	mouse	perm / 8 wk	cre-WT vs Sm-Bmal KO	Histo	↓	<0.05	0.99	②
[267]	mouse	30 min / 24 h	WT vs p55γ OE	TTC	↓	0.0003	0.99	②
[268]	mouse	perm / 28 d	WT vs ILC2s deficiency	Histo	→	n.s.	0.11	
[269]	mouse	perm / 28 d	con vs 4TTC-hCMP	Histo	↓	<0.05	0.98	
[269]	mouse	perm / 28 d	3TTC-hCMP vs 4TTC-hCMP>	Histo	↓	<0.05	0.99	
[270]	mouse	30 min / 24 h	WT vs Panx -/-	TTC	→	n.s.	0.48	
[270]	mouse	30 min / 60 min	con vs IPC	TTC	↓	<0.05	0.55	
[271]	rat	30 min / 120 min	con vs IPC (Budapest study group)	TTC	↓	<0.05	1.00	
[271]	rat	30 min / 120 min	IPC vs RICuni (Budapest study group)	TTC	↑	<0.05	1.00	
[271]	rat	30 min / 120 min	IPC vs RICbi (Budapest study group)	TTC	↑	<0.05	1.00	
[271]	rat	30 min / 120 min	con vs IPC (Szeged study group)	TTC	↓	<0.05	0.96	
[271]	rat	30 min / 120 min	IPC vs RICbi (Szeged study group)	TTC	↑	<0.05	0.88	
[272]	rat	perm / 28 d	veh vs galectin-3	Histo	↓	<0.05	0.76	①
[272]	mouse	perm / 56 d	veh vs galectin-3	Histo	→	n.s.	0.81	①
[272]	mouse	perm / 56 d	losartan vs galectin-3	Histo	→	n.s.	0.74	①
[273]	mouse	60 min / 3 d	con vs mixture of antibiotics	TTC	↓	<0.001	1.00	
[273]	mouse	60 min / 3 d	con vs GLP-2	TTC	↓	<0.0001	1.00	

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ref.	species	I/R timing	intervention	method	effect	p-value	power	note
[274]	mouse	50 min / 24 h	WT vs CD73-/-	MRI	→	n.s.	0.12	
[275]	mouse	perm / 24 h	Saline vs CDC	TTC	→	n.s.	0.20	
[275]	mouse	perm / 24 h	Saline vs CBSC	TTC	→	n.s.	0.07	
[275]	mouse	perm / 6 wk	Saline vs CDC	Histo	↓	<0.05	0.89	
[275]	mouse	perm / 6 wk	Saline vs CBSC	Histo	↓	<0.01	1.00	
[276]	sheep	90 min / 8 wk	con vs all treated (salvage index)	TTC	↑	0.002	0.96	
[276]	sheep	90 min / 8 wk	con vs all treated	TTC	↓	<0.001	0.99	
[277]	mouse	45 min / 24 h	nSI vs mRNA-26a	TTC	↓	<0.05	0.44	
[278]	mouse	40 min / 60 min	WT vs HAX1-1 OE	TTC	↓	<0.05	0.87	
[278]	mouse	30 min / 24 h	WT vs HAX1-1 OE	TTC	↓	<0.05	0.27	
[278]	mouse	30 min / 24 h	WT vs HAX1-1 +/-	TTC	↑	<0.05	0.98	
[279]	mouse	60 min / 24 h	WT vs CaMKIIδ KO	TTC	↓	<0.05	0.43	
[279]	mouse	60 min / 24 h	fl/fl vs c-CaMKIIδ KO	TTC	↓	<0.05	0.74	
[280]	mouse	perm / 6 wk	WT vs creatine KO	Histo	→	n.s.	0.16	
[281]	mouse	perm / 24 h	WT vs MMP-28 -/- 1d	TTC	→	n.s.	0.08	
[281]	mouse	perm / 3 d	WT vs MMP-28 -/- 3d	TTC	→	n.s.	0.27	
[281]	mouse	perm / 5 d	WT vs MMP-28 -/- 5d	TTC	→	n.s.	0.08	
[281]	mouse	perm / 7 d	WT vs MMP-28 -/- 7d	TTC	→	n.s.	0.09	
[282]	mouse	30 min / 24 h	WT vs NOX4 KO	TTC	↓	<0.05	0.69	
[282]	mouse	30 min / 24 h	WT vs NOX2 KO	TTC	↓	<0.05	0.59	
[282]	mouse	30 min / 24 h	nonOE vs vs DN-NOX OE	TTC	↑	<0.05	0.86	
[282]	mouse	30 min / 24 h	WT vs DN NOX OE	TTC	↑	<0.01	1.00	
[282]	mouse	30 min / 24 h	DN-NOX OE vs DN-NOX OE +PHD2 +/-	TTC	↓	<0.05	0.97	
[282]	mouse	30 min / 24 h	WT vs DN NOX OE	TTC	↑	<0.01	1.00	
[282]	mouse	30 min / 24 h	DN NOX OE vs DN NOX OE PPAR2a -/-	TTC	↓	<0.05	0.97	
[283]	mouse	180 min / 0 min	con vs NOX4 KO	TTC	↑	<0.05	0.83	
[284]	mouse	perm / 24 h	disrupted MI vs normal MI	TTC	→	n.s.	0.17	
[284]	mouse	perm / 1 wk	disrupted MI vs normal MI	Histo	↑	<0.01	0.76	
[285]	mouse	perm / 24 h	con vs sorefenib	TTC	→	n.s.	0.49	
[286]	mouse	perm / 1 wk	con vs gene transfer of activated Notch1	Histo	→	n.s.	0.23	
