<u>LMMA_00210</u> lower respiratory tract – E16.5 (canalicular stage of mouse lung development)

LMMA_00361	trachea							
LMMA 00362	⊢ trachea bifurcation							
_ LMMA 00365	- ├ trachea lumen							
_ LMMA 00366	trachea wallp4							
_ LMMA 00415	├ tracheal mucosa							
LMMA 00414	tracheal epithelium							
_ LMMA 00089	basement membrane							
LMMA_00590	│							
_ LMMA_00087	basal cell							
_ LMMA_00476								
LMMA_00142								
LMMA_00184	immature club cell (syn: immature Clara cell)							
LMMA_00526	intermediate airway progenitor cell							
LMMA_00238	mucus cell (syn: mucous cell)							
LMMA_00252	neuroendocrine cell							
LMMA_00340	serous cell							
LMMA_00384	unclassified epithelial cell							
LMMA_00483	│							
LMMA_00136	│							
LMMA_00685	reticular cell							
LMMA_00356	Helocyte							
LMMA_00386	│							
LMMA_00168	extracellular matrix							
LMMA_00145								
LMMA_00158	elastic fiber							
LMMA_00180								
LMMA_00529								
LMMA_00178	glycoprotein							
LMMA_00283	proteoglycan							
LMMA_00320	reticular fiber							
LMMA_00416	├─ tracheal submucosa							
LMMA_00606								
LMMA_00592	hyaline cartilage							
LMMA_00183 LMMA_00141	chondrocyte							
LMMA_00141	extracellular matrix							
LMMA_00145								
LMMA 00158	I I I I Helastic fiber							
LMMA_00180	ground substance							
_ LMMA_00529								
LMMA_00178								
_ LMMA_00283	proteoglycan							
_ LMMA_00320	reticular fiber							
LMMA_00370	│							
LMMA_00343	smooth muscle cell							
LMMA_00410								
LMMA_00412	perichondrium							

```
LMMA_00136
                connective tissue cell
LMMA_00685
                1
                  reticular cell
LMMA_00356
                  telocyte
LMMA 00386
                  unclassified fibroblast
LMMA 00168
                - extracellular matrix
LMMA_00145
                  collagen fiber
LMMA 00158
                  lelastic fiber
LMMA_00180
                  round substance
LMMA 00529
            LMMA_00178
                  ı
                    ⊢ glycoprotein
LMMA 00283
           LMMA 00320
           | | | | reticular fiber
LMMA 00367
           LMMA 00055
           LMMA_00054
                  - adipocyte
                1
LMMA 00136
                connective tissue cell
LMMA_00685
           | | telocyte
LMMA_00356
            LMMA 00386
LMMA 00168
                extracellular matrix
LMMA_00145
                  collagen fiber
LMMA_00158
                  le elastic fiber
           \perp
LMMA 00180
                Т
                  ground substance
LMMA_00529
            LMMA_00178
            LMMA_00283
LMMA_00120
           bronchus
LMMA_00527
            main bronchus (syn: primary bronchus; mainstem bronchus)
LMMA 00205
            ├ left lung main bronchus (syn: left lung primary bronchus; left lung mainstem bronchus)
LMMA 00329
              right lung main bronchus (syn: right lung primary bronchus; right lung mainstem bronchus)
LMMA_00528
            lobar bronchus (syn: secondary bronchus)
LMMA_00333
            Fright lung upper lobar bronchus (syn: right cranial lobar bronchus; right apical lobar bromchus
```

Note: The classification scheme for each bronchus above is the same, as follows:

right lung middle lobar bronchus (syn: right cardiac lobar bronchus)

bronchus; right intermediate lobar bronchus)

├ right lung lower lobar bronchus (syn: right caudal lobar bronchus; right diaphragmatic lobar bronchus)

right lung accessory lobar bronchus (syn: right post-caval lobar bronchus; right infra-cardiac lobar

LMMA 00331

LMMA 00325

LMMA 00323

LMMA_00123	bronchus lumen
LMMA_00124	bronchus wall
LMMA_00418	bronchial mucosa
LMMA_00101	bronchial epithelium
LMMA_00089	basement membrane
LMMA_00591	bronchial epithelial cell
LMMA_00087	
LMMA_00476	ciliated cell precursor
LMMA_00142	
LMMA_00184	immature club cell (syn: immature Clara cell)

```
LMMA_00526
                           intermediate airway progenitor cell
LMMA 00238
                           mucus cell (syn: mucous cell)
LMMA 00252
                           heuroendocrine cell
LMMA 00340
                           serous cell
LMMA 00384
                        unclassified epithelial cell
LMMA_00481
                       bronchial lamina propria
LMMA_00136
                         - connective tissue cell
LMMA 00685
                       reticular cell
LMMA 00356
                         1
                           telocyte
LMMA 00386
                           unclassified fibroblast
LMMA_00168
                         - extracellular matrix
LMMA 00145
                           collagen fiber
LMMA 00158
                           elastic fiber
LMMA 00180
                           round substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                              ⊢ glycoprotein
LMMA 00283
                         1
                           | | proteoglycan
LMMA_00320
                       bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA 00482
                       | | smooth muscle cell
LMMA_00343
LMMA 00419
                    bronchial submucosa
                       bronchial cartilaginous ring (syn: cartilage)
LMMA 00133
LMMA 00482
                         bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA 00343
                           smooth muscle cell
LMMA_00183
                         hyaline cartilage
LMMA 00141
                           - chondrocyte
LMMA_00168
                           - extracellular matrix
                         Т
LMMA_00145
                           | | collagen fiber
LMMA 00158
                           l elastic fiber
LMMA_00180
                              round substance
LMMA 00529
                              | | glycosaminoglycan
LMMA_00178
                              | | glycoprotein
LMMA 00283
                              | | proteoglycan
LMMA_00320
                         LMMA_00410
                        Fibroelastic membrane (syn: fibroelastic tissue; fibroelastic connective tissue)
                         - perichondrium
LMMA 00412
LMMA 00592
                       LMMA 00136
                       connective tissue cell
                       | | reticular cell
LMMA_00685
LMMA 00356
                       | | telocyte
LMMA 00386
                         - unclassified fibroblast
LMMA 00168
                       extracellular matrix
LMMA 00145
                         collagen fiber
LMMA 00158
                         le elastic fiber
LMMA 00180
                       ground substance
LMMA 00529
                       LMMA_00178
                           ⊢ glycoprotein
                      LMMA 00283
                      reticular fiber
LMMA 00320
LMMA_00094
                  | horonchial adventitia
             11
LMMA_00055
```

```
| | | | | | | adipocyte
LMMA_00054
                    - connective tissue cell
LMMA_00136
LMMA_00685
                | | | | reticular cell
LMMA_00356
                     | | telocyte
                  | | | unclassified fibroblast
LMMA 00386
LMMA_00168
                  | | extracellular matrix
LMMA_00145
                | | | | collagen fiber
LMMA 00158
           | | | | | | | elastic fiber
LMMA 00180
                     | | ground substance
LMMA_00529
                      | | glycosaminoglycan
LMMA_00178
           LMMA_00283
           LMMA_00320
           LMMA_00211 lung
LMMA_00199 | left lung
LMMA_00326 right lung
LMMA 00332
           LMMA_00330 | | right lung middle lobe (syn: right cardiac lobe)
LMMA_00324
            | | right lung lower lobe (syn: right caudal lobe; right diaphragmatic lobe)
LMMA_00322
            | | right lung accessory lobe (syn: right post-caval lobe; right infra-cardiac lobe; right intermediate lobe)
```

Note: The classification scheme for the left lung and right lung middle, lower, and accessory lobes is the same as for the right lung upper lobe below:

LMMA_00332 Fright lung upper lobe								
LMMA_00605 + right lung upper lobe hilum	│							
LMMA_00039 right upper lobe bronchiole	│							
LMMA_00140 central bronchiole (syn: proximal bronchiole; primary bronchio	central bronchiole (syn: proximal bronchiole; primary bronchiole)							
LMMA_00138 central bronchiolar lumen								
LMMA_00139 central bronchiolar wall								
LMMA_00286 central bronchiolar epithelium (syn: proximal bronchiola	r epithelium)							
LMMA_00089 basement membrane								
LMMA_00582 bronchiolar epithelial cell								
LMMA_00476 ciliated cell precursor								
LMMA_00142 ciliated cell								
LMMA_00184 immature club cell (syn: immature Clara cell)								
LMMA_00252 heuroendocrine cell								
LMMA_00253 heuroepithelial body								
LMMA_00252 heuroendocrine cell								
LMMA_00599 proliferative epithelial cell (syn: proliferating epith	elial cell)							
LMMA_00384 unclassified epithelial cell (syn: general epithelial c	ell; nonspecific epithelial cell)							
LMMA_00525 bronchiolar connective tissue (syn: peribronchiolar conn	ective tissue)							
LMMA_00136 connective tissue cell								
LMMA_00685 reticular cell								
LMMA_00356 telocyte								
LMMA_00386 unclassified fibroblast								
LMMA_00168 extracellular matrix								
LMMA_00145 collagen fiber								
LMMA_00158 elastic fiber								
LMMA_00180 ground substance								

```
LMMA_00529
              LMMA 00178
                        | | | | | | glycoprotein
LMMA 00283
                             LMMA 00320
                             reticular fiber
LMMA_00240
                          bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
                     | | | | proliferative proliferative smooth muscle cell
LMMA 00655
LMMA_00198
                      lateral bronchiole (syn: distal bronchiole; secondary bronchiole)
LMMA 00196
                        lateral bronchiolar lumen
                     l lateral bronchiolar wall
LMMA 00197
LMMA 00433
                          lateral bronchiolar epithelium (syn: distal bronchiolar epithelium)
LMMA 00089
                             basement membrane
LMMA_00582
                             bronchiolar epithelial cell
                          Т
LMMA 00476
                          -
                             | | ciliated cell precursor
LMMA 00142
                             | | ciliated cell
LMMA_00184
                               immature club cell (syn: immature Clara cell)
LMMA 00252
                               neuroendocrine cell
LMMA 00253
                          -
                               neuroepithelial body
                             LMMA_00252
                             | proliferative epithelial cell (syn: proliferating epithelial cell)
LMMA 00599
LMMA 00384
                               unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00525
                          ├ bronchiolar connective tissue (syn: peribronchiolar connective tissue)
                             connective tissue cell
LMMA_00136
                        1 1
                             | | reticular cell
LMMA 00685
                          Т
LMMA 00356
                             | Helocyte
LMMA_00386
                               unclassified fibroblast
LMMA 00168
                             extracellular matrix
LMMA 00145
                               collagen fiber
LMMA 00158
                               le elastic fiber
LMMA_00180
                               ground substance
LMMA 00529
                               LMMA 00178
                               | | glycoprotein
LMMA 00283
                             reticular fiber
LMMA 00320
                          Т
                          bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA 00240
LMMA 00343
              LMMA_00359
                   terminal bronchiole
                        terminal bronchiolar lumen
LMMA 00357
                        terminal bronchiolar wall
LMMA_00358
LMMA 00457
                          terminal bronchiolar epithelium
LMMA 00089
                             basement membrane
LMMA 00582
                             -bronchiolar epithelial cell
LMMA_00476
                               ciliated cell precursor
LMMA_00142
                               ciliated cell
LMMA 00184
                               immature club cell (syn: immature Clara cell)
LMMA 00252
                             neuroendocrine cell
                               heuroepithelial body
LMMA 00253
LMMA_00252
                               heuroendocrine cell
                               F proliferative epithelial cell (syn: proliferating epithelial cell)
LMMA 00599
LMMA 00384
                             | Lanclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00525
                     ☐ ☐ bronchiolar connective tissue (syn: peribronchiolar connective tissue))
             | | | | | | | connective tissue cell
LMMA 00136
```

```
LMMA_00685
               | | | | | | reticular cell
LMMA 00356
                         telocyte
LMMA 00386
                       | |- unclassified fibroblast
LMMA 00168
                       extracellular matrix
LMMA 00145
                         - collagen fiber
                         le elastic fiber
LMMA_00158
LMMA 00180
                         F ground substance
LMMA 00529
                       | | | glycosaminoglycan
LMMA 00178
                         ⊢ glycoprotein
LMMA 00283
                        | | proteoglycan
LMMA 00320
                   | | | | reticular fiber
                   bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA 00240
LMMA 00343
           LMMA_00044
           | | right upper lobe pre-alveolar parenchyma
LMMA_00001
                 re-alveolar acinar tubule (syn: acinar tubule)
LMMA 00009
                 proximal acinar tubule
LMMA 00284
              \perp
                   proximal acinar tubule epithelium (syn: epithelium, proximal acinar tubule)
               LMMA_00089
LMMA 00573
           LMMA 00187
                 | | | | intermediate pneumocyte (syn: intermediate alveolar epithelial cell;
                                           intermediate pneumocyte)
LMMA 00380
                 LMMA 00382
              LMMA 00599
           LMMA_00003
           | | | | distal acinar tubule bud (syn: peripheral acinar tubule bud; acinar bud; distal acinar bud;
                                      distal acinar tubule; peripheral acinar tubule sprout)
LMMA 00423
                 | | distal acinar tubule epithelium
LMMA 00089
                       basement membrane
                 I I I
                       He distal acinar tubule epithelial cell (syn: distal acinar epithelial cell)
LMMA_00572
                   1 1
LMMA 00380
                 LMMA 00382
                   | | | | immature type II pneumocyte (syn: pre-type II pneumocyte)
LMMA 00599
                 LMMA_00008
           tissue; pre-alveolar stroma)
LMMA 00137
           pre-alveolar interstitial cell (syn: pre-alveolar connective tissue cell; pre-alveolar
                                            mesenchymal cell; pre-alveolar stromal cell)
LMMA 00007
                 | | | matrix fibroblast (syn: matrix synthesizing fibroblast)
LMMA 00243
                   myofibroblast
                 | | | pericyte
LMMA_00273
LMMA 00607
                    proliferative fibroblast
LMMA 00608
                   LMMA_00356
                   telocyte
LMMA 00386
                    unclassified fibroblast
LMMA_00168
                   - extracellular matrix
LMMA 00145
                     collagen fiber
LMMA 00158
                   elastic fiber
LMMA 00180
                   fround substance
LMMA 00529
                    | | glycosaminoglycan
LMMA 00178
                 LMMA 00283
                   | | | proteoglycan
           | | | | | reticular fiber
LMMA 00320
```

```
LMMA_00442
            LMMA 00583
                    ├ pre-alveolar capillary bed (syn: pre-alveolar capillary network)
LMMA 00129
                  LMMA 00089
                        basement membrane
LMMA 00392
                  | | | | | | | | | | vascular endothelial cell
LMMA_00617
                right upper lobe visceral pleura
LMMA_00046
                  - visceral connective tissue
LMMA 00405
LMMA 00136
                    - connective tissue cell
LMMA 00685
                      reticular cell
LMMA 00356
                     telocyte
                    unclassified fibroblast
LMMA_00386
LMMA 00168
                    extracellular matrix
LMMA 00145
                    collagen fiber
LMMA_00158
                    | | elastic fiber
LMMA_00180
                      F ground substance
LMMA 00529
                        ⊢ glycosaminoglycan
LMMA 00178
                     Т
                        glycoprotein
LMMA 00283
                    LMMA 00320
                  | | reticular fiber
                  | | unclassified fibroblast
LMMA 00368
LMMA 00406
               LMMA 00089
            | | | | basement membrane
LMMA_00231
            LMMA 00520
           respiratory autonomic nervous system (syn: autonomic respiratory nervous system)
LMMA_00641
            pulmonary autonomic nerve
LMMA_00257
            LMMA 00247
                nerve fiber
LMMA 00338
                figure glial cell (syn: neuroglial cell; Schwann cell)
LMMA 00270
           | postganglionic parasympathetic nerve (syn: cholinenergic innervation)
LMMA_00247
           LMMA 00338
                Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA 00352
            postganglionic sympathetic nerve (syn: adrenergic innervation)
           | | nerve fiber
LMMA_00247
LMMA 00338
           1 1
               | glial cell (syn: neuroglial cell; Schwann cell)
LMMA 00642
            preganglionic parasympathetic nerve
LMMA 00247
            LMMA_00338
           pulmonary autonomic ganglion (syn: nerve cell cluster)
LMMA 00634
LMMA 00521
            LMMA_00338
            | | | glial cell (syn: neuroglial cell; Schwann cell)
LMMA 00633
            pulmonary nerve plexus
LMMA 00635
            left pulmonary nerve plexus
LMMA_00636
                left anterior pulmonary nerve plexus
LMMA 00637
            1 1
                left posterior pulmonary nerve plexus
LMMA 00638
            right pulmonary nerve plexus
LMMA_00639
                Fight anterior pulmonary nerve plexus
LMMA_00640
            LMMA 00643
            eneral visceral nervous system
```

```
LMMA_00644
              ☐ peneral visceral afferent nerve (syn: sensory nerve)
LMMA_00247
              III
                   nerve fiber
LMMA 00338
                   Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA 00645
                   ├ visceral afferent sensory nerve terminal (syn: visceral afferent sensory nerve receptor)
LMMA 00522
             respiratory immune system
LMMA_00185
              immune cell
LMMA_00614
              | |- lymphoid cell
LMMA 00241
                myeloid cell
LMMA 00477
                   fetal macrophage
LMMA_00665
                   mature myeloid cell
                   ⊢ megakaryocyte
LMMA_00613
LMMA 00664
              proliferative myeloid cell
LMMA_00626
              - lymphoid tissue
LMMA_00475
              LMMA_00523
             respiratory vascular system
LMMA_00692
              blood cell
LMMA 00619
                 - erythrocyte
LMMA_00819
              peripheral blood lymphocyte
LMMA_00104
              bronchial blood vessel
LMMA_00098
                bronchial artery
              bronchial arteriole
LMMA_00095
LMMA_00105
                bronchial vein
LMMA 00109
                bronchial venule
LMMA_00519
              bronchial capillary
LMMA 00293
                   - capillary tunica intima
LMMA_00378
                     - subendothelial connective tissue cell
LMMA_00273
              | | | | | pericyte
LMMA_00356
                        le telocyte
LMMA 00440
                     h vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                        - connective tissue cell
LMMA_00685
                          reticular cell
LMMA_00356
                        | | telocyte
LMMA 00386
                        | | unclassified fibroblast
LMMA 00168
                        - extracellular matrix
LMMA 00145
                          collagen fiber
LMMA 00158
                          le elastic fiber
                          round substance
LMMA 00180
                             ⊢ glycosaminoglycan
LMMA 00529
                          ı
LMMA_00178
                             ⊢ glycoprotein
                          1
LMMA_00283
                     LMMA 00320
                        reticular fiber
LMMA 00292
                   capillary tunica adventitia
LMMA 00440
                     - vascular connective tissue (syn: perivascular connective tissue)
                        connective tissue cell
LMMA_00136
                        reticular cell
LMMA 00685
LMMA 00356
                        | | telocyte
LMMA 00386
                        | |- unclassified fibroblast
                  LMMA_00168
LMMA 00145
              | | | | | | collagen fiber
```

