SUPPLEMENTARY DATA

Influenza Virus-Induced Paracrine Cellular Senescence of the Lung Contributes to Enhanced Viral Load

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SUPPLEMENTARY DATA

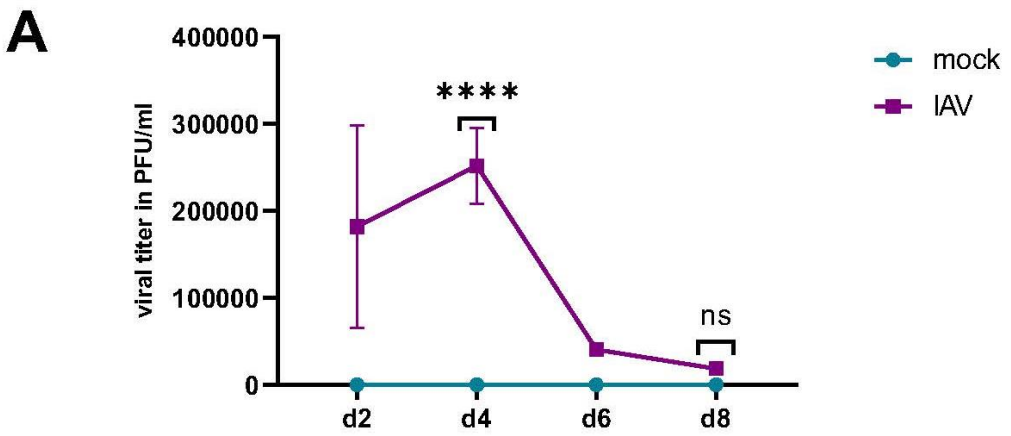
A

CATEGORY	OBSERVATION	GRADING
BODYWEIGHT	Not affected	0
	Reduction of 5 – 10 %	5
	Reduction of > 10 %	10
	Reduction of > 15 %	15
	Reduction of > 20 %, for max. 48 h	20
GENERAL CONDITION	Shiny and smooth fur, clean orifices, normal eating and drinking behavior, normal urination and defecation	0
	Bluff and scrubby fur, dingy eyes, malfunctioning eating and drinking behavior, problems with urination and defecation	5
	Clotted orifices, partially closed eyes, dehydration, abnormal posture	10
	Closed eyes	20
SPONTANEOUS BEHAVIOR	No conspicuous features (calm and attentive, normal social behavior)	0
	Slightly different (very calm, limited motor function)	5
	Strongly altered (isolation, expression of pain, stereotypies, problems with coordination)	10
	Automutilation	20

B

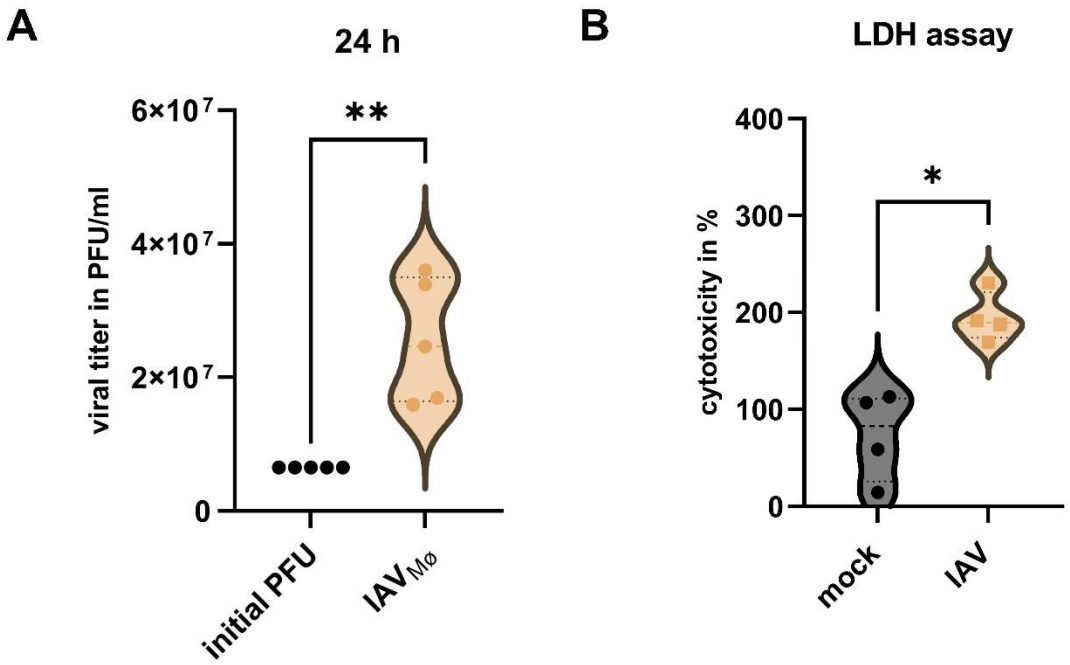
ID	CONDITION	PFU/ML
991	IAV 21 dpi	0
992	IAV 21 dpi	0
993	IAV 21 dpi	0
994	IAV 21 dpi	0
995	IAV 21 dpi	0
996	IAV 21 dpi	0
997	IAV 21 dpi	0
998	IAV 21 dpi	0
999	IAV 21 dpi	0
1006	IAV 21 dpi	0
1007	IAV 21 dpi	0
1008	IAV 21 dpi	0
1014	IAV 21 dpi	0
1015	IAV 21 dpi	0
1016	IAV 21 dpi	0
1017	IAV 21 dpi	0
1018	IAV 21 dpi	0
1019	IAV 21 dpi	0

