

Supplementary material

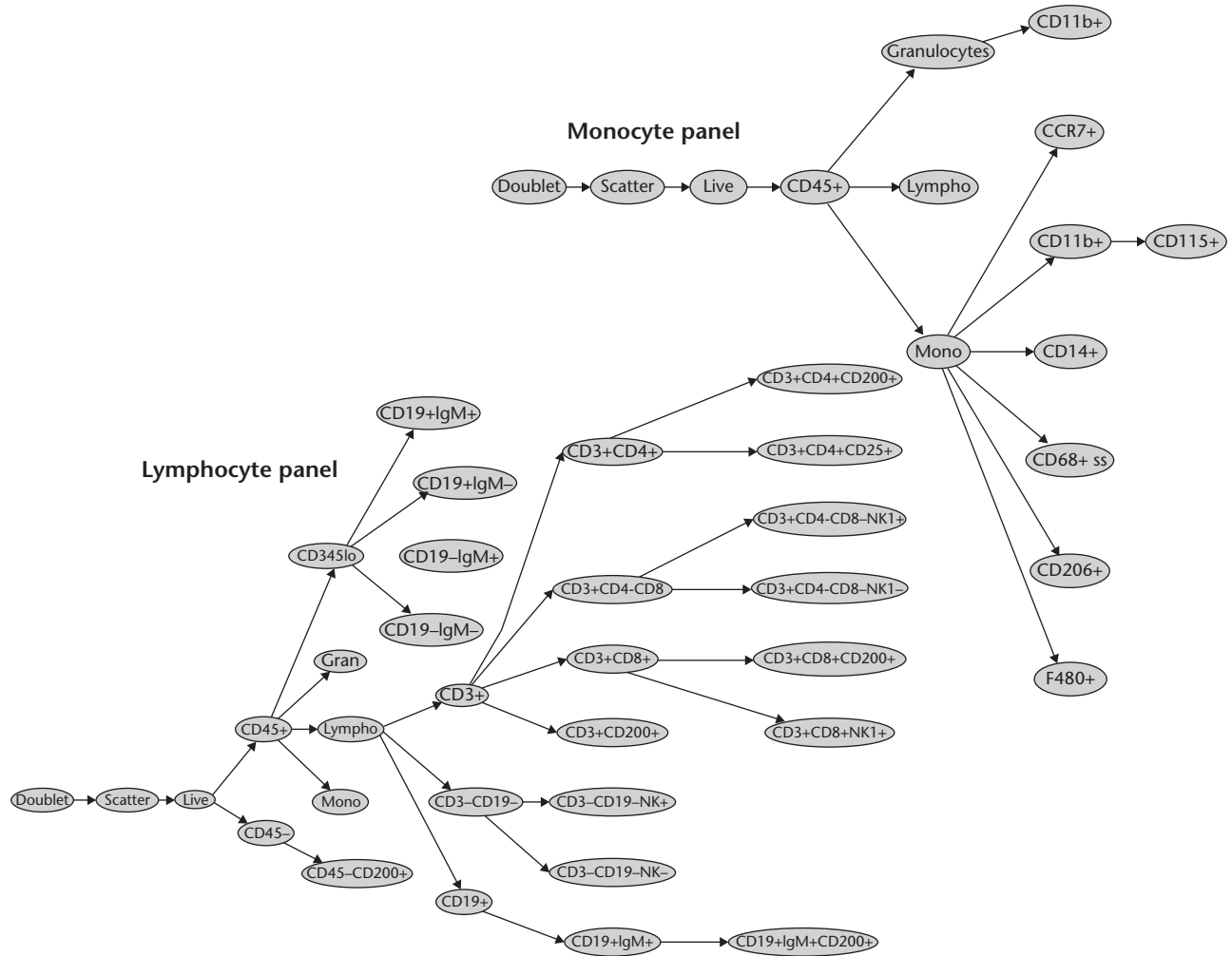


Fig. a

Gating strategy. Two panels were used and each sample was divided equally between the two. The graphs display successive gates, starting from all cells. "Doublet" was set in the SSC-W/SSC-H to remove doublet cells. Scatter gate was set in the SSC-A/FSC-A to remove debris. Dead cells were excluded with Zombie Red (BioLegend, San Diego, California).