LMMA_00158	- 1	1	ı	-	-	⊢ elastic fiber
LMMA_00180						F ground substance
LMMA_00529	-		1	-	1	glycosaminoglycan
LMMA_00178	-				1	glycoprotein
LMMA_00283	-		1	-	1	
LMMA_00320	- [1	Ι	1	1	reticular fiber

Note: the classification schema for "bronchial blood vessel" is as follows:

- The classification scheme for the "bronchial artery" is the same as for the "pulmonary muscular artery" below
- The classification scheme for the "bronchial arteriole" is the same as for the "pulmonary distal arteriole" below
- The classification scheme for the "bronchial venule" is the same as for the "pulmonary vein" (does not include the "vasa vasorum") below
- The classification scheme for the "bronchial artery" is the same as for the "pulmonary distal venule" below

LMMA_00315	– pulmonary blood vessel						
LMMA_00632	intra-parenchymal blood vessel						
LMMA_00291	pulmonary artery						
LMMA_00293	pulmonary artery tunica intima						
LMMA_00081	artery endothelium						
LMMA_00089	basement membrane						
LMMA_00616	arterial endothelial cell						
LMMA_00191	internal elastic membrane						
LMMA_00378	│						
LMMA_00273							
LMMA_00356							
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356							
LMMA_00386	unclassified fibroblast						
LMMA_00168	extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158	elastic fiber						
LMMA_00180	ground substance						
LMMA_00529	│						
LMMA_00178	glycoprotein						
LMMA_00283	│						
LMMA_00320	reticular fiber						
LMMA_00294	pulmonary artery tunica media						
LMMA_00167	 external elastic membrane						
LMMA_00393							
LMMA_00343	smooth muscle cell						
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	Freticular cell						
LMMA_00356							
LMMA_00386	Lunclassified fibroblast						
LMMA_00168	 extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158	elastic fiber						
LMMA_00180	ground substance						

```
LMMA_00529
             | | | | | | | | | glycosaminoglycan
LMMA 00178
                      II
                           ⊢ glycoprotein
LMMA 00283
                 LMMA 00320
                    LMMA_00292
                  pulmonary artery tunica adventitia
LMMA 00395
                    vasa vasorum
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                      connective tissue cell
                      | Freticular cell
LMMA 00685
LMMA_00356
                        - telocyte
LMMA 00386
                      | | unclassified fibroblast
LMMA 00168
                      extracellular matrix
LMMA 00145
                        collagen fiber
LMMA 00158
                      l elastic fiber
LMMA_00180
                        F ground substance
LMMA 00529
                        | | glycosaminoglycan
LMMA 00178
                      1 1
                           ⊢ glycoprotein
LMMA 00283
                      | | | proteoglycan
LMMA_00320
             | | | | | | reticular fiber
LMMA_00290
             pulmonary arteriole
LMMA 00304
            pulmonary muscular arteriole
                 | | pulmonary muscular arteriole tunica intima
LMMA_00488
LMMA_00078
                    | | basement membrane
LMMA 00089
LMMA 00392
                      ├ vascular endothelial cell
                      proliferative endothelial cell
LMMA 00617
LMMA 00378
                      - subendothelial connective tissue cell
LMMA_00273
                      | | pericyte
                      | | telocyte
LMMA_00356
LMMA 00440
                      ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                         - connective tissue cell
LMMA_00685
                           reticular cell
                        1
LMMA_00356
                      1 1
                           telocyte
LMMA 00386
                           unclassified fibroblast
                         - extracellular matrix
LMMA 00168
LMMA 00145
                           collagen fiber
LMMA 00158
                           le elastic fiber
LMMA 00180
                           round substance
LMMA 00529
                           | | glycosaminoglycan
                         ı
LMMA_00178
                        -
                           | | glycoprotein
LMMA_00283
                      LMMA 00320
                        | | reticular fiber
LMMA 00489
                      pulmonary muscular arteriole tunica media
LMMA 00393
                      - vascular smooth muscle
                         Fproliferative smooth muscle cell
LMMA_00655
LMMA 00440
                      ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      LMMA 00685
                        | Freticular cell
LMMA 00356
                      telocyte
                    LMMA 00386
LMMA_00168
```

```
LMMA_00145
                  I I I I
                            collagen fiber
LMMA 00158
                            le elastic fiber
LMMA 00180
                            ground substance
LMMA 00529
                            | | glycosaminoglycan
LMMA_00178
                            | | glycoprotein
LMMA 00283
                       LMMA 00320
                       | pulmonary muscular arteriole tunica adventitia
LMMA_00486
LMMA_00395
              LMMA 00440
                       - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
                            reticular cell
LMMA_00685
                       11
LMMA 00356
                            telocyte
                          Т
LMMA 00386
                         unclassified fibroblast
LMMA_00168
                          - extracellular matrix
                            - collagen fiber
LMMA 00145
LMMA 00158
                            le elastic fiber
LMMA_00180
                          Т
                            round substance
                            | | glycosaminoglycan
LMMA_00529
                         - 1
LMMA 00178
                            | | glycoprotein
LMMA 00283
                            | | proteoglycan
LMMA 00320
                     | | | | reticular fiber
LMMA_00297
                  pulmonary distal arteriole
LMMA 00299
                     pulmonary distal arteriole tunica intima
                     | | arteriole endothelium
LMMA_00078
LMMA_00089
                       │ ├ basement membrane
LMMA_00392
                          - vascular endothelial cell
LMMA 00378
                       - subendothelial connective tissue cell
LMMA 00273
                       | | pericyte
LMMA_00356
                       | | telocyte
LMMA 00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          - connective tissue cell
LMMA 00685
                         reticular cell
LMMA_00356
                          П
                            telocyte
LMMA 00386
                            unclassified fibroblast
                          1
LMMA_00168
                         - extracellular matrix
LMMA 00145
                            collagen fiber
LMMA 00158
                            elastic fiber
LMMA_00180
                            round substance
                       11
LMMA 00529
                          Т
                            LMMA_00178
                            | | glycoprotein
LMMA 00283
                            | | proteoglycan
                         LMMA 00320
                            reticular fiber
                         1
LMMA_00300
                       pulmonary distal arteriole tunica media
                       vascular smooth muscle
LMMA_00393
                       | |- smooth muscle cell
LMMA 00343
LMMA 00440
                       ► vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                       | |- connective tissue cell
                       | | reticular cell
LMMA_00685
LMMA 00356
                  LMMA 00386
                  | | | | | unclassified fibroblast
```

```
LMMA_00168
                   LMMA 00145
                          Т
                             collagen fiber
LMMA 00158
                             lelastic fiber
LMMA 00180
                          1
                             F ground substance
LMMA_00529
                             | | glycosaminoglycan
LMMA 00178
                             | glycoprotein
LMMA 00283
                          | | proteoglycan
                     | | | reticular fiber
LMMA 00320
LMMA_00298
                | | | pulmonary distal arteriole tunica adventitia
                        - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA_00136
                        | | connective tissue cell
                             reticular cell
LMMA_00685
                        11
LMMA 00356
                             telocyte
                          Т
LMMA 00386
                          unclassified fibroblast
LMMA_00168
                          - extracellular matrix
                             - collagen fiber
LMMA 00145
LMMA 00158
                             le elastic fiber
                         LMMA_00180
                          Т
                             round substance
                        | | glycosaminoglycan
LMMA_00529
LMMA 00178
                     | | | | | glycoprotein
LMMA 00283
                        11
                             | | proteoglycan
LMMA 00320
                   | | | | | reticular fiber
LMMA_00305
              pulmonary vein
LMMA 00307
                   pulmonary vein tunica intima
LMMA_00378
                  subendothelial connective tissue cell
LMMA_00273
                  LMMA_00356
                        le telocyte
LMMA 00397
                     - vein endothelium
LMMA 00089
                        basement membrane
LMMA_00507
                     ├ venous endothelial cell
LMMA 00440
                     ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                        connective tissue cell
LMMA 00685
                        reticular cell
LMMA_00356
                        | | telocyte
LMMA 00386
                        | | unclassified fibroblast
LMMA_00168
                        - extracellular matrix
LMMA 00145
                          collagen fiber
LMMA 00158
                          elastic fiber
LMMA_00180
                        ground substance
LMMA 00529
                          1
                             ⊢ glycosaminoglycan
LMMA_00178
                             ⊢ glycoprotein
                          LMMA 00283
                        LMMA 00320
                        reticular fiber
LMMA_00308
                   pulmonary vein tunica media
LMMA_00393
                     lacktriangler vascular smooth muscle
LMMA 00655
                        proliferative smooth muscle cell
LMMA 00399
                     - venous cardiac muscle (syn: cardiac muscle)
LMMA_00132
                        -cardiomyocyte (syn: cardiac myocyte)
                     ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00440
LMMA 00136
              I I I I ⊢ connective tissue cell
              | | | | | | | reticular cell
LMMA 00685
```

```
LMMA_00356
              LMMA 00386
                       | | unclassified fibroblast
                       - extracellular matrix
LMMA 00168
LMMA 00145
                       | | collagen fiber
LMMA 00158
                         elastic fiber
LMMA 00180
                       | | ground substance
LMMA 00529
                         | | glycosaminoglycan
LMMA_00178
                       LMMA 00283
                     | | | | proteoglycan
LMMA 00320
                       reticular fiber
LMMA 00306
                   - pulmonary vein tunica adventitia
LMMA 00395
                     vasa vasorum
LMMA 00440
                     - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
LMMA_00685
                       reticular cell
                       | | telocyte
LMMA 00356
LMMA 00386
                       unclassified fibroblast
LMMA_00168
                       extracellular matrix
LMMA 00145
                       | | collagen fiber
LMMA 00158
                          elastic fiber
LMMA_00180
                          F ground substance
LMMA 00529
                            ⊢ glycosaminoglycan
LMMA 00178
                         Т
                            glycoprotein
LMMA 00283
                  LMMA 00320
             | | | | | | reticular fiber
LMMA_00316
             pulmonary venule
                  - pulmonary muscular venule
LMMA 00309
LMMA_00311
                     pulmonary muscular venule tunica intima
LMMA_00403
                       venule endothelium
LMMA 00089
                       LMMA 00392
                       | | vascular endothelial cell
LMMA_00617
                         proliferative endothelial cell
LMMA_00378
                       - subendothelial connective tissue cell
LMMA 00273
                       | | pericyte
LMMA 00356
                       | | telocyte
LMMA 00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                          - connective tissue cell
LMMA 00685
                            reticular cell
LMMA 00356
                          ı
                            telocyte
LMMA_00386
                         unclassified fibroblast
LMMA 00168
                          - extracellular matrix
LMMA 00145
                            collagen fiber
LMMA 00158
                            elastic fiber
LMMA_00180
                            F ground substance
LMMA 00529
                            | | glycosaminoglycan
                         Т
LMMA 00178
                            | glycoprotein
LMMA_00283
                            | | proteoglycan
LMMA 00320
                         reticular fiber
LMMA 00312
                     pulmonary muscular venule tunica media
                     | | vascular smooth muscle
LMMA 00393
                  Т
LMMA_00343
             | | | | | smooth muscle cell
```

```
LMMA_00399
                       lacktriangleright representation with the venous cardiac muscle (syn: cardiac muscle)
LMMA 00132
                       ☐ cardiomyocyte (syn cardiac myocyte)
LMMA 00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                         connective tissue cell
LMMA 00685
                            reticular cell
                            le telocyte
LMMA_00356
                       11
LMMA_00386
                          1
                            unclassified fibroblast
LMMA 00168
                         extracellular matrix
LMMA 00145
                          1
                            collagen fiber
                            le elastic fiber
LMMA_00158
LMMA_00180
                            round substance
                         -
LMMA 00529
                            | | glycosaminoglycan
                         Т
LMMA 00178
                         -
                            | | glycoprotein
LMMA 00283
                     LMMA 00320
                         1
                            reticular fiber
                     - pulmonary muscular venule tunica adventitia
LMMA 00310
LMMA 00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                          connective tissue cell
                       | | reticular cell
LMMA_00685
LMMA 00356
                            telocyte
                            - unclassified fibroblast
LMMA 00386
LMMA 00168
                          - extracellular matrix
                            collagen fiber
LMMA 00145
                          ı
LMMA 00158
                            elastic fiber
LMMA 00180
                       LMMA 00529
                          1
                            | | glycosaminoglycan
                            | | glycoprotein
LMMA 00178
LMMA_00283
                       | | | reticular fiber
LMMA 00320
LMMA_00301
              pulmonary distal venule
LMMA 00303
                     pulmonary distal venule tunica intima
                       venule endothelium
LMMA_00403
LMMA_00089
                       | | basement membrane
LMMA 00392
                       | | vascular endothelial cell
                       subendothelial connective tissue cell
LMMA 00378
LMMA 00273
                       | | pericyte
LMMA_00356
                         le telocyte
LMMA 00440
                       - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
                            reticular cell
LMMA_00685
                         1
LMMA 00356
                            telocyte
LMMA 00386
                            unclassified fibroblast
LMMA 00168
                          - extracellular matrix
                            collagen fiber
LMMA 00145
                         1
LMMA 00158
                          Т
                            elastic fiber
LMMA 00180
                         fround substance
LMMA_00529
                            | | glycosaminoglycan
LMMA 00178
                              - glycoprotein
LMMA 00283
                            | | proteoglycan
                       1 1
LMMA 00320
                       LMMA_00302
```

```
LMMA_00440
                      ► vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                        connective tissue cell
                           reticular cell
LMMA 00685
LMMA 00356
                           telocyte
LMMA 00386
                           unclassified fibroblast
                        extracellular matrix
LMMA_00168
LMMA 00145
                        Т
                           collagen fiber
LMMA 00158
                           elastic fiber
LMMA 00180
                           round substance
                        LMMA_00529
                           glycosaminoglycan
LMMA 00178
                           | | glycoprotein
LMMA 00283
                      | | | | proteoglycan
LMMA 00320
                 | | | | | reticular fiber
LMMA 00447
             pulmonary lymphatic vessel
LMMA_00221
             LMMA 00422
                    lymphatic endothelium
LMMA 00089
                    | | basement membrane
LMMA_00216
                      lymphatic endothelial cell
LMMA_00378
                    - subendothelial connective tissue cell
LMMA 00273
                    | | pericyte
LMMA 00356
                      telocyte
LMMA 00440
                    ├ vascular connective tissue (syn: perivascular connective tissue)
                      connective tissue cell
LMMA 00136
                      reticular cell
LMMA 00685
                      | |- telocyte
LMMA_00356
                        unclassified fibroblast
LMMA 00386
LMMA 00168
                      - extracellular matrix
LMMA_00145
                        collagen fiber
                        elastic fiber
LMMA_00158
LMMA_00180
                    ☐ ☐ ground substance
LMMA 00529
                      LMMA_00178
                           ⊢ glycoprotein
LMMA_00283
                    LMMA 00320
                    LMMA_00222
                  lymphatic vessel tunica media
LMMA_00217
                    lymphatic smooth muscle
LMMA 00343
                      smooth muscle cell
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA_00685
                      reticular cell
LMMA_00356
                      | | telocyte
                        unclassified fibroblast
LMMA 00386
LMMA 00168
                      extracellular matrix
LMMA_00145
                        collagen fiber
LMMA 00158
                        le elastic fiber
LMMA_00180
                        ground substance
LMMA_00529
                           ⊢ glycosaminoglycan
LMMA 00178
                           ⊢ glycoprotein
LMMA 00283
                      | | | | reticular fiber
LMMA 00320
LMMA 00220
```

LMMA_00440	hascular connective tissue (syn: perivascular connective tissue)
LMMA_00136	│
LMMA_00685	 reticular cell
LMMA_00356	
LMMA_00386	│
LMMA_00168	extracellular matrix
LMMA_00145	│
LMMA_00158	│
LMMA_00180	│
LMMA_00529	 glycosaminoglycan
LMMA_00178	│
LMMA_00283	│
LMMA_00320	│

<u>LMMA_00210</u> lower respiratory tract – E18.5 (early saccular stage of mouse lung development)

LMMA_00361	trachea						
LMMA 00362	- trachea bifurcation						
LMMA 00365	- trachea lumen						
LMMA 00366	trachea wall						
LMMA_00415	racheal mucosa						
LMMA 00414	tracheal mucosa tracheal epithelium						
LMMA 00089	│						
LMMA 00590	tracheal epithelial cell						
LMMA_00087	basal cell						
LMMA_00142	ciliated cell						
LMMA 00184							
LMMA_00526	│						
LMMA_00238	mucus cell (syn: mucous cell)						
LMMA 00252	I I I ⊢ neuroendocrine cell						
LMMA_00340	I I I F serous cell						
LMMA_00384	unclassified epithelial cell						
LMMA 00483	tracheal lamina propria						
LMMA_00136	│						
LMMA_00685	│						
LMMA_00356	telocyte						
LMMA 00386	unclassified fibroblast						
LMMA 00168							
LMMA_00145	collagen fiber						
LMMA 00158	Helastic fiber						
LMMA_00180	F ground substance						
_ LMMA 00529	glycosaminoglycan						
_ LMMA 00178							
_ LMMA_00283	proteoglycan						
LMMA_00320	reticular fiber						
LMMA_00416	├ tracheal submucosa						
LMMA_00606	│						
LMMA_00592	annular ligament						
LMMA_00183	│						
LMMA_00141	 chondrocyte						
LMMA_00168	extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158	elastic fiber						
LMMA_00180	ground substance						
LMMA_00529	│						
LMMA_00178	│						
LMMA_00283							
LMMA_00320	 reticular fiber						
LMMA_00370	trachealis muscle (syn: membranous trachea)						
LMMA_00343							
LMMA_00410							
LMMA_00412	perichondrium						
LMMA_00136	Connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356	 telocyte						

```
| | | | unclassified fibroblast
LMMA_00386
LMMA_00168
          | | | extracellular matrix
LMMA_00145
          LMMA 00158
          | | | | elastic fiber
LMMA_00180
         LMMA_00529
          LMMA_00178
          LMMA_00283
          LMMA_00320
          | | | | reticular fiber
LMMA_00367
          | | tracheal adventitia
LMMA_00055
          | | | | adipocyte
LMMA 00054
LMMA_00136
          | | connective tissue cell
LMMA_00685
          | | | reticular cell
LMMA_00356
              | | telocyte
LMMA 00386
              unclassified fibroblast
              extracellular matrix
LMMA_00168
              | | collagen fiber
LMMA_00145
LMMA 00158
          | | | | elastic fiber
LMMA_00180
                F ground substance
          LMMA_00529
LMMA_00178
          | | | | | | glycoprotein
          LMMA 00283
```

