

## **Leveraging metatranscriptomics for the characterisation of bovine blood viromes**

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Table S1- Sample processing of published sequences:

Bioproject	Title	Animal and collection	Sample processing	Extraction	Library Preparation	Sequencing
PRJNA616134	Gene expression of the heat stress response in bovine peripheral white blood cells and milk somatic cells in vivo	Data from 12 non-pregnant multiparous Holstein Fresian cows	Centrifuged at 4C, fractionation and WBC stabilization- stored in RNAlater	RiboPuer Blood Kit (Ambion)	SureSelect Strand Specific RNA Library Prep Kit (Agilent) mRNA	HiSeq 3000 (Illumina Inc) in a 150-cycle paired-end run
PRJNA616134 PRJNA917329 PRJNA305942 PRJNA392196	Gene expression and RNA splicing explain large proportions of the heritability for complex traits in cattle	382 lactating (Holstein and Jersey)	Centrifuged at 4C, fractionation and WBC stabilization- stored in RNAlater	RiboPuer Blood Kit (Ambion)	SureSelect Strand Specific RNA Library Prep Kit (Agilent) mRNA	HiSeq3000 (Illumina Inc) or NovaSeq6000 (Illumina Inc) genome analyzer in a paired-end, 150-cycle run
PRJEB44244	Longitudinal study of blood-derived transcriptomes of Boran cattle naturally exposed to Theileria parva	30 Boran cattle from the Kapiti research station in Machakos county, Kenya.	Tubes were then centrifuged at 300 g for 5 min at RT and the supernatant discarded. The pellet was rinsed twice with 15 ml of PBS + centrifuged, resuspended in tri-reagent	RNA was extracted by phenol chloroform	TruSeq Stranded mRNA	Illumina HiSeq

Supplementary table S2: Data output analysed after QC trimming per library. Total RNA sequencing from blood samples of cows with and without mastitis. Twenty out of 70 samples that had a DV>200 were sequenced (BioProject: PRJNA1250162).

Library	Reads after QC (%)		Bases after QC (%)		Status	BioSamples
BM_06	126334140	(99.93%)	18069685232	(95.29%)	Mastitis	SAMN47932226
BM_11	128869756	(99.96%)	18290493384	(94.58%)	Mastitis	SAMN47932227
BM_12	103141786	(99.93%)	14297261968	(92.34%)	Mastitis	SAMN47932228
BM_13	125288824	(99.97%)	17654855197	(93.91%)	Mastitis	SAMN47932229
BM_17	138282820	(99.95%)	19607916235	(94.48%)	Mastitis	SAMN47932230
BM_19	151804270	(99.94%)	21393920325	(93.9%)	Mastitis	SAMN47932231
BM_22	111685978	(99.95%)	15938154735	(95.09%)	Mastitis	SAMN47932232
BM_26	116405556	(99.96%)	16316066744	(93.41%)	Mastitis	SAMN47932233
BM_27	139875272	(99.92%)	19504005367	(92.88%)	Mastitis	SAMN47932234
BM_28	162814936	(99.93%)	23002170333	(94.12%)	Mastitis	SAMN47932235
BM_29	107102218	(99.66%)	14624550324	(90.72%)	Mastitis	SAMN47932236
BM_35	120298186	(99.94%)	17136193810	(94.91%)	Mastitis	SAMN47932237
BM_37	99991674	(99.9%)	14038189285	(93.5%)	No Mastitis	SAMN47932238
BM_41	126270368	(99.96%)	17878307544	(94.35%)	No Mastitis	SAMN47932239
BM_49	124919934	(99.97%)	17828271943	(95.12%)	No Mastitis	SAMN47932240
BM_60	133608282	(99.97%)	18991419907	(94.73%)	No Mastitis	SAMN47932241
BM_64	162893752	(99.92%)	23187865410	(94.82%)	No Mastitis	SAMN47932242
BM_67	127349912	(99.95%)	18098611703	(94.7%)	No Mastitis	SAMN47932243
BM_68	130867296	(99.95%)	18561407149	(94.51%)	No Mastitis	SAMN47932244
BM_69	128629238	(99.93%)	18353711613	(95.05%)	No Mastitis	SAMN47932245