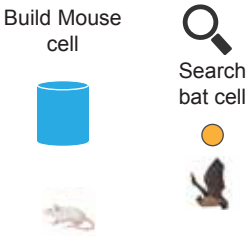# Figure 3: Reduced amino acid k-mers from transcriptomes enabled identification of unannotated immune genes in Chinese horseshoe bat suggesting immune adaptations

A

Build Mouse cell

Search bat cell

Confusion matrix of original bat annota tions to relabeld ones

NK cells

what is the
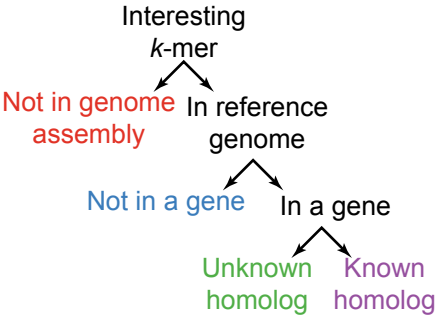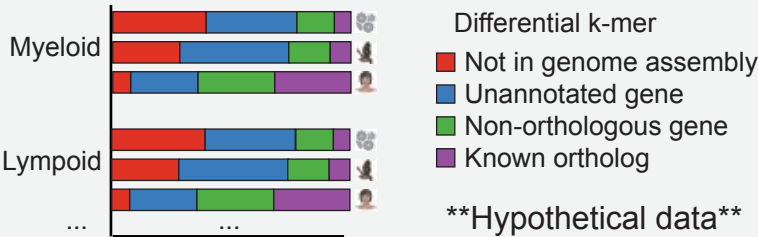what about bat-specific or human-specific sequences?

B

UMAP on gene expression or k-mer data of Bat + human + mouse, color by new cell type annotations
Hypothetical data

C

Barplot of fraction of differentially expressed k-mers found in aligned/unaligned reads
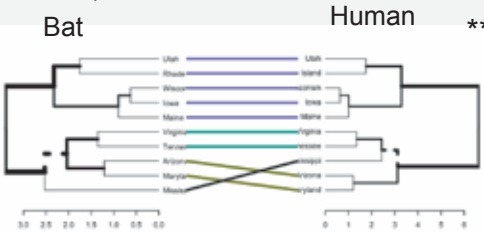
Myeloid

Lympoid

...   ...

Differential k-mer

■ Not in genome assembly
■ Unannotated gene
■ Non-orthologous gene
■ Known ortholog

Hypothetical data

Interesting
k-mer

Not in genome assembly   In reference genome

Not in a gene   In a gene

Unknown homolog   Known homolog

D

UMAP of Bat + human+ mouse colored by interfer on-like gene expression

Hypothetical data

E

Alignment of assembled Bat interferon proteins sequences and known human ones

Bat   Human   **Hypothetical data**