LMMA_00120 bronchus

LMMA_00527	main bronchus (syn: primary bronchus; mainstem bronchus)
LMMA_00205	
LMMA_00329	Fright lung main bronchus (syn: right lung primary bronchus; right lung mainstem bronchus)
LMMA_00528	lobar bronchus (syn: secondary bronchus)
LMMA_00333	Fright lung upper lobar bronchus (syn: right cranial lobar bronchus; right apical lobar bromchus
LMMA_00331	├ right lung middle lobar bronchus (syn: right cardiac lobar bronchus)
LMMA_00325	Fright lung lower lobar bronchus (syn: right caudal lobar bronchus; right diaphragmatic lobar bronchus)
LMMA_00323	Fright lung accessory lobar bronchus (syn: right post-caval lobar bronchus; right infra-cardiac lobar
bronchus; right	intermediate lobar bronchus)

Note: The classification scheme for each bronchus above is the same, as follows:

LMMA_00123	\perp	├ bronchus lumen
LMMA_00124	\perp	├ bronchus wall
LMMA_00418	\perp	
LMMA_00101	-1	│
LMMA_00089	\perp	│
LMMA_00591	\perp	│
LMMA_00087	-1	
LMMA_00142	-1	 ciliated cell
LMMA_00184	\perp	
LMMA_00526	\perp	intermediate airway progenitor cell
LMMA_00238	\perp	mucus cell (syn: mucous cell)
LMMA_00252	-1	heuroendocrine cell

```
LMMA_00340
                  | | | | | serous cell
LMMA 00384
                        LMMA 00481
                        bronchial lamina propria
LMMA 00136
                          connective tissue cell
LMMA 00685
                             reticular cell
                             le telocyte
LMMA_00356
                        11
LMMA_00386
                          1
                             unclassified fibroblast
LMMA 00168
                          - extracellular matrix
LMMA 00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA_00180
                             F ground substance
LMMA 00529
                             | | glycosaminoglycan
LMMA 00178
                             | | glycoprotein
LMMA 00283
                             | | proteoglycan
                          LMMA 00320
                          | Freticular fiber
LMMA 00482
                        bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA 00343
                        | | smooth muscle cell
LMMA_00419
                     bronchial submucosa
LMMA 00133
                     bronchial cartilaginous ring (syn: cartilage ring; cartilage; cartilaginous ring)
                          bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA_00482
LMMA 00343
                             smooth muscle cell
                        I ⊢ hyaline cartilage
LMMA 00183
LMMA 00141
                          ☐ chondrocyte
LMMA 00168
                             extracellular matrix
LMMA_00145
                             | | collagen fiber
LMMA 00158
                               elastic fiber
LMMA_00180
                               F ground substance
                               | | glycosaminoglycan
LMMA_00529
LMMA_00178
                               ⊢ glycoprotein
LMMA 00283
                               ⊢ proteoglycan
LMMA 00320
                               reticular fiber
LMMA 00410
                          Fibroelastic membrane (syn: fibroelastic tissue; fibroelastic connective tissue)
LMMA 00412
                          - perichondrium
LMMA_00592
                        annular ligament
LMMA_00136
                        - connective tissue cell
                          reticular cell
LMMA 00685
LMMA 00356
                          le telocyte
LMMA 00386
                        unclassified fibroblast
LMMA_00168
                        extracellular matrix
LMMA_00145
                        | collagen fiber
LMMA 00158
                           le elastic fiber
LMMA_00180
                          F ground substance
LMMA_00529
                             ⊢ glycosaminoglycan
LMMA 00178
                             - glycoprotein
LMMA 00283
                        LMMA 00320
                     | | reticular fiber
LMMA_00094
                     bronchial adventitia
LMMA 00055
                     adipose tissue
LMMA 00054
                        | | adipocyte
                     Т
LMMA_00136
                     | |- connective tissue cell
LMMA 00685
              | | | | | | reticular cell
```

```
LMMA_00356
             LMMA_00386
             | | | extracellular matrix
LMMA_00168
LMMA_00145
                 | | collagen fiber
LMMA 00158
               | | elastic fiber
LMMA_00180
               │ │ ├ ground substance
LMMA_00529 | |
             LMMA 00178
         LMMA 00283
         LMMA_00320
         LMMA_00211 lung
LMMA_00199 | left lung
LMMA_00326 right lung
         | | right lung upper lobe (syn: right cranial lobe; right apical lobe)
LMMA_00332
LMMA_00330 | | right lung middle lobe (syn: right cardiac lobe)
LMMA 00324
         LMMA 00322
          ├ right lung accessory lobe (syn: right post-caval lobe; right infra-cardiac lobe; right intermediate lobe)
```

Note: The classification scheme for the left lung and right lung middle, lower, and accessory lobes is the same as for the right lung upper lobe below:

LMMA 00332	Fright lung upper lobe							
LMMA 00605	Fright lung upper lobe hilum							
LMMA 00039	right upper lobe bronchiole							
LMMA_00140								
LMMA 00138	I I I F central bronchiolar lumen							
LMMA 00139	I I I F central bronchiolar wall							
LMMA 00286								
LMMA 00089								
LMMA 00582	bronchiolar epithelial cell							
LMMA 00142								
LMMA 00184								
LMMA 00252	I I I I I I I heuroendocrine cell							
LMMA 00253	neuroepithelial body							
LMMA 00252	heuroendocrine cell							
LMMA 00384								
LMMA 00525	bronchiolar connective tissue (syn: peribronchiolar connective tissue)							
LMMA 00136	I I I I F connective tissue cell							
LMMA 00685								
LMMA 00356								
LMMA 00386								
_ LMMA 00168								
_ LMMA 00145								
LMMA 00158	elastic fiber							
LMMA_00180								
LMMA_00529								
LMMA_00178								
LMMA_00283								
LMMA_00320								
LMMA_00240	bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)							

```
| | | | | | | | | | | | | | | | smooth muscle cell
LMMA_00343
LMMA 00198
                      lateral bronchiole (syn: distal bronchiole; secondary bronchiole)
                   LMMA 00196
LMMA 00197
                      Т
                        lateral bronchiolar wall
LMMA 00433
                           lateral bronchiolar epithelium (syn: distal bronchiolar epithelium)
                              basement membrane
LMMA_00089
LMMA_00582
                           Т
                             bronchiolar epithelial cell
LMMA 00142
                             | | ciliated cell
LMMA 00184
                                immature club cell (syn: immature Clara cell)
LMMA 00252
                                heuroendocrine cell
LMMA_00253
                                heuroepithelial body
LMMA 00252
                                | | neuroendocrine cell
LMMA 00384
                             | Lanclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00525
                           bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA 00136
                              - connective tissue cell
                                reticular cell
LMMA 00685
LMMA 00356
                                le telocyte
LMMA_00386
                              unclassified fibroblast
                              - extracellular matrix
LMMA 00168
LMMA_00145
                                collagen fiber
LMMA 00158
                                elastic fiber
LMMA 00180
                                round substance
LMMA 00529
                             LMMA 00178
                             | | | glycoprotein
LMMA 00283
                                | | proteoglycan
LMMA 00320
                             reticular fiber
LMMA 00240
                        bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
                        | | | smooth muscle cell
LMMA 00343
                      1
              | | terminal bronchiole
LMMA_00359
LMMA 00357
                        terminal bronchiolar lumen
LMMA 00358
                         terminal bronchiolar wall
                           terminal bronchiolar epithelium
LMMA 00457
LMMA 00089
                             basement membrane
LMMA 00582
                              bronchiolar epithelial cell
LMMA_00142
                                ciliated cell
                                immature club cell (syn: immature Clara cell)
LMMA 00184
LMMA 00252
                                heuroendocrine cell
LMMA 00253
                                heuroepithelial body
LMMA_00252
                             LMMA 00384
                             | Lanclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00525
                           bronchiolar connective tissue (syn: peribronchiolar connective tissue))
LMMA 00136
                             connective tissue cell
                                reticular cell
LMMA 00685
                             Т
LMMA_00356
                                telocyte
LMMA 00386
                             | |- unclassified fibroblast
LMMA 00168
                              extracellular matrix
LMMA 00145
                                - collagen fiber
LMMA 00158
                                elastic fiber
LMMA_00180
                          | | ground substance
LMMA 00529
                      | | | | | | | glycosaminoglycan
LMMA 00178
              | | | | | | | | | | | | | glycoprotein
```

LMMA_00283								
LMMA_00320								
LMMA_00240	bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)							
LMMA_00343								
LMMA_00044	right upper lobe pre-alveolar parenchyma							
LMMA_00610	pre-alveolar transitory duct (syn: smooth-walled channel; transitory duct)							
LMMA_00611	│							
LMMA_00089	basement membrane							
LMMA_00612	transitory duct epithelial cell							
LMMA_00187	intermediate pneumocyte (syn: intermediate alveolar epithelial cell;							
	intermediate pneumocyte)							
LMMA_00379								
LMMA_00381	type II pneumocyte (syn: alveolar epithelial type II cell; AT2 cell; AEC2)							
LMMA_00380	immature type pneumocyte (syn: pre-type pneumocyte)							
LMMA_00382	immature type II pneumocyte (syn: pre-type II pneumocyte)							
LMMA_00485	pre-alveolar terminal saccule (syn: distal terminal saccule; lung saccule; pre-alveolar primary saccule; pre-alveolar primitive saccule; proximal terminal saccule;							
	smooth-walled saccule; terminal air sac; terminal lung saccule)							
LMMA_00424	terminal saccule epithelium (syn: epithelium, distal saccule; primary saccule; transitory saccule)							
LMMA_00089	basement membrane							
LMMA_00576	terminal saccule epithelial cell							
LMMA_00187	intermediate pneumocyte (syn: intermediate alveolar epithelial cell;							
	intermediate pneumocyte)							
LMMA_00379								
LMMA_00381	type II pneumocyte (syn: alveolar epithelial type II cell; AT2 cell; AEC2)							
LMMA_00585	pre-alveolar saccule interstitial tissue (syn: interstitial tissue; pre-alveolar saccular mesenchyme)							
LMMA_00587	pre-alveolar saccule interstitial cell (syn: interstitial tissue cell; pre-alveolar saccule							
mesenchymal								
	cell; pre-alveolar saccule stromal cell)							
LMMA_00007								
LMMA_00243	myofibroblast							
LMMA_00273								
LMMA_00607								
LMMA_00608								
LMMA_00356	Helocyte							
LMMA_00386								
LMMA_00168								
LMMA_00145								
LMMA_00158								
LMMA_00180	Fground substance							
LMMA_00529								
LMMA_00178	I I I I Fglycoprotein							
LMMA_00283								
LMMA_00320	Freticular fiber							
LMMA_00442								
LMMA_00583								
LMMA_00129								
LMMA_00089	basement membrane							
LMMA_00392								
LMMA_00617								

```
LMMA_00046
                  right upper lobe visceral pleura
LMMA 00405
                     - visceral connective tissue
LMMA 00136
                       - connective tissue cell
LMMA 00685
                         reticular cell
LMMA_00685
                          reticular cell
LMMA 00356
                          - telocyte
                         unclassified fibroblast
LMMA 00386
LMMA_00168
                       extracellular matrix
                       | | collagen fiber
LMMA_00145
                  II
LMMA 00158
                       elastic fiber
LMMA 00180
                         ground substance
LMMA_00529
                            ⊢ glycosaminoglycan
LMMA_00178
                       1 1
                            - glycoprotein
LMMA 00283
                       LMMA 00320
                     reticular fiber
LMMA_00386
                     unclassified fibroblast
LMMA 00406
                     visceral mesothelium
LMMA 00089
              LMMA 00231
LMMA_00520
             respiratory autonomic nervous system (syn: autonomic respiratory nervous system)
LMMA 00641
              pulmonary autonomic nerve
LMMA 00257
              hon-adrenergic and non-cholinergic nerve (syn: sensory nerve)
LMMA 00247
             LMMA_00338
                  Figlial cell (syn: neuroglial cell; Schwann cell)
                postganglionic parasympathetic nerve (syn: cholinenergic innervation)
LMMA 00270
LMMA 00247
             LMMA 00338
                  Figlial cell (syn: neuroglial cell; Schwann cell)
             | | postganglionic sympathetic nerve (syn: adrenergic innervation)
LMMA_00352
LMMA 00247
                  nerve fiber
LMMA_00338
              III
                  Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA_00642
              LMMA 00247
              LMMA_00338
              pulmonary autonomic ganglion (syn: nerve cell cluster)
LMMA_00634
LMMA 00521
              ☐ autonomic neuron (syn: autonomic ganglion cell; autonomic ganglion neuron))
LMMA 00338
             | | glial cell (syn: neuroglial cell; Schwann cell)
LMMA 00633
              pulmonary nerve plexus
LMMA_00635
              | | left pulmonary nerve plexus
LMMA_00636
                  left anterior pulmonary nerve plexus
LMMA_00637
             1 1
                  left posterior pulmonary nerve plexus
LMMA 00638
             | | right pulmonary nerve plexus
LMMA 00639
                  right anterior pulmonary nerve plexus
LMMA_00640
                  right posterior pulmonary nerve plexus
LMMA_00643
              Figeneral visceral nervous system
LMMA_00644
              ☐ peneral visceral afferent nerve (syn: sensory nerve)
LMMA 00247
              I I ⊢ nerve fiber
LMMA 00338
                  | glial cell (syn: neuroglial cell; Schwann cell)
LMMA_00645
                  ├ visceral afferent sensory nerve terminal (syn: visceral afferent sensory nerve receptor)
```

```
LMMA_00522
             respiratory immune system
LMMA 00185
             immune cell
             | |- lymphoid cell
LMMA 00614
LMMA 00241
               myeloid cell
LMMA 00182
                  - macrophage
LMMA 00609
            111
                    immature macrophage (syn: fetal macrophage; immature alveolar macrophage)
LMMA 00213
                    interstitial macrophage (syn: lung tissue macrophage; pulmonary interstitial macrophage)
LMMA_00613
             LMMA 00668
LMMA_00626
             lymphoid tissue
LMMA 00475
             | | bronchus associated lymphoid tissue
LMMA_00523
             respiratory vascular system
LMMA_00692
              blood cell
LMMA 00619
             | | erythrocyte
LMMA 00819
             | | peripheral blood lymphocyte
LMMA 00104
              bronchial blood vessel
LMMA_00098
             bronchial artery
             bronchial arteriole
LMMA_00095
LMMA_00105
                bronchial vein
LMMA 00109
             bronchial venule
LMMA_00519
             | |- bronchial capillary
LMMA 00293
            | | | capillary tunica intima
LMMA 00378
            111
                    - subendothelial connective tissue cell
LMMA 00273
                    | | pericyte
LMMA_00356
                    | telocyte
LMMA 00440
                    rissue vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
                    | | reticular cell
LMMA_00685
LMMA 00356
                         le telocyte
                         unclassified fibroblast
LMMA 00386
LMMA_00168
                       - extracellular matrix
LMMA_00145
                         - collagen fiber
LMMA 00158
                       elastic fiber
LMMA_00180
                       ground substance
LMMA_00529
                           ⊢ glycosaminoglycan
LMMA 00178
                       LMMA 00283
                       LMMA_00320
                  | | | | reticular fiber
LMMA 00292
             LMMA 00440
                     - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
LMMA_00685
                       reticular cell
LMMA_00356
                         telocyte
LMMA 00386
                       unclassified fibroblast
LMMA 00168
                    extracellular matrix
LMMA 00145
                  | | | collagen fiber
LMMA 00158
             | | | | | | elastic fiber
```

LMMA_00180	-	ı	1	-	-	ground substance
LMMA_00529	- 1	1	1	1		glycosaminoglycan
LMMA_00178	-	Ι	1	1	1	│ ├ glycoprotein
LMMA_00283	- [1	1		
LMMA 00320		1	Т	Т	Т	reticular fiber

Note: the classification schema for "bronchial blood vessel" is as follows:

- The classification scheme for the "bronchial artery" is the same as for the "pulmonary muscular artery" below
- The classification scheme for the "bronchial arteriole" is the same as for the "pulmonary distal arteriole" below
- The classification scheme for the "bronchial venule" is the same as for the "pulmonary vein" (does not include the "vasa vasorum") below
- The classification scheme for the "bronchial artery" is the same as for the "pulmonary distal venule" below

