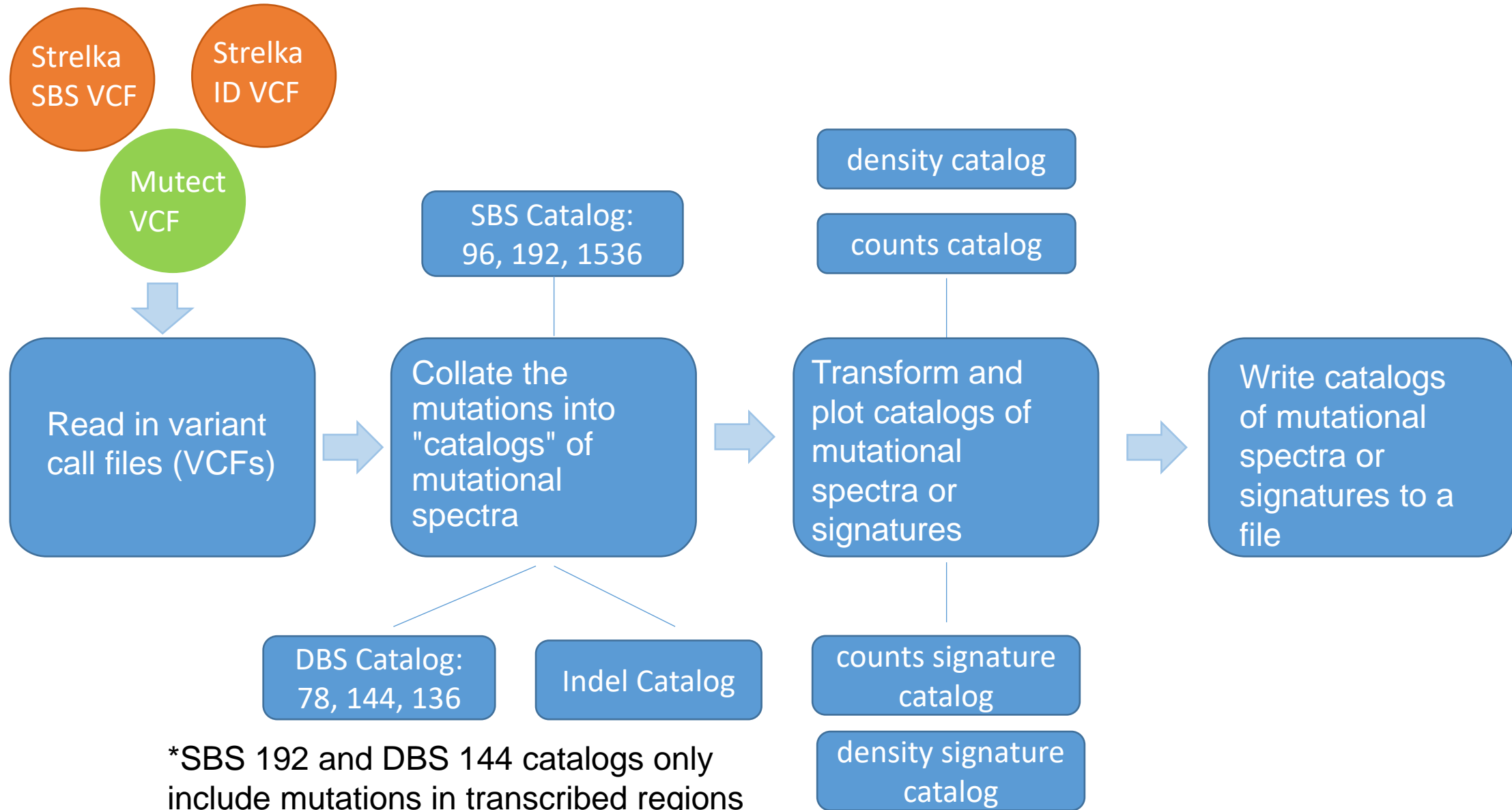
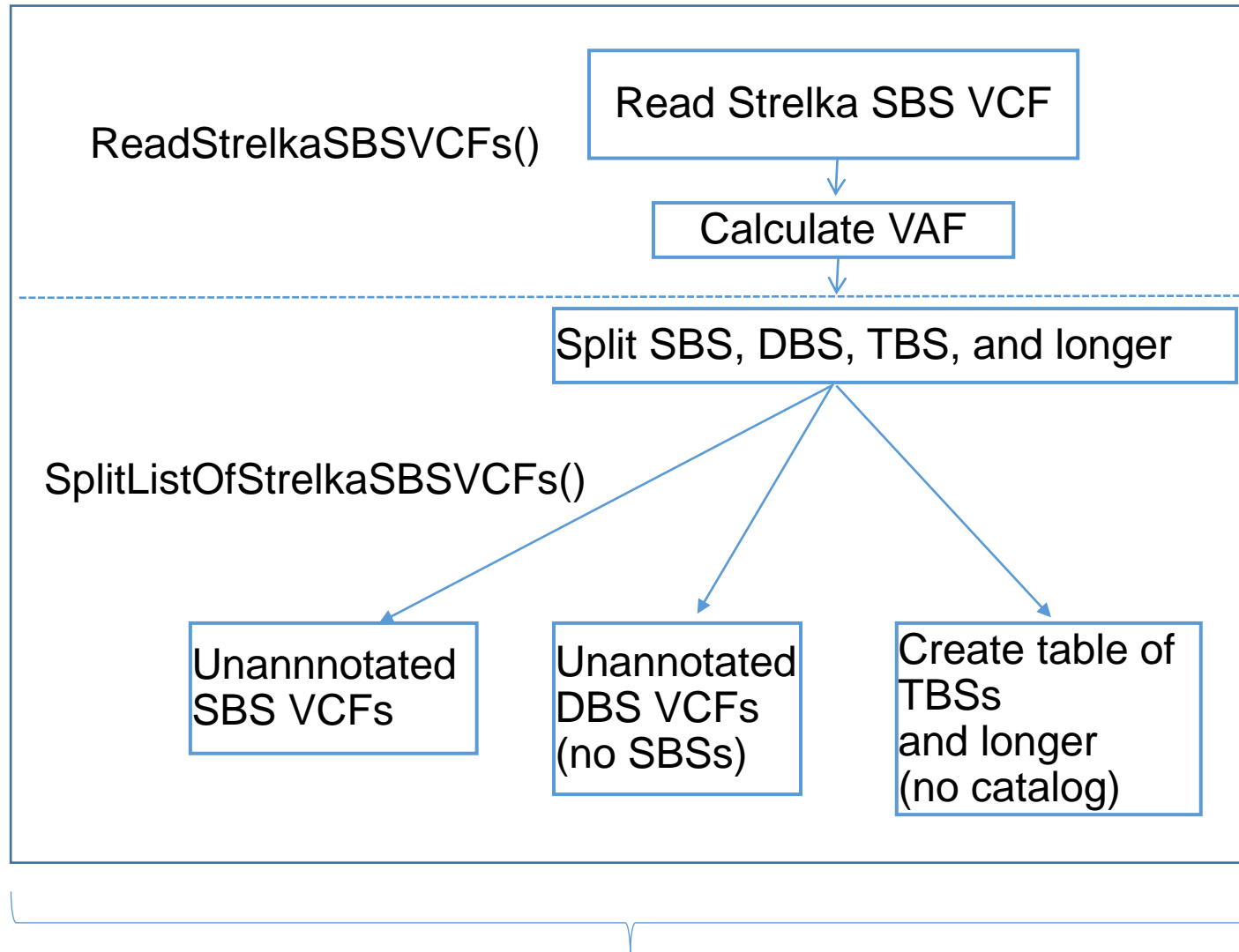


