Open Science Abbreviations

General Abbreviations

This is a valuable site when looking up any NASA-specific acronyms: https://www9.jsc.nasa.gov/AcronymCentral/scripts/index.cfm

Abbreviation	Definition
OSDR	Open Science Data Repository
BDME	Biological Data Management Environment
GL	GeneLab
GLDS	GeneLab Data Systems
ALSDA	Ames Life Sciences Data Archive
NBISC	NASA Biological Institutional Scientific Collection
RDSA	Research Data Submission Agreement
LSDS	

Data Systems Abbreviations

Abbreviation	Definition
MVP	Minimum Viable Product

Sample Abbreviations

Abbreviation	Definition
FLT	spaceflight
GC	ground control for a spaceflight experiment - mimics the environmental conditions, timeline, and equipment used for the spaceflight samples
VIV	vivarium control for a spaceflight experiment - same timeline and subjects as the spaceflight experiment but housed under standard laboratory conditions
BSL	baseline (or basal) control for a spaceflight experiment - subjects from the same cohort as a spaceflight experiment that are processed at the start of a spaceflight experiment to establish the initial condition of the experimental subjects
pFLT	parabolic flight
pGC	ground control for parabolic flight (i.e. samples were grown/processed in the same equipment as those in the pFLT groups)
soFLT	suborbital ballistic rocket flight
soGC	ground control for suborbital ballistic rocket flight (i.e. samples were grown/processed in the same equipment as those in the soFLT groups)
CTRL	control group for a space-relevant (but NOT spaceflight) experiment
HLU	hind limb unloading (aka hindlimb suspension)
RL	re-loaded - subjects re-exposed to limb/body loading
HLLC	hind limb loaded control
TRHLLC	tail restrained hind limb loaded control
uG	microgravity
HG	hypergravity http://bioportal.bioontology.org/ontologies/MESH?p=classes&conceptid=D018471
1G	1x gravity
2G	2x gravity

act	activated
nonact	non-activated
Tcells	T cells
Dmel	Drosophila melanogaster
Can-S	Canton-Special (strain of Drosophila melanogaster)
Ecol	Escherichia coli
Bbas	Beauveria bassiana
infdw	infected with
uninfd	uninfected
sham-infd	sham infected, treated similarly to the infected group but administered a control solution that does not contain an infectious agent (i.e. treated with PBS, water, etc.)
Atha	Arabidopsis thaliana
Brap	*Brassica rapa*
nipp	*nipposinica* (variant of *Brassica rapa)*
Etsl	Etiolated seedlings - after further review I think "etiolation" should be made into standalone factor Kristen here - etiolation is a condition of a sample we deal with differently now.
UdCC	undifferentiated cell culture
BA1	BRIC A PDFU-1
BA2	BRIC A PDFU-2
BA3	BRIC A PDFU-3
BA4	BRIC A PDFU-4
BA5	BRIC A PDFU-5
BB2	BRIC B PDFU-2
BB3	BRIC B PDFU-3
BB4	BRIC B PDFU-4
BB5	BRIC B PDFU-5
BG1	BRIC G PDFU-1
BG2	BRIC G PDFU-2
BG3	BRIC G PDFU-3
WT	wild-type
MUT	mutant
wo	whole organism
ADR	Adrenal Glands
AT	Adipose Tissue
BAT	Brown Adipose Tissue
BRN	Brain
Cb	Cerebellum
CLN	Colon
DSKN	Dorsal Skin
EDL	Extensor Digitorum Longus
eWAT	Epididymal White Adipose Tissue
EYE	Eye

FCS	Feces
FSKN	Femoral Skin
GST	Gastrocnemius
HPC	Hippocampus
iBAT	Intrascapular Brown Adipose Tissue
iWAT	Inginal White Adipose Tissue
KDN	Kidney
LD	Longissimus Dorsi Muscle
Lg-INT	Large Intestines
LNG	Lung
LVR	Liver
HRT	Heart
INT	Intestines
MG	Mammary Gland
OVY	Ovary or Ovaries
Quad	Quadricep
RTN	Retina
SKN	Skin
SLS	Soleus
SM	Skeletal Muscle
SPL	Spleen
TA	Tibialis Anterior
TES	Testis or Testes
TMS	Thymus
TNG	Tongue
WAT	White Adipose Tissue
RR	Rodent Research
MHU	Mouse Habitat Unit (JAXA mouse habitat unit)
FS	Freezing Study
JAXA	Japan Aerospace Exploration Agency
CC	Cohort Control
C#	Cohort Number
LAR	Live Animal Return
ISS-T	ISS Terminal Animal
NuRFB	Nutrient Upgraded Rodent Food Bar
IR	Irradiation
BSP	Biospecimen Sharing Program
LSDA	Life Science Data Archive
ALSDA	Ames Life Science Data Archive
ACF	Animal Care Facility
LLU	Loma Linda University