LMMA_00315	- pulmonary blood vessel
LMMA_00632	hintra-parenchymal blood vessel
LMMA_00291	- pulmonary artery
LMMA_00293	│
LMMA_00081	 artery endothelium
LMMA_00089	basement membrane
LMMA_00616	arterial endothelial cell
LMMA_00191	internal elastic membrane
LMMA_00378	subendothelial connective tissue cell
LMMA_00273	
LMMA_00356	telocyte
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136	│
LMMA_00685	reticular cell
LMMA_00356	telocyte
LMMA_00386	unclassified fibroblast
LMMA_00168	extracellular matrix
LMMA_00145	collagen fiber
LMMA_00158	elastic fiber
LMMA_00180	│
LMMA_00529	
LMMA_00178	glycoprotein
LMMA_00283	
LMMA_00320	
LMMA_00294	
LMMA_00167	external elastic membrane
LMMA_00393	
LMMA_00343	
LMMA_00440	
LMMA_00136	
LMMA_00685	
LMMA_00356 LMMA_00386	I I I I ⊢ unclassified fibroblast
LMMA 00168	extracellular matrix
LMMA 00145	collagen fiber
LMMA 00158	conagent tiber
LMMA_00138	
LMMA 00529	
	1 1 1 1 1 1 5,7003405,704

```
LMMA_00178
             | | | | | | | | glycoprotein
LMMA 00283
                       LMMA 00320
              | | | | | | reticular fiber
LMMA 00292
              | | | pulmonary artery tunica adventitia
LMMA_00395
                     - vasa vasorum
LMMA 00440
                     - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
                     | | reticular cell
LMMA_00685
                       | | telocyte
LMMA 00356
LMMA 00386
                         unclassified fibroblast
LMMA 00168
                       - extracellular matrix
LMMA 00145
                          collagen fiber
                       ı
LMMA 00158
                         elastic fiber
LMMA 00180
                     | | ground substance
LMMA_00529
                       LMMA 00178
                            - glycoprotein
LMMA 00283
                     LMMA 00320
                  | | | | reticular fiber
LMMA_00290
             | |- pulmonary arteriole
LMMA_00304
              pulmonary muscular arteriole
LMMA 00488
                     pulmonary muscular arteriole tunica intima
LMMA_00078
                     LMMA_00089
                       | | basement membrane
                         - vascular endothelial cell
LMMA 00392
LMMA 00617
                     LMMA 00378
                       - subendothelial connective tissue cell
LMMA 00273
                       | | pericyte
LMMA 00356
                       | | telocyte
LMMA 00440
                       - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       ☐ connective tissue cell
LMMA 00685
                         1
                            reticular cell
                            le telocyte
LMMA_00356
                            unclassified fibroblast
LMMA_00386
LMMA 00168
                          - extracellular matrix
LMMA 00145
                            collagen fiber
LMMA_00158
                            le elastic fiber
LMMA_00180
                            round substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                              - glycoprotein
                         1
                            ı
LMMA_00283
                       1 1
                            | | proteoglycan
LMMA 00320
                     | | | | reticular fiber
LMMA 00489
                     pulmonary muscular arteriole tunica media
LMMA 00393
                       - vascular smooth muscle
LMMA 00343
                       | | smooth muscle cell
LMMA_00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
LMMA 00685
                       11
                            reticular cell
LMMA 00356
                            - telocyte
                       | | | unclassified fibroblast
LMMA 00386
LMMA 00168
                  | | | | extracellular matrix
LMMA_00145
             | | | | | | | collagen fiber
```

```
LMMA_00158
                   I I I I
                             elastic fiber
LMMA 00180
                          1
                             round substance
LMMA 00529
                             | | glycosaminoglycan
LMMA 00178
                                ⊢ glycoprotein
LMMA 00283
                             | | proteoglycan
LMMA 00320
                      | | | | reticular fiber
                      pulmonary muscular arteriole tunica adventitia
LMMA 00486
LMMA_00395
                        - vasa vasorum
LMMA_00440
                        ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
LMMA 00685
                             reticular cell
                             ⊢ telocyte
LMMA_00356
                          Т
LMMA 00386
                             unclassified fibroblast
LMMA 00168
                           extracellular matrix
LMMA_00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA 00180
                             ground substance
                             | | glycosaminoglycan
LMMA_00529
                          Т
LMMA_00178
                        LMMA 00283
                      | | | | | proteoglycan
LMMA 00320
                        | | | reticular fiber
                   pulmonary distal arteriole
LMMA_00297
                      pulmonary distal arteriole tunica intima
LMMA 00299
LMMA 00078
                        arteriole endothelium
LMMA 00089
                        basement membrane
LMMA_00392
                        ├ vascular endothelial cell
                           | | proliferative endothelial cell
LMMA_00617
LMMA 00378
                        - subendothelial connective tissue cell
LMMA 00273
                        | | pericyte
LMMA_00356
                        | | telocyte
LMMA 00440
                        ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                           - connective tissue cell
LMMA 00685
                             reticular cell
LMMA_00356
                           П
                             telocyte
LMMA 00386
                           | |- unclassified fibroblast
                          extracellular matrix
LMMA 00168
LMMA 00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA_00180
                             round substance
                          LMMA 00529
                           Т
                             | | glycosaminoglycan
LMMA_00178
                             | | glycoprotein
LMMA 00283
                             | | proteoglycan
                          LMMA 00320
                             reticular fiber
LMMA_00300
                        pulmonary distal arteriole tunica media
                        vascular smooth muscle
LMMA_00393
                        | |- smooth muscle cell
LMMA 00343
LMMA 00440
                        ► vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                        | |- connective tissue cell
                        | | | reticular cell
LMMA_00685
LMMA 00356
                   LMMA 00386
                   | | | | | unclassified fibroblast
```

```
LMMA_00168
                  LMMA 00145
                         Т
                            collagen fiber
LMMA 00158
                            lelastic fiber
LMMA 00180
                         1
                            F ground substance
LMMA_00529
                            | | glycosaminoglycan
LMMA 00178
                            | | glycoprotein
LMMA 00283
                         | | proteoglycan
                     | | | reticular fiber
LMMA 00320
LMMA_00298
             - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA_00136
                       | | connective tissue cell
                            reticular cell
LMMA_00685
                       11
LMMA 00356
                            telocyte
                         Т
LMMA 00386
                         unclassified fibroblast
LMMA_00168
                         - extracellular matrix
                            - collagen fiber
LMMA 00145
LMMA 00158
                            le elastic fiber
                         -
LMMA_00180
                         Т
                            round substance
                       II
                            | | glycosaminoglycan
LMMA_00529
LMMA 00178
                       II
                            | | glycoprotein
LMMA 00283
                         - 1
                            | | | proteoglycan
LMMA 00320
                  | | | | | reticular fiber
LMMA_00305
             pulmonary vein
LMMA 00307
                  pulmonary vein tunica intima
LMMA_00378
                  subendothelial connective tissue cell
LMMA_00273
                  LMMA_00356
                       le telocyte
LMMA 00397
                     - vein endothelium
LMMA 00089
                       basement membrane
LMMA_00507
                     ├ venous endothelial cell
LMMA 00440
                     ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       - connective tissue cell
LMMA 00685
                       reticular cell
LMMA_00356
                       | | telocyte
LMMA_00386
                       | | unclassified fibroblast
LMMA_00168
                       - extracellular matrix
LMMA 00145
                         collagen fiber
LMMA 00158
                         elastic fiber
LMMA_00180
                       ground substance
LMMA 00529
                         ı
                            ⊢ glycosaminoglycan
LMMA_00178
                            ⊢ glycoprotein
                         LMMA 00283
                       LMMA 00320
                       reticular fiber
LMMA_00308
                  pulmonary vein tunica media
                     - vascular smooth muscle
LMMA_00393
                     | |- smooth muscle cell
LMMA 00343
LMMA 00399
                    venous cardiac muscle
LMMA_00132
                       -cardiomyocyte (syn: cardiac myocyte)
                     ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00440
LMMA 00136
             I I I I ⊢ connective tissue cell
             | | | | | | | reticular cell
LMMA 00685
```

```
LMMA_00356
             LMMA 00386
                      | | unclassified fibroblast
                      - extracellular matrix
LMMA 00168
LMMA 00145
                        collagen fiber
LMMA 00158
                        elastic fiber
LMMA 00180
                      | | ground substance
LMMA 00529
                         | | glycosaminoglycan
LMMA_00178
                        LMMA 00283
                      LMMA 00320
                      reticular fiber
LMMA 00306
                  - pulmonary vein tunica adventitia
LMMA 00395
                    vasa vasorum
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA_00685
                      reticular cell
LMMA 00356
                      telocyte
LMMA 00386
                      unclassified fibroblast
LMMA_00168
                      extracellular matrix
LMMA 00145
                      | | collagen fiber
LMMA 00158
                         elastic fiber
LMMA_00180
                         F ground substance
LMMA 00529
                           ⊢ glycosaminoglycan
LMMA 00178
                        Т
                           glycoprotein
LMMA 00283
                  LMMA 00320
             | | | | | reticular fiber
LMMA_00316
             pulmonary venule
             pulmonary muscular venule
LMMA 00309
LMMA_00311
                    pulmonary muscular venule tunica intima
LMMA_00403
                      venule endothelium
LMMA 00089
                      LMMA 00392
                      | | vascular endothelial cell
LMMA_00378
                      - subendothelial connective tissue cell
LMMA_00273
                      | | pericyte
LMMA 00356
                      | | telocyte
LMMA 00440
                      ► vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                         connective tissue cell
LMMA_00685
                        1
                           reticular cell
LMMA 00356
                           - telocyte
LMMA 00386
                           unclassified fibroblast
LMMA_00168
                         extracellular matrix
LMMA 00145
                           collagen fiber
LMMA 00158
                           le elastic fiber
LMMA_00180
                           F ground substance
                           | | glycosaminoglycan
LMMA_00529
LMMA 00178
                        1
                           | | glycoprotein
LMMA 00283
                           ⊢ proteoglycan
LMMA 00320
                        reticular fiber
                      pulmonary muscular venule tunica media
LMMA 00312
LMMA 00393
                    vascular smooth muscle
LMMA 00343
                    | | | smooth muscle cell
LMMA_00399
```

```
LMMA_00132
                  I I I ⊢ cardiomyocyte (syn: cardiac myocyte)
LMMA 00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       | |- connective tissue cell
LMMA 00685
                          1
                            reticular cell
LMMA 00356
                            le telocyte
                            unclassified fibroblast
LMMA_00386
LMMA_00168
                          - extracellular matrix
LMMA 00145
                            collagen fiber
LMMA 00158
                            elastic fiber
LMMA_00180
                            ground substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                              - glycoprotein
LMMA 00283
                       11
                            | | proteoglycan
LMMA 00320
                     | | | | reticular fiber
LMMA_00310
                     pulmonary muscular venule tunica adventitia
                       - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA 00136
                         connective tissue cell
LMMA_00685
                          Т
                            reticular cell
LMMA_00356
                            telocyte
LMMA 00386
                            unclassified fibroblast
LMMA 00168
                          - extracellular matrix
LMMA 00145
                            collagen fiber
                            elastic fiber
LMMA 00158
                         1
LMMA 00180
                            F ground substance
LMMA 00529
                       | | | | glycosaminoglycan
LMMA 00178
                            | | glycoprotein
LMMA 00283
                         LMMA 00320
                     | | | | reticular fiber
LMMA_00301
                   - pulmonary distal venule
LMMA 00303
              | | | | pulmonary distal venule tunica intima
LMMA 00403
                     | | basement membrane
LMMA_00089
LMMA_00392
                       | - vascular endothelial cell
LMMA 00617
                       proliferative endothelial cell
LMMA 00378
                       subendothelial connective tissue cell
LMMA 00273
                       | | pericyte
LMMA_00356
                          le telocyte
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
                            reticular cell
LMMA_00685
                         Т
LMMA 00356
                            telocyte
LMMA 00386
                            unclassified fibroblast
LMMA 00168
                          - extracellular matrix
                            collagen fiber
LMMA 00145
                         Т
                         Ι
LMMA 00158
                            elastic fiber
LMMA 00180
                         ⊢ ground substance
LMMA_00529
                            | | glycosaminoglycan
                              - glycoprotein
LMMA 00178
LMMA 00283
                            | | proteoglycan
                         LMMA 00320
                       LMMA_00302
```

```
LMMA_00440
                      ► vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                        connective tissue cell
                           reticular cell
LMMA 00685
LMMA 00356
                           telocyte
LMMA 00386
                           unclassified fibroblast
                        extracellular matrix
LMMA_00168
LMMA 00145
                        Т
                           collagen fiber
LMMA 00158
                           elastic fiber
LMMA 00180
                           round substance
                        LMMA_00529
                           glycosaminoglycan
LMMA 00178
                           | | glycoprotein
LMMA 00283
                      | | | | proteoglycan
LMMA 00320
               | | | | | reticular fiber
LMMA 00447
             pulmonary lymphatic vessel
LMMA_00221
             LMMA 00422
                    lymphatic endothelium
LMMA 00089
                    | | basement membrane
LMMA_00216
                      lymphatic endothelial cell
LMMA_00378
                    - subendothelial connective tissue cell
LMMA 00273
                    | | pericyte
LMMA 00356
                      telocyte
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
                      connective tissue cell
LMMA 00136
                      reticular cell
LMMA 00685
                      | |- telocyte
LMMA_00356
                        unclassified fibroblast
LMMA 00386
LMMA 00168
                      - extracellular matrix
LMMA_00145
                        collagen fiber
                        elastic fiber
LMMA_00158
LMMA_00180
                    ☐ ☐ ground substance
LMMA 00529
                      LMMA_00178
                           ⊢ glycoprotein
LMMA_00283
                    LMMA 00320
                    LMMA_00222
                  lymphatic vessel tunica media
LMMA_00217
                    lymphatic smooth muscle
LMMA 00343
                      smooth muscle cell
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA_00685
                      reticular cell
LMMA_00356
                      | | telocyte
                        unclassified fibroblast
LMMA 00386
LMMA 00168
                      extracellular matrix
LMMA_00145
                        collagen fiber
LMMA 00158
                        le elastic fiber
LMMA_00180
                        ground substance
LMMA_00529
                           ⊢ glycosaminoglycan
LMMA 00178
                           ⊢ glycoprotein
LMMA 00283
                      | | | | reticular fiber
LMMA 00320
LMMA 00220
```

LMMA_00440	hascular connective tissue (syn: perivascular connective tissue)
LMMA_00136	│
LMMA_00685	
LMMA_00356	
LMMA_00386	│
LMMA_00168	extracellular matrix
LMMA_00145	│
LMMA_00158	
LMMA_00180	│
LMMA_00529	│
LMMA_00178	│
LMMA_00283	│
LMMA_00320	 reticular fiber

<u>LMMA_00210 lower respiratory tract – P0 to P03 (mid-to-late saccular stage of mouse lung development)</u>

LMMA_00361	trachea
LMMA_00362	- trachea bifurcation
LMMA 00365	- trachea lumen
LMMA_00366	trachea wall
LMMA_00415	- tracheal mucosa
LMMA 00414	tracheal epithelium
LMMA_00089	basement membrane
LMMA 00590	tracheal epithelial cell
LMMA 00087	
LMMA_00125	chemosensory cell (syn: brush cell)
LMMA_00142	
LMMA_00143	
LMMA 00184	
LMMA_00526	intermediate airway progenitor cell
LMMA_00238	mucus cell (syn: mucous cell)
LMMA 00252	
LMMA 00340	
LMMA 00384	unclassified epithelial cell
LMMA_00483	tracheal lamina propria
LMMA 00136	connective tissue cell
LMMA 00685	Freticular cell
LMMA 00356	telocyte
LMMA_00386	Lunclassified fibroblast
LMMA_00168	I I Extracellular matrix
LMMA_00145	collagen fiber
LMMA_00158	elastic fiber
LMMA_00180	ground substance
_ LMMA_00529	
_ LMMA_00178	
_ LMMA 00283	proteoglycan
_ LMMA 00320	reticular fiber
LMMA 00416	├ tracheal submucosa
LMMA 00047	submucosal gland
LMMA_00351	submucosal gland epithelium
LMMA_00089	basement membrane
LMMA_00694	submucosal gland epithelial cell
LMMA_00238	mucus cell (syn: mucous cell)
LMMA_00340	serous cell
LMMA_00242	 myoepithelial cell
LMMA_00455	submucosal gland duct epithelium
LMMA_00087	basal cell
LMMA_00089	basement membrane
_ LMMA_00693	submucosal gland duct epithelial cell
_ LMMA_00087	basal cell
LMMA_00125	chemosensory cell (syn: brush cell)
LMMA_00142	
_ LMMA_00146	collecting duct cell
LMMA_00606	tracheal cartilaginous ring
LMMA_00592	annular ligament

```
LMMA_00183
                   LMMA 00141
                        - chondrocyte
LMMA 00168
                        - extracellular matrix
LMMA 00145
                          collagen fiber
                          elastic fiber
LMMA 00158
LMMA 00180
                        fround substance
LMMA 00529
                          Т
                            ⊢ glycosaminoglycan
LMMA 00178
                            ⊢ glycoprotein
                          1
LMMA 00283
                            - proteoglycan
                        11
LMMA 00320
                          reticular fiber
LMMA 00370
                     trachealis muscle (syn: membranous trachea)
LMMA_00343
                     smooth muscle cell
                     fibroelastic membrane (syn: fibroelastic tissue; fibroelastic connective tissue)
LMMA_00410
LMMA 00412
              perichondrium
LMMA 00136
              reticular cell
LMMA 00685
LMMA 00356
                     - telocyte
LMMA 00386
                     unclassified fibroblast
LMMA_00168
                   extracellular matrix
LMMA 00145
              I I I
                     collagen fiber
LMMA 00158
                     elastic fiber
LMMA_00180
                     ground substance
LMMA_00529
                     | | glycosaminoglycan
LMMA 00178
                        - glycoprotein
LMMA_00283
              LMMA_00320
              | | | | reticular fiber
LMMA 00367
                tracheal adventitia
LMMA 00055
                   adipose tissue
LMMA 00054
                   1
                     - adipocyte
LMMA_00136
                   connective tissue cell
LMMA 00685
              | | | | reticular cell
LMMA 00356
                     | telocyte
LMMA 00386
                     unclassified fibroblast
                   - extracellular matrix
LMMA 00168
LMMA 00145
              I I I
                     - collagen fiber
LMMA 00158
              111
                     elastic fiber
LMMA_00180
                     F ground substance
LMMA_00529
                  | | | glycosaminoglycan
LMMA 00178
              LMMA_00283
LMMA 00120
             bronchus
LMMA_00527
              main bronchus (syn: primary bronchus; mainstem bronchus)
                left lung main bronchus (syn: left lung mainstem bronchus; left lung primary bronchus)
LMMA_00205
LMMA_00329
              Fright lung main bronchus (syn: right lung primary bronchus; right lung mainstem bronchus)
LMMA_00528
              lobar bronchus (syn: secondary bronchus)
LMMA 00333
              Fright lung upper lobar bronchus (syn: right cranial lobar bronchus; right apical lobar bromchus)
                right lung middle lobar bronchus (syn: right cardiac lobar bronchus)
LMMA 00331
LMMA_00325
                Fight lung lower lobar bronchus (syn: right caudal lobar bronchus; right diaphragmatic lobar bronchus)
LMMA 00323
              Fright lung accessory lobar bronchus (syn: right post-caval lobar bronchus; right infra-cardiac lobar
bronchus; right intermediate lobar bronchus)
```

Note: The classification scheme for each bronchus above is the same as below.