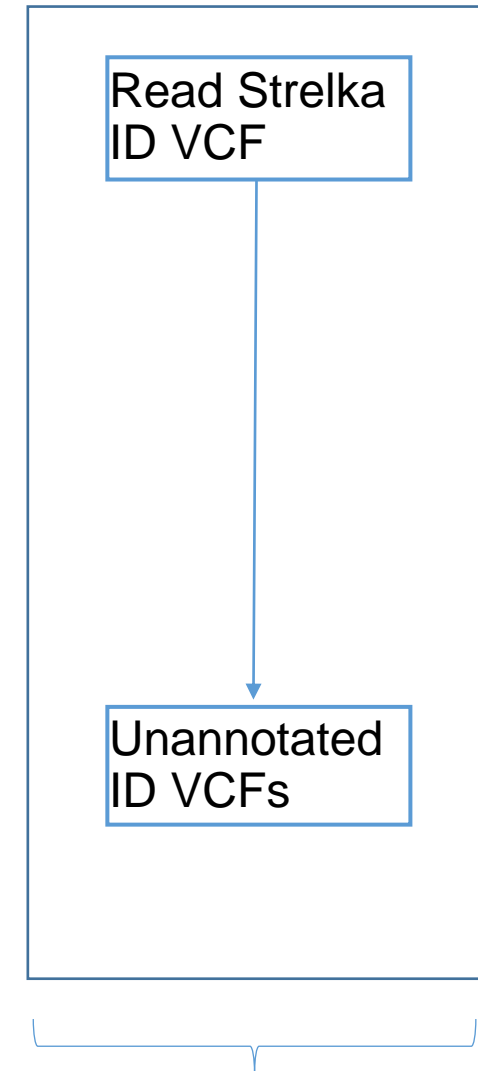
Overview of ICAMS R package functionalities



Strelka VCF processing



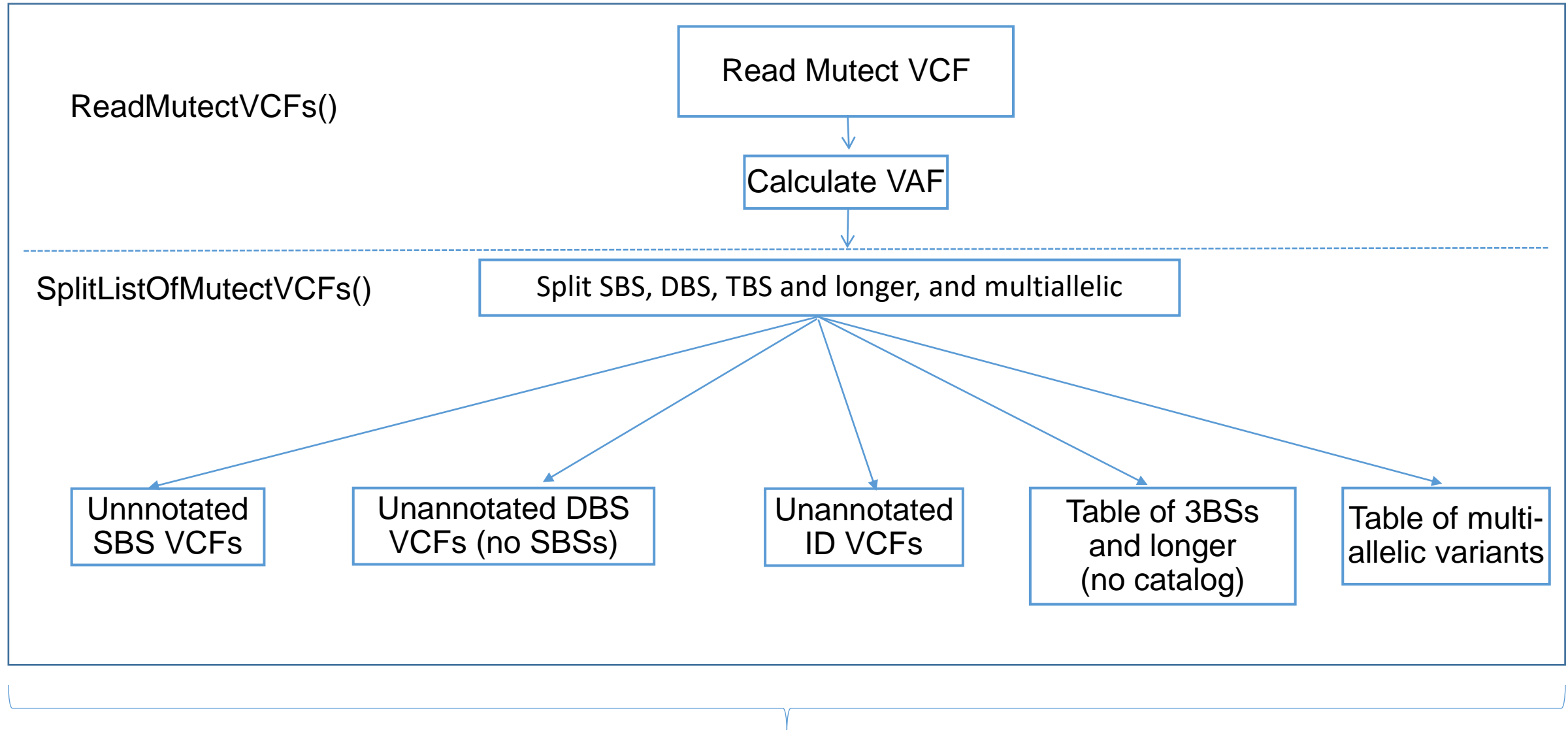
ReadAndSplitStrelkaSBSVCFs()



ReadStrelkaIDVCFs()

