Anatomical Structures - CT-Pop Cell Types Stacked Bar Graphs - Notebook

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1 Environment

```
library(tidyr)
library(plyr)
library(dplyr)
library(magrittr)
library(ggplot2)
library(stringr)

options(scipen = 999)

knitr::opts_chunk$set(
    echo = FALSE,
    message = FALSE,
    warning = FALSE,
```

```
    fig.align='center',
    fig.pos='H',
    fig.path = "../output/barplots/",
    dev = c("pdf"),
    dpi=500
)
```

2 Load Data

3 Preparing Data

4 Subsetting data by Organ

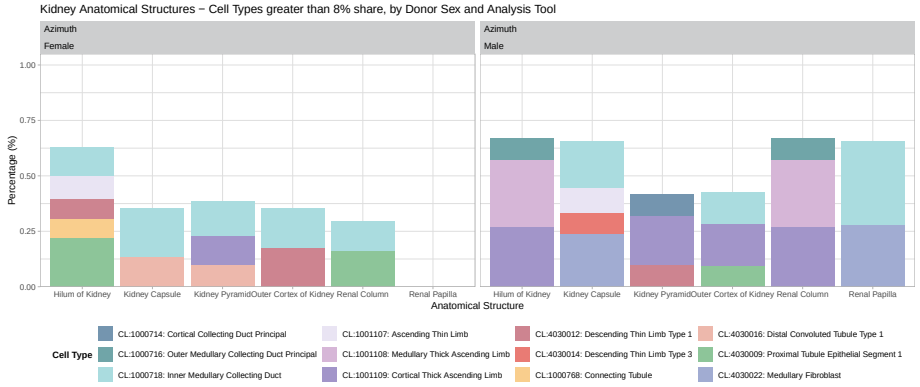
5 Visualization

Base design for 100% stacked bar graphs representing the cell types commonly identified in anatomical structures within donated organs.

For each set of records associated with organs: Bars represent an anatomical structure, Bar segments are associated with Cell Type percentage measures values segments should total to at most 1 or 100%. mean cell type percentage calculation - organ, sex, tool, as Bar color represents cell types Facets represent combination of analytic tool and gender OR analytic method.

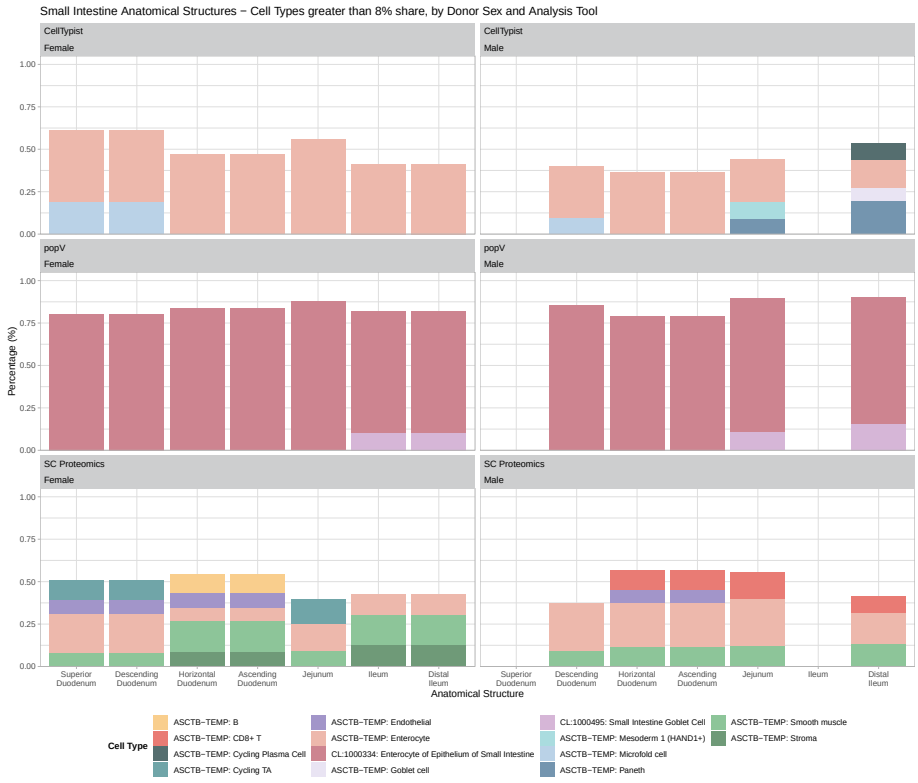
5.1 Heart - Anatomical Structure - Cell Types