[286]	mouse	perm / 1 wk	con vs gene transfer of activated sJ1	Histo	→	n.s.	0.12	

[286]	mouse	perm / 60 d	con vs gene transfer of activated Notch1	Histo	→	n.s.	0.19
[286]	mouse	perm / 60 d	con vs gene transfer of activated sJ1	Histo	→	n.s.	0.06
[287]	mouse	perm / 5 wk	con vs YAP OE	Histo	↓	0.018	0.84
[288]	mouse	perm / 24 h	WT vs pla 2R -/-	TTC	→	n.s.	0.24
[289]	mouse	perm / 24 h	con vs TGFβ receptor–KO	TTC	→	n.s.	0.62
[290]	mouse	30 min / 24 h	con vs RIPC	TTC	↓	<0.001	1.00
[290]	mouse	30 min / 24 h	con vs RIPC+NO scavenging	TTC	→	n.s.	0.08
[290]	mouse	30 min / 60 min	con vs RIPC	TTC	↓	<0.05	0.68
[290]	mouse	30 min / 60 min	con vs RIPC wo. RH+Exogen NO	TTC	↓	<0.05	0.90
[291]	mouse	perm / 1 wk	con vs Foxp3DTR Treg cell ablation	Histo	↑	<0.05	0.72
[292]	mouse	perm / 7 d	PBS vs diphtheria toxin	Histo	→	n.s.	0.12
[292]	mouse	perm / 7 d	PBS vs diphtheria toxin+IL10 KO	Histo	→	n.s.	0.10
[293]	mouse	20 min / 120 min	con vs IPC	TTC	↓	<0.05	1.00
[293]	mouse	20 min / 120 min	con+wortmannin vs IPC+wortmannin	TTC	→	n.s.	0.42
[293]	mouse	20 min / 120 min	con+KU63794 vs IPC+KU63794	TTC	→	n.s.	0.35
[293]	mouse	20 min / 120 min	con vs IPC+pp242	TTC	↓	<0.05	0.14
[293]	mouse	20 min / 120 min	con vs IPC+rapamycin	TTC	↓	<0.05	1.00
[294]	mouse	perm / 21 d	WT vs human TIMP-4 OE	Histo	→	n.s.	0.05
[295]	mouse	perm / 14 d	veh vs saphenous vein–derived pericytes (SVP)+cardiac stem cells (CSC)	Histo	↓	<0.05	0.93
[296]	mouse	30 min / 4 h	WT vs GSTP-null	TTC	↑	<0.05	0.86
[297]	mouse	30 min / 24 h	con vs Drp1-C KO	TTC	↑	<0.05	0.97
[298]	mouse	perm / 5-6 wk	WT vs protein 1 Cre-tandem dimer Tomato OE	Histo	↓	0.046	0.67
[299]	mouse	30 min / 48 h	con vs IPC in mice	TTC	↓	<0.0001	1.00
[299]	rabbit	45 min / 72 h	con vs IPC in rabbits	TTC	↓	<0.0001	1.00
[299]	pig	60 min / 72 h	con vs IPC in pigs	TTC	↓	0.0121	0.84
[300]	mouse	perm / 8 wk	PBS vs mES Ex-CPC	Histo	↓	<0.01	0.76
[300]	mouse	perm / 8 wk	PBS vs mEF EX-CPC	Histo	→	n.s.	0.11
[300]	mouse	perm / 8 wk	MEF Ex-CPC vs mES Ex-CPC	Histo	↓	<0.01	0.86
[301]	mouse	perm / 1 wk	con vs MIPC S	MRI	↓	<0.01	1.00
[301]	mouse	perm / 2 wk	con vs MIPC S	MRI	↓	<0.01	1.00
[301]	mouse	perm / 4 wk	con vs MIPC S	MRI	↓	<0.01	1.00
[301]	mouse	perm / 1/4 wk	MIPC S 1 wk vs MIPC S 4 wk	Histo	↓	<0.05	0.99
[302]	rat	60 min / 24 h	con vs eng. heart muscle	MRI	→	n.s.	0.14
[302]	rat	60 min / 28 d	con vs eng. heart muscle	MRI	→	n.s.	0.06
[302]	rat	60 min / 24 h	con vs eng. heart muscle (irradiated)	MRI	→	n.s.	0.07
[302]	rat	60 min / 28 d	con vs eng. heart muscle (irradiated)	MRI	→	n.s.	0.16
[303]	pig	60 min / 180 min	pla vs RIPC	TTC	↓	<0.05	1.00
[303]	pig	60 min / 180 min	pla vs RIPC+RISK-BL	TTC	↓	<0.05	1.00
[303]	pig	60 min / 180 min	pla vs RIPC+SAFE-BL	TTC	→	n.s.	0.11
[303]	pig	60 min / 180 min	RIPC vs RIPC +SAFE-BL	TTC	↑	<0.05	0.97
[303]	rat	30 min / 120 min	pPLA vs pRIPC	TTC	↓	<0.05	1.00
[303]	rat	30 min / 120 min	pPLA +RISK-BL vs pRIPC	TTC	↓	<0.05	1.00
[303]	rat	30 min / 120 min	pPLA +SAFE-BL vs pRIPC	TTC	↓	<0.05	1.00
[303]	rat	30 min / 120 min	pRIPC vs pRIPC +RISK-BL	TTC	↑	<0.05	1.00
[303]	rat	30 min / 120 min	pRIPC vs pRIPC +SAFE-BL	TTC	↑	<0.05	1.00
[304]	mouse	perm / 3 d	WT vs Osteoglycin null	Histo	→	n.s.	0.06
[305]	mouse	perm / 3-7 d	IS day 3 vs IS day 7 (neonates)	Histo	↓	<0.05	1.00