LMMA_00123	├ bronchus lumen
LMMA_00124	bronchus wall
LMMA_00418	bronchial mucosa
LMMA_00101	│
LMMA_00089	basement membrane
LMMA_00591	│
LMMA_00087	
LMMA_00125	chemosensory cell (syn: brush cell)
LMMA_00142	
LMMA_00143	
LMMA_00184	immature club cell (syn: immature Clara cell)
LMMA_00526	intermediate airway progenitor cell
LMMA_00238	
LMMA_00252	heuroendocrine cell
LMMA_00340	serous cell
LMMA_00384	Lunclassified epithelial cell
LMMA_00481	│
LMMA_00136	
LMMA_00685	
LMMA_00356	telocyte
LMMA_00386	
LMMA_00168	extracellular matrix
LMMA_00145	
LMMA_00158	
LMMA_00180	
LMMA_00529	
LMMA_00178	
LMMA_00283	
LMMA_00320	reticular fiber
LMMA_00482	bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA_00343	
LMMA_00419	bronchial submucosa
LMMA_00133	☐ ☐ ☐ bronchial cartilaginous ring (syn: cartilage ring; cartilage; cartilaginous ring)
LMMA_00482	
LMMA_00343	
LMMA_00183	hyaline cartilage
LMMA_00141	chondrocyte
LMMA_00168	extracellular matrix
LMMA_00145	
LMMA_00158	
LMMA_00180 LMMA_00529	
LMMA_00178	
LMMA_00283	proteoglycan
LMMA_00320	
LMMA_00410	
LMMA_00410	
LMMA_00592	
2.411417 (_000002	1 1 1 1 annotatingament

```
LMMA_00136
                  LMMA_00685
                         reticular cell
LMMA_00356
                       | | telocyte
LMMA 00386
                          unclassified fibroblast
LMMA 00168
                        - extracellular matrix
LMMA_00145
                          collagen fiber
LMMA 00158
                          le elastic fiber
LMMA_00180
                       │ ├ ground substance
                       LMMA 00529
LMMA_00178
                            ⊢ glycoprotein
LMMA 00283
                         | | proteoglycan
                       reticular fiber
LMMA 00320
LMMA_00094
                     bronchial adventitia
LMMA 00055
             | | | | | adipose tissue
LMMA_00054
                       LMMA 00136
                        - connective tissue cell
LMMA 00685
                          reticular cell
LMMA_00356
                         telocyte
LMMA_00386
                       | | unclassified fibroblast
LMMA_00168
                       - extracellular matrix
LMMA_00145
                          collagen fiber
LMMA 00158
                       l lelastic fiber
LMMA 00180
                         ground substance
LMMA_00529
                         | | glycosaminoglycan
LMMA_00178
                       | | | glycoprotein
LMMA 00283
                       LMMA 00320
                  | | | | reticular fiber
LMMA_00211 lung
LMMA_00199
             left lung
LMMA_00326
              right lung
LMMA 00332
              right lung upper lobe (syn: right cranial lobe; right apical lobe)
LMMA_00330
             | | right lung middle lobe (syn: right cardiac lobe)
             | Fright lung lower lobe (syn: right caudal lobe; right diaphragmatic lobe)
LMMA_00324
LMMA 00322
              | right lung accessory lobe (syn: right post-caval lobe; right infra-cardiac lobe; right intermediate lobe)
```

Note: The classification scheme for the left lung and right lung middle, lower, and accessory lobes is the same as for the right lung upper lobe below:

LMMA_00332	I ⊢ right lung upper lobe
LMMA_00605	│
LMMA_00039	│
LMMA_00140	central bronchiole (syn: proximal bronchiole; primary bronchiole)
LMMA_00138	central bronchiolar lumen
LMMA_00139	central bronchiolar wall
LMMA_00286	
LMMA_00089	basement membrane
LMMA_00582	bronchiolar epithelial cell
LMMA_00142	
LMMA 00184	

```
LMMA_00252
                  LMMA 00253
                             heuroepithelial body
                           LMMA 00252
LMMA 00384
                              unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00525
                         bronchiolar connective tissue (syn: peribronchiolar connective tissue)
                           connective tissue cell
LMMA_00136
LMMA_00685
                        -
                           reticular cell
LMMA 00356
                           | | telocyte
LMMA 00386
                              unclassified fibroblast
LMMA 00168
                           - extracellular matrix
LMMA_00145
                              collagen fiber
LMMA 00158
                              le elastic fiber
                             ground substance
LMMA 00180
LMMA 00529
                           LMMA_00178
                              | | glycoprotein
LMMA 00283
                           LMMA 00320
                        -
                           reticular fiber
LMMA_00240
                         bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA_00343
                    lateral bronchiole (syn: distal bronchiole; secondary bronchiole)
LMMA 00198
LMMA 00196
                       lateral bronchiolar lumen
LMMA 00197
                       lateral bronchiolar wall
                       | lateral bronchiolar epithelium (syn: distal bronchiolar epithelium)
LMMA 00433
LMMA 00089
                        basement membrane
LMMA_00582
                      | | bronchiolar epithelial cell
                           | | ciliated cell
LMMA_00142
LMMA_00184
                             immature club cell (syn: immature Clara cell)
                              heuroendocrine cell
LMMA 00252
LMMA 00253
                           heuroepithelial body
LMMA 00252
                              heuroendocrine cell
LMMA 00384
                             unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA_00525
                        bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA_00136
                         1
                           connective tissue cell
LMMA 00685
                           reticular cell
LMMA 00356
                           | | telocyte
                              unclassified fibroblast
LMMA 00386
                           - extracellular matrix
LMMA 00168
LMMA 00145
                              collagen fiber
LMMA_00158
                             elastic fiber
LMMA 00180
                           fround substance
LMMA 00529
                              LMMA 00178
                             | | glycoprotein
                             | | proteoglycan
LMMA 00283
                         ı
LMMA 00320
                         LMMA 00240
                       bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA_00343
                       LMMA 00359
                    terminal bronchiole
                      terminal bronchiolar lumen
LMMA 00357
                      terminal bronchiolar wall
LMMA 00358
LMMA_00457
             | | | | | terminal bronchiolar epithelium
```

```
LMMA_00089
             LMMA 00582
             I \mid I \mid I \mid I \mid I
                            -bronchiolar epithelial cell
LMMA 00142
              | | immature club cell (syn: immature Clara cell)
LMMA 00184
LMMA 00252
                            | | neuroendocrine cell
LMMA 00253
                       III
                            1
                              heuroepithelial body
LMMA_00252
                       | unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00384
LMMA 00525
                          bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA 00136
                            - connective tissue cell
                            reticular cell
LMMA 00685
                       11
LMMA 00356
                            | | telocyte
LMMA 00386
                            unclassified fibroblast
LMMA_00168
                            - extracellular matrix
LMMA 00145
                               collagen fiber
LMMA 00158
                              elastic fiber
LMMA_00180
                              F ground substance
LMMA 00529
                            LMMA 00178
                              | | glycoprotein
LMMA 00283
                              | | proteoglycan
                            | | reticular fiber
LMMA_00320
                          bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA 00240
                       | | | smooth muscle cell
LMMA 00343
LMMA_00119
                       ├ bronchioalveolar duct junction
                       | |- bronchioalveolar stem cell
LMMA 00470
LMMA 00252
              I I I I I ⊢ neuroendocrine cell
              right upper lobe alveolar parenchyma
LMMA_00038
LMMA_00062
            pulmonary alveolar duct
LMMA 00063
              | | | | | | alveolar duct lumen
LMMA 00215
                         pulmonary surfactant (syn: lung surfactant)
LMMA 00226
                       | | alveolar macrophage
LMMA 00064
                       alveolar duct wall
LMMA 00065
                         lar alveolar epithelium
LMMA 00089
                            basement membrane
LMMA 00574
                            - alveolar epithelial cell
LMMA 00187
                            intermediate pneumocyte (syn: bi-potential pneumocyte)
LMMA 00379
                            type I pneumocyte (syn: alveolar epithelial type I cell; AT1 cell; AEC1)
LMMA_00381
                         ├ type II pneumocyte (syn: alveolar epithelial type II cell; AT2 cell; AEC2)
LMMA 00060
                       | | alveolar capillary bed (syn: alveolar capillary network)
LMMA 00061
                            alveolar capillary endothelium
                         | | basement membrane
LMMA 00089
                     | | | | | pericyte
LMMA_00273
LMMA 00392
                         | | | vascular endothelial cell
LMMA 00067
                       alveolar interstitial tissue (syn: alveolar interstitium; alveolar connective tissue;
                                                       alveolar stroma; alveolar mesenchyme)
                            halveolar interstitial cell (syn: alveolar stromal cell; alveolar connective tissue cell)
LMMA 00066
LMMA 00209
                            | | lipofibroblast
                            | | matrix fibroblast
LMMA 00007
                       11
                       LMMA_00243
LMMA 00273
```

```
LMMA_00356
                LMMA 00607
                            proliferative fibroblast
                           proliferative interstitial cell
LMMA 00598
LMMA 00465
                            unclassified alveolar interstitial cell
LMMA 00386
                          | | unclassified fibroblast
                         - extracellular matrix
LMMA_00168
LMMA 00145
                         | | collagen fiber
LMMA 00158
                         l elastic fiber
                           F ground substance
LMMA 00180
LMMA 00529
                            LMMA_00178
                         LMMA 00283
                       | | | proteoglycan
LMMA 00320
            | | | | | | | | | reticular fiber
LMMA_00817
            | | | alveolar sac
LMMA_00818
                LMMA 00215
LMMA 00226
                   LMMA_00072
            | | | alveolus of lung
LMMA 00068
            I I I I ⊢ alveolar lumen
LMMA 00215
                     pulmonary surfactant (syn: lung surfactant)
LMMA 00226
            LMMA_00002 | | | | | | alveolar septum (syn: alveolar wall, inter-alveolar septum)
            LMMA 00279
NOTE: there are NO alveolar septal crests/ridges yet or secondary alveoli or alveolar speta
LMMA 00065
                         alveolar epithelium
LMMA 00089
                         | | basement membrane
LMMA_00574
                            alveolar epithelial cell
LMMA 00187
                         | | | intermediate pneumocyte (syn: bi-potential pneumocyte)
LMMA 00379
                           type I pneumocyte (syn: alveolar epithelial type I cell; AT1 cell; AEC1)
                         LMMA_00381
LMMA 00060
                         halveolar capillary bed (syn: alveolar capillary network)
LMMA 00061
                         alveolar capillary endothelium
                     | | | | | basement membrane
LMMA 00089
                     | | | | | pericyte
LMMA 00273
                   LMMA 00392
LMMA_00067
                   ☐ I halveolar interstitial tissue (syn: alveolar interstitium; alveolar connective tissue;
                                                  alveolar stroma; alveolar mesenchyme)
LMMA 00066
                         ☐ Halveolar interstitial cell (syn stromal or connective tissue cell)
LMMA 00209
                            | | lipofibroblast
LMMA_00007
                              hatrix fibroblast (syn: matrix synthesizing fibroblast)
LMMA 00243
                            | | myofibroblast
LMMA 00273
                              - pericyte
LMMA 00356
                              telocyte
                              proliferative fibroblast
LMMA 00607
                              F proliferative interstitial cell
LMMA_00598
LMMA 00465
                           unclassified alveolar interstitial cell
LMMA 00386
                           | | unclassified fibroblast
                         | | extracellular matrix
LMMA_00168
LMMA 00145
                   | | | | | | | | collagen fiber
                | | | | | | | elastic fiber
LMMA 00158
```

```
LMMA_00180
            LMMA 00529
                        LMMA 00178
                | | | | | | | | | | glycoprotein
LMMA 00283
                  ı
                    II
                        | | | | proteoglycan
LMMA 00320
                  | | | | | | reticular fiber
LMMA 00046
                right upper lobe visceral pleura
LMMA 00405
                  - visceral connective tissue
LMMA 00136
                    connective tissue cell
LMMA 00685
                    reticular cell
LMMA 00356
                       - telocyte
LMMA 00386
                      unclassified fibroblast
                    extracellular matrix
LMMA 00168
LMMA_00145
                    | | collagen fiber
LMMA_00158
                      elastic fiber
LMMA 00180
                    ground substance
LMMA 00529
                      | | | glycosaminoglycan
LMMA 00178
                        ⊢ glycoprotein
LMMA 00283
                    reticular fiber
LMMA 00320
LMMA 00386
                unclassified fibroblast
LMMA 00406
            LMMA 00089
                  | | basement membrane
LMMA_00231
            LMMA_00520
           respiratory autonomic nervous system (syn: autonomic respiratory nervous system)
LMMA 00641
            pulmonary autonomic nerve
LMMA 00257
            hon-adrenergic and non-cholinergic nerve (syn: sensory nerve)
LMMA 00247
                nerve fiber
LMMA 00338
           LMMA 00270
            postganglionic parasympathetic nerve (syn: cholinenergic innervation)
LMMA 00247
            I I ⊢ nerve fiber
LMMA 00338
           | | | | glial cell (syn: neuroglial cell; Schwann cell)
           | | postganglionic sympathetic nerve (syn: adrenergic innervation)
LMMA 00352
LMMA 00247
                nerve fiber
LMMA_00338
            LMMA 00642
            LMMA 00247
           LMMA 00338
           LMMA_00634
            pulmonary autonomic ganglion (syn: nerve cell cluster)
LMMA 00521
            | Lautonomic neuron (syn: autonomic ganglion cell; autonomic ganglion neuron)
LMMA 00338
            | | glial cell (syn: neuroglial cell; Schwann cell)
LMMA_00633
            pulmonary nerve plexus
LMMA_00635
            | | left pulmonary nerve plexus
LMMA 00636
                left anterior pulmonary nerve plexus
LMMA 00637
            ☐ ☐ left posterior pulmonary nerve plexus
LMMA 00638
              right pulmonary nerve plexus
LMMA 00639
            ☐ I right anterior pulmonary nerve plexus
LMMA 00640
            ☐ ☐ right posterior pulmonary nerve plexus
            eneral visceral nervous system
LMMA 00643
LMMA 00644
```

```
LMMA_00247
           LMMA 00338
           LMMA 00645
           | | | | visceral afferent sensory nerve terminal (syn: visceral afferent sensory nerve receptor)
LMMA_00522
          respiratory immune system
LMMA_00185
           immune cell
           | | dendritic cell
LMMA_00150
LMMA 00676
          LMMA 00241
           myeloid cell
LMMA_00179
           LMMA_00090
                 basophil (syn: basophilic leukocyte; basophilic granulocyte)
LMMA 00163
           I I I
                 - eosinophil
          LMMA 00256
LMMA 00182
           LMMA_00226
                 halveolar macrophage
                 interstitial macrophage (syn: lung tissue macrophage; pulmonary interstitial macrophage)
LMMA 00213
LMMA 00698
                 lymph node macrophage
          | | mast cell
LMMA_00227
LMMA 00613
          LMMA_00668
               | | platelet
LMMA 00233
               - monocyte
           LMMA 00742
LMMA 00614
          | |- lymphoid cell
LMMA 00620
          hatural killer cell (syn: non-T, non-B lymphocyte; large granular lymphocyte)
LMMA_00245
LMMA 00437
              |  ⊢ nuocyte
LMMA 00223
          | | | Iymphocyte
LMMA 00086
           LMMA_00677
           LMMA 00354
LMMA 00816
           | | | | peripheral blood lymphocytes
LMMA_00626
          lymphoid tissue
LMMA_00475
          | | bronchus associated lymphoid tissue
LMMA 00086
           ☐ ☐ B Lymphocyte (syn: B cell)
LMMA_00677 | | | | | | plasma cell (syn: mature B lymphocyte)
LMMA_00354
          LMMA 00224
           | Hymph node
LMMA 00678
               - connective tissue capsule
LMMA 00679
              | | trabecula
LMMA 00680
          I I ⊢ cortex
LMMA 00681
                 primary lymphoid follicle
                 Figerminal center (syn: central zone of follicle; reactive center of follicle)
LMMA 00699
                 LMMA_00086
           LMMA 00677
LMMA_00686
           | | | endothelial sinus
LMMA 00687
                 - cortical sinus
LMMA 00688
                 medullary sinus
                 paratrabecular sinus (syn: trabecular sinus)
LMMA 00689
LMMA 00690
                 subcapsular sinus
          \perp
LMMA 00223
              lymphocyte
LMMA_00086
```

```
LMMA_00677
             LMMA 00354
                  1
                    T Lymphocyte (syn: T cell)
LMMA 00816
             ☐ ☐ peripheral blood lymphocytes
LMMA_00682
             LMMA 00683
                    medullary cord
LMMA 00086
                      ► B Lymphocyte (syn: B cell)
                      | | plasma cell (syn: mature B lymphocyte)
LMMA 00677
LMMA 00698
             ├ paracortex (syn: subcortical zone, interfollicular area of the lymph node)
LMMA 00684
LMMA 00685
                  1
                    reticular cell
             11
LMMA_00354
             I I I
                    ⊢ T Lymphocyte (syn: T cell)
LMMA_00523
            respiratory vascular system (syn: vascular system; vasculature)
             blood cell
LMMA_00692
LMMA 00619
             erythrocyte
LMMA 00179
               - granulocyte
LMMA_00090
            | | |
                  basophil (syn: basophilic leukocyte; basophilic granulocyte)
LMMA 00163
                  eosinophil
            11
LMMA 00256
                  neutrophil
LMMA_00233
               ⊢ monocyte
LMMA_00819
             | | peripheral blood lymphocyte
LMMA_00104
             bronchial blood vessel
LMMA 00098
             bronchial artery
LMMA_00095
             bronchial arteriole
LMMA 00105
             bronchial vein
LMMA_00109
             bronchial venule
LMMA_00519
             bronchial capillary
LMMA_00293
             | | | capillary tunica intima
LMMA 00378
                    - subendothelial connective tissue cell
LMMA_00273
                      - pericyte
LMMA_00356
                    | | telocyte
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                    connective tissue cell
LMMA_00685
                      reticular cell
LMMA_00356
                         le telocyte
LMMA 00386
                      | | unclassified fibroblast
LMMA 00168
                      extracellular matrix
LMMA_00145
                      | | collagen fiber
LMMA 00158
                      l elastic fiber
LMMA 00180
                         ground substance
LMMA 00529
                           ⊢ glycosaminoglycan
LMMA_00178
                           ⊢ glycoprotein
                      1 1
LMMA 00283
                      LMMA 00320
                 | | | | reticular fiber
LMMA_00292
                  capillary tunica adventitia
LMMA_00440
                    ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                 | | | | | | reticular cell
LMMA 00685
LMMA 00356
```

LMMA_00386		1	ı	ı	unclassified fibroblast
LMMA_00168	- [extracellular matrix
LMMA_00145	- 1				collagen fiber
LMMA_00158	- [elastic fiber
LMMA_00180	-				│ ├ ground substance
LMMA_00529	- 1	1		1	│
LMMA_00178	- [│
LMMA_00283	-	1	1	Ι	│
LMMA_00320	-	I	I	I	- reticular fiber

Note: the classification schema for "bronchial blood vessel" is as follows:

- The classification scheme for the "bronchial artery" is the same as for the "pulmonary muscular artery" below
- The classification scheme for the "bronchial arteriole" is the same as for the "pulmonary distal arteriole" below
- The classification scheme for the "bronchial venule" is the same as for the "pulmonary vein" (does not include the "vasa vasorum") below
- The classification scheme for the "bronchial artery" is the same as for the "pulmonary distal venule" below

