FLNC bam Sample1_cyclo with PS# added to readID

FLNC bam Sample1_noncyclo with PS# added to readID

FLNC bam Sample2_cyclo with PS# added to readID

FLNC bam Sample2_noncyclo with PS# added to readID

FLNC bam Sample1

FLNC bam Sample2

Samtools merge

Isoseq cluster + align (use cluster2 with singletons flag so that it's ok with only 1 reads)

Clustered and aligned bam Sample1

Clustered and aligned bam Sample2

Add Sample1ID to Cluster ID (aka transcript ID)

Add Sample2ID to Cluster ID (aka transcript ID)

Samtools merge

Add PBid to the reads as tags using awk

Merged bam

Isoseq collapse

collapsed.gff

Combine_collapsed_read_stat.txt

De-merge using awk with PS# from the readIDs

pigeon sort + pigeon classify

pigeon_classification.txt

Sample1_collapsed_read_stat.txt

Sample2_collapsed_read_stat.txt

Example of pigeon_classification.txt

	A	B	C	D	E	F	G	H	O	
1	isoform	chrom	strand	length	exons	structural_	associated_gene	associated_transcript	subcategory	F
2	PB.1.1	chr1	+	1247	1	genic	MIR1302-2HG	novel	mono-exon	1
3	PB.1.2	chr1	+	1576	1	genic	MIR1302-2HG	novel	mono-exon	
4	PB.1.3	chr1	+	752	3	novel_not_	MIR1302-2HG	novel	at_least_one_novel_splicesite	
5	PB.1.4	chr1	+	2063	2	novel_not_	MIR1302-2HG	novel	intron_retention	
6	PB.1.5	chr1	+	2386	1	genic	MIR1302-2HG	novel	mono-exon	1
7	PB.1.6	chr1	+	1187	1	genic	MIR1302-2HG	novel	mono-exon	
8	PB.1.7	chr1	+	2013	2	full-splice_	MIR1302-2HG	ENST00000469289.1	alternative_5end	
9	PB.1.8	chr1	+	908	1	genic	MIR1302-2HG	novel	mono-exon	
10	PB.2.1	chr1	+	2534	1	intergenic	novelGene_1	novel	mono-exon	1

Example of Sample2_collapsed_read_stat.txt

```
(base) [yhhc@klone-login03 ~]$ head /mmfs1/gscratch/stergachislab/yhhc/
ned_bams/1.Split_read_stats/PS00344_UDN633333_noncyclo_read_stat.txt
PS00344_m84036_230518_222043_s4/167580488/ccs/6013_7672 PB.3.10
PS00344_m84036_230518_222043_s4/96866370/ccs/17775_19391      PB.3.10
PS00344_m84036_230518_222043_s4/58986207/ccs/69_1534      PB.3.11
PS00344_m84036_230518_222043_s4/96798498/ccs/9255_11201 PB.3.22
PS00344_m84036_230518_222043_s4/185600191/ccs/15718_17150      PB.3.23
PS00344_m84036_230518_222043_s4/136058742/ccs/15098_16526      PB.3.23
PS00344_m84036_230518_222043_s4/203754926/ccs/38_1586      PB.3.36
PS00344_m84036_230518_222043_s4/256445837/ccs/15230_16777      PB.3.36
PS00344_m84036_230518_222043_s4/194908957/ccs/5004_12591      PB.3.40
PS00344_m84036_230518_222043_s4/11670371/ccs/2314_4274  PB.3.72
```