[305]	mouse	perm / 3-7 d	IS day 3 vs IS day 7 (adult)	Histo	→	n.s.	0.28
[306]	mouse	perm / 7 d	WT vs FOXO4 -/-	Histo	↓	<0.05	0.89
[307]	mouse	perm / 48 h	con vs Gca KO	TTC	↓	<0.05	0.88
[308]	rat	perm / 24 h	con vs renal denervation (SHR rat)	TTC	↓	<0.01	0.94
[308]	rat	perm / 24 h	con vs renal denervation (WKY rat)	TTC	→	n.s.	0.31
[309]	rat	90 min / 12 mo	veh vs CPC	Histo	↓	<0.01	0.90
[310]	mouse	30 min / 72 h	WT vs GRK2 KO	TTC	↓	<0.05	0.80
[311]	mouse	30 min / 24 h	con vs γ2-AMPK cKO	TTC	↑	<0.05	1.00
[311]	mouse	30 min / 24 h	WT vs γ2-AMPK OE	TTC	↓	<0.05	1.00
[311]	mouse	30 min / 24 h	WT veh vs WT+TUDCA	TTC	↓	<0.05	1.00
[311]	mouse	30 min / 24 h	WT veh vs γ2-AMPK OE+TUDCA	TTC	↓	<0.05	1.00
[312]	mouse	45 min / 4 h	MerTK+/+ vs MerTK-/-	TTC	↓	<0.01	*
[312]	mouse	45 min / 1 wk	MerTK+/+ vs CR/CR	TTC	↓	<0.01	*
[312]	mouse	45 min / 1 wk	MerTK++ vs MerTK-- in LysM-Cre	TTC	↑	<0.05	*
[313]	mouse	45 min / 24 h	WT vs MitEpac1 -/-	TTC	↓	<0.01	0.91
[314]	pig	40 min / 120 min	con vs PoCo	MRI	↑	<0.05	0.68
[314]	pig	40 min / 120 min	con vs IPC	MRI	↓	<0.05	1.00
[314]	pig	20 min / 120 min	40 min I vs 20 min I	MRI	↓	<0.05	1.00
[314]	pig	40 min / 24 h	con vs PoCo	MRI	→	n.s.	0.36
[314]	pig	40 min / 24 h	con vs IPC	MRI	↓	<0.05	0.72
[314]	pig	20 min / 24 h	40 min I vs 20 min I	MRI	↓	<0.05	1.00
[314]	pig	40 min / 4 d	con vs PoCo	MRI	↑	<0.05	0.43
[314]	pig	40 min / 4 d	con vs IPC	MRI	↓	<0.05	1.00
[314]	pig	20 min / 4 d	40 min I vs 20 min I	MRI	↓	<0.05	1.00
[314]	pig	40 min / 7 d	con vs PoCo	MRI	↑	<0.05	0.60
[314]	pig	40 min / 7 d	con vs IPC	MRI	↓	<0.05	1.00
[314]	pig	20 min / 7 d	40 min I vs 20 min I	MRI	↓	<0.05	1.00
[315]	mouse	perm / 4 wk	MI vs MI+hCMP	Histo	↓	<0.05	0.79
[315]	mouse	perm / 4 wk	MI+Scaffold vs MI+hCMP	Histo	↓	<0.05	0.78
[316]	mouse	perm / 8 wk	con vs miR199a-3p	Histo	↓	<0.01	0.69
[316]	mouse	perm / 8 wk	con vs miR590-3p	Histo	↓	<0.01	0.95
[317]	mouse	45 min / 20 d	no MSCs vs MSCs	TTC	→	n.s.	0.11
[318]	mouse	perm / 15 d	con vs syn MSC	Histo	↓	<0.05	0.84
[318]	mouse	perm / 15 d	con vs MSC	Histo	↓	<0.05	0.96
[319]	pig	90 min / 72 h	veh vs CBSCs (72h)	TTC	→	n.s.	0.07
[319]	pig	90 min / 3 mo	veh vs CBSCs (3wk)	TTC	↓	<0.05	0.82
[320]	mouse	perm / 28 d	con vs ANG-II	Histo	↑	<0.01	1.00
[321]	mouse	perm / 2/4 wk	con 2wk vs con 4wk	MRI	↑	<0.05	0.27
[321]	mouse	perm / 2/4 wk	hCMs 2wk vs hCMs 4wk	MRI	↓	<0.05	0.22
[321]	mouse	perm / 4 wk	con 4wk vs hCMs 4wk	MRI	↓	<0.05	0.72
[321]	mouse	perm / 4 wk	hESCs 4wk vs hCMs 4wk	MRI	↓	<0.05	0.54

[321]	mouse	perm / 2/4 wk	con 4wk vs iCMs 4 wk	MRI	↓	<0.05	0.35	
[321]	mouse	perm / 4 wk	IPSCs 4wk vs iCMs 4 wk	MRI	↓	<0.09	0.25	
[322]	mouse	perm / 48 h	WT vs D2 KO	TTC	↓	<0.001	0.99	
[322]	mouse	perm / 14 d	WT vs D2 KO	Histo	↓	<0.001	0.95	
[322]	mouse	perm / 28 d	WT vs D2 KO	Histo	→	n.s.	0.09	
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in male	TTC	↓	<0.05	0.54	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in female	TTC	↑	<0.05	0.70	②
[323]	mouse	25 min / 24 h	GSNO-R +/+ vs GSNO-R -/- in male	TTC	↓	<0.05	0.71	②