* Functions whose names in red color are exported in ICAMS

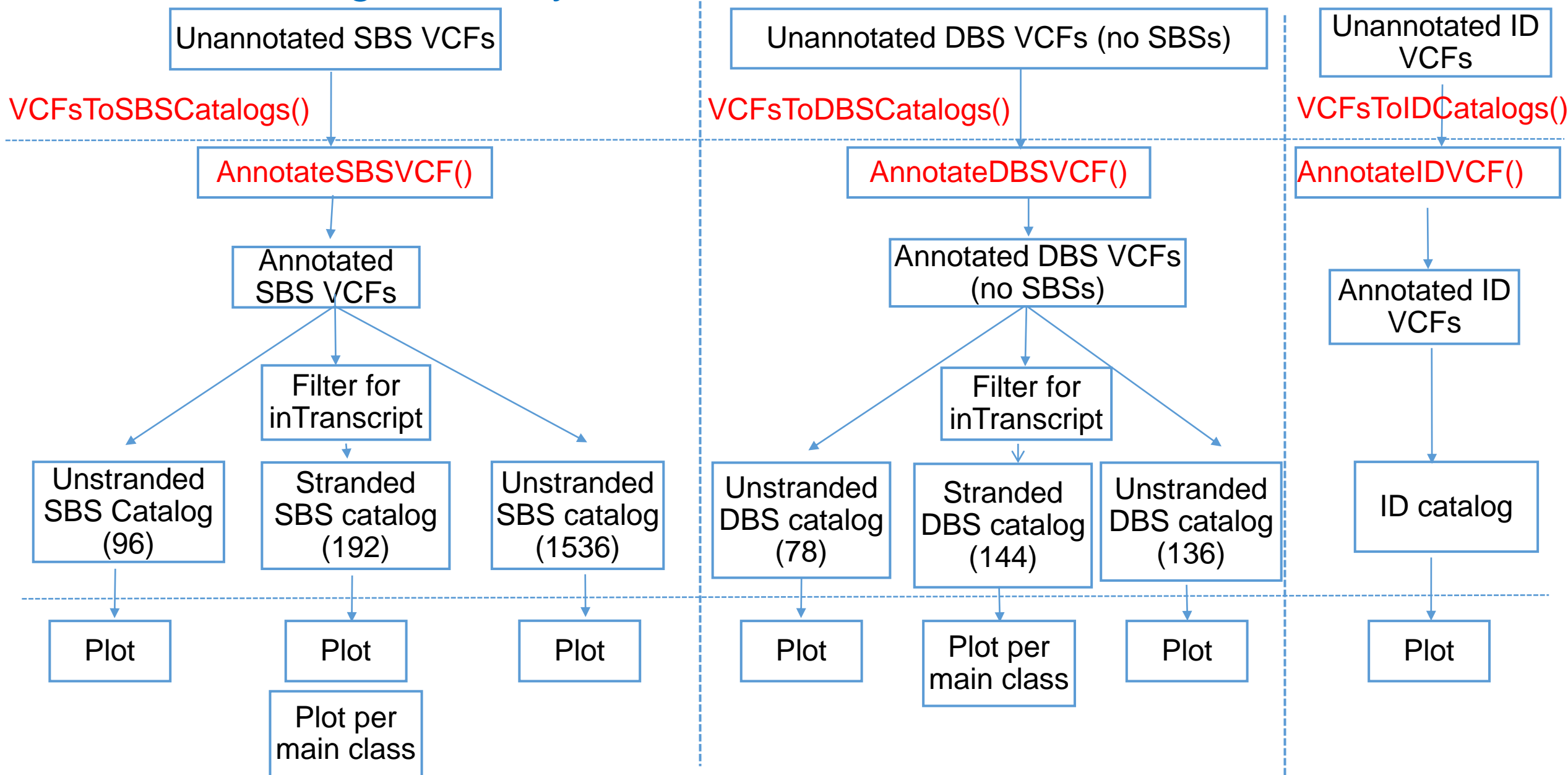
Mutect VCF processing



ReadAndSplitMutectVCFs()

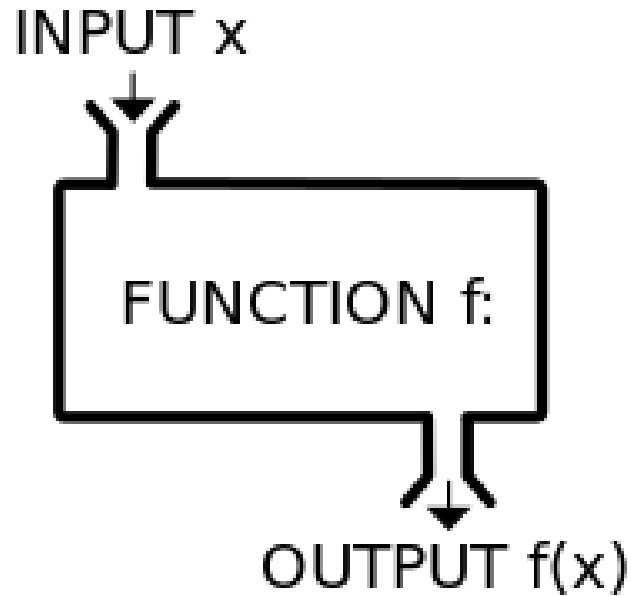
* Functions whose names in red color are exported in ICAMS

VCFs to catalogs and beyond



* Functions whose names in red color are exported in ICAMS

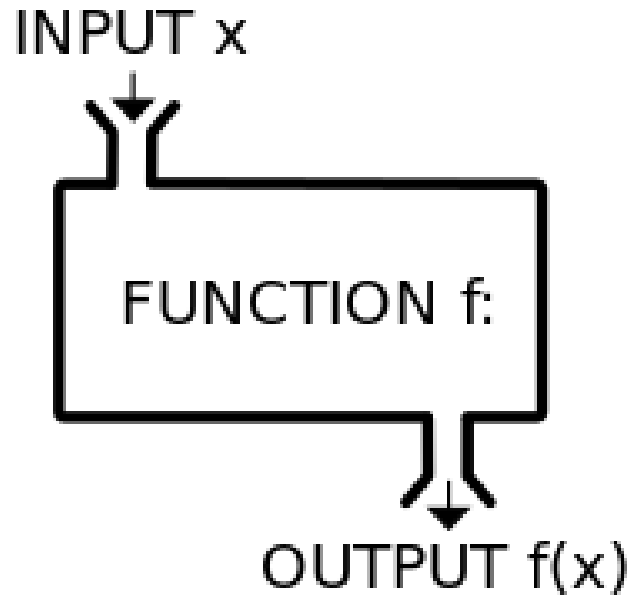
Important exported functions in ICAMS



Creating catalogs from variant call files (VCF files)

- `StrelkaSBSVCFFilesToCatalog()`
- `StrelkaIDVCFFilesToCatalog()`
- `MutectVCFFilesToCatalog()`