KSC	Kennedy Space Center
RNA	Ribonucleic acid
DNA	Deoxyribonucleic acid
PRT	Protein
ALQ	Aliquot
LN2	Liquid nitrogen
RNAlat	RNA later
RIN	RNA integrity number
DIN	DNA integrity number
MIX1	ERCC Spike In mix 1
MIX2	ERCC Spike In mix 2
BLD	Blood - we may want to revisit this - Whole Blood (WB), White Blood Cells (WBCs), Red Blood Cells (RBCs)
WB	whole blood
WBCs	White Blood Cells
RBCs	Red Blood Cells
leu	Leukocytes
L	Left
Lg	Large
R	Right
D	Dorsal
V	Ventral
F	Femoral
OD	Optical Density
URR	Universal Reference RNA
UHRR	Universal Human Reference RNA
UMRR	Universal Mouse Reference RNA
Gspe	Genus species
C57-6J	C57BL/6 mouse from Jackson Labs
OR	Oregon R (Fruit Fly strain)
act2-3	Arabidopisis thaliana vegetative actin mutant
Col-0	Arabidopsis thaliana Columbia-0 ecotype
C57-10J	C57BL/10J mouse from Jackson Labs
Ler-0	Landsberg ecotype
sShoots	seedling shoots - will probably change. describes development AND anatomy. will review in JIRA process Amanda M. Saravia-butler
C57-6IBCh	C57BL/6 mouse from Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russia
C57-6T	C57BL/6 mouse from Taconic Biosciences
I	dissected immediately after euthanasia
C	dissected from frozen carcass
ARG1-KO	A. thaliana Col-0 knock-out line deficient in the gene encoding Altered response to gravity-1
JkTcells	Jurkat T cells
C57-6CR	C57BL/6 mouse from Charles River

os-ind	osteo-induced
not-ind	not induced
BMSC	Bone Marrow Stromal Cells
MSCs	Mesenchymal Stem Cells
EMF	treated with electromagnetic fields
suG	simulated microgravity
LDC	Large Diameter Centrifuge
RPoM	Random Positioning Machine
ML	Magnetic Levitator
do	days old
yo	years old
C	Celsius
oLDC	outside the Large Diameter Centrifuge
oRPoM	outside the Random Positioning Machine
oML	outside the Magnetic Levitator
YR	Gamma Radiation
HZE	High (H) Charge (Z) and Energy (E) HZE ionizing radiation
ATM1	mutant defective in the DSB-sensing protein kinase ATM
Gy	Gray
sl	seedling
sl-pool	pool of 2 or more whole seedlings
lvCMC	left ventricular cardiomyocytes
MCL	medial collateral ligament
Rnor	Rattus norvegicus
Sx	surgery
noSx	no surgery
shamSx	sham surgery
bildisMCL	bilateral disruption of the medial collateral ligament
lpup	late pupae - may want to revisit. combining time/development and organism part
dT	delta (change in) Temperature
NOdT	no change in Temperature
ltdO2	limited Oxygen
normO2	normal Oxygen levels
Ws-0	Wassilewskija-0 (Arabidopsis thaliana) ecotype, species variant 391
Ws-2	Wassilewskija-2 (Arabidopsis thaliana) ecotype, species variant 393
Ws	Wassilewskija (Arabidopsis thaliana) ecotype, species variant 382
Cvi-0	Cape Verde Islands - 0 (Arabidopsis thaliana) ecotype, species variant 98
suppO2	supplemented with Oxygen
kPa	kilopascals
Hml-Gal4-UAS-GFP	Hemolectin-GAL4 crossed with UAS-GFP to make a transgenic line in Dmel