Supplementary Figure 1. (A) IAV infection was performed in BALB/c mice for 21 d. Scoring system to evaluate the health of mice. (B) Virus particles determined using standard plaque assay of lung homogenates were not detectable on day 21 (N = 18).

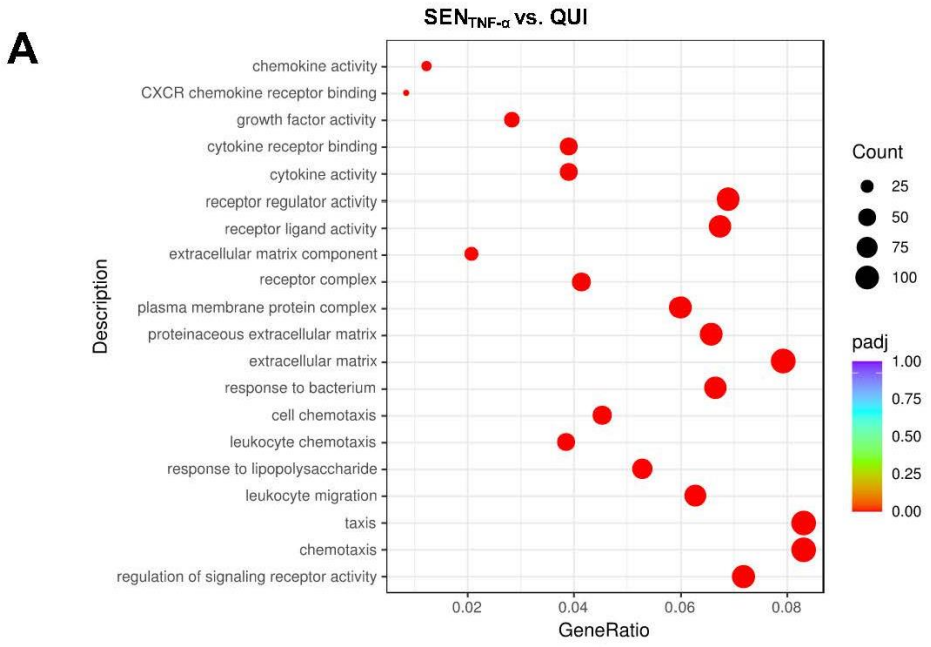


Supplementary Figure 2. (A) Ex vivo lung slices were infected with IAV for 8 d. Active virus particles determined with standard plaque assay were increased on day 4 (N = 4). Significance was calculated with Two-way ANOVA (ns $p > 0.05$; **** $p \leq 0.0001$).