Important exported functions in ICAMS

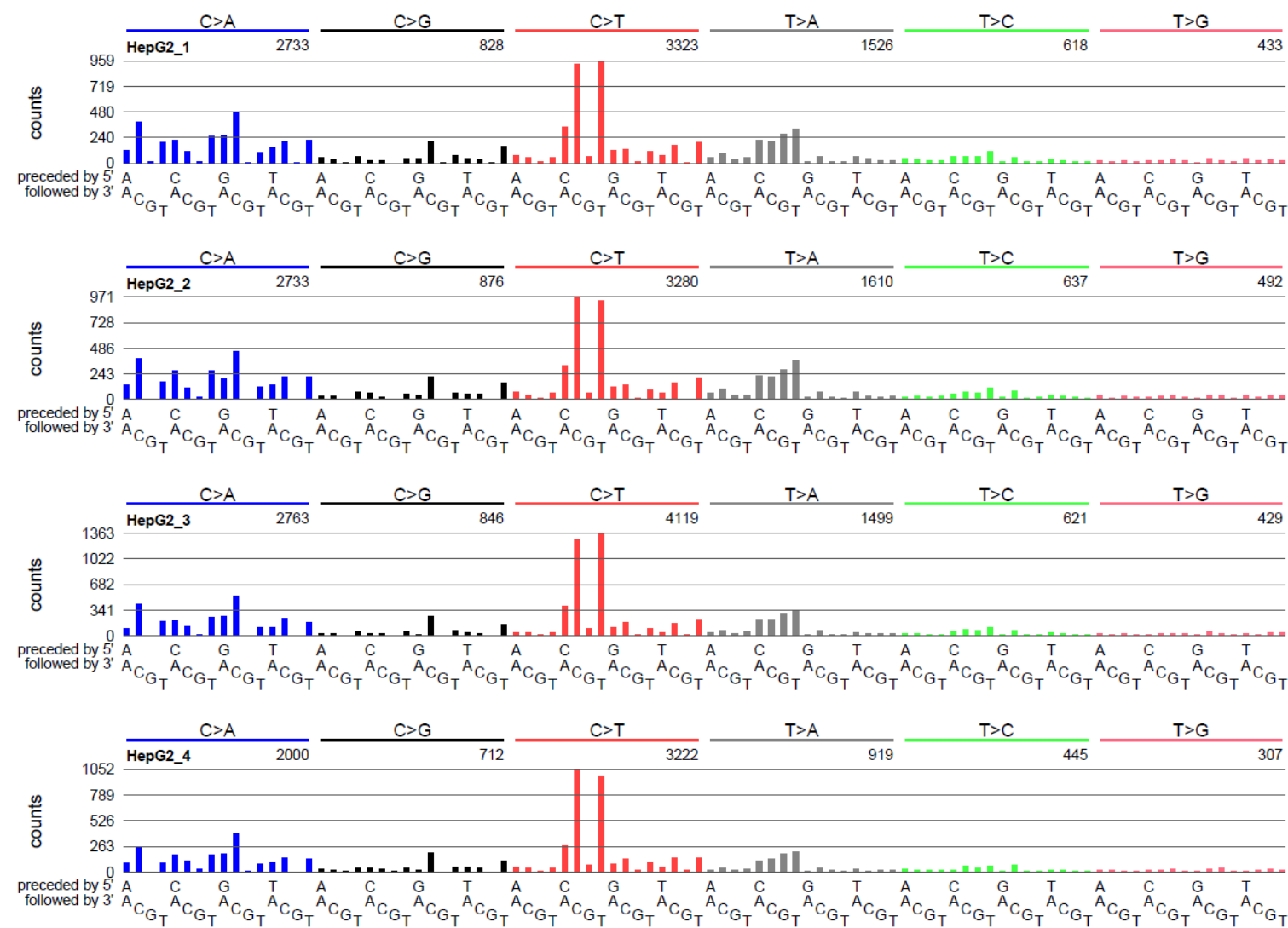


Plotting catalogs

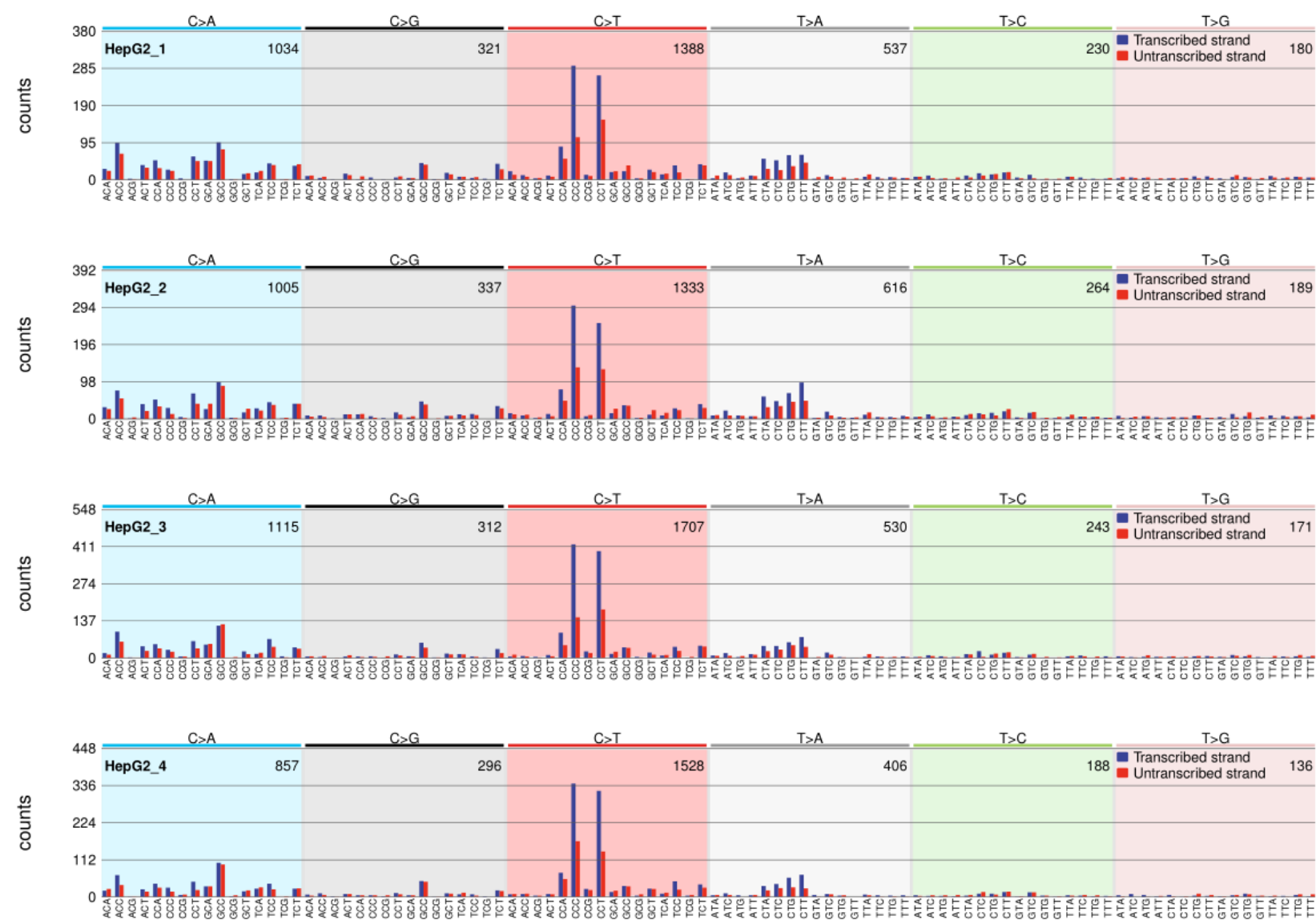
- `PlotCatalog()`
- `PlotCatalogToPdf()`