LMMA_00315	– pulmonary blood vessel						
LMMA_00632	hintra-parenchymal blood vessel						
LMMA_00291	pulmonary artery						
LMMA_00293	pulmonary artery tunica intima						
LMMA_00081	artery endothelium						
LMMA_00089	basement membrane						
LMMA_00616	arterial endothelial cell						
LMMA_00191	internal elastic membrane						
LMMA_00378	subendothelial connective tissue cell						
LMMA_00273	pericyte						
LMMA_00356							
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356							
LMMA_00386	unclassified fibroblast						
LMMA_00168	extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158							
LMMA_00180	ground substance						
LMMA_00529	glycosaminoglycan						
LMMA_00178	glycoprotein						
LMMA_00283	│						
LMMA_00320	reticular fiber						
LMMA_00294	│						
LMMA_00167	 external elastic membrane						
LMMA_00393	vascular smooth muscle						
LMMA_00343	smooth muscle cell						
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356	telocyte						
LMMA_00386	unclassified fibroblast						
LMMA_00168	extracellular matrix						

```
LMMA_00145
                 LMMA 00158
                         elastic fiber
LMMA 00180
                       ground substance
LMMA 00529
                       LMMA_00178
                           ⊢ glycoprotein
                         LMMA 00283
                      │ │ ├ proteoglycan
LMMA 00320
                    LMMA_00292
                  pulmonary artery tunica adventitia
LMMA_00395
             LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
                       reticular cell
LMMA_00685
LMMA 00356
                         telocyte
LMMA 00386
                       unclassified fibroblast
LMMA_00168
                       - extracellular matrix
LMMA 00145
                         collagen fiber
LMMA 00158
                       I - elastic fiber
LMMA_00180
                       ı
                         ground substance
                        | | glycosaminoglycan
LMMA_00529
LMMA 00178
                       LMMA 00283
                        1
                           - proteoglycan
LMMA 00320
                  | | | | reticular fiber
LMMA_00290
             pulmonary arteriole
LMMA_00304
                  pulmonary muscular arteriole
LMMA_00488
                  pulmonary muscular arteriole tunica intima
                    | | arteriole endothelium
LMMA_00078
LMMA_00089
                         basement membrane
LMMA 00392
                       | | vascular endothelial cell
LMMA 00378
                       - subendothelial connective tissue cell
LMMA_00273
                       | | pericyte
LMMA 00356
                    | | | telocyte
LMMA 00440
                       - vascular connective tissue (syn: perivascular connective tissue)
                       connective tissue cell
LMMA 00136
                           reticular cell
LMMA_00685
                       11
LMMA_00356
                           | telocyte
                         Т
                           unclassified fibroblast
LMMA 00386
LMMA 00168
                         - extracellular matrix
LMMA 00145
                           collagen fiber
LMMA 00158
                           elastic fiber
LMMA_00180
                           ground substance
LMMA_00529
                           | | glycosaminoglycan
LMMA 00178
                           | | glycoprotein
                         I
LMMA 00283
                           | | proteoglycan
LMMA 00320
                        reticular fiber
                    ├ pulmonary muscular arteriole tunica media
LMMA_00489
LMMA 00393
                       vascular smooth muscle
LMMA 00343
                       I ⊢ smooth muscle cell
LMMA_00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
                       ☐ connective tissue cell
LMMA_00136
LMMA 00685
             | | | | | | | reticular cell
             LMMA 00356
```

```
LMMA_00386
                  LMMA 00168
                          - extracellular matrix
LMMA 00145
                            - collagen fiber
LMMA 00158
                            elastic fiber
LMMA_00180
                            ground substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                          ı
                            1
                              - glycoprotein
LMMA 00283
                       LMMA 00320
                     | | | | reticular fiber
LMMA 00486
                     pulmonary muscular arteriole tunica adventitia
LMMA 00395
                       vasa vasorum
                        hvascular connective tissue (syn: perivascular connective tissue)
LMMA_00440
LMMA 00136
                          connective tissue cell
LMMA 00685
                         reticular cell
LMMA_00356
                            telocyte
                            unclassified fibroblast
LMMA 00386
LMMA 00168
                          - extracellular matrix
LMMA 00145
                            - collagen fiber
LMMA_00158
                            elastic fiber
LMMA 00180
                            round substance
LMMA 00529
                            | | glycosaminoglycan
LMMA_00178
                            | | glycoprotein
LMMA_00283
                       | | | | reticular fiber
LMMA 00320
                  Ι
                  pulmonary distal arteriole
LMMA_00297
LMMA_00299
                  | | pulmonary distal arteriole tunica intima
LMMA_00078
                       arteriole endothelium
LMMA 00089
                       | | basement membrane
LMMA 00392
                       | | vascular endothelial cell
LMMA_00378
                       ► subendothelial connective tissue cell
LMMA 00273
                     | | | pericyte
LMMA 00356
                          - telocyte
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
                       | |- connective tissue cell
LMMA 00136
LMMA 00685
                         1
                            reticular cell
LMMA_00356
                            - telocyte
LMMA 00386
                            unclassified fibroblast
LMMA 00168
                          extracellular matrix
LMMA 00145
                            collagen fiber
                       11
LMMA 00158
                          Т
                            elastic fiber
                            F ground substance
LMMA_00180
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                            | | glycoprotein
LMMA 00283
                            | | proteoglycan
LMMA_00320
                       | | reticular fiber
LMMA 00300
                     pulmonary distal arteriole tunica media
LMMA 00393
                  | | | vascular smooth muscle
LMMA_00343
                       | | smooth muscle cell
LMMA_00440
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
              | | | | | | | | reticular cell
LMMA 00685
```

```
LMMA_00356
                 LMMA 00386
                       1
                          unclassified fibroblast
                       extracellular matrix
LMMA 00168
LMMA 00145
                          collagen fiber
LMMA 00158
                          lelastic fiber
LMMA 00180
                          round substance
                      11
LMMA 00529
                        ı
                          | | glycosaminoglycan
LMMA 00178
                       1
                          | | glycoprotein
LMMA 00283
                          | | proteoglycan
LMMA 00320
                          Freticular fiber
LMMA_00298
                   pulmonary distal arteriole tunica adventitia
                      ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00440
LMMA 00136
                        connective tissue cell
LMMA 00685
                     reticular cell
LMMA_00356
                          telocyte
                          unclassified fibroblast
LMMA 00386
LMMA 00168
                        - extracellular matrix
LMMA 00145
                          collagen fiber
LMMA_00158
                          elastic fiber
LMMA 00180
                          round substance
LMMA 00529
                          | | glycosaminoglycan
LMMA_00178
                          | | glycoprotein
LMMA_00283
                 | | | | | | reticular fiber
LMMA 00320
             1 1
LMMA_00305
            pulmonary vein
LMMA_00307
             | | | pulmonary vein tunica intima
LMMA_00378
                 | | | subendothelial connective tissue cell
LMMA 00273
            LMMA 00356
                   | | telocyte
LMMA_00397
                 | |- vein endothelium
LMMA 00089
                | | | basement membrane
LMMA 00507
                      - venous endothelial cell
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
                      connective tissue cell
LMMA 00136
LMMA_00685
                      reticular cell
LMMA 00356
                   | | telocyte
LMMA 00386
                        unclassified fibroblast
LMMA 00168
                      extracellular matrix
                        collagen fiber
LMMA 00145
LMMA 00158
                        elastic fiber
LMMA_00180
                     | | ground substance
LMMA 00529
                       | | glycosaminoglycan
LMMA 00178
                          - glycoprotein
LMMA 00283
                     │ │ ├ proteoglycan
LMMA_00320
                   | | | reticular fiber
LMMA 00308
                 pulmonary vein tunica media
            11
LMMA 00393
             LMMA_00343
                   | |- smooth muscle cell
LMMA_00399
                   venous cardiac muscle
LMMA 00132
             LMMA 00440
```

```
LMMA_00136
                LMMA_00685
                     reticular cell
LMMA 00356
                     | | telocyte
LMMA 00386
                       unclassified fibroblast
LMMA 00168
                     - extracellular matrix
LMMA_00145
                       collagen fiber
LMMA 00158
                       le elastic fiber
LMMA_00180
                     │ ├ ground substance
LMMA 00529
                   LMMA_00178
                       1
                         - glycoprotein
LMMA 00283
                     LMMA 00320
                   LMMA 00306
                 pulmonary vein tunica adventitia
LMMA 00395
            LMMA_00440
                   - vascular connective tissue (syn: perivascular connective tissue)
                     connective tissue cell
LMMA 00136
                     reticular cell
LMMA 00685
                     | | telocyte
LMMA_00356
                     | |- unclassified fibroblast
LMMA 00386
LMMA 00168
                     extracellular matrix
LMMA_00145
                       collagen fiber
LMMA_00158
                     elastic fiber
LMMA 00180
                       ground substance
LMMA_00529
                       LMMA_00178
                         ⊢ glycoprotein
                         - proteoglycan
LMMA_00283
                   1
                     1 1
LMMA 00320
                LMMA_00316
            pulmonary venule
                pulmonary muscular venule
LMMA_00309
LMMA 00311
                | | pulmonary muscular venule tunica intima
LMMA 00403
                   | | basement membrane
LMMA_00089
LMMA_00392
                     | - vascular endothelial cell
LMMA 00378
                     - subendothelial connective tissue cell
                     | | pericyte
LMMA 00273
LMMA 00356
                     | | telocyte
LMMA_00440
                     - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                       connective tissue cell
LMMA 00685
                       1
                         reticular cell
LMMA_00356
                         telocyte
                         unclassified fibroblast
LMMA 00386
LMMA 00168
                       - extracellular matrix
LMMA 00145
                         collagen fiber
                         elastic fiber
LMMA 00158
LMMA_00180
                         F ground substance
                       Т
LMMA 00529
                         LMMA_00178
                           ⊢ glycoprotein
LMMA 00283
                         | | proteoglycan
LMMA 00320
                     - pulmonary muscular venule tunica media
LMMA_00312
            LMMA_00393
```

```
| | | | smooth muscle cell
LMMA_00343
LMMA 00399
                        - venous cardiac muscle
LMMA 00132
                        ☐ cardiomyocyte (syn: cardiac myocyte)
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                           - connective tissue cell
LMMA_00685
                             reticular cell
                        11
LMMA_00356
                          1
                             le telocyte
LMMA 00386
                          unclassified fibroblast
LMMA 00168
                           extracellular matrix
LMMA 00145
                             - collagen fiber
LMMA 00158
                             le elastic fiber
                             ground substance
LMMA 00180
                           ı
LMMA 00529
                          -
                             | | glycosaminoglycan
LMMA 00178
                             | | glycoprotein
LMMA_00283
                               ⊢ proteoglycan
                             1
LMMA 00320
                        | | | reticular fiber
LMMA 00310
                      pulmonary muscular venule tunica adventitia
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                        LMMA 00685
                             reticular cell
LMMA 00356
                             telocyte
                             unclassified fibroblast
LMMA 00386
                           - extracellular matrix
LMMA 00168
LMMA 00145
                             collagen fiber
                          -
LMMA 00158
                             elastic fiber
LMMA 00180
                             round substance
                             | | glycosaminoglycan
LMMA 00529
LMMA_00178
                             | | glycoprotein
                        1 1
LMMA_00283
                          | | proteoglycan
                        Т
LMMA 00320
              | | | | | | | reticular fiber
LMMA_00301
              pulmonary distal venule
                      pulmonary distal venule tunica intima
LMMA_00303
LMMA_00403
                        - venule endothelium
LMMA 00089
                        LMMA 00392
                        | | vascular endothelial cell
LMMA 00378
                        - subendothelial connective tissue cell
LMMA_00273
                          - pericyte
LMMA 00356
                        telocyte
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
                          connective tissue cell
LMMA_00136
LMMA 00685
                             reticular cell
                          - 1
LMMA 00356
                             - telocyte
LMMA 00386
                             unclassified fibroblast
                           extracellular matrix
LMMA 00168
LMMA 00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA_00180
                             ground substance
                             | |- glycosaminoglycan
LMMA 00529
LMMA 00178
                                - glycoprotein
LMMA 00283
                          -
                             | | proteoglycan
LMMA_00320
              | | | | | | | reticular fiber
```

```
LMMA_00302
                     pulmonary distal venule tunica adventitia
LMMA 00440
                        ► vascular connective tissue (syn: perivascular connective tissue)
                          connective tissue cell
LMMA 00136
LMMA 00685
                             reticular cell
LMMA 00356
                             le telocyte
                             unclassified fibroblast
LMMA_00386
LMMA_00168
                           - extracellular matrix
LMMA 00145
                             collagen fiber
                             le elastic fiber
LMMA 00158
LMMA_00180
                             ground substance
LMMA 00529
                             | | glycosaminoglycan
LMMA 00178
                                - glycoprotein
                          1
LMMA 00283
                        | | | | proteoglycan
LMMA 00320
              | | | | | | | reticular fiber
LMMA_00447
              | | pulmonary lymphatic vessel
LMMA 00221
                   lymphatic vessel tunica intima
LMMA 00422
                      lymphatic endothelium
LMMA_00089
                        basement membrane
LMMA_00216
                     | | | lymphatic endothelial cell
LMMA 00378
                      - subendothelial connective tissue cell
LMMA 00273
                      LMMA 00356
                      | | telocyte
                      - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
                        connective tissue cell
LMMA 00136
LMMA_00685
                        | | reticular cell
                          telocyte
LMMA_00356
LMMA 00386
                          unclassified fibroblast
                        - extracellular matrix
LMMA_00168
LMMA_00145
                          collagen fiber
LMMA 00158
                        l | elastic fiber
LMMA 00180
                          ground substance
                             ⊢ glycosaminoglycan
LMMA_00529
LMMA_00178
                             ⊢ glycoprotein
                        1 1
LMMA 00283
                        LMMA 00320
                   | | | | reticular fiber
LMMA_00222
                 | | Imphatic vessel tunica media
LMMA_00217
                      lymphatic smooth muscle
LMMA 00343
                        smooth muscle cell
LMMA 00440
                      - vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                        connective tissue cell
LMMA_00685
                        reticular cell
LMMA 00356
                           - telocyte
LMMA 00386
                           unclassified fibroblast
                        - extracellular matrix
LMMA_00168
LMMA 00145
                           collagen fiber
LMMA 00158
                          elastic fiber
LMMA_00180
                          F ground substance
LMMA 00529
                          1
                             ⊢ glycosaminoglycan
LMMA 00178
                        11
                             - glycoprotein
                   LMMA 00283
LMMA 00320
              | | | | | reticular fiber
```

LMMA_00220	│
LMMA_00440	hascular connective tissue (syn: perivascular connective tissue)
LMMA_00136	connective tissue cell
LMMA_00685	
LMMA_00356	
LMMA_00386	│
LMMA_00168	extracellular matrix
LMMA_00145	│
LMMA_00158	│
LMMA_00180	│
LMMA_00529	│
LMMA_00178	
LMMA_00283	
LMMA_00320	reticular fiber

<u>LMMA_00210</u> lower respiratory tract – P04-P30 (alveolar stage of mouse lung development)

LMMA_00361	trachea						
LMMA_00362	- trachea bifurcation						
LMMA 00365	trachea lumen						
LMMA_00366							
LMMA 00415	trachea wall						
_	├ tracheal mucosa ├ tracheal epithelium						
LMMA_00414							
LMMA_00089							
LMMA_00590							
LMMA_00087							
LMMA_00125							
LMMA_00142							
LMMA_00143							
LMMA_00526	intermediate airway progenitor cell mucus cell (syn: mucous cell)						
LMMA_00238							
LMMA_00252							
LMMA_00340 LMMA_00384							
_							
LMMA_00483							
LMMA_00136	Febinective dissue cell						
LMMA_00685	Fredicular cell						
LMMA_00356	Lunclassified fibroblast						
LMMA_00386							
LMMA_00168							
LMMA_00145							
LMMA_00158 LMMA 00180							
LMMA 00529	glycosaminoglycan						
LMMA_00178	glycosaninoglycan						
LMMA 00283	proteoglycan						
LMMA 00320	I I I Freticular fiber						
LMMA_00416	- tracheal submucosa						
LMMA 00047	- submucosal gland						
LMMA 00351	submucosal gland epithelium						
LMMA 00089	basement membrane						
LMMA 00694	submucosal gland epithelial cell						
LMMA_00238							
LMMA_00340							
LMMA_00242	myoepithelial cell						
LMMA_00455	submucosal gland duct epithelium						
LMMA 00087	basal cell						
LMMA_00089	basement membrane						
LMMA 00693	submucosal gland duct epithelial cell						
LMMA_00087	basal cell						
LMMA_00125	chemosensory cell (syn: brush cell)						
LMMA 00142							
LMMA_00146							
LMMA_00606	tracheal cartilaginous ring						
LMMA_00592	annular ligament						
LMMA_00183	hyaline cartilage						

```
LMMA_00141
              LMMA 00168
                       - extracellular matrix
LMMA 00145
                         collagen fiber
LMMA 00158
                          elastic fiber
LMMA_00180
                         round substance
LMMA 00529
                            ⊢ glycosaminoglycan
LMMA 00178
                         ı
                            - glycoprotein
LMMA 00283
                       LMMA 00320
                     trachealis muscle (syn: membranous trachea)
LMMA 00370
LMMA 00343
                     smooth muscle cell
                     fibroelastic membrane (syn: fibroelastic tissue; fibroelastic connective tissue)
LMMA 00410
LMMA_00412
                     - perichondrium
LMMA 00136
             11
                  connective tissue cell
LMMA 00685
              I I I
                     reticular cell
                     le telocyte
LMMA 00356
LMMA 00386
                     unclassified fibroblast
LMMA 00168
                  extracellular matrix
LMMA_00145
            collagen fiber
LMMA 00158
                     elastic fiber
LMMA 00180
                     ground substance
LMMA_00529
                       ⊢ glycosaminoglycan
LMMA_00178
                       ⊢ glycoprotein
LMMA 00283
                     ı
                       - proteoglycan
LMMA_00320
             LMMA_00367
             tracheal adventitia
LMMA_00055
                  adipose tissue
LMMA 00054
                     - adipocyte
LMMA 00136
                  connective tissue cell
LMMA_00685
                  1
                     reticular cell
LMMA 00356
              | | | telocyte
LMMA 00386
                     - unclassified fibroblast
LMMA 00168
                  extracellular matrix
LMMA 00145
                  ı
                     collagen fiber
LMMA 00158
                     elastic fiber
             111
             ☐ ☐ ☐ ground substance
LMMA 00180
              LMMA_00529
LMMA_00178
              LMMA 00283
              LMMA_00120
             bronchus
LMMA_00527
              main bronchus (syn: primary bronchus; mainstem bronchus)
LMMA 00205
                left lung main bronchus (syn: left lung mainstem bronchus; left lung primary bronchus)
LMMA_00329
                right lung main bronchus (syn: right lung primary bronchus; right lung mainstem bronchus)
LMMA_00528
              lobar bronchus (syn: secondary bronchus)
LMMA_00333
                Fright lung upper lobar bronchus (syn: right cranial lobar bronchus; right apical lobar bromchus)
LMMA 00331
                right lung middle lobar bronchus (syn: right cardiac lobar bronchus)
LMMA 00325
                right lung lower lobar bronchus (syn: right caudal lobar bronchus; right diaphragmatic lobar bronchus)
LMMA_00323
                Fright lung accessory lobar bronchus (syn: right post-caval lobar bronchus; right infra-cardiac lobar
                 bronchus; right intermediate lobar bronchus)
```