SUPPLEMENTARY DATA

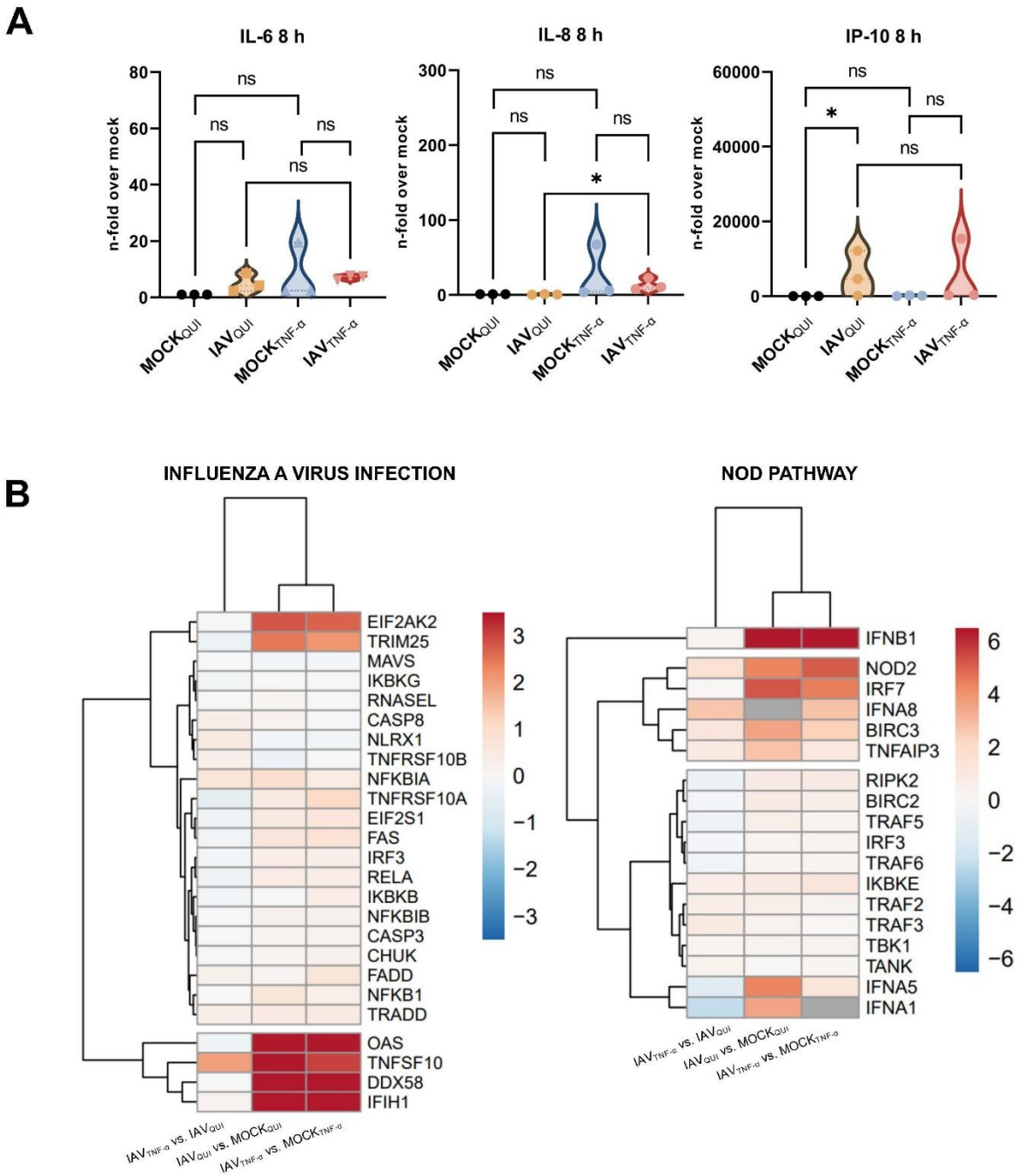


Supplementary Figure 3. (A) HMDM were infected with IAV for 24 h. Viral titer detected by standard plaque assay is significantly higher compared with the initial PFU (N = 5). Significance was calculated with the Mann-Whitney U test (** $p \leq 0.01$). (B) The infected hMDM showed significantly higher cell cytotoxicity (N = 4). Significance was calculated with the Mann-Whitney U test (* $p \leq 0.05$).



Supplementary Figure 4. (A) IMR-90s were treated with TNF-α for 10 d. The GO enrichment analysis of $SEN_{TNF-\alpha}$ in comparison to QUI demonstrated significant differences regarding extracellular matrix, chemotaxis, and regulation of signaling receptor activity.

SUPPLEMENTARY DATA



Supplementary Figure 5. (A) Senescent IMR-90s ($IAV_{TNF-\alpha}$) were infected with IAV for 8 h and 24 h. The mRNA level of IL-8 was significantly higher in $IAV_{TNF-\alpha}$ compared to IAV_{QUI} (N = 3). Significance was calculated with One-way ANOVA (ns $p > 0.05$; * $p \leq 0.05$). (B) Transcriptomic analysis of $IAV_{TNF-\alpha}$ and IAV_{QUI} after IAV infection. Individually expressed genes of influenza A virus infection and the NOD pathway are demonstrated in heatmaps. Gene expression in heatmaps over log2foldchange.

SUPPLEMENTARY DATA

Supplementary Table 1. Transcriptomic analysis of $SEN_{TNF-\alpha}$ and SEN_{DOXO} after 10 d of senescence induction. The Venn diagram (Figure 4 F) revealed 222 co-regulated genes between $SEN_{TNF-\alpha}$ and SEN_{DOXO}.