<https://howtoprogramwithjava.com/functions-in-javascript/>

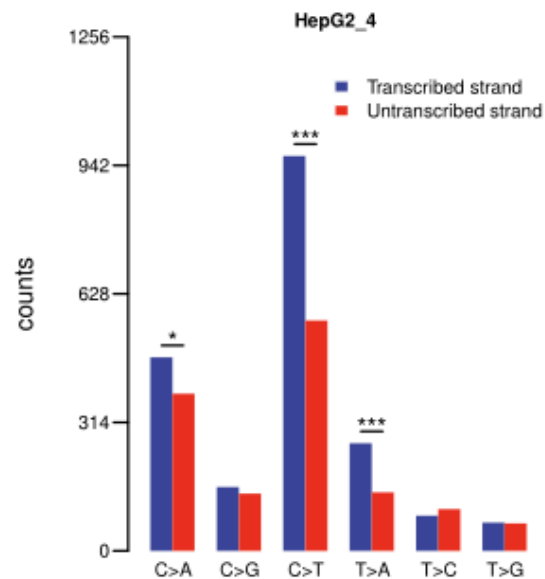
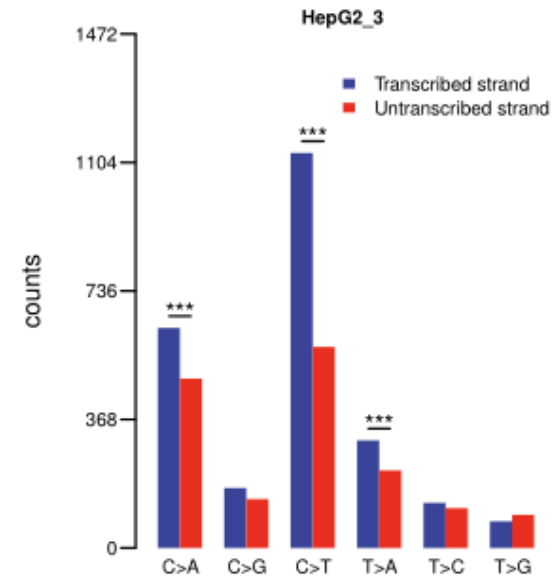
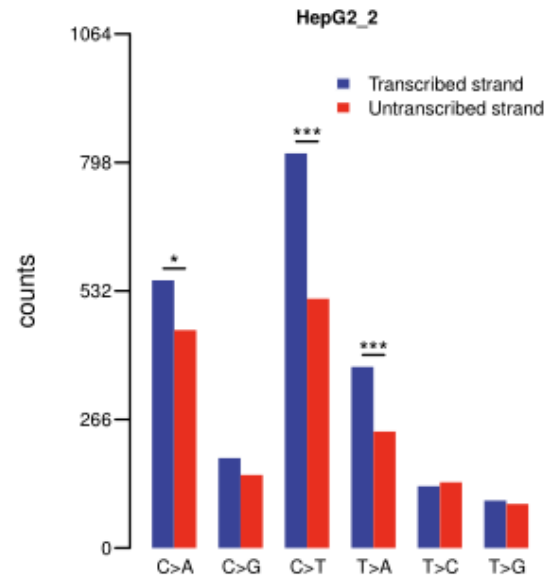
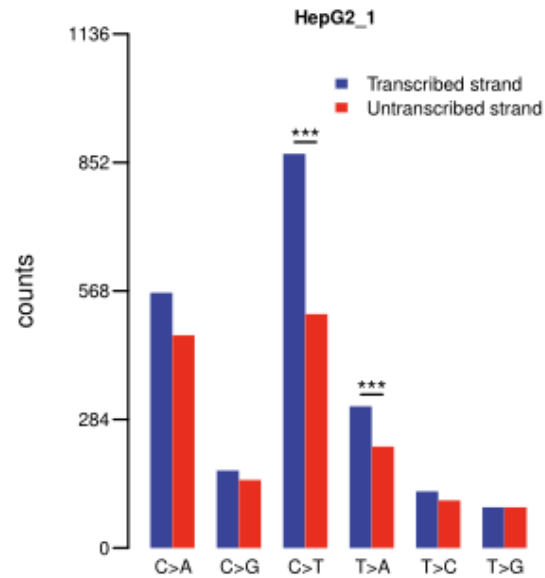
PlotCatalogToPdf(): SBS96 Catalog



PlotCatalogToPdf(): SBS192 Catalog



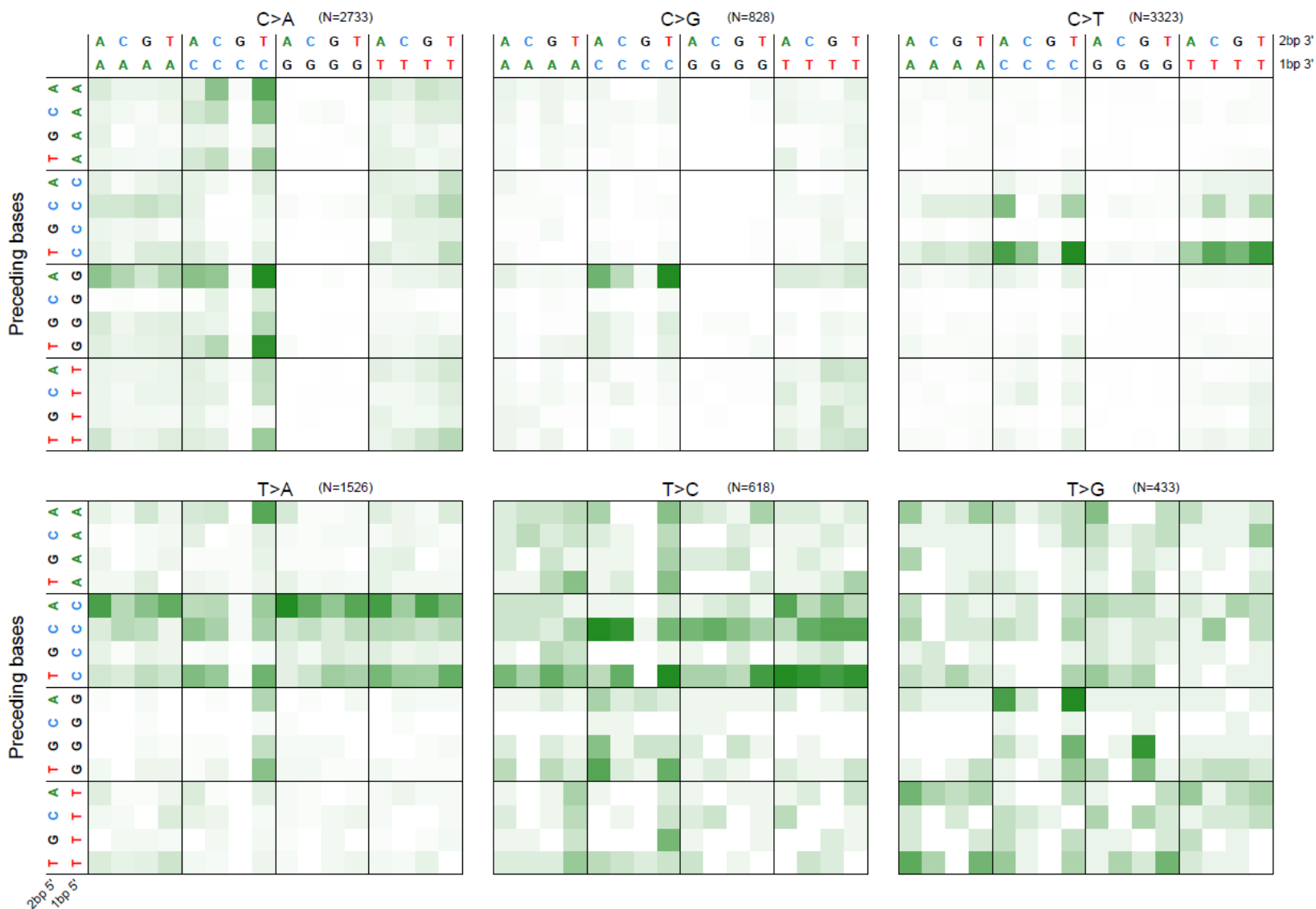
PlotCatalogToPdf(): SBS192 counts catalog with argument plot.SBS12 = TRUE