[323]	mouse	25 min / 24 h	GSNO-R +/+ vs GSNO-R -/- in female	TTC	↑	<0.05	0.80	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in male	TTC	↓	<0.05	0.91	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R +/+ in male+Alda-1	TTC	↓	<0.05	0.64	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in male+Alda-1	TTC	↓	<0.05	0.83	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in female	TTC	↑	<0.01	0.92	②
[323]	mouse	20 min / 120 min	GSNO-R +/+ vs GSNO-R -/- in female +Alda-1	TTC	↓	<0.05	0.18	②
[324]	pig	60 min / 180 min	con vs RIPC	TTC	↓	<0.001	1.00	
[325]	pig	60 min / 180 min	con vs RIPC	TTC	↓	<0.001	1.00	
[325]	pig	60 min / 180 min	vagotomy vs RIPC	TTC	↓	<0.001	1.00	
[325]	pig	60 min / 180 min	SPLX vs RIPC	TTC	↓	<0.001	0.85	
[325]	pig	60 min / 180 min	vagotomy vs vagotomy+RIPC	TTC	↓	<0.001	0.91	
[325]	pig	60 min / 180 min	RIPC vs vagotomy+RIPC	TTC	↑	<0.001	0.75	
[325]	pig	60 min / 180 min	RIPC vs SPLX+RIPC	TTC	↑	<0.001	0.73	
[325]	pig	60 min / 180 min	RIPC vs splenic denervation+RIPC	TTC	↑	<0.001	0.96	
[325]	rat	30 min / 120 min	con vs RIPC	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	RIPC vs vagotomy+RIPC	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	RIPC vs SPLX+RIPC	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	RIPC vs splenic denervation+RIPC	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	ppla vs pRIPC	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	ppla+p(vagotomy vs RIPC)	TTC	↓	<0.05	0.98	
[325]	rat	30 min / 120 min	pSPLX vs pRIPC	TTC	↓	<0.001	0.95	
[325]	rat	30 min / 120 min	pRIPC vs pRIPC+vagotomy	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	pRIPC vs p(RIPC+SPLX)	TTC	↑	<0.05	0.83	
[325]	rat	30 min / 120 min	pRIPC vs p(splenic denervation)	TTC	↑	<0.001	0.98	
[325]	rat	30 min / 120 min	saline vs carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs saline	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 1pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 10pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 20pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 100pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 1000pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	TC vs 100000pM carbachol	TTC	↑	<0.05	1.00	
[325]	rat	30 min / 120 min	saline vs 100pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	saline vs 1000pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	saline vs 100000pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	1pM carbachol vs 100pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	1pM carbachol vs 100pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	1pM carbachol vs 100pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	10pM carbachol vs 100pM carbachol	TTC	↓	<0.05	0.99	
[325]	rat	30 min / 120 min	10pM carbachol vs 1000pM carbachol	TTC	↓	<0.05	0.98	
[325]	rat	30 min / 120 min	10pM carbachol vs 100000pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	20pM carbachol vs 100pM carbachol	TTC	↓	<0.05	1.00	
[325]	rat	30 min / 120 min	20pM carbachol vs 1000pM carbachol	TTC	↓	<0.05	0.99	
[325]	rat	30 min / 120 min	20pM carbachol vs 100000pM carbachol	TTC	↓	<0.05	1.00	
[326]	mouse	perm / 28 d	WT vs OSTN (osteocrin) OE	Histo	↓	<0.05	0.70	
[327]	mouse	60 min / 24 h	WT vs myonectin KO	TTC	↑	<0.01	0.95	
[327]	mouse	60 min / 24 h	WT sedentary vs WT exercise	TTC	↓	<0.05	0.99	