Note: The classification scheme for each bronchus above is the same as below.

```
| | bronchus lumen
LMMA 00123
LMMA 00124
              | | bronchus wall
LMMA 00418
                     bronchial mucosa
LMMA 00101
                     bronchial epithelium
                        | | basement membrane
LMMA 00089
LMMA_00591
                          bronchial epithelial cell
LMMA_00087
                             basal cell
LMMA 00125
                             - chemosensory cell (syn: brush cell)
LMMA_00142
                             ciliated cell
LMMA_00143
                             lacture cell (syn: Clara cell; nonciliated secretory cell; bronchiolar exocrine cell)
LMMA 00526
                             intermediate airway progenitor cell
LMMA 00238
                             mucus cell (syn: mucous cell)
LMMA 00252
                             heuroendocrine cell
LMMA 00340
                             serous cell
LMMA 00384
                        | | | unclassified epithelial cell
LMMA 00481
                        bronchial lamina propria
LMMA 00136
                        | |- connective tissue cell
LMMA 00685
                             reticular cell
LMMA_00356
                             le telocyte
LMMA_00386
                             unclassified fibroblast
LMMA 00168
                          - extracellular matrix
LMMA 00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA_00180
                             round substance
LMMA 00529
                             | | glycosaminoglycan
LMMA 00178
                          Т
                             Т
                               - glycoprotein
LMMA_00283
                        LMMA 00320
                        bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA 00482
LMMA 00343
                     | | | smooth muscle cell
LMMA 00419
                      bronchial submucosa
LMMA 00133
                        bronchial cartilaginous ring (syn: cartilage ring; cartilage; cartilaginous ring)
LMMA 00482
                          bronchial smooth muscle (syn: peribronchial smooth muscle)
LMMA 00343
                             - smooth muscle cell
LMMA 00183
                          hyaline cartilage
LMMA 00141
                             - chondrocyte
LMMA 00168
                             - extracellular matrix
LMMA 00145
                               collagen fiber
LMMA 00158
                                elastic fiber
LMMA_00180
                                F ground substance
LMMA 00529
                               | | glycosaminoglycan
LMMA 00178
                               Т
                                  - glycoprotein
LMMA 00283
                             LMMA_00320
                         | | reticular fiber
                          ├ fibroelastic membrane (syn: fibroelastic tissue; fibroelastic connective tissue)
LMMA 00410
LMMA 00412
                   | | | | perichondrium
              | | | | | | | annular ligament
LMMA 00592
             | | | | | connective tissue cell
LMMA_00136
             LMMA 00356
```

```
LMMA_00386
LMMA_00168
                      - extracellular matrix
LMMA_00145
                      | | collagen fiber
LMMA 00158
                         elastic fiber
LMMA_00180
                         F ground substance
LMMA 00529
                           ⊢ glycosaminoglycan
LMMA 00178
                         1
                           ⊢ glycoprotein
LMMA_00283
                      LMMA 00320
                    LMMA 00094
                    bronchial adventitia
LMMA_00055
                      hadipose tissue
                      | | adipocyte
LMMA_00054
LMMA_00136
                      connective tissue cell
LMMA 00685
                      reticular cell
LMMA_00356
                        telocyte
                         unclassified fibroblast
LMMA 00386
                      - extracellular matrix
LMMA 00168
LMMA_00145
                        collagen fiber
LMMA_00158
                  | | | | elastic fiber
LMMA_00180
                      | | ground substance
LMMA_00529
                        | | glycosaminoglycan
LMMA_00178
                  LMMA 00283
             | | | | | | reticular fiber
LMMA_00320
LMMA_00211
            lung
LMMA_00199
             left lung
LMMA 00326
             right lung
LMMA_00332
             right lung upper lobe (syn: right cranial lobe; right apical lobe)
LMMA_00330
             | | right lung middle lobe (syn: right cardiac lobe)
LMMA_00324
               right lung lower lobe (syn: right caudal lobe; right diaphragmatic lobe)
             ı
LMMA 00322
               right lung accessory lobe (syn: right post-caval lobe; right infra-cardiac lobe; right intermediate lobe)
```

Note: The classification scheme for the left lung and right lung middle, lower, and accessory lobes is the same as for the right lung upper lobe below:

LMMA_00332	├ right lung upper lobe								
LMMA_00605	right lung upper lobe hilum								
LMMA_00039	│								
LMMA_00140	central bronchiole (syn: proximal bronchiole; primary bronchiole)								
LMMA_00138	central bronchiolar lumen								
LMMA_00139	central bronchiolar wall								
LMMA_00286	central bronchiolar epithelium (syn: proximal bronchiolar epithelium)								
LMMA_00089	basement membrane								
LMMA_00582	bronchiolar epithelial cell								
LMMA_00142									
LMMA_00143									
LMMA_00252									
LMMA_00253	heuroepithelial body								
LMMA_00252									
LMMA_00384									

```
LMMA_00525
                        ☐ bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA 00136
                          -
                             connective tissue cell
LMMA 00685
                             reticular cell
LMMA 00356
                                telocyte
LMMA 00386
                               unclassified fibroblast
                             - extracellular matrix
LMMA_00168
LMMA 00145
                                collagen fiber
LMMA 00158
                             elastic fiber
LMMA 00180
                               round substance
LMMA 00529
                                | | glycosaminoglycan
LMMA 00178
                               | | glycoprotein
LMMA 00283
                               | | proteoglycan
LMMA 00320
                          | | | reticular fiber
LMMA 00240
                      bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA_00343
                        lateral bronchiole (syn: distal bronchiole; secondary bronchiole)
LMMA_00198
LMMA 00196
                        lateral bronchiolar lumen
LMMA 00197
                        lateral bronchiolar wall
LMMA_00433
                           lateral bronchiolar epithelium (syn: distal bronchiolar epithelium)
LMMA 00089
                             basement membrane
LMMA 00582
                             bronchiolar epithelial cell
LMMA 00142
                               ciliated cell
                                - club cell (syn: Clara cell; nonciliated secretory cell; bronchiolar exocrine cell)
LMMA 00143
LMMA 00252
                                neuroendocrine cell
LMMA_00253
                               heuroepithelial body
                                LMMA 00252
LMMA 00384
                             | unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA_00525
                           bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA_00136
                          1
                             connective tissue cell
LMMA 00685
                             reticular cell
LMMA 00356
                               le telocyte
                             unclassified fibroblast
LMMA 00386
LMMA_00168
                             extracellular matrix
LMMA 00145
                               collagen fiber
LMMA 00158
                             l elastic fiber
LMMA 00180
                               round substance
LMMA 00529
                               LMMA_00178
                               LMMA 00283
                          Т
                             LMMA 00320
                        | | | | reticular fiber
LMMA 00240
                        bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
LMMA 00343
                          | | smooth muscle cell
LMMA 00359
                      terminal bronchiole
LMMA 00357
                        terminal bronchiolar lumen
LMMA 00358
                        terminal bronchiolar wall
LMMA 00457
                           terminal bronchiolar epithelium
LMMA 00089
                             basement membrane
                             -bronchiolar epithelial cell
LMMA 00582
                        11
                             | | ciliated cell
LMMA 00142
LMMA 00143
                        1 1
                             | | club cell (syn: Clara cell; nonciliated secretory cell; bronchiolar exocrine cell)
LMMA_00252
              | | | | | | | | | | | | | | | | neuroendocrine cell
```

```
LMMA_00253
             LMMA 00252
                            | | Leading unclassified epithelial cell (syn: general epithelial cell; nonspecific epithelial cell)
LMMA 00384
LMMA 00525
                          bronchiolar connective tissue (syn: peribronchiolar connective tissue)
LMMA 00136
                            - connective tissue cell
                            | | reticular cell
LMMA_00685
                       11
LMMA_00356
                            Т
                              le telocyte
LMMA 00386
                            | |- unclassified fibroblast
LMMA 00168
                            - extracellular matrix
LMMA 00145
                              collagen fiber
LMMA_00158
                              le elastic fiber
LMMA 00180
                              round substance
LMMA 00529
                            | | | glycosaminoglycan
LMMA 00178
                              | | glycoprotein
LMMA 00283
                              | | reticular fiber
LMMA 00320
LMMA 00240
                         bronchiolar smooth muscle (syn: peribronchiolar smooth muscle)
                       | | smooth muscle cell
LMMA_00343
LMMA 00119
                     I ⊢ bronchioalveolar duct junction
LMMA 00470
                       bronchioalveolar stem cell
LMMA 00252
                     LMMA_00038
            LMMA_00062
                     pulmonary alveolar duct
LMMA 00063
             I I I I ⊢ alveolar duct lumen
LMMA_00215
                         pulmonary surfactant (syn: lung surfactant)
LMMA 00226
                          lar macrophage
LMMA 00064
                       alveolar duct wall
LMMA 00065
                         - alveolar epithelium
LMMA_00089
                            basement membrane
LMMA 00574
                            lar alveolar epithelial cell
LMMA 00379
                            ├ type I pneumocyte (syn: alveolar epithelial type I cell; AT1 cell; AEC1)
LMMA 00381
                            LMMA 00060
                         - alveolar capillary bed (syn: alveolar capillary network)
LMMA 00061
                       11
                            alveolar capillary endothelium
                       LMMA_00089
LMMA 00273
                            | | pericyte
LMMA 00392
                       | | | | | vascular endothelial cell
LMMA 00067
                       | Lalveolar interstitial tissue (syn: alveolar interstitium; alveolar connective tissue;
                                                       alveolar stroma; alveolar mesenchyme)
LMMA 00066
                            - alveolar interstitial cell (syn: alveolar stromal cell; alveolar connective tissue cell)
LMMA 00209
                              ⊢ lipofibroblast
LMMA 00007
                               matrix fibroblast
                               ├ myofibroblast (syn: matrix synthesizing fibroblast)
LMMA_00243
LMMA 00273
                               - pericyte
LMMA 00356
                               - telocyte
LMMA 00607
                               ⊢ proliferative fibroblast
LMMA 00598
                               proliferative interstitial cell
LMMA 00465
                              unclassified alveolar interstitial cell
LMMA 00386
                              unclassified fibroblast
                     | | | | extracellular matrix
LMMA_00168
             | | | | | | | | | collagen fiber
LMMA 00145
```

```
LMMA_00158
           LMMA 00180
                       | | ground substance
LMMA 00529
                       LMMA 00178
                         | | glycoprotein
LMMA 00283
                   | | | | | proteoglycan
                 | | | | | reticular fiber
LMMA 00320
LMMA_00817
               Т
                 alveolar sac
LMMA_00818
          | | pulmonary surfactant (syn: lung surfactant)
LMMA 00215
                   | | alveolar macrophage
LMMA 00226
LMMA 00072
           | | | | | alveolus of lung
                 alveolar lumen
LMMA 00068
LMMA 00215
               LMMA 00226
           LMMA 00002
                alveolar septum (syn: alveolar wall, inter-alveolar septum)
LMMA_00279
                    primary alveolar septum (syn: primary septum)
LMMA 00071 | | | |
                    alveolar septal crest (syn: alveolar septal ridge, secondary septal crest)
LMMA_00339 | | | | | | secondary alveolar septum
Note: the classification scheme for "primary alveolar septum", "alveolar septal crest", and "secondary alveolar septum" is
the same as below.
LMMA 00065
                       lar epithelium
LMMA_00089
                       | |- basement membrane
                         - alveolar epithelial cell
LMMA 00574
LMMA 00379
                       LMMA_00381
                       LMMA 00060
                   1 1
                       halveolar capillary bed (syn: alveolar capillary network)
LMMA 00061
                   | | | | | | | alveolar capillary endothelium
LMMA 00089
                    LMMA 00273
                 | | | | | | | | vascular endothelial cell
LMMA 00392
LMMA_00067
               alveolar stroma; alveolar mesenchyme)
LMMA 00066
                       | |- lipofibroblast
LMMA 00209
LMMA 00007
                         ☐ matrix fibroblast (syn: matrix synthesizing fibroblast)
LMMA 00243
                           - myofibroblast
LMMA 00273
                         | | pericyte
LMMA 00607
                           proliferative fibroblast
LMMA 00598
                           F proliferative interstitial cell
LMMA_00465
                           unclassified alveolar interstitial cell
LMMA 00697
                         1
                           proliferative myofibroblast
LMMA 00356
                         | | telocyte
                        unclassified fibroblast
LMMA_00386
LMMA 00168
                         - extracellular matrix
LMMA 00145
                           collagen fiber
LMMA_00158
                         elastic fiber
LMMA_00180
                        LMMA 00529
                       | | | | glycosaminoglycan
```

| | | glycoprotein

LMMA 00178

LMMA_00283

```
| | | | | | | | | | reticular fiber
LMMA_00320
LMMA 00046
                  right upper lobe visceral pleura
LMMA 00405
                     visceral connective tissue
LMMA 00136
                        connective tissue cell
LMMA 00685
                          reticular cell
LMMA 00685
                          reticular cell
LMMA 00356
                          le telocyte
                          unclassified fibroblast
LMMA 00386
LMMA_00168
                        extracellular matrix
LMMA 00145
                     LMMA 00158
                          elastic fiber
LMMA 00180
                          round substance
LMMA_00529
                        11
                            ⊢ glycosaminoglycan
LMMA_00178
                          Т
                            ⊢ glycoprotein
LMMA 00283
                       | | | proteoglycan
LMMA 00320
                        reticular fiber
LMMA 00386
                        unclassified fibroblast
LMMA_00406
                     visceral mesothelium
LMMA 00089
              | | | | basement membrane
LMMA 00231
              LMMA_00520
             respiratory autonomic nervous system (syn: autonomic respiratory nervous system)
LMMA_00641
              pulmonary autonomic nerve
LMMA 00257
              hon-adrenergic and non-cholinergic nerve (syn: sensory nerve)
LMMA 00247
                   nerve fiber
LMMA_00338
                   Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA 00270
              postganglionic parasympathetic nerve (syn: cholinenergic innervation)
LMMA 00247
              LMMA 00338
                   Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA_00352
              | | postganglionic sympathetic nerve (syn: adrenergic innervation)
LMMA 00247
                   nerve fiber
LMMA_00338
                   Figlial cell (syn: neuroglial cell; Schwann cell)
LMMA_00642
              LMMA 00247
              LMMA 00338
              | | | glial cell (syn: neuroglial cell; Schwann cell)
LMMA_00634
              pulmonary autonomic ganglion (syn: nerve cell cluster)
LMMA 00521
              | Lautonomic neuron (syn: autonomic ganglion cell; autonomic ganglion neuron)
LMMA 00338
              | | glial cell (syn: neuroglial cell; Schwann cell)
LMMA 00633
              - pulmonary nerve plexus
LMMA_00635
              left pulmonary nerve plexus
LMMA 00636
                   left anterior pulmonary nerve plexus
LMMA_00637
              11
                   left posterior pulmonary nerve plexus
LMMA 00638
              | | right pulmonary nerve plexus
LMMA 00639
                   right anterior pulmonary nerve plexus
LMMA 00640
              LMMA_00643
              Figeneral visceral nervous system
LMMA_00644
              ☐ peneral visceral afferent nerve (syn: sensory nerve)
LMMA 00247
              I I ⊢ nerve fiber
LMMA 00338
                   | glial cell (syn: neuroglial cell; Schwann cell)
                   + visceral afferent sensory nerve terminal (syn: visceral afferent sensory nerve receptor)
LMMA_00645
```

```
LMMA 00522
           respiratory immune system
LMMA_00185
           immune cell
LMMA_00735
          T cell 1
LMMA 00736
           | | T cell 2
LMMA 00150
          l dendritic cell
          LMMA_00676
LMMA_00241
          myeloid cell
LMMA 00179
           LMMA 00090
           basophil (syn: basophilic leukocyte; basophilic granulocyte)
LMMA_00163
                 - eosinophil
          | | |
LMMA_00256
                 - neutrophil
LMMA 00182
          LMMA 00226
           LMMA 00213
                 interstitial macrophage (syn: lung tissue macrophage; pulmonary interstitial macrophage)
LMMA 00698
          LMMA_00227
          LMMA_00613
LMMA 00668
          | | | | platelet
LMMA 00233
          LMMA_00742
          LMMA_00614
          | | | lymphoid cell
LMMA 00620
               innate lymphoid cell
                 hatural killer cell (syn: non-T, non-B lymphocyte; large granular lymphocyte)
LMMA_00245
LMMA_00437
           LMMA 00223
           | | | Iymphocyte
LMMA 00086
                 ► B Lymphocyte (syn: B cell)
LMMA 00677
                 | | plasma cell (syn: mature B lymphocyte)
LMMA 00354
                 ► T Lymphocyte (syn: T cell)
           I I I
LMMA_00816
          LMMA_00626 | lymphoid tissue
           | | bronchus associated lymphoid tissue
LMMA 00475
LMMA_00086
          LMMA_00677
LMMA 00354
           LMMA 00224
          | | Iymph node
LMMA_00678
          LMMA 00679
                 trabecula
LMMA_00680
               cortex
LMMA 00681
                 F primary lymphoid follicle
LMMA_00699
                 | | germinal center (syn: central zone of follicle; reactive center of follicle)
LMMA 00086
                   ⊢ B Lymphocyte (syn: B cell)
LMMA 00677
                 ı
                   | | | plasma cell (syn: mature B lymphocyte)
LMMA 00686
               endothelial sinus
           1 1
LMMA_00687
           | | | cortical sinus
LMMA 00688
                 - medullary sinus
LMMA 00689
                 paratrabecular sinus (syn: trabecular sinus)
LMMA 00690
                 - subcapsular sinus
LMMA 00223
               lymphocyte
LMMA 00086
                 ► B Lymphocyte (syn: B cell)
LMMA 00677
                 | | plasma cell (syn: mature B lymphocyte)
LMMA_00354
           I I F T Lymphocyte (syn: T cell)
```

```
LMMA_00816
                   | | peripheral blood lymphocytes
LMMA 00682
                   - medulla
LMMA 00683
                     medullary cord
LMMA 00086
                     | | | B Lymphocyte (syn: B cell)
LMMA 00677
                        | | | plasma cell (syn: mature B lymphocyte)
LMMA 00698
                        lymphoid macrophage
                   F paracortex (syn: subcortical zone, interfollicular area of the lymph node)
LMMA_00684
LMMA_00685
                     reticular cell
LMMA_00354
              I I ⊢ T Lymphocyte (syn: T cell)
LMMA 00523
              respiratory vascular system (syn: vascular system; vasculature)
LMMA_00692
              blood cell
LMMA_00619
              | | erythrocyte
LMMA 00179
                - granulocyte
LMMA 00090
                   basophil (syn: basophilic leukocyte; basophilic granulocyte)
LMMA_00163
                   - eosinophil
LMMA_00256
              LMMA 00233
              | | monocyte
LMMA 00819
                peripheral blood lymphocyte
LMMA_00104
              bronchial blood vessel
LMMA 00098
                bronchial artery
LMMA 00095
              bronchial arteriole
                - bronchial vein
LMMA_00105
                bronchial venule
LMMA_00109
LMMA 00519
              bronchial capillary
LMMA 00293
                   - capillary tunica intima
LMMA_00378
                     - subendothelial connective tissue cell
LMMA 00273
                     | | pericyte
LMMA 00356
                        telocyte
LMMA_00440
                      - vascular connective tissue (syn: perivascular connective tissue)
                        connective tissue cell
LMMA 00136
                        reticular cell
LMMA_00685
LMMA_00356
                        | | telocyte
                          unclassified fibroblast
LMMA 00386
LMMA 00168
                        extracellular matrix
LMMA_00145
                          collagen fiber
LMMA_00158
                          elastic fiber
                        ı
LMMA 00180
                        fround substance
LMMA_00529
                          LMMA_00178
                             ⊢ glycoprotein
LMMA_00283
                     LMMA 00320
LMMA_00292
                   - capillary tunica adventitia
LMMA_00440
                     ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                        connective tissue cell
LMMA 00685
                        | Freticular cell
                        | | telocyte
LMMA_00356
                        | |- unclassified fibroblast
LMMA_00386
LMMA_00168
              | | | | | extracellular matrix
```