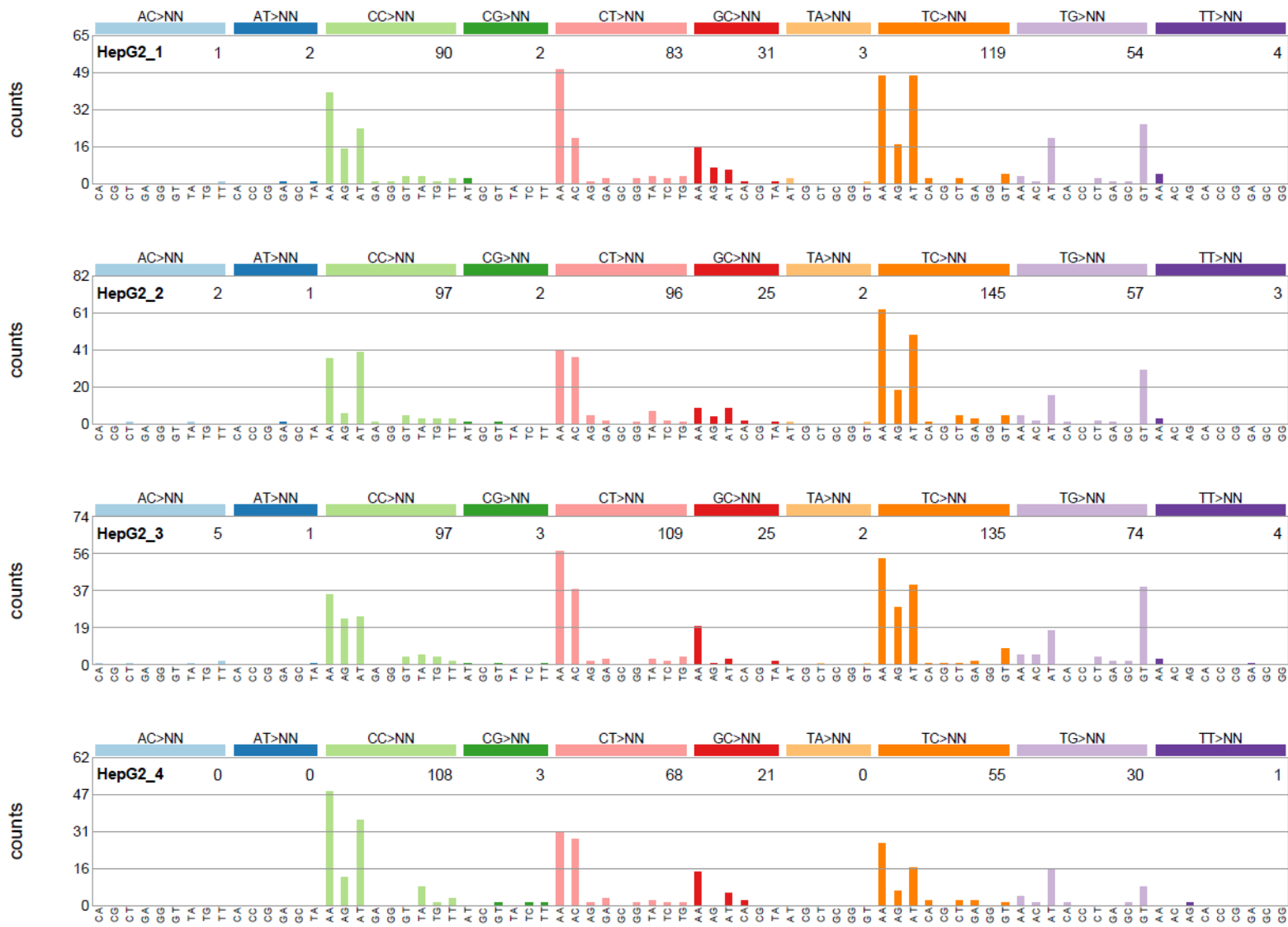
Legend: * $Q < 0.05$, ** $Q < 0.01$, *** $Q < 0.001$
(Benjamini-Hochberg false discovery rates based on two-tailed binomial tests)