[327]	mouse	60 min / 24 h	myonektin KO sedentary vs moynektin KO exercise	TTC	→	n.s.	0.30	
[327]	mouse	60 min / 24 h	WT vs myonectin OE	TTC	↓	<0.01	0.89	
[328]	pig	60 min / 1 wk	con vs metformin	TTC	→	n.s.	0.18	
[329]	mouse	perm / 28 d	con vs Exo	Histo	↓	<0.05	0.86	
[329]	mouse	perm / 28 d	Exo-scramble vs Exo anti miR125b	Histo	↑	<0.05	0.54	
[330]	mouse	perm / 28 d	WT vs E2F1	Histo	↓	<0.01	0.94	②
[331]	rabbit	30 min / 2 wk	veh vs Muse	Histo	↓	<0.001	1.00	②
[331]	rabbit	30 min / 2 wk	veh vs non-Muse	Histo	↓	<0.001	0.90	②
[331]	rabbit	30 min / 2 wk	veh vs MSC	Histo	↓	<0.001	0.95	②
[331]	rabbit	30 min / 2 wk	Muse vs non-Muse	Histo	↑	<0.001	0.91	②
[331]	rabbit	30 min / 2 wk	Muse vs MSC	Histo	↑	<0.001	0.78	②
[331]	rabbit	30 min / 2 mo	veh vs Muse	Histo	↓	<0.001	1.00	②
[331]	rabbit	30 min / 2 mo	veh vs non-Muse	Histo	↓	<0.05	0.41	②
[331]	rabbit	30 min / 2 mo	veh vs MSC	Histo	↓	<0.05	0.65	②
[331]	rabbit	30 min / 2 mo	Muse vs non-Muse	Histo	↑	<0.001	1.00	②
[331]	rabbit	30 min / 2 mo	Muse vs MSC	Histo	↑	<0.01	1.00	②
[332]	mouse	perm / 28 d	PBS vs CCND2 OE	Histo	↓	<0.05	0.71	
[333]	mouse	perm / 8 wk	ctrl vs transient introduction of miR-294	Histo	↓	<0.01	0.99	
[334]	rat	30 min / 24 h	veh vs Exercise-Exo	TTC	↓	<0.01	0.99	
[334]	rat	30 min / 24 h	veh vs sedentary-Exo	TTC	→	n.s.	0.12	
[334]	rat	30 min / 24 h	sedentary - neg con vs exercise neg con	TTC	↓	<0.01	1.00	
[334]	rat	30 min / 24 h	exercise neg con vs exercise anti-342	TTC	↑	<0.05	0.92	
[334]	rat	30 min / 24 h	agomiR neg cog vs mir-342 agomir	TTC	↓	<0.05	1.00	
[335]	mouse	perm / 14 d	WT vs anti-IL35	Histo	→	n.s.	0.11	
[336]	mouse	perm / 28 d	WT vs sulf1 -/-	Histo	↑	<0.05	0.77	
[336]	mouse	perm / 28 d	WT vs sulf2 -/-	Histo	↑	<0.05	0.85	
[336]	mouse	perm / 28 d	con vs surfen	Histo	↑	<0.001	1.00	
[337]	mouse	60 min / 3 wk	con vs HAS2 KO	Histo	↑	<0.05	0.68	②
[337]	mouse	25 min / 60 d	con vs HAS2 KO	Histo	→	n.s.	0.06	②
[338]	mouse	perm / 15-21 d	Adm +/+ vs ADM hi/hi (male)	Histo	→	n.s.	0.20	
[338]	mouse	perm / 15-21 d	Adm +/+ vs ADM hi/hi (female)	Histo	→	n.s.	0.30	
[339]	rat	30 min / 35 d	veh vs CD45-Lin-	Histo	→	n.s.	0.44	
[340]	mouse	30 min / 24 h	AD vector vs LAPTM4B -/-	TTC	↓	0.0023	0.96	

[340]	mouse	30 min / 24 h	WT vs LAPTM4B -/-	TTC	↑	0.000000085	1.00	
[340]	mouse	30 min / 24 h	con vs LABTM4B OE	TTC	↓	0.000018	1.00	
[340]	mouse	30 min / 24 h	LABTM4B OE vs BAF+LABTM4B OE	TTC	↑	0.0015	0.92	
[340]	mouse	30 min / 24 h	WT vs LABTM4B -/-	TTC	↑	0.0022	0.96	
[340]	mouse	30 min / 24 h	WT vs WT RAPA	TTC	↓	0.0277	0.93	
[340]	mouse	30 min / 24 h	LABTM4B -/- vs LABTM4B -/- +rapamycin	TTC	↓	0.0001	1.00	
[340]	mouse	30 min / 24 h	WT vs LABTM4B -/-	TTC	↑	0.000000085	0.99	
[340]	mouse	30 min / 24 h	WT vs WT siRaptor	TTC	↓	0.003	0.97	
[340]	mouse	30 min / 24 h	LABTM4B -/- vs LABTM4B -/- +siRaptor	TTC	↓	0.00000051	1.00	
[340]	mouse	30 min / 24 h	vector WT vs LABTM4B -/-	TTC	↑	0.0005	0.97	
[340]	mouse	30 min / 24 h	vector WT vs WT TFEBr OE	TTC	↓	0.000024	1.00	
[340]	mouse	30 min / 24 h	vector LABTM4B -/- vs LABTM4B -/- TFEB OE	TTC	↓	0.000026	1.00	
[341]	mouse	perm / 21 d	con vs ABR-238901	Histo	↑	<0.05	0.79	
[342]	mouse	perm / 8 wk	veh vs ADSC-Ncad	Histo	↓	0.0024	1.00	