GENE	BIOTYPE	DESCRIPTION
GPR157	protein coding	G protein-coupled receptor 157
SNORA73B	snoRNA	small nucleolar RNA, H/ACA box 73B
ZFP69B	protein coding	ZFP69 zinc finger protein B
TCTEX1D4	protein coding	Tctex1 domain containing 4
LEPR	protein coding	leptin receptor
GNG12-AS1	antisense	GNG12 antisense RNA 1
MIR186	miRNA	microRNA 186
LRRC8C	protein coding	leucine rich repeat containing 8 VRAC subunit C
BTBD8	protein coding	BTB domain containing 8
ST7L	protein coding	suppression of tumorigenicity 7 like
MIR5087	miRNA	microRNA 5087
HIST2H2BC	transcribed unprocessed pseudogene	histone cluster 2 H2B family member c (pseudogene)
MPZ	protein coding	myelin protein zero
TGFB2-AS1	antisense	TGFB2 antisense RNA 1 (head to head)
AL118511.1	antisense	uncharacterized LOC101927604
B3GALNT2	protein coding	beta-1,3-N-acetylgalactosaminyltransferase 2
KCNS3	protein coding	potassium voltage-gated channel modifier subfamily S member 3
RMDN2	protein coding	regulator of microtubule dynamics 2
AC016727.1	antisense	novel transcript, antisense to XPO1
AC108479.1	processed pseudogene	WW domain binding protein 1 (WBP1) pseudogene
NPAS2	protein coding	neuronal PAS domain protein 2
AC017074.1	lincRNA	novel transcript
MBD5	protein coding	methyl-CpG binding domain protein 5
ZNF804A	protein coding	zinc finger protein 804A
AOX1	protein coding	aldehyde oxidase 1
PLEKHM3	protein coding	pleckstrin homology domain containing M3
ACKR3	protein coding	atypical chemokine receptor 3
MIR4442	miRNA	microRNA 4442
AC098614.1	transcribed processed pseudogene	tropomyosin 4 (TPM4) pseudogene
SUSD5	protein coding	sushi domain containing 5

SUPPLEMENTARY DATA

LINC00960	lincRNA	long intergenic non-protein coding RNA 960
CEP97	protein coding	centrosomal protein 97
QTRT2	protein coding	queuine tRNA-ribosyltransferase accessory subunit 2
RAB43	protein coding	RAB43, member RAS oncogene family
NCEH1	protein coding	neutral cholesterol ester hydrolase 1
LPP-AS2	antisense	LPP antisense RNA 2
NRROS	protein coding	negative regulator of reactive oxygen species
LMLN	protein coding	leishmanolysin like peptidase
RELL1	protein coding	RELT like 1
GABRA2	protein coding	gamma-aminobutyric acid type A receptor alpha2 subunit
LNX1	protein coding	ligand of numb-protein X 1
CEP135	protein coding	centrosomal protein 135
ADGRL3	protein coding	adhesion G protein-coupled receptor L3
CXCL10	protein coding	C-X-C motif chemokine ligand 10
BMP2K	protein coding	BMP2 inducible kinase
PAQR3	protein coding	progestin and adipoQ receptor family member 3
PRKG2	protein coding	protein kinase cGMP-dependent 2
HERC6	protein coding	HECT and RLD domain containing E3 ubiquitin protein ligase family member 6
TIFA	protein coding	TRAF interacting protein with forkhead associated domain
HSPA4L	protein coding	heat shock protein family A (Hsp70) member 4 like
RPL7AP28	processed pseudogene	ribosomal protein L7a pseudogene 28
NOCT	protein coding	nocturnin
AC093909.1	processed pseudogene	mitochondrial translational release factor 1-like (MTRF1L) pseudogene
MIR4458HG	lincRNA	MIR4458 host gene
DNAH5	protein coding	dynein axonemal heavy chain 5
RBBP4P1	processed pseudogene	RB binding protein 4 pseudogene 1
GDNF	protein coding	glial cell derived neurotrophic factor
GTF2H2B	transcribed unprocessed pseudogene	general transcription factor IIH subunit 2B (pseudogene)
ARHGEF28	protein coding	Rho guanine nucleotide exchange factor 28
DTWD2	protein coding	DTW domain containing 2
RF02038	miscellaneous RNA	
MFAP3	protein coding	microfibril associated protein 3
CYFIP2	protein coding	cytoplasmic FMR1 interacting protein 2

SUPPLEMENTARY DATA

AC008429.2	processed pseudogene	pyrophosphatase (inorganic) 1 (PPA1) pseudogene
EDN1	protein coding	endothelin 1
HIST1H2AI	protein coding	histone cluster 1 H2A family member i
ZSCAN12P1	transcribed unprocessed pseudogene	zinc finger and SCAN domain containing 12 pseudogene 1
UHRF1BP1	protein coding	UHRF1 binding protein 1
USP45	protein coding	ubiquitin specific peptidase 45
PRDM1	protein coding	PR/SET domain 1
MFSD4B	protein coding	major facilitator superfamily domain containing 4B
RNA5SP219	rRNA pseudogene	RNA, 5S ribosomal pseudogene 219
ULBP2	protein coding	UL16 binding protein 2
ULBP1	protein coding	UL16 binding protein 1
ULBP3	protein coding	UL16 binding protein 3
IL6	protein coding	interleukin 6
GTF2IP23	unprocessed pseudogene	general transcription factor IIi pseudogene 23
MIR590	miRNA	microRNA 590
RWDD4P1	processed pseudogene	RWD domain containing 4 pseudogene 1
ATXN7L1	protein coding	ataxin 7 like 1
WNT16	protein coding	Wnt family member 16
AC006148.2	lincRNA	novel transcript
AC004930.1	lincRNA	novel transcript
BX890604.2	lincRNA	novel transcript
MIR4767	miRNA	microRNA 4767
TBCAP1	processed pseudogene	tubulin folding cofactor A pseudogene 1
MID1IP1-AS1	antisense	MID1IP1 antisense RNA 1
CLCN5	protein coding	chloride voltage-gated channel 5
MIR6895	miRNA	microRNA 6895
PHKA1	protein coding	phosphorylase kinase regulatory subunit alpha 1
RBM41	protein coding	RNA binding motif protein 41
L1CAM	protein coding	L1 cell adhesion molecule
TMLHE	protein coding	trimethyllysine hydroxylase, epsilon
NAT1	protein coding	N-acetyltransferase 1
TNFRSF10C	protein coding	TNF receptor superfamily member 10c
TNFRSF10A	protein coding	TNF receptor superfamily member 10a