PlotCatalogToPdf(): SBS1536 Catalog

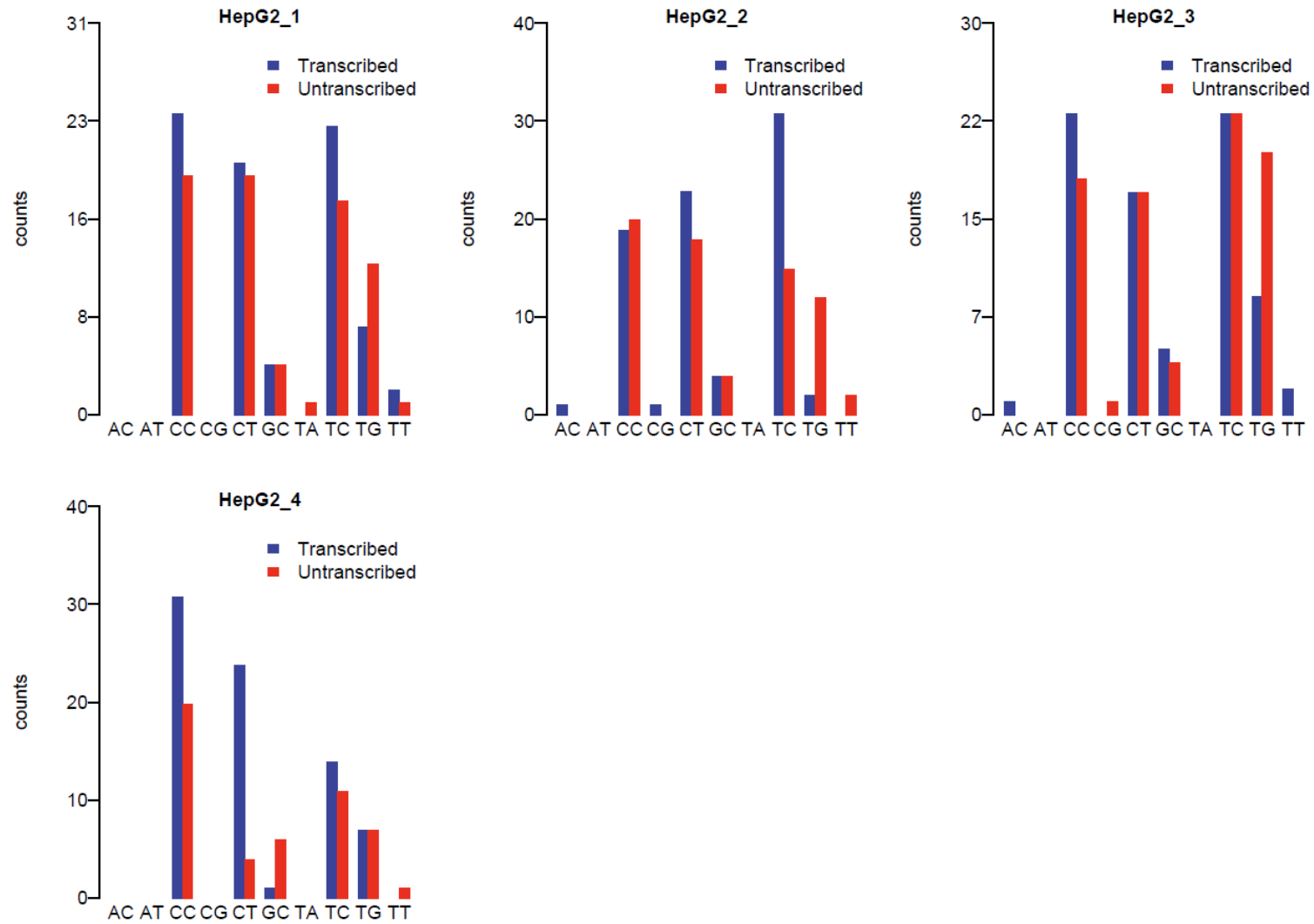
HepG2_1



PlotCatalogToPdf(): DBS78 Catalog

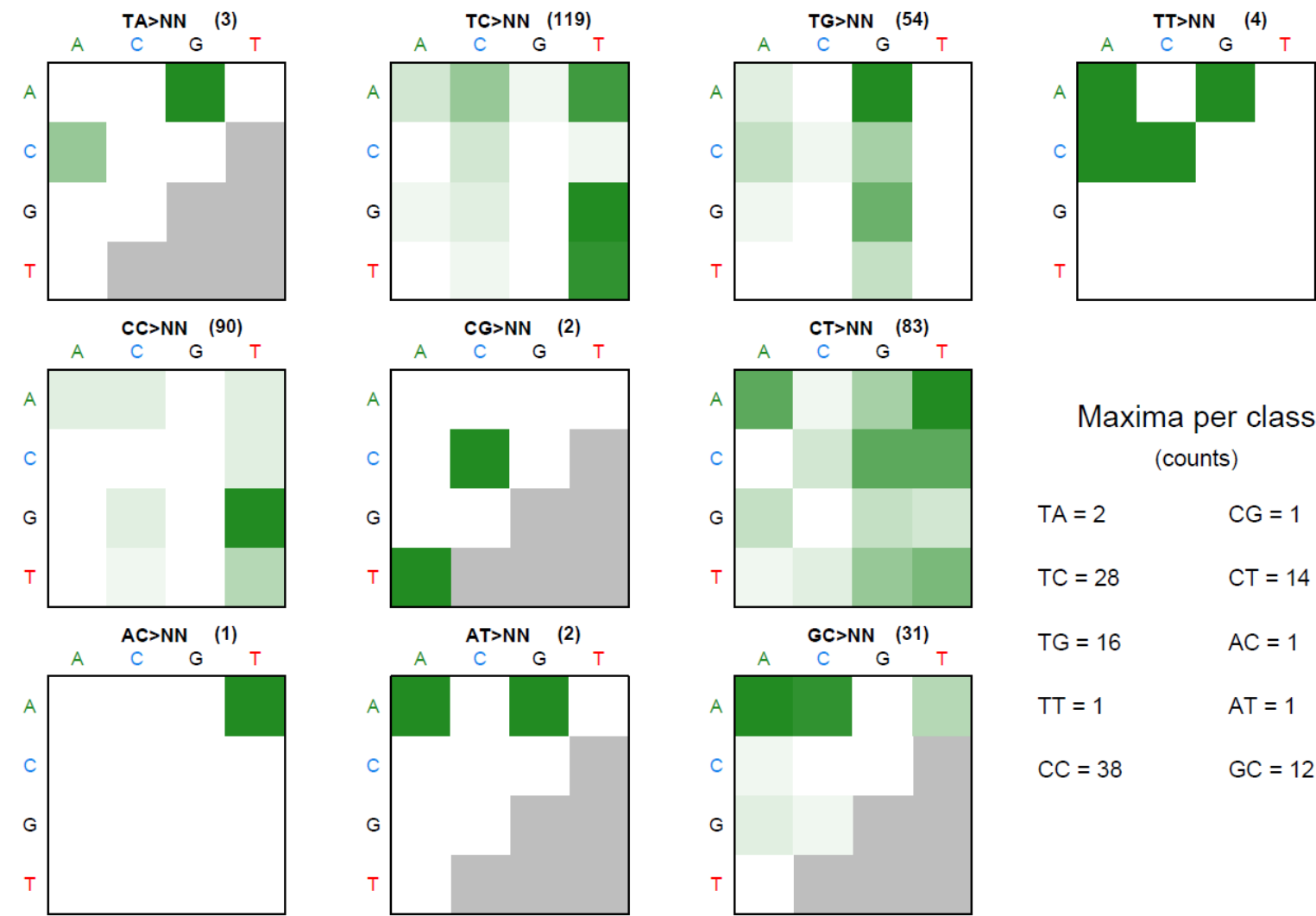


PlotCatalogToPdf(): DBS144 Catalog



PlotCatalogToPdf(): DBS136 Catalog

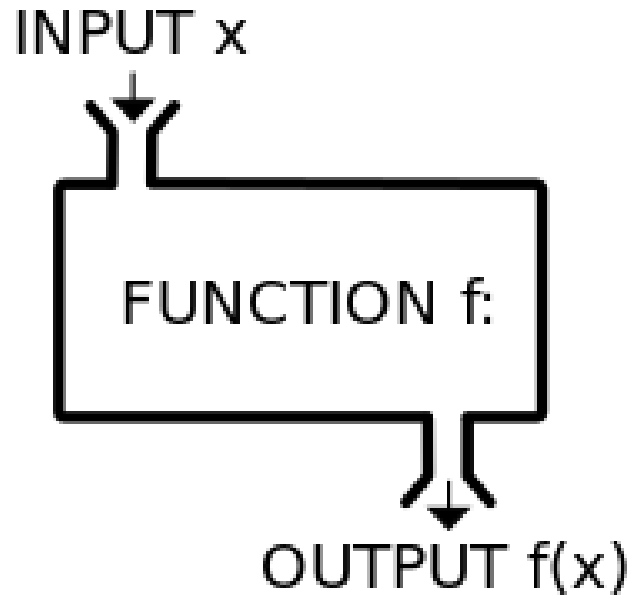
HepG2_1



PlotCatalogToPdf(): Indel Catalog



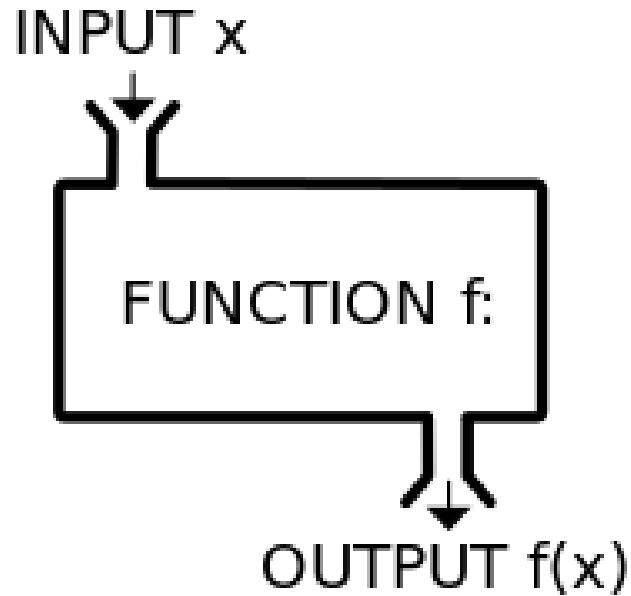
Important exported functions in ICAMS



Creating catalogs and plot them to PDF

- `StrelkaSBSVCFFilesToCatalogAndPlotToPdf()`
- `StrelkaIDVCFFFilesToCatalogAndPlotToPdf()`
- `MutectVCFFilesToCatalogAndPlotToPdf()`

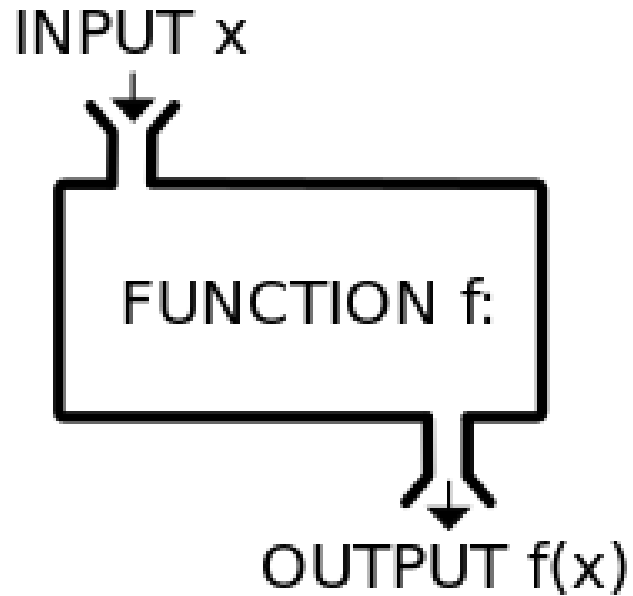
Important exported functions in ICAMS



Creating a zip archive containing catalogs saved as CSV files and plotted as PDFs