[342]	mouse	perm / 8 wk	ADSC-con vs ADSC-Ncad	Histo	↓	0.0305	1.00	
[342]	mouse	perm / 8 wk	ADSC-con vs ADSC-WT-Ncad	Histo	↓	0.0005	1.00	
[342]	mouse	perm / 8 wk	ADSC-WT-Ncad vs ADSC-KD-Ncad	Histo	↑	0.0334	0.81	
[343]	mouse	perm / 30 d	PBS vs WT-EPC-Exo	Histo	↓	0.0046	0.48	
[343]	mouse	perm / 30 d	WT-EPC-Exo vs IL10 KO EPC-Exo	Histo	↑	0.0005	0.48	
[343]	mouse	perm / 30 d	PBS vs WT-EPC-Exo	Histo	↓	<0.0001	0.50	
[343]	mouse	perm / 30 d	PBS vs ILK-KD-EPC-Exo	Histo	↓	<0.0001	0.43	
[343]	mouse	perm / 30 d	IL10 KO EPC-Exo vs wt-EPC-Exo	Histo	↓	<0.0001	0.36	
[343]	mouse	perm / 30 d	IL10 KO EPC-Exo vs ILK-KD-EPC-Exo	Histo	↓	<0.001	0.30	
[344]	mouse	perm / 28 d	saline vs SNC pre	Histo	↓	<0.05	0.88	
[344]	mouse	perm / 28 d	saline vs SNC interv	Histo	↓	<0.05	1.00	
[344]	mouse	perm / 28 d	SNC interv vs SNC pre	Histo	↑	<0.05	0.99	
[345]	mouse	90 min / 24 h	con vs fIIa inh	TTC	↓	<0.01	0.99	
[345]	mouse	90 min / 24 h	con vs fXa inh	TTC	↓	<0.01	1.00	
[345]	mouse	90 min / 24 h	con vs fIIa inh	TTC	↓	<0.05	1.00	
[345]	mouse	90 min / 24 h	con vs fIIa inh+3K3A-aPC	TTC	↓	<0.01	1.00	
[345]	mouse	90 min / 24 h	fIIa inh vs fIIa inh+3K3A-aPC	TTC	↓	<0.01	1.00	
[345]	mouse	90 min / 24 h	con vs fXa inh	TTC	↓	<0.01	1.00	
[345]	mouse	90 min / 24 h	con vs fXa inh+MAPC1591	TTC	↓	<0.05	0.98	
[345]	mouse	90 min / 24 h	fXa inh vs fXa inh+MPC1609	TTC	↑	<0.01	1.00	
[345]	mouse	90 min / 24 h	fXa inh+MPC1609 vs fXa inh+MAPC1591	TTC	↓	<0.05	1.00	
[346]	mouse	30 min / 4-7 wk	WT vs miR30d OE	TTC	↓	0.0016	0.97	
[347]	mouse	perm / 28 d	Mst1/2 fl/fl vs LysMCre-Mst1/2 fl/fl	Histo	↑	0.013	0.92	
[347]	mouse	perm / 28 d	LysMCre-Mst1/2 fl/fl vs LysMCre-Mst1/2 fl/fl+CP	Histo	↓	0.013	0.99	
[347]	mouse	perm / 28 d	veh vs XMU	Histo	↑	0.0025	0.96	
[347]	mouse	perm / 28 d	XMU vs XMU+CP	Histo	↓	0.000000081	1.00	
[347]	mouse	perm / 28 d	veh vs xmu+CP	Histo	↓	0.0067	0.98	
[347]	mouse	perm / 28 d	CP vs XMU+CP	Histo	↓	0.043	0.95	
[348]	mouse	perm / 28 d	con vs MSC-Exo	Histo	↓	0.002	1.00	
[349]	mouse	30 min / 24 h	WT vs GSDMD KO	TTC	↓	0.000077	0.41	
[349]	mouse	30 min / 24 h	Myh6-cre vs GHDMD KO	TTC	↓	0.000049	0.52	
[349]	mouse	30 min / 24 h	GHDMD f/f vs GHDMD KO	TTC	↓	0.00015	0.46	
[350]	mouse	30 min / 24 h	veh vs MNF	TTC	↓	0.0025	0.83	
[351]	mouse	45 min / 24 h	veh vs TAT scratch	TTC	→	n.s.	0.28	
[351]	mouse	45 min / 24 h	veh vs TAT-Beclin	TTC	↓	0.0486	0.90	
[351]	mouse	45 min / 24 h	TAT scratch vs TAT-Beclin	TTC	↓	0.0011	0.96	
[352]	mouse	perm / 28 d	WT vs cilp1 KO	Histo	↓	<0.05	0.61	②
[352]	mouse	perm / 28 d	WT vs cilp1 OE	Histo	↑	<0.05	0.86	②
[353]	mouse	30 min / 120 min	L2HGDH +/+ vs L2HDGH +/-	TTC	↓	<0.05	0.56	①
[353]	mouse	30 min / 120 min	L2HGDH +/+ vs L2HDGH -/-	TTC	↓	<0.001	1.00	①
[353]	mouse	30 min / 60 min	L2HGDH +/+ vs L2HDGH +/-	TTC	↓	<0.001	0.83	①
[353]	mouse	30 min / 60 min	L2HGDH +/+ vs L2HDGH -/-	TTC	↓	<0.001	1.00	①
[353]	mouse	30 min / 60 min	L2HGDH +/- vs L2HDGH -/-	TTC	↓	<0.001	1.00	①
[353]	mouse	30 min / 60 min	L2HGDH +/+ vs L2HDGH +/-	TTC	↓	<0.01	1.00	①
[353]	mouse	30 min / 60 min	L2HGDH +/+ vs L2HDGH -/-	TTC	↓	<0.05	1.00	①
[354]	mouse	30 min / 24 h	HSA vs rh mg53-WT (male db/db 8 wk)	TTC	↓	0.0057	0.60	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-S255A (male db/db 8 wk)	TTC	↓	0.0032	0.95	