LMMA_00145		- 1	ı	ı	⊢ collagen fiber
LMMA_00158	11	-	1	Ι	elastic fiber
LMMA_00180	11				F ground substance
LMMA_00529	$ \cdot $	-	1	1	glycosaminoglycan
LMMA_00178	$ \cdot $	-	Ι	1	
LMMA_00283	1.1		1	1	
LMMA_00320	11		Ι		reticular fiber

Note: the classification schema for "bronchial blood vessel" is as follows:

- The classification scheme for the "bronchial artery" is the same as for the "pulmonary muscular artery" below
- The classification scheme for the "bronchial arteriole" is the same as for the "pulmonary distal arteriole" below
- The classification scheme for the "bronchial venule" is the same as for the "pulmonary vein" (does not include the "vasa vasorum") below
- The classification scheme for the "bronchial artery" is the same as for the "pulmonary distal venule" below

LMMA_00315	- pulmonary blood vessel						
LMMA_00632	intra-parenchymal blood vessel						
LMMA_00291	pulmonary artery						
LMMA_00293							
LMMA_00081	artery endothelium						
LMMA_00089	basement membrane						
LMMA_00616	arterial endothelial cell						
LMMA_00191	internal elastic membrane						
LMMA_00378	│						
LMMA_00273							
LMMA_00356	telocyte						
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356							
LMMA_00386	unclassified fibroblast						
LMMA_00168	extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158	elastic fiber						
LMMA_00180	ground substance						
LMMA_00529	glycosaminoglycan						
LMMA_00178	glycoprotein						
LMMA_00283	proteoglycan						
LMMA_00320	reticular fiber						
LMMA_00294	pulmonary artery tunica media						
LMMA_00167	│						
LMMA_00393	vascular smooth muscle						
LMMA_00343	smooth muscle cell						
LMMA_00440	vascular connective tissue (syn: perivascular connective tissue)						
LMMA_00136	connective tissue cell						
LMMA_00685	reticular cell						
LMMA_00356	Helocyte						
LMMA_00386	unclassified fibroblast						
LMMA_00168	extracellular matrix						
LMMA_00145	collagen fiber						
LMMA_00158	elastic fiber						
LMMA_00180	ground substance						

```
LMMA_00529
             | | | | | | | | | glycosaminoglycan
LMMA 00178
                       II
                            ⊢ glycoprotein
LMMA 00283
                  LMMA 00320
                     LMMA_00292
                  pulmonary artery tunica adventitia
LMMA 00395
                     vasa vasorum
LMMA 00440
                     - vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                       connective tissue cell
                       | Freticular cell
LMMA 00685
LMMA_00356
                         - telocyte
LMMA 00386
                       | | unclassified fibroblast
LMMA 00168
                       extracellular matrix
LMMA 00145
                         collagen fiber
LMMA 00158
                       l elastic fiber
LMMA_00180
                         F ground substance
LMMA 00529
                            ⊢ glycosaminoglycan
LMMA 00178
                       1 1
                            ⊢ glycoprotein
LMMA 00283
                       LMMA_00320
              | | | | | | reticular fiber
LMMA_00290
              pulmonary arteriole
LMMA 00304
             pulmonary muscular arteriole
LMMA_00488
                     pulmonary muscular arteriole tunica intima
LMMA_00078
                     | | basement membrane
LMMA 00089
                    1
LMMA 00392
                     LMMA 00378
                       - subendothelial connective tissue cell
LMMA 00273
                       | | pericyte
LMMA_00356
                       | | telocyte
                       - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA 00136
                       | |- connective tissue cell
LMMA 00685
                         1
                            reticular cell
                            le telocyte
LMMA_00356
LMMA_00386
                            unclassified fibroblast
LMMA 00168
                          extracellular matrix
LMMA 00145
                            collagen fiber
LMMA_00158
                            le elastic fiber
LMMA_00180
                            round substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                            | | glycoprotein
LMMA_00283
                       1 1
                            | | proteoglycan
LMMA 00320
                     | | | | reticular fiber
LMMA 00489
                     pulmonary muscular arteriole tunica media
LMMA 00393
                       - vascular smooth muscle
LMMA 00343
                       | | smooth muscle cell
                       ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00440
LMMA 00136
                          connective tissue cell
LMMA 00685
                       1 1
                            reticular cell
LMMA 00356
                            - telocyte
                         1
                       | | | unclassified fibroblast
LMMA 00386
LMMA 00168
                  | | | | extracellular matrix
LMMA_00145
             | | | | | | | collagen fiber
```

```
LMMA_00158
                   I I I I
                            elastic fiber
LMMA 00180
                          1
                            round substance
LMMA 00529
                            | | glycosaminoglycan
LMMA 00178
                               ⊢ glycoprotein
LMMA 00283
                            | | proteoglycan
LMMA 00320
                     | | | | reticular fiber
                     pulmonary muscular arteriole tunica adventitia
LMMA 00486
LMMA_00395
                        - vasa vasorum
LMMA_00440
                        ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                          connective tissue cell
LMMA 00685
                            reticular cell
                            telocyte
LMMA_00356
                         -
LMMA 00386
                            unclassified fibroblast
LMMA 00168
                          extracellular matrix
LMMA_00145
                             collagen fiber
LMMA 00158
                             elastic fiber
LMMA 00180
                            ground substance
                            | | glycosaminoglycan
LMMA_00529
                         LMMA_00178
                        LMMA 00283
                     | | | | | proteoglycan
LMMA 00320
                       | | | reticular fiber
                   pulmonary distal arteriole
LMMA_00297
                     pulmonary distal arteriole tunica intima
LMMA 00299
LMMA 00078
                        arteriole endothelium
LMMA 00089
                        basement membrane
LMMA_00392
                        | | vascular endothelial cell
                        - subendothelial connective tissue cell
LMMA 00378
LMMA 00273
                        | | pericyte
LMMA 00356
                        | | telocyte
LMMA_00440
                        ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                         connective tissue cell
LMMA 00685
                            Freticular cell
LMMA 00356
                            telocyte
                            unclassified fibroblast
LMMA 00386
                          ı
LMMA 00168
                          - extracellular matrix
LMMA 00145
                            collagen fiber
LMMA 00158
                             elastic fiber
LMMA_00180
                             round substance
                            | | glycosaminoglycan
LMMA 00529
LMMA 00178
                          Т
                             | | glycoprotein
LMMA_00283
                        LMMA 00320
                     | | | reticular fiber
                     pulmonary distal arteriole tunica media
LMMA 00300
                       - vascular smooth muscle
LMMA 00393
                          smooth muscle cell
LMMA_00343
LMMA 00440
                        - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                         connective tissue cell
LMMA_00685
                            reticular cell
                          1
LMMA_00356
                            le telocyte
                   LMMA 00386
                   | | | | extracellular matrix
LMMA 00168
```

```
LMMA_00145
                 I I I I
                          collagen fiber
LMMA 00158
                          le elastic fiber
LMMA 00180
                          ground substance
LMMA 00529
                          | | glycosaminoglycan
LMMA 00178
                          | | glycoprotein
LMMA 00283
                          | | proteoglycan
LMMA 00320
                      LMMA_00298
                   pulmonary distal arteriole tunica adventitia
LMMA_00440
                 LMMA 00136
                        connective tissue cell
LMMA 00685
                          reticular cell
                          ⊢ telocyte
LMMA_00356
LMMA 00386
                          unclassified fibroblast
LMMA 00168
                        extracellular matrix
LMMA_00145
                          collagen fiber
LMMA 00158
                          elastic fiber
LMMA 00180
                          ground substance
                          | | glycosaminoglycan
LMMA_00529
                       - 1
LMMA_00178
                      LMMA_00283
                 | | | | | | proteoglycan
                 | | | | | reticular fiber
LMMA 00320
LMMA_00305
             pulmonary vein
LMMA_00307
             LMMA 00378
                 subendothelial connective tissue cell
LMMA_00273
                   ⊢ pericyte
LMMA_00356
                 LMMA 00397
                   vein endothelium
LMMA 00089
                      basement membrane
LMMA 00507
                      venous endothelial cell
LMMA_00440
                   ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA 00685
                       F reticular cell
LMMA 00356
                      | | telocyte
                      | |- unclassified fibroblast
LMMA_00386
LMMA 00168
                      - extracellular matrix
LMMA 00145
                      collagen fiber
LMMA 00158
                        elastic fiber
LMMA_00180
                        F ground substance
LMMA 00529
                       LMMA 00178
                       1
                          glycoprotein
LMMA_00283
                 LMMA 00320
                 | | | | reticular fiber
LMMA 00308
                 pulmonary vein tunica media
LMMA_00393
                    - vascular smooth muscle
                   | | smooth muscle cell
LMMA_00343
LMMA 00399
                   venous cardiac muscle
LMMA 00132
                      -cardiomyocyte (syn: cardiac myocyte)
LMMA_00440
                   ├ vascular connective tissue (syn: perivascular connective tissue)
                 | | | connective tissue cell
LMMA_00136
LMMA 00685
             | | | | | reticular cell
             | | | | | telocyte
LMMA 00356
```

```
LMMA_00386
LMMA 00168
                      - extracellular matrix
LMMA 00145
                      | | collagen fiber
LMMA 00158
                         elastic fiber
LMMA_00180
                        F ground substance
                      │ │ │ glycosaminoglycan
LMMA 00529
LMMA 00178
                        1
                           ⊢ glycoprotein
LMMA_00283
                      | | reticular fiber
LMMA 00320
                  - pulmonary vein tunica adventitia
LMMA_00306
LMMA 00395
                    - vasa vasorum
LMMA 00440
                    - vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA 00685
                      reticular cell
LMMA_00356
                        telocyte
                      | | unclassified fibroblast
LMMA 00386
LMMA 00168
                      extracellular matrix
LMMA_00145
                        collagen fiber
LMMA 00158
                      l elastic fiber
                        F ground substance
LMMA 00180
LMMA 00529
                           ⊢ glycosaminoglycan
LMMA 00178
                      11
                           ⊢ glycoprotein
LMMA 00283
                      LMMA 00320
             | | | | | | reticular fiber
LMMA_00316
             pulmonary venule
             pulmonary muscular venule
LMMA_00309
                    pulmonary muscular venule tunica intima
LMMA 00311
LMMA_00403
                    | - venule endothelium
LMMA_00089
                      | | basement membrane
LMMA 00392
                      LMMA 00378
                      - subendothelial connective tissue cell
                        - pericyte
LMMA_00273
LMMA_00356
                      | | telocyte
LMMA 00440
                       - vascular connective tissue (syn: perivascular connective tissue)
                        connective tissue cell
LMMA 00136
LMMA 00685
                           reticular cell
                        1
LMMA_00356
                           le telocyte
LMMA 00386
                           - unclassified fibroblast
LMMA 00168
                         extracellular matrix
LMMA 00145
                           collagen fiber
LMMA 00158
                           elastic fiber
LMMA 00180
                           ground substance
LMMA 00529
                           | | glycosaminoglycan
LMMA_00178
                           | | glycoprotein
LMMA 00283
                           | | proteoglycan
                        -
LMMA 00320
                    reticular fiber
LMMA_00312
                    pulmonary muscular venule tunica media
                      - vascular smooth muscle
LMMA 00393
LMMA 00343
                  | | | | smooth muscle cell
LMMA_00399
                    | - venous cardiac muscle
LMMA_00132
```

```
LMMA_00440
                      ► vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      | |- connective tissue cell
LMMA 00685
                      1 1
                           reticular cell
LMMA 00356
                           telocyte
                           unclassified fibroblast
LMMA 00386
                        extracellular matrix
LMMA_00168
LMMA 00145
                        - collagen fiber
LMMA 00158
                      | | elastic fiber
LMMA 00180
                           round substance
                      11
LMMA 00529
                           | | glycosaminoglycan
LMMA 00178
                           | | glycoprotein
LMMA 00283
                      | | | | proteoglycan
LMMA 00320
                    | | | reticular fiber
LMMA 00310
                    pulmonary muscular venule tunica adventitia
LMMA_00440
                    | |- connective tissue cell
LMMA 00136
LMMA 00685
                      1 1
                           reticular cell
LMMA 00356
                        Т
                           telocyte
LMMA_00386
                        | | unclassified fibroblast
LMMA 00168
                        extracellular matrix
LMMA 00145
                        1
                           collagen fiber
LMMA 00158
                      | | elastic fiber
                      F ground substance
LMMA_00180
                      LMMA 00529
LMMA 00178
                   | | | | | | glycoprotein
LMMA 00283
                      LMMA 00320
                  | | | | | reticular fiber
LMMA 00301
                 pulmonary distal venule
LMMA 00303
                    pulmonary distal venule tunica intima
LMMA 00403
                  LMMA 00089
                      | | basement membrane
                        - vascular endothelial cell
LMMA_00392
LMMA_00378
                      - subendothelial connective tissue cell
LMMA 00273
                      | | pericyte
LMMA 00356
                      | | telocyte
LMMA 00440
                      ├ vascular connective tissue (syn: perivascular connective tissue)
LMMA_00136
                        connective tissue cell
LMMA 00685
                           reticular cell
                      1 1
LMMA 00356
                        1
                           telocyte
                        unclassified fibroblast
LMMA_00386
                        - extracellular matrix
LMMA 00168
LMMA 00145
                           collagen fiber
LMMA 00158
                           elastic fiber
                           F ground substance
LMMA_00180
                      LMMA 00529
                        | | glycosaminoglycan
LMMA 00178
                      | | | glycoprotein
LMMA_00283
                      LMMA 00320
                      | | reticular fiber
LMMA 00302
                  | | pulmonary distal venule tunica adventitia
                 | | | vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA_00136
             | | | | | | connective tissue cell
```

```
LMMA_00685
                 LMMA_00356
                          telocyte
LMMA 00386
                          unclassified fibroblast
LMMA 00168
                        extracellular matrix
LMMA 00145
                           collagen fiber
                           le elastic fiber
LMMA 00158
LMMA 00180
                        Т
                          round substance
LMMA_00529
                       | | glycosaminoglycan
LMMA 00178
                           | | glycoprotein
LMMA 00283
                        Т
                          | | proteoglycan
LMMA 00320
                 | | | | | reticular fiber
LMMA_00447
             pulmonary lymphatic vessel
             LMMA 00221
LMMA 00422
                    lymphatic endothelium
LMMA_00089
                      basement membrane
                      lymphatic endothelial cell
LMMA 00216
LMMA 00378
                    - subendothelial connective tissue cell
LMMA_00273
                      - pericyte
LMMA_00356
             | | | <del>|</del> telocyte
                    H vascular connective tissue (syn: perivascular connective tissue)
LMMA 00440
LMMA 00136
                      connective tissue cell
LMMA 00685
                    | | | reticular cell
                      | | telocyte
LMMA 00356
                      | | unclassified fibroblast
LMMA 00386
LMMA_00168
                      - extracellular matrix
LMMA 00145
                        collagen fiber
LMMA 00158
                      elastic fiber
LMMA_00180
                      | | ground substance
                        | | glycosaminoglycan
LMMA_00529
LMMA 00178
                      LMMA 00283
                      LMMA 00320
                      reticular fiber
LMMA 00222
                 lymphatic vessel tunica media
LMMA_00217
                    lymphatic smooth muscle
LMMA_00343
                    | | smooth muscle cell
LMMA_00440
                    H vascular connective tissue (syn: perivascular connective tissue)
LMMA 00136
                      connective tissue cell
LMMA 00685
                      reticular cell
LMMA 00356
                      | | telocyte
LMMA_00386
                      | | unclassified fibroblast
LMMA_00168
                      - extracellular matrix
LMMA 00145
                        collagen fiber
LMMA 00158
                        elastic fiber
LMMA_00180
                      | | ground substance
                        | | glycosaminoglycan
LMMA_00529
                          ⊢ glycoprotein
LMMA 00178
                        -
LMMA 00283
                    LMMA 00320
                      reticular fiber
                  lymphatic vessel tunica adventitia
LMMA_00220
LMMA 00440
             LMMA 00136
             I I I I ⊢ connective tissue cell
```

LMMA_00685	-	Ι	Ι	Ι	reticular cell
LMMA_00356		1	Ι	1	│ ├ telocyte
LMMA_00386	-		1	1	
LMMA_00168			1		extracellular matrix
LMMA_00145	-		1	1	│
LMMA_00158		1	1		│
LMMA_00180	-		1		
LMMA_00529			1		│
LMMA_00178			1		│
LMMA_00283	- 1	1	1	1	│
LMMA 00320		Т	Т	Т	reticular fiber