

Table S8. Softwares and Algorithms

Name	Source	Website
R-3.3.2	R Core Team	https://www.R-project.org/
RStudio	RStudio	https://www.rstudio.com
Python 2.7.16	Python	https://www.python.org/
FastQC v-0.11.8	Babraham Bioinformatics	http://www.bioinformatics.babraham.ac.uk/projects/fastqc
Sratoolkit v-2.8.1	SRA Toolkit Development Team	https://github.com/ncbi/sra-tools/
Cutadapt v-2.4	Marcel Martin	http://code.google.com/p/cutadapt/
Bowtie2 v-2.2.5	(Langmead and Salzberg, 2012)	http://bowtie-bio.sourceforge.net/bowtie2
Samtools v-1.9	(Li et al., 2009)	http://samtools.sourceforge.net
Bedtools v-2.27.1	(Quinlan and Hall, 2010)	https://github.com/ark5x/bedtools2
HiC-Pro v-2.11.1	(Servant et al., 2015)	http://github.com/nservant/HiC-Pro
Hichipper v-0.7.7	(Lareau and Aryee, 2018)	http://aryee.mgh.harvard.edu/hichipper
Star v-2.6.1b	(Dobin et al., 2013)	https://github.com/alexdobin/STAR
EdgeR v-3.16.5	(Robinson et al., 2010)	https://bioconductor.org/packages/edgeR
Homer v-4.11.1	(Heinz et al., 2010)	http://homer.ucsd.edu/homer
Picard v-1.118	Broad Institute	https://github.com/broadinstitute/picard
MACS2 v-2.1.2	(Zhang et al., 2008)	https://taoliu.github.io/MACS/
FeatureCounts v-1.6.0	(Liao et al., 2014)	http://subread.sourceforge.net
BSgenome v-1.54.0	Hervé Pagès	https://bioconductor.org/packages/BSgenome/
GenomicFeatures v-1.38.1	(Costa et al., 2013)	https://bioconductor.org/packages/GenomicFeatures/
Ngsplot v-2.61	(Shen et al., 2014)	https://github.com/shenlab-sinai/ngsplot
BiomaRt v-2.42.0	(Durinck et al., 2009)	https://bioconductor.org/packages/biomaRt/
David v-6.8	(Huang da et al., 2009)	https://david.ncifcrf.gov
diffloop v-1.14.0	PMID: 29028898	https://github.com/aryeelab/diffloop
juicer v-1.11.04	PMID: 27467249	http://aidenlab.org/juicer/
DeepTools v-3.2.1	PMID: 24799436	https://usegalaxy.eu/
ChIA-PET2	PMID: 27625391	https://github.com/GuipengLi/ChIA-PET2
GENOVA_1.0.0	(biiorxiv)	https://github.com/robinweide/GENOVA