[354]	mouse	30 min / 24 h	rh mg53-WT vs rh mg53-S255A (male db/db 8 wk)	TTC	↓	0.000012	0.68	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-WT (male db/db 12 wk)	TTC	→	n.s.	0.06	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-S255A (male db/db 12 wk)	TTC	↓	0.00023	0.97	
[354]	mouse	30 min / 24 h	rh mg53-WT vs rh mg53-S255A (male db/db 12 wk)	TTC	↓	0.0014	0.80	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-WT (female db/db 12 wk)	TTC	→	n.s.	0.06	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-S255A (female db/db 12 wk)	TTC	↓	0.023	0.70	
[354]	mouse	30 min / 24 h	rh mg53-WT vs rh mg53-S255A (female db/db 12 wk)	TTC	↓	0.00076	0.82	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-WT (mg53 KO)	TTC	↓	0.0091	0.64	
[354]	mouse	30 min / 24 h	HSA vs rh mg53-S255A (mg53 KO)	TTC	↓	0.00047	1.00	
[354]	mouse	30 min / 24 h	rh mg53-WT vs rh mg53-S255A (mg53 KO)	TTC	→	n.s.	0.10	
[355]	mouse	perm / 1 wk	WT vs Arrdc4 KO	TTC	↓	0.00024	0.54	
[356]	monkey	perm / 30 d	nc vs LV-MnmFMO2	MRI	↓	0.032	0.91	
[356]	rat	perm / 30 d	nc vs LV-MnmFMO2	Histo	↓	0.019	0.91	
[357]	mouse	perm / 8 wk	WT vs LAPR2 KO	Histo	↑	0.0014	0.87	
[357]	mouse	perm / 23 d	WT vs LAPR2 KO	Histo	↑	0.00076	0.99	
[357]	mouse	perm / 3 d	WT vs LAPR2 KO	TTC	↑	<0.001	1.00	
[358]	mouse	30 min / 120 min	con vs DSM isch	TTC	→	n.s.	0.09	
[358]	mouse	30 min / 120 min	con vs DSM rep	TTC	↓	0.0035	1.00	
[358]	mouse	30 min / 120 min	veh vs CsA	TTC	↓	0.0379	1.00	
[358]	mouse	30 min / 120 min	veh vs DSM	TTC	↓	0.0132	1.00	
[358]	mouse	30 min / 120 min	veh vs CsA+DSM	TTC	↓	0.000143	1.00	
[359]	mouse	30 min / 24 h	WT vs het PDE4B	TTC	→	n.s.	0.11	
[359]	mouse	30 min / 24 h	WT vs PDB4E KO	TTC	↓	0.029	0.88	
[359]	mouse	30 min / 24 h	rcp WT / don WT vs rcp WT / don KO	TTC	↓	0.033	0.72	
[359]	mouse	30 min / 24 h	rcp WT / don WT vs rcp KO / don KO	TTC	↓	0.00000011	1.00	
[359]	mouse	30 min / 24 h	rcp KO / don WT vs rcp KO / don KO	TTC	↓	0.0013	0.87	
[359]	mouse	30 min / 24 h	rcp WT / don KO vs rcp KO / don KO	TTC	↓	0.024	0.80	

[359]	mouse	30 min / 24 h	veh vs PICL 5 mg/kg	TTC	↓	0.00074	0.71	
[359]	mouse	30 min / 24 h	veh vs PICL 10 mg/kg	TTC	↓	0.034	0.94	
[360]	mouse	45 min / 24 h	WT vs CIRCIL OE	TTC	↑	0.0000085	1.00	
[360]	mouse	45 min / 24 h	WT vs CIRCIL KO	TTC	↓	0.0000013	0.98	
[360]	mouse	45 min / 24 h	WT vs CIRCIL OE	TTC	↑	0.000051	1.00	
[360]	mouse	45 min / 24 h	CIRCIL OE+KU70 vs CIRCIL OE+vector	TTC	↑	0.0000049	1.00	
[361]	mouse	60 min / 2 wk	con vs harmine	TTC	→	n.s.	0.18	①
[361]	mouse	60 min / 2 wk	con vs DYRK1a KO	TTC	→	n.s.	0.21	①
[362]	mouse	40 min / 24 h	sedentary vs exercise	TTC	↓	0.0012	1.00	
[362]	mouse	40 min / 24 h	exercise vs exercise+BAT ablation	TTC	↑	0.014	0.99	
[362]	mouse	40 min / 24 h	shRab27a#2+exercise sham vs shRab27a#2	TTC	↓	0.0000057	1.00	
[362]	mouse	40 min / 24 h	shRab27a#2 sedentary vs scramble exercise	TTC	↑	0.028	0.96	
[362]	mouse	40 min / 24 h	shRab27a#2 sedentary vs shRab26a#3 sedentary	TTC	↑	0.018	0.95	
[362]	mouse	40 min / 24 h	veh vs BATsEVs	TTC	↓	0.000000000097	1.00	
[362]	mouse	40 min / 24 h	sedentary NC vs exercise NC	TTC	↓	0.00019	1.00	
[362]	mouse	40 min / 24 h	exercise NC vs exercise antagomiRs	TTC	↑	0.0013	1.00	
[363]	mouse	30 min / 120 min	con vs LM22A-4	TTC	↓	0.0008	1.00	
[363]	mouse	30 min / 120 min	con vs LM22A-4 (myoBDNF KO)	TTC	↓	0.0012	1.00	
[363]	mouse	30 min / 120 min	WT vs myoBDNF KO	TTC	↑	0.0024	1.00	
[363]	mouse	30 min / 120 min	LM22A-4 WT vs LM22A-4 myoBDNF KO	TTC	↑	0.0012	1.00	
[363]	mouse	30 min / 120 min	con vs BRL37344 (WT)	TTC	↓	0.02	1.00	
[363]	mouse	30 min / 120 min	WT vs myoBDNF KO	TTC	↑	0.003	1.00	
[363]	mouse	30 min / 120 min	WT vs BRL37344+myoBDNF KO	TTC	↑	0.0024	1.00	
[363]	mouse	30 min / 120 min	BRL37344 WT vs BRL37344+myoBDNF KO	TTC	↑	0.0012	1.00	
[364]	mouse	perm / 28 d	WT vs ZBP1 KO	Histo	→	n.s.	0.07	
[365]	rat	perm / 28 d	PBS vs tropoelastin	Histo	↓	0.0001	1.00	②
[366]	rat	30 min / 120 min	PBS vs GSH 10mM	TTC	↓	0.0004	0.98	
[366]	rat	30 min / 120 min	PBS vs GSSG 10mM	TTC	↓	0.00051	1.00	
[366]	rat	30 min / 120 min	PBS vs Fer-1	TTC	↓	0.000024	0.99	
[366]	rat	30 min / 120 min	PBS vs delayed Fer-1	TTC	↓	0.023	0.42	
[366]	rat	30 min / 120 min	Fer1 vs delayed Fer-1	TTC	↑	0.00052	0.72	
[366]	rat	30 min / 120 min	PBS vs MK571	TTC	↓	0.0036	0.79	
[366]	rat	30 min / 120 min	PBS vs delayed MK571	TTC	↓	0.041	0.42	
[366]	rat	30 min / 120 min	PBS vs MK571+Fer-1	TTC	↓	0.035	0.77	
[366]	rat	30 min / 120 min	MK571 vs delayed MK571	TTC	↑	0.013	0.57	
[367]	mouse	45 min / 24 h	WT vs ucp1 -/-	TTC	↑	0.03	0.73	
[367]	mouse	45 min / 24 h	WT vs BAT	TTC	↓	0.04	0.69	
[367]	mouse	45 min / 24 h	sham vs WT BAT (Bmp3-/-)	TTC	↑	0.005	0.94	
[367]	mouse	45 min / 24 h	WT BAT (Bmp3-/-) vs BMP3-/- BAT (Bmp3-/-)	TTC	↓	0.00001	1.00	
[368]	mouse	30 min / 1 wk	lox vs Pf4D	TTC	↑	0.0017	0.97	②
[368]	mouse	30 min / 1 wk	Pf4D con vs Pf4D ticagrelor	TTC	↓	0.0244	1.00	②
[368]	mouse	30 min / 4 wk	lox vs Pf4D	TTC	↓	0.0082	1.00	②
[369]	pig	60 min / 28 d	veh vs nGFP-CM SMRTs	MRI	↓	0.00194	1.00	
[369]	pig	60 min / 28 d	veh vs CCND2-CM SMRTs	MRI	↓	0.00477	1.00	
[369]	mouse	perm min / 28d	veh vs L7Ae-modRNA	Histo	↓	0.0474	1.00	
[369]	mouse	perm min / 28d	veh vs CCND2-CM SMRTs	Histo	↓	0.00000355	1.00	
[369]	mouse	perm min / 28d	L7Ae-modRNA vs LUC-CM SMRTs	Histo	↓	0.00256	1.00	
[369]	mouse	perm min / 28d	LUC-CM SMRTs vs CCND2-CM SMRTS	Histo	↓	0.00144	1.00	
[370]	mouse	perm / 7 d	FAP+/+ vs FAP-/-	Histo	↓	0.043	0.94	②
[370]	mouse	perm / 7 d	veh vs FAPi (Nppb +/+)	Histo	↓	0.013	1.00	②
[370]	mouse	perm / 7 d	veh vs FAPi (Npr1 +/+)	Histo	→	n.s.	0.89	②
[370]	mouse	perm / 7 d	FAPi vs FAPi+Nppb +/+	Histo	↑	0.0046	0.95	②
[370]	mouse	perm / 7 d	FAPi vs FAPi Npr1 +/+	Histo	↑	0.00000058	1.00	②
[371]	mouse	45 min / 24 h	WT vs ASPP1 OE	TTC	↑	0.0000052	1.00	
[371]	mouse	45 min / 24 h	WT vs ASPP1 KO	TTC	↓	0.00000013	1.00	
[371]	mouse	45 min / 24 h	ASPP1 OE+AAV9-NC vs AAV9-shp53	TTC	↓	0.000000033	1.00	

↑ increased infarct size
↓ decreased infarct size
→ infarct size not changed
① endpoint for prospective power calculation other than infarct size
② endpoint for prospective power calculation not specified

* no n-values reported
gray shaded: studies without prospective power analysis and using the most reasonable infarct size endpoint
red shaded: studies with a prospective power analysis and using the most reasonable infarct size endpoint

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