- `StrelkaSBSVCFFilesToZipFile()`
- `StrelkaIDVCFFilesToZipFile()`
- `MutectVCFFilesToZipFile()`

Important exported functions in ICAMS

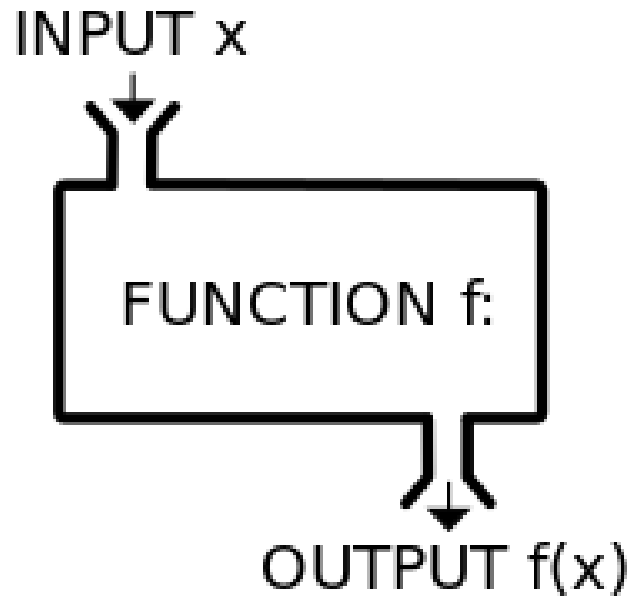


Annotating in-memory VCFs

- `AnnotateSBSVCF()`
- `AnnotateDBSVCF()`
- `AnnotateIDVCF()`

<https://howtoprogramwithjava.com/functions-in-javascript/>

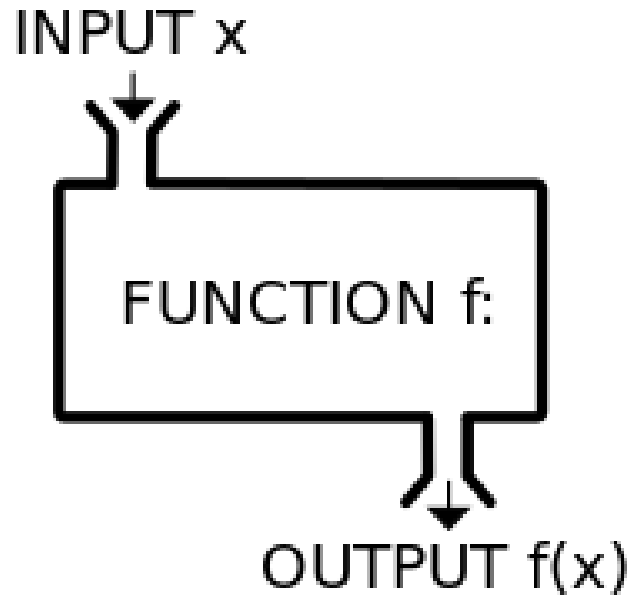
Important exported functions in ICAMS



Reading and writing catalogs

- ReadCatalog()
- WriteCatalog()

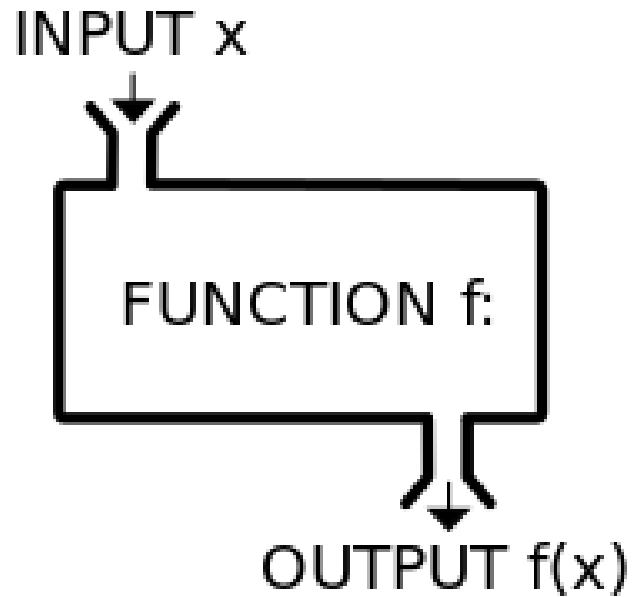
Important exported functions in ICAMS



"Collapse" a catalog

- Collapse192CatalogTo96()
- Collapse1536CatalogTo96()
- Collapse144CatalogTo78()

Important exported functions in ICAMS



Utility functions

- TransformCatalog()
- as.catalog()
- revc()