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DOCK5	protein coding	dedicator of cytokinesis 5
AC108449.2	sense intronic	novel transcript, sense intronic to HMBOX1
DUSP4	protein coding	dual specificity phosphatase 4
RAB11FIP1	protein coding	RAB11 family interacting protein 1
POMK	protein coding	protein-O-mannose kinase
MYBL1	protein coding	MYB proto-oncogene like 1
AC087752.3	sense intronic	novel transcript
C8orf31	processed transcript	chromosome 8 open reading frame 31 (putative)
GLIS3	protein coding	GLIS family zinc finger 3
PRUNE2	protein coding	prune homolog 2
TNFSF15	protein coding	TNF superfamily member 15
ASTN2	protein coding	astrotactin 2
AC080023.1	antisense	novel transcript
SOX6	protein coding	SRY-box 6
NCR3LG1	protein coding	natural killer cell cytotoxicity receptor 3 ligand 1
DNAJC24	protein coding	DnaJ heat shock protein family (Hsp40) member C24
AC087276.1	sense overlapping	novel transcript, sense overlapping TTC17
PTPRJ	protein coding	protein tyrosine phosphatase, receptor type J
BATF2	protein coding	basic leucine zipper ATF-like transcription factor 2
FAM86C1	protein coding	family with sequence similarity 86 member C1
ALG1L9P	transcribed unprocessed pseudogene	asparagine-linked glycosylation 1-like 9, pseudogene
RNF169	protein coding	ring finger protein 169
AP003119.2	antisense	uncharacterized LOC101928837
ACER3	protein coding	alkaline ceramidase 3
CCDC89	protein coding	coiled-coil domain containing 89
MMP10	protein coding	matrix metallopeptidase 10
ZC3H12C	protein coding	zinc finger CCCH-type containing 12C
USP6NL	protein coding	USP6 N-terminal like
NAMPTP1	processed pseudogene	nicotinamide phosphoribosyltransferase pseudogene 1
PANK1	protein coding	pantothenate kinase 1
EXOC6	protein coding	exocyst complex component 6
SLC35G1	protein coding	solute carrier family 35 member G1
PLEKHA1	protein coding	pleckstrin homology domain containing A1
ADAM12	protein coding	ADAM metallopeptidase domain 12

SUPPLEMENTARY DATA

AC010186.3	sense intronic	novel transcript
EIF2S3B	protein coding	eukaryotic translation initiation factor 2 subunit gamma B
FAM234B	protein coding	family with sequence similarity 234 member B
BHLHE41	protein coding	basic helix-loop-helix family member e41
FAR2	protein coding	fatty acyl-CoA reductase 2
SLC2A13	protein coding	solute carrier family 2 member 13
AMIGO2	protein coding	adhesion molecule with Ig like domain 2]
SCN8A	protein coding	sodium voltage-gated channel alpha subunit 8
TAC3	protein coding	tachykinin 3
RXYLT1	protein coding	ribitol xylosyltransferase 1
PABPC1P4	processed pseudogene	poly(A) binding protein cytoplasmic 1 pseudogene 4
RBMS1P1	processed pseudogene	RNA binding motif single stranded interacting protein 1 pseudogene 1
SLC35E3	protein coding	solute carrier family 35 member E3
LINC02407	lincRNA	long intergenic non-protein coding RNA 2407
NAV3	protein coding	neuron navigator 3
GIT2	protein coding	GIT ArfGAP 2
P2RX7	protein coding	purinergic receptor P2X 7
MPHOSPH9	protein coding	M-phase phosphoprotein 9
AL161421.1	antisense	novel transcript, antisense to FNDC3A
KLF5	protein coding	Kruppel like factor 5
SNORA79B	snoRNA	small nucleolar RNA, H/ACA box 79B
ARHGAP5	protein coding	Rho GTPase activating protein 5
RALGAPA1	protein coding	Ral GTPase activating protein catalytic alpha subunit 1
KLHL28	protein coding	kelch like family member 28
HIF1A-AS1	lincRNA	HIF1A antisense RNA 1
COQ6	protein coding	coenzyme Q6, monooxygenase
ENTPD5	protein coding	ectonucleoside triphosphate diphosphohydrolase 5
AL355102.5	antisense	novel transcript, antisense to BDKRB2
MIR377	miRNA	microRNA 377
NIPA1	protein coding	NIPA magnesium transporter 1
PWAR5	TEC	Prader Willi/Angelman region RNA 5
AC124312.2	lincRNA	novel transcript
TTBK2	protein coding	tau tubulin kinase 2
TMEM62	protein coding	transmembrane protein 62
DMXL2	protein coding	Dmx like 2

