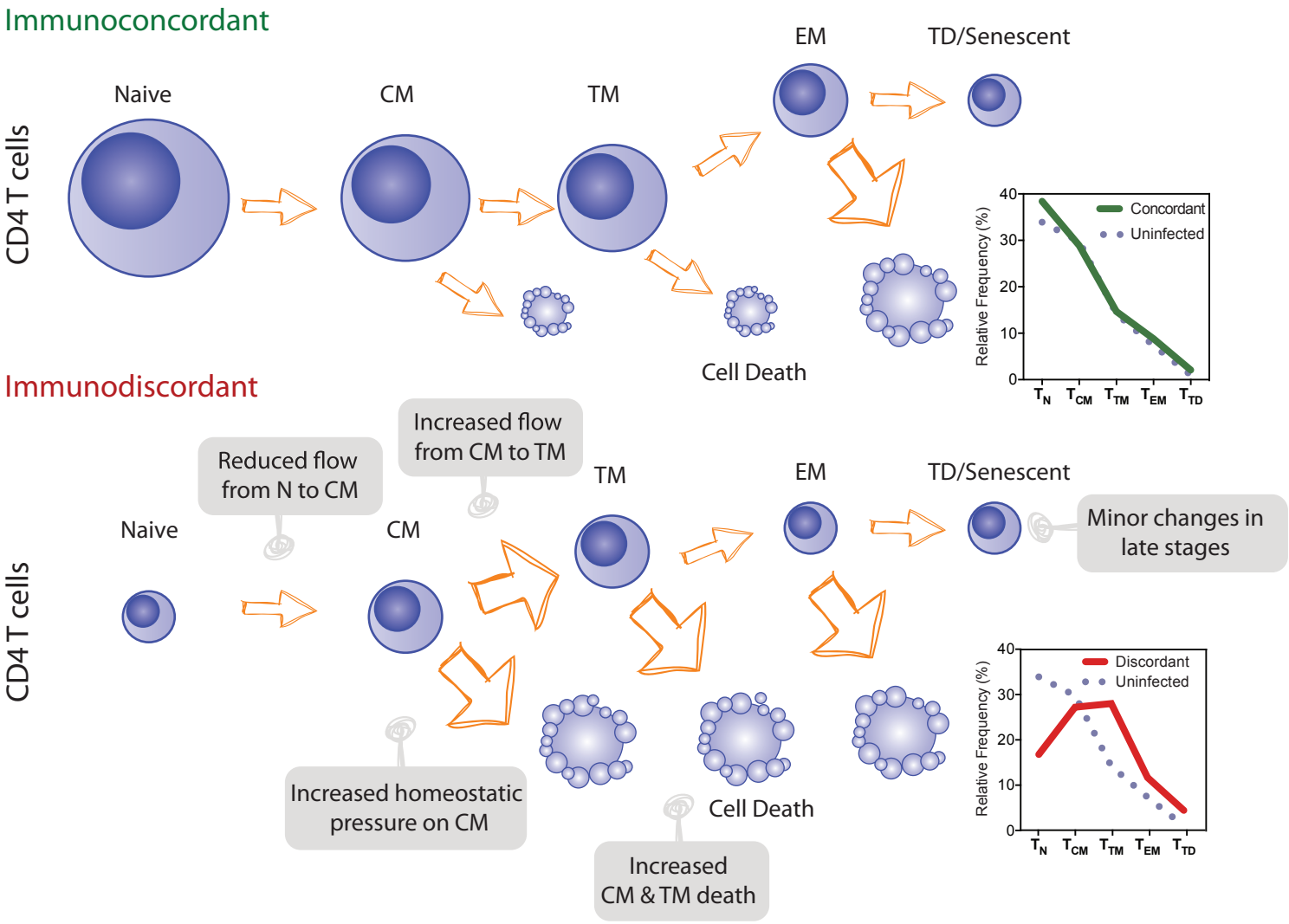

Supplementary Figure 2. A model for CD4 homeostasis in Immunodiscordant individuals. Immunoconcordant individuals show a full recovery of CD4 T-cell counts with a high representation of naïve cells, and balanced frequencies of different memory subsets (upper panels). The profile of CD4 T-cell maturation in immunoconcordant individuals (green line) overlaps with that of HIV uninfected individuals (blue line in upper right plot) in which CCR7$^-$CD4 T cells show increased turnover and short live [22]. Conversely,immunodiscordant individuals (lower panels) show a reduced naïve subset with no signs of altered turnover [14] that limits the generation of new memory cells. Among memory subsets, central memory cells are also reduced and subjected to homeostatic pressure to generate new cells [14] increasing $T_{CM} \rightarrow T_{TM}$ transition (and lowering T_{CM}/T_{TM} ratios) and increasing T_{CM} cell death. T_{TM} and T_{EM} cells emerging from T_{CM} cells also show higher sensitivity to cell death (Figure 2D), explaining the lack of accumulation of terminally differentiated cells in these subjects. This scenario results in a shifted profile of CD4 T-cell maturation (red line) compared to healthy individuals (blue line in lower right plot).