

**Supplementary table 4.** Compact and extended population schemes used for the ImmuCC algorithm.

| <b>COMPACT SCHEME</b> |  |
|-----------------------|--|
| <b>Population</b>     | <b>Aggregated sub-populations</b>  |
| B cells               | B.Cells.Naive + B.Cells.Memory + Plasma.cells  |
| CD8 T-cells           | T.Cells.CD8.Naive + T.Cells.CD8.Actived + T.Cells.CD8.Memory   |
| CD4 T-cells           | T.Cells.CD4.Naive + T.Cells.CD4.Memory + T.Cells.CD4.Follicular + Th1.Cells + Th17.Cells + Th2.Cells |
| Regulatory T-cells    | -  |
| Gamma-delta T-cells   | -  |
| NK cells              | NK.Resting + NK.Activated  |
| DC cells              | DC.Activated + DC.Immature   |
| Monocytes             | -  |
| Granulocytes          | Eosinophil.Cells + Mast.Cells + Neutrophil.Cells   |
| Macrophages           | M0.Macrophage + M1.Macrophage + M2.Macrophage  |

| <b>EXTENDED SCHEME</b> |  |
|------------------------|--|
| <b>Population</b>      | <b>Aggregated sub-populations</b>  |
| B cells                | B.Cells.Naive + B.Cells.Memory + Plasma.cells  |
| CD8 T-cells            | T.Cells.CD8.Naive + T.Cells.CD8.Actived + T.Cells.CD8.Memory   |
| CD4 T-cells            | T.Cells.CD4.Naive + T.Cells.CD4.Memory + T.Cells.CD4.Follicular + Th1.Cells + Th17.Cells + Th2.Cells |
| Regulatory T-cells     | -  |
| Gamma-delta T-cells    | -  |
| NK cells               | NK.Resting + NK.Activated  |
| DC cells               | DC.Activated + DC.Immature   |
| Monocytes              | -  |
| Granulocytes           | Eosinophil.Cells + Mast.Cells + Neutrophil.Cells   |
| B cells                | B.Cells.Naive + B.Cells.Memory + Plasma.cells  |
| NK cells               | NK.Resting + NK.Activated  |
| DC cells               | DC.Activated + DC.Immature   |
| Granulocytes           | Eosinophil.Cells + Mast.Cells + Neutrophil.Cells   |
| T.Cells.CD8.Naive      | -  |
| T.Cells.CD8.Actived    | -  |
| T.Cells.CD8.Memory     | -  |
| T.Cells.CD4.Naive      | -  |
| T.Cells.CD4.Memory     | -  |
| T.Cells.CD4.Follicular | -  |
| Treg.Cells             | -  |
| Th17.Cells             | -  |
| GammaDelta.T.cells     | -  |
| M0.Macrophage          | -  |
| M1.Macrophage          | -  |
| M2.Macrophage          | -  |
| Monocytes              | -  |