TKSC	Tsukuba Space Center (JAXA)
N2	Bristol N2 (C.elegans strain)
Clinorotation	Clinorotation
ISS	International Space Station
RWV	Rotating Wall Vessel
2T3cells	osteoblast cell line 2T3
LS292	C.elegans strain representing a dys1(cx18) mutant
HF	Hair Follicles
inFLT	in spaceflight (describes condition in which sample was collected)
preFLT	pre spaceflight (describes condition in which sample was collected)
postFLT	post spaceflight (describes condition in which sample was collected)
BAL-SL	BALB/c mouse from Simonsen Labs
BAL-JL	BALB/c mouse from Jackson Laboratory
BAL-TAL	BALB/c mouse from Taconic Animal Laboratory
4T1-Tumor	Flank tumor derived from the 4T1 murine mammary carcinoma cell line that was generated from a BALB/cfC3H mouse
1D11	Antibody that binds to TGFB and thus inhibits function
IsoCTRL	Isotype control - primary antibodies that lack specificity to the target, but match the class and type of the primary antibody used in the application
TGFB-Het	TGFBeta-Heterozygote
Sham	type of control sample
post-Sham	describes sample post sham
post-IR	describes sample post irradiation
wk	week (Time)
LCL	Lymphoblastoid Cell Line Amanda M. Saravia-butler i have a dataset we could test this on. Lets revisit this one
GM15036	Lymphoblastoid Cell Line GM15036
GM15510	Lymphoblastoid Cell Line GM15510
RCCS	Rotary Cell Culture System
RAW2647cells	RAW 264.7 cell line
TK6cells	TK6 Lymphoblast Cell Line
cax1-1	describes cax1-1 transgenic line of Arabidopsis thaliana
SDR	Sprague Dawley Rats (for general use when source is not available Amanda M. Saravia-butler)
SDR-TF	Sprague Dawley Rats from Taconic Farms
56Fe	Iron isotope
C3H-He-Slc	C3H/He mice from Japan Slc, Inc.
C57-6J-Jms-Slc	C57BL/6J Jms mice from Japan Slc, Inc.
AJ-Jms-Slc	A/J Jms mice from Japan Slc, Inc
h	hour (Time)
Cs137	Caesium-137 isotope
Epi200MT	3-dimensional tissue model of human epidermis, MatTek Corporation, Ashland, MA
SMK	Smoker - not to be confused with Super Mario Kart
nSMK	non-Smoker

um	micrometer
tumor	tumor
MCF10Acells	MCF10A cells - human mammary epithelial cells
TGFB	Tumor Growth Factor Beta
X-ray	X-ray irradiation
Preg	Pregnant
Lac	Lactating
Hi-LET	High Linear Energy Transfer
Si	Silicon isotope
C3H-HeJ	C3H Heston mouse from Jackson Labs (aka C3H/HeJ)
d	day (time)
K-12MG1655	strain (of E. coli) K-12 MG1655
HBF	hyper-buoyancy flotation (used for bed-rest study)
VL	vastus lateralis
Rep	replicate
Hsap	Homo sapiens
Mmus	Mus musculus
shamIR	mock irradiation (i.e. subject to irradiation equipment but not exposed to irradiation)
HUVEC	Cells derived from the endothelium of veins from the umbilical cord
Scer	Saccharomyces cerevisiae
BY4742	Strain of Saccharomyces cerevisiae
BY4742_FLO1	S. cerevisiae strain BY4742 over-expressing the FLO1 member of the Flo adhesin protein family
BY4742_FLO8	S. cerevisiae strain BY4742 over-expressing the FLO8 member of the Flo adhesin protein family
Cele	Caenorhabditis elegans
BMCs	bone marrow cells
BM	bone marrow
Euth	Euthasol
DI	Dry Ice
Ket-Xyl	Ketamine/Xylazine
ext1	RNA was extracted the same day organs were dissected from frozen carcasses
ext2	Organs were dissected from frozen carcasses, flash frozen in (l)N2 and stored at -80C then RNA was extracted on a later date
Lminus	Launch minus (usually followed by a time frame, for example Lminus30d means 30 days before launch)
Lplus	Launch plus (usually followed by a time frame, for example Lplus30d means 30 days after launch)
Rminus	Return minus (usually followed by a time frame, for example Rminus30d means 30 days before return to earth)
Rplus	Return plus (usually followed by a time frame, for example Rplus30d means 30 days after return to earth)
CO2	Carbon Dioxide
RLT	RNeasy Lysis Buffer
IRC	Irradiation Control - No mock IR was performed, i.e. subjects were not exposed to IR nor an IR set-up
F#	mouse number from a spaceflight group
G#	mouse number from a ground control group
B#	mouse number from a basal group