5.2 Kidney - Anatomical Structure - Cell Types

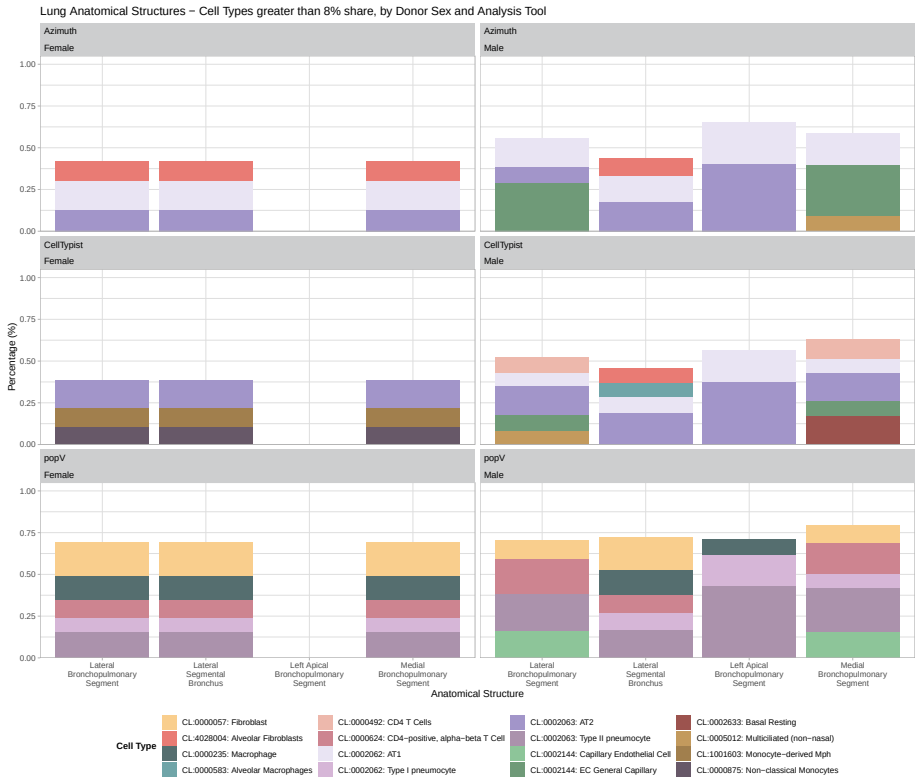


5.3 Large Intestine

5.4 Small Intestine



5.5 Lung


Lung Anatomical Structures − Cell Types greater than 8% share, by Donor Sex and Analysis Tool
Azimuth
Female
Azimuth
Male
CellTypist
Female
CellTypist
Male
popV
Female
popV
Male
Percentage (%)
1.00
0.75
0.50
0.25
0.00
Lateral Bronchopulmonary Segment
Lateral Segmental Bronchus
Left Apical Bronchopulmonary Segment
Medial Bronchopulmonary Segment
Anatomical Structure
Cell Type
CL:0000057: Fibroblast
CL:4028004: Alveolar Fibroblasts
CL:0000235: Macrophage
CL:0000583: Alveolar Macrophages
CL:0000492: CD4 T Cells
CL:0000624: CD4−positive, alpha−beta T Cell
CL:0002062: AT1
CL:0002062: Type I pneumocyte
CL:0002063: AT2
CL:0002063: Type II pneumocyte
CL:0002144: Capillary Endothelial Cell
CL:0002144: EC General Capillary
CL:0002633: Basal Resting
CL:0005012: Multiciliated (non−nasal)
CL:1001603: Monocyte−derived Mph
CL:0000875: Non−classical Monocytes