tar -xJf g1e.tar.xz

conda create -n macs2 macs2

source activate macs2

bowtie2-build chr19.fa chr19\_indexed

#put 6 index files in folder called “index”

bowtie2 -p 4 -x index/chr19\_indexed input\_ER4.fastq > input\_ER4.sam

bowtie2 -p 4 -x index/chr19\_indexed input\_G1E.fastq > input\_G1E.sam

bowtie2 -p 4 -x index/chr19\_indexed CTCF\_ER4.fastq > CTCF\_ER4.sam

bowtie2 -p 4 -x index/chr19\_indexed CTCF\_G1E.fastq > CTCF\_G1E.sam

macs2 callpeak -t CTCF\_ER4.sam -f SAM -g 62000000 -n ER4 --outdir ER4

macs2 callpeak -t CTCF\_G1E.sam -f SAM -g 62000000 -n G1E --outdir G1E

bedtools intersect -a G1E/G1E\_peaks.narrowPeak -b ER4/ER4\_peaks.narrowPeak -v >ctcf\_lost.bed

bedtools intersect -a ER4/ER4\_peaks.narrowPeak -b G1E/G1E\_peaks.narrowPeak -v >ctcf\_gained.bed