Table S1. Surface markers used to characterize cells associated to initial steps of hematopoiesis.

| Cell Type        | Surface Markers   | Reference                          |            |
|------------------|---|------------------------------------|------------|
| LT-HSC           | Lin-c-Kit+Sca1+CD34-Flk2- (mouse)   | [19]                               |            |
|                  | CD201+CD150+CD48-Lin-c-Kit+Sca-1+ (mouse)   | Reviewed by 2020 [140]             | Cheng      |
|                  | CD34+Flk2-Lin-c-Kit+Sca-1+ (mouse)  | Reviewed by 2020 [140]             | Cheng      |
|                  | Lin- c-Kit+ Sca-1+ Flk2- CD34- Slamf1+ (mouse)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
|                  | Lin- CD34+ CD38- CD90+/- CD45RA- CD49f+ Rholow (human)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
| ST-HSC           | CD34+Flk2-Lin-c-Kit+Sca-1+ (mouse)  | Reviewed by 2020 [140]             | Cheng      |
|                  | Lin- c-Kit+ Sca-1+ Flk2- CD34+ Slamf1+ (mouse)  | Reviewed Chotinantakul [141]       | by<br>2012 |
|                  | Lin- CD34+ CD38- CD90+/- CD45RA- CD49f+ Rho-(human)   | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
| HSC (in general) | CD34+CD38-Thy1-CD45RA-CD49f+ (human)  | [17]                               |            |
|                  | CD34+CD38-Thy-1+CD45RA-Flt3+CD7-CD10- (human)   | [20]                               |            |
| MPP              | CD34+ CD38- Thy1- CD45RA- CD49f- (human)  | [17]                               |            |
|                  | CD34 <sup>+</sup> CD38 <sup>-</sup> Thy-1 <sup>-</sup> CD45RA <sup>-</sup> Flt3 <sup>+</sup> CD7 <sup>-</sup> CD10 <sup>-</sup> (human) | [20]                               |            |
|                  | CD34+Flk2+Lin-c-Kit+Sca-1+ (mouse)  | Reviewed by 2020 [140]             | Cheng      |
|                  | CD150-CD48-Lin-c-Kit+Sca-1+ (mouse)   | Reviewed by 2020 [140]             | Cheng      |
|                  | Lin- c-Kit+ Sca-1+ Flk2+ CD34+ Slamf1- (mouse)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
| CLP              | CD34+CD10+CD24- (human)   | [142]                              |            |
|                  | Lin- CD34+ CD38+ CD10+ (human)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
|                  | Lin- Flk2+ IL7R $\alpha$ + CD27+ (mouse)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
|                  | Lin-c-Kit <sup>low</sup> Sca-1 <sup>low</sup> IL7Rα+Flk2+ (mouse)   | Reviewed by 2020 [140]             | Cheng      |
| CMP              | CD34+ CD38+ CD10- FLT3+ CD45RA- (human)   | [17]                               |            |
|                  | CD34+ CD38+ Thy-1- CD45RA- Flt3+ CD7- CD10- (mouse)   | [20]                               |            |
|                  | CD34+CD38+IL-3Rα+CD45RA- (human)  | [143]                              |            |
|                  | CD34+FcγRII/IIIIow Lin-c-Kit+Sca-1- (mouse)   | Reviewed by 2020 [140]             | Cheng      |
|                  | Lin- CD34+ CD38+ IL3Rα <sup>low</sup> CD45RA- (human)   | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |
|                  | Lin- c-Kit+ Sca-1-/low CD34+ FcγRlow (mouse)  | Reviewed<br>Chotinantakul<br>[141] | by<br>2012 |