V#	mouse number from a vivarium group
R1	Forward Read
R2	Reverse Read
JC	JAXA Chow
JCwFOS	JAXA Chow fortified with fructooligosaccharides (FOS)
Alight	specimen grown in Ambient light
dark	specimen grown in darkness
Col-0-PhyD	Columbia ecotype with a mutation in phytochrome D (PhyD)
mon	month
y	year(s)
SP	spleen pool - spleens from 2 or more animals pooled together to make one sample
ss-tissues	tissues that underwent size selection during library prep (after extraction)
tissues	more than 1 tissue from 1 animal was pooled
MCC	MidiCAR centrifuge
MgSO4	magnesium sulfate
min	minute
Rotation	rotation
Hypocotyl	hypocotyl
HypocotylCC	Hypocotyl cell culture (a cell culture derived from the hypocotyl part of the plant)
PBLD	Peripheral Blood
In-FLT-CTRL	In-flight Control
PC	pipette centrifuge
Olat	Oryzias latipes
TGFP-ODsRed	Oryzias latipes (Japanese medaka) F1 fish of two closed colonies; Japanese medaka wild type Cab and Cab strain transgenic fish (TRAP:GFP, Osterix:DsRed)
NCTC-86	strain (of E. coli) NCTC 86; ATCC 4157
ug-mL	concentration in micrograms per milliliter
Smut	Streptococcus mutans
ITS	internal transcribed spacer
Paer	Pseudomonas aeruginosa
RWV-V	Rotating Wall Vessel in veritical direction
RWV-H	Rotating Wall Vessel in horizontal direction
PA01	PAO1 strain - Pseudomonas aeruginosa
HMVEC-dBL	Human dermal microvascular endothelial cells
LPS	lipopolysaccharide
S-UHRR	Stratagene Universal Human Reference RNA
PTN-OSF1	transgenic mice overexpressing the osteogneic factor PTN/OSF1
cells	material type - cell line
DLD-1	DLD-1 cells epithelial, adherent cell line derived from a colorectal adenocarcinoma (Dukes type C)
MOLT-4	MOLT-4 cell line T lymphoblast, suspension cell line derived from an acute lymphoblastic leukemia
IMR90iPSCs	induced pluripotent stem cells derived from the IMR90 human cell line

CPCs	Cardiac progenitor cells
PhaB	Pharyngeal Bones
Cab	wild type Cab strain of Oryzias latipes (Japanese medaka fish)
LC	Laboratory control - may refer to a control group or groups grown under standard laboratory conditions and processed to test an aspect(s) of spaceflight experimental parameters
TLCs	T lymphocyte cells
cGy	centigray
168	Strain of Bacillus subtilis
PBMCs	peripheral blood mononuclear cells
pip2Dclino	2D pipette clinostat
pipcent	pipette centrifuge
ALLCL	acute lymphoblastic leukemia cell line
CRCCL	colorectal cancer cell line
GF	Glovebox Freezer
CyroC	Cyrochiller
WCar	Whole Carcass (i.e. the sample was extracted from an intact carcass)
PCar	Partial Carcass (i.e. the samples was extracted from a carcass that had one or more part(s) removed)
Esco	Euprymna scolopes
aposym	aposymbiotic
sym	symbiotic
HARV	high-aspect-ratio rotating wall vessel bioreactors
LO	Light Organ
UAMS-1	Strain of Staphylococcus aureus
Saur	Staphylococcus aureus
Mmar	Mycobacterium marinum
LHM4	Strain of Mycobacterium marinum
InsP-5-ptase	transgenic Arabidopsis thaliana (Columbia-0) plants constitutively express the mammalian type I inositol polyphosphate 5-phosphatase (InsP 5-ptase)
LLC	Lewis lung carcinoma
LLCtumor	Tumor derived from Lewis lung carcinoma cells
LLCcells	Lewis lung carcinoma cells
Trp53N-MG	Trp53 null mammary gland
B6. 129S2KrasLA1	B6.129S2-$Kras^{tm2Tyj}$/Nci Mouse strain - This strain carries a targeted latent 'hit-and-run' K-ras allele that can be activated by an in vivo spontaneous recombination event ('run'). One half of the in vivo recombination events result in a normal K-ras allele and one half in an activated allele (K-rasG12D).
Trp53N-MGT	Trp53 null mammary gland tumor
Drer	Danio rerio
PBLs	peripheral blood lymphocytes
AG01522	human fibroblasts AG01522 cells
ble	bleomycin
FBC	fibroblasts cells
Low-LET	Low Linear Energy Transfer