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PAQR5	protein coding	progestin and adipoQ receptor family member 5
SYNM	protein coding	synemin
MIR5587	miRNA	microRNA 5587
AC141586.1	transcribed unprocessed pseudogene	potassium channel tetramerization domain containing 5 pseudogene
ZNF597	protein coding	zinc finger protein 597
AC138969.1	unprocessed pseudogene	polycystic kidney disease 1 (autosomal dominant) (PKD1) pseudogene
CCP110	protein coding	centriolar coiled-coil protein 110
RAB43P1	processed pseudogene	RAB43 pseudogene 1
ARL2BP	protein coding	ADP ribosylation factor like GTPase 2 binding protein
CMTM1	protein coding	CKLF like MARVEL transmembrane domain containing 1
NFATC3	protein coding	nuclear factor of activated T cells 3
SLC7A6	protein coding	solute carrier family 7 member 6
TANGO6	protein coding	transport and golgi organization 6 homolog
NUDT7	protein coding	nudix hydrolase 7
CENPN	protein coding	centromere protein N
LINC01081	lincRNA	long intergenic non-protein coding RNA 1081
PITPNA-AS1	antisense	PITPNA antisense RNA 1
AC130689.1	processed pseudogene	succinate dehydrogenase complex, subunit C, integral membrane protein, 15kDa (SDHC) pseudogene
ZNF594	protein coding	zinc finger protein 594
UBE2SP1	processed pseudogene	ubiquitin conjugating enzyme E2 S pseudogene 1
RASD1	protein coding	ras related dexamethasone induced 1
TWF1P1	processed pseudogene	twinfilin 1 pseudogene 1
AC060780.2	processed pseudogene	ribosomal protein, large, P1 (RPLP1) pseudogene
TMEM106A	protein coding	transmembrane protein 106A
AC004596.1	antisense	novel transcript, antisense to ATXN7L3
AC068152.1	processed transcript	novel transcript
ERN1	protein coding	endoplasmic reticulum to nucleus signaling 1
PLEKHM1P1	transcribed unprocessed pseudogene	pleckstrin homology and RUN domain containing M1 pseudogene 1
SLC16A6	protein coding	solute carrier family 16 member 6
AC132938.3	antisense	novel transcript, antisense NARF
TYMSOS	bidirectional promoter lncRNA	TYMS opposite strand
AC090772.3	lincRNA	novel transcript
KCTD1	protein coding	potassium channel tetramerization domain containing 1

SUPPLEMENTARY DATA

GAREM1	protein coding	GRB2 associated regulator of MAPK1 subtype 1
RAB27B	protein coding	RAB27B, member RAS oncogene family
WDR7	protein coding	WD repeat domain 7
AC090409.1	lincRNA	novel transcript
RNF152	protein coding	ring finger protein 152
PIGN	protein coding	phosphatidylinositol glycan anchor biosynthesis class N
SRXN1	protein coding	sulfiredoxin 1
UBE2D3P1	processed pseudogene	ubiquitin conjugating enzyme E2 D3 pseudogene 1
MCM8	protein coding	minichromosome maintenance 8 homologous recombination repair factor
APCDD1L	protein coding	APC down-regulated 1 like
ZSWIM4	protein coding	zinc finger SWIM-type containing 4
MIR641	miRNA	microRNA 641
ZNF283	protein coding	zinc finger protein 283
ZNF155	protein coding	zinc finger protein 155
ZNF611	protein coding	zinc finger protein 611
ZNF702P	transcribed processed pseudogene	zinc finger protein 702, pseudogene
AC008735.4	antisense	novel transcript, antisense to ZNF865
ZNF543	protein coding	zinc finger protein 543
ZNRF3	protein coding	zinc and ring finger 3
OSBP2	protein coding	oxysterol binding protein 2
CCDC134	protein coding	coiled-coil domain containing 134
FP671120.4	lincRNA	novel transcript, similar to YY1 associated myogenesis RNA 1 YAM1
MEMO1P1	processed pseudogene	mediator of cell motility 1 pseudogene 1
TRAPPC10	protein coding	trafficking protein particle complex 10

SUPPLEMENTARY DATA

Supplementary Table 2. Listed are the experimental models, primers, antibodies, chemicals, proteins, kits, softwares and advices utilized in this paper

EXPERIMENTAL MODEL	DESCRIPTION	COMPANY	CATALOG
***in vitro* primary cell**	IMR-90 – normal human fetal lung fibroblast	Coriell Institute for Medical Research	I90-83
***in vitro* cell line**	Madin-Darby canine kidney (MDCK)	Institute of Medical Microbiology, Jena	N/A
***in vivo* model**	BALB/cJRj-wild-type mice	Janvier Labs	N/A
***ex vivo* model**	C57/bl6-wild type mice	University Hospital Jena	N/A
***in vitro* virus strain**	influenza A virus/IAV/H1N1/Puerto Rico/8/1934	Institute of Medical Microbiology, Jena	N/A
***in vivo* virus strain**	influenza A virus/IAV/H1N1/vi0084/2016	Institute of Medical Microbiology, Jena	N/A
***ex vivo* virus strain**	HA-G222-mpJena/5258	Institute of Medical Microbiology, Jena	N/A

PRIMER	SEQUENCE FORWARD	SEQUENCE REVERSE
β-Actin mouse	ATGGAGGGGAATACAGCCC	TTCTTTGCAGCTCCTTCGTT
CDKN2A mouse	AATCTCCGCGAGGAAAGC	GTCTGCAGCGGACTCCAT
CDKN1A mouse	TTGCCAGCAGAATAAAAGGTG	TTTGCTCCTGTGCGGAAC
MMP3 mouse	CGATGGACAGAGGATGTCAC	CAGCCTTGGCTGAGTGGT
Lamin B1 mouse	GGGAAGTTTATTTCGCTTGAAGA	ATCTCCCAGCCTCCCATT
β-Actin human	CATGTACGTTGCTATCCAGGC	CTCCTTAATGTCACGCACGAT
CDKN2A human	GAGCAGCATGGAGCCTTC	CGTAACTATTCGGTGCGTTG
CDKN1A human	TCACTGTCTTGTACCCTTGTGC	GGCGTTTGGAGTGGTAGAAA
MMP3 human	CAAAACATATTTCTTGTAGAGGACAA	TTCAGCTATTTGCTTGGGAAA
Lamin B1 human	TTGGATGCTCTTGGGGTTC	AAGCAGCTGGAGTGGTTGTT
IL-6 human	AATTCGGTACATCCTCGACGG	GGTTGTTTTCTGCCAGTGCC
IP-10 human	CCAGAATCGAAGGCCATCAA	TTTCCTTGCTAACTGCTTTCAG
IL-8 human	ATGACTTCCAAGCTGGCCGTGGCT	TCTCAGCCCTCTTCAAAAACTTCT

ANTIBODY	DESCRIPTION	COMPANY	CATALOG
p16	p16INK4a Polyclonal Antibody	Thermo Fisher Scientific	PA5-20379
p21	p21 (WAF1, Cip1) Polyclonal Antibody	Thermo Fisher Scientific	14-6715-81
DPP4	CD26 Recombinant Rabbit Monoclonal Antibody (JM11-42)	Thermo Fisher Scientific	MA5-32643
phalloidin	BODIPY™ 558/568 Phalloidin	Thermo Fisher Scientific	B3475
secondary p16, p21, DPP4	Alexa Fluor® 488 AffiniPure Donkey Anti-Rabbit IgG (H+L)	Jackson Immuno Research	711-545-152
isotype control	Rabbit (DA1E) mAb IgG XP® Isotype Control	Cell Signaling	3900
IAV nucleoprotein	Anti-H1N1 Influenza A virus Nucleocapsid protein antibody	Abcam	ab104870
CD68	CD68 Monoclonal Antibody (KP1)	Thermo Fisher Scientific	14-0688-82
secondary IAV nucleoprotein	Alexa Fluor® 488 AffiniPure Donkey Anti-Rabbit IgG (H+L)	Jackson Immuno Research	711-545-152
secondary CD68	Cy™3 AffiniPure Donkey Anti-Mouse IgG (H+L)	Jackson Immuno Research	715-165-150
DPP4	DPP4/CD26 (D6D8K) Rabbit mAb	Cell Signaling	67138S
p21	p21 Waf1/Cip1 (12D1) Rabbit mAb	Cell Signaling	2947S
ß-Actin	Monoclonal Anti-ß-Actin antibody produced in mouse	Sigma Aldrich	A2228-100UL
HRP DPP4, p21	Goat Anti-Rabbit IgG (H+L)-HRP Conjugate	Biorad	172-1019
HRP ß-Actin	Goat Anti-Mouse IgG (H+L)-HRP Conjugate	Biorad	172-1011
IAV nucleoprotein	Anti-H1N1 Influenza A virus Nucleocapsid protein antibody	Abcam	ab104870

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phalloidin	Alexa Fluor™ Plus 647 Phalloidin	Thermo Fisher Scientific	A30107
secondary IAV nucleoprotein	Cy3-conjugated AffiniPure Donkey Anti-Rabbit IgG (H+L)	Jackson Immuno Research	711-165-152
nuclei	DAPI Fluoromount-G®	Southern Biotech	0100-20

CHEMICAL, PROTEIN	DESCRIPTION	COMPANY	CATALOG
10x MEM	MEM (10X) Minimum Essential Medium	Thermo Fisher Scientific	21430020
Agar	Oxoid Purified Agar	Thermo Fisher Scientific	LP0028B
Agarose	Agarose (4 %)	Thermo Fisher Scientific	18300012
Albumin	Albumine solution 30 %	Roth	9401.3
$CaCl_2$	Calcium chloride	Sigma Aldrich	746495-100G
DAPI	DAPI Fluoromount-G®	Southern Biotech	0100-20
Dextran	DEAE Dextran	Roth	4198.2
DMEM	Dulbecco's Modified Eagle's Medium	Sigma Aldrich	D6429
DMEM/F-12	DMEM/F-12, no phenol red	Thermo Fisher Scientific	21041025
DMEM/F-12 GlutaMAX	DMEM/F-12, GlutaMAX™ Supplement	Thermo Fisher Scientific	31331093
Doxorubicin	Doxorubicin hydrochloride	TOCRIS	2252
DPBS	DPBS, no calcium, no magnesium	Thermo Fisher Scientific	14190-169
EMEM	Minimum Essential Medium Eagle	Sigma Aldrich	M4655-500ML
FBS	FBS standard, South America origin, fetal bovene serum	Pan Biotech	P30-3306
Formaldehyd	Formaldehyd solution	Sigma Aldrich	252549-25ML
HEPES	HEPES (1M)	Thermo Fisher Scientific	15630056
Histopaque	Histopaque®-1077	Sigma Aldrich	10771-500ML
HRP substrate	Immobilon Western HRP-Substrate	Merck Millipore	WBKLS0500
HSA	Human Serum Albumin (HSA), 20 % Solution, Premium Grade	Pan Biotech	P06-27500
M1-Macrophage Generation Medium	M1-Macrophage Generation Medium DXF	PromoCell	C-28055
$MgCl_2$	Magnesium chloride	Sigma Aldrich	8147330100
Monocyte Attachment Medium	Monocyte Attachment Medium	PromoCell	C-28051
Neutral red	Neutral red staining	Sigma Aldrich	N4638-5G
Penicillin/Streptomycin	Penicillin-Streptomycin Mixture	Lonza	DE17-602E
PVDF	PVDF Transfer Membrane	Thermo Fisher Scientific	88518
RIPA buffer	RIPA-Lyse- und Extraktionspuffer	Thermo Fisher Scientific	89900
RPMI	RPMI 1640 Medium, GlutaMAX™ Supplement	Thermo Fisher Scientific	61870044
TNF-alpha human	Human TNF-alpha Recombinant Protein	Thermo Fisher Scientific	PHC3011
TNF-alpha murine	Recombinant murine Tumor Necrosis Factor-alpha (rm TNF-alpha)	ImmunoTools	12343016
Triton X	Triton X 100	Roth	3051.2
Trypsin	Trypsin, TPCK Treated	Thermo Fisher Scientific	20233

KIT	COMPANY	CATALOG
CyQUANT™ LDH Cytotoxicity Assay	Thermo Fisher Scientific	C20300
High-Capacity cDNA Reverse Transcription Kit	Thermo Fisher Scientific	4368813
LEGENDplex™ Human Inflammation Panel 1 (13-plex) with Filter Plate	Biolegend	740808
LEGENDplex™ Human Macrophage/Microglia Panel (13-plex) with Filter Plate	Biolegend	740502
LEGENDplex™ Mouse Anti-Virus Response Panel (13plex) with Filter Plate	Biolegend	740621
Maxima SYBR Green qPCR Master Mix (2X), with separate ROX vial	Thermo Fisher Scientific	K0253
Pierce™ BCA Protein Assay Kit	Thermo Fisher Scientific	23227
RNeasy Mini QIAcube Kit (240)	Qiagen	74116
RNeasy Plus Micro Kit	Qiagen	74034
Senescence Detection Kit	Biovision	K320

SOFTWARE	COMPANY	SOURCE
Biorender	Biorender	https://biorender.com/
GraphPad Prism Version 9	Graphpad	https://www.graphpad.com/
Legendplex Data Analysis Software Version 8	biolegend	https://www.biolegend.com/

SUPPLEMENTARY DATA

R	R Foundation for Statistical Computing	https://www.R-project.org/
ZEN 2 (blue edition)	Carl Zeiss	https://www.zeiss.com/

ADVICE	DESCRIPTION	COMPANY
Accuri C6 Plus Cytometer	flow cytometer	BD Biosciences
AxioObserver Z.1+Apotome 2	microscope	Zeiss
FusionFX	chemiluminescence imaging	Vilber
Leica CM1950	cryostat	Leica
Leica VT1200 S	vibratome	Leica
NanoDrop spectrophotometer ND-1000	spectrophotometer	Peqlab/VWR
Qubit 4	fluorometer	Thermo Fisher Scientific