C57-6	C57BL/6 mouse from an unknown origin
cls	plant callus
T	tesla (magnetic field unit)
MM2d	Arabidopsis thaliana MM2d cell line
Bsub	Bacillus subtilis
S288C	strain of Saccharomyces cerevisiae
HIR	Heavy Ion Radiation
TNR	Thermal Neutron Radiation
FNR	Fast Neutron Radiation
HSFA2-KO	a knockout Arabidopsis thaliana line deficient in the gene encoding HSFA2
AB	Strain of Danio rerio
WN624	Strain of Bacillus subtilis
WN1106	Strain of Bacillus subtilis
HEBC3KT	a human bronchial epithelial cell line
28Si	Si 28 isotope
Zone-I	region of root apex: 0.5 mm, root cap and meristematic zone
Zone-II	region of root apex: 1.5 mm, transition, elongation and growth terminating zone
Node3	node 3 of ISS
AHSFS	air handling system filter screen of ISS
SIEV	sieved
Batr	*Bacillus atrophaeus*
blank	no DNA or RNA added to extraction kit
PAS	passive aerosol sample
HBECs	human bronchial epithelial cells
2D	cells grown in 2D condition
3D	cells grown in 3D condition
TT	tetanus toxoid (treatment with tetanus toxoid)
noTT	tetanus toxoid control (animals were not treated with tetanus toxoid, just the solution used to dilute the tetanus toxoid)
ODNCpG	adjuvant treatment of a synthetic oligodeoxynucleotide (ODN) containing unmethylated CpG motifs (CpG)
noODNCpG	adjuvant treatment control (animals were not treated with ODNCpG, just the solution used to dilute the ODNCpG)
AG1522	a normal human foreskin fibroblast cell line
HT1080	a human fibrosarcoma cell line
RAD51	RAD51 gene
G1	G1 phase of cell cycle
G2	G2 phase of cell cycle
Asyn	Asynchronous cells, cells in various phases of cell cycle
FirstSet	first set of animals (or samples) processed/preserved in a given day of operations
SecondSet	second set of animals (or samples) processed/preserved in a given day of operations
ThirdSet	third set of animals (or samples) processed/preserved in a given day of operations
FourthSet	fourth set of animals (or samples) processed/preserved in a given day of operations
CTRLSet	control set of animals (or samples) processed/preserved in a given day of operations

Styp	Salmonella typhimurium
SL1344	Salmonella enterica subsp. enterica serovar Typhimurium strain SL1344
dhfq	isogenic hfq deletion mutant
HT-29	human colorectal adenocarcinoma cell line with epithelial morphology
U937	human macrophage cell line established from a diffuse histiocytic lymphoma
3DCoC	3D co-culture model
LoopG	Loop Genomics
w1118	strain of Drosophila melanogaster
16S	16S rRNA gene
DFVS	dust filter of ventilation system
VAC	vacuum
INCd	incubated
arch	archaea
uni	universal
M#	mouse number
S#	subject number
scWim	sample collected while inside module
scAem	sample collected after exiting module
scBem	sample collected before entering module
SKF	ion channel inhibitor SKF-96365
HRremoved	Human Reads removed
Heat	samples treated with heat
noHeat	samples not treated with head
Anox	Anoxia (oxygen deprived)
noAnox	not Anoxia (not oxygen deprived)
mid-age	middle-age
C57-6NIA	C57BL/6 mouse from National Institute of Aging
CUMS	chronic unpredictable mild stressors
Eves	Eruca vesicaria
CAAT	Controlled Artificial Ageing Treatment
cop1	cop1 gene
uvr8	uvr8 gene
PWB	partial weight bearing, as with a harness to reduce loading on all limbs - usually followed by a value for the % of loading. Ex: PWB40 = 40% of normal loading; PWB100 = 100% of loading (or loading control)
FEM	femur
TRIB	triceps brachii
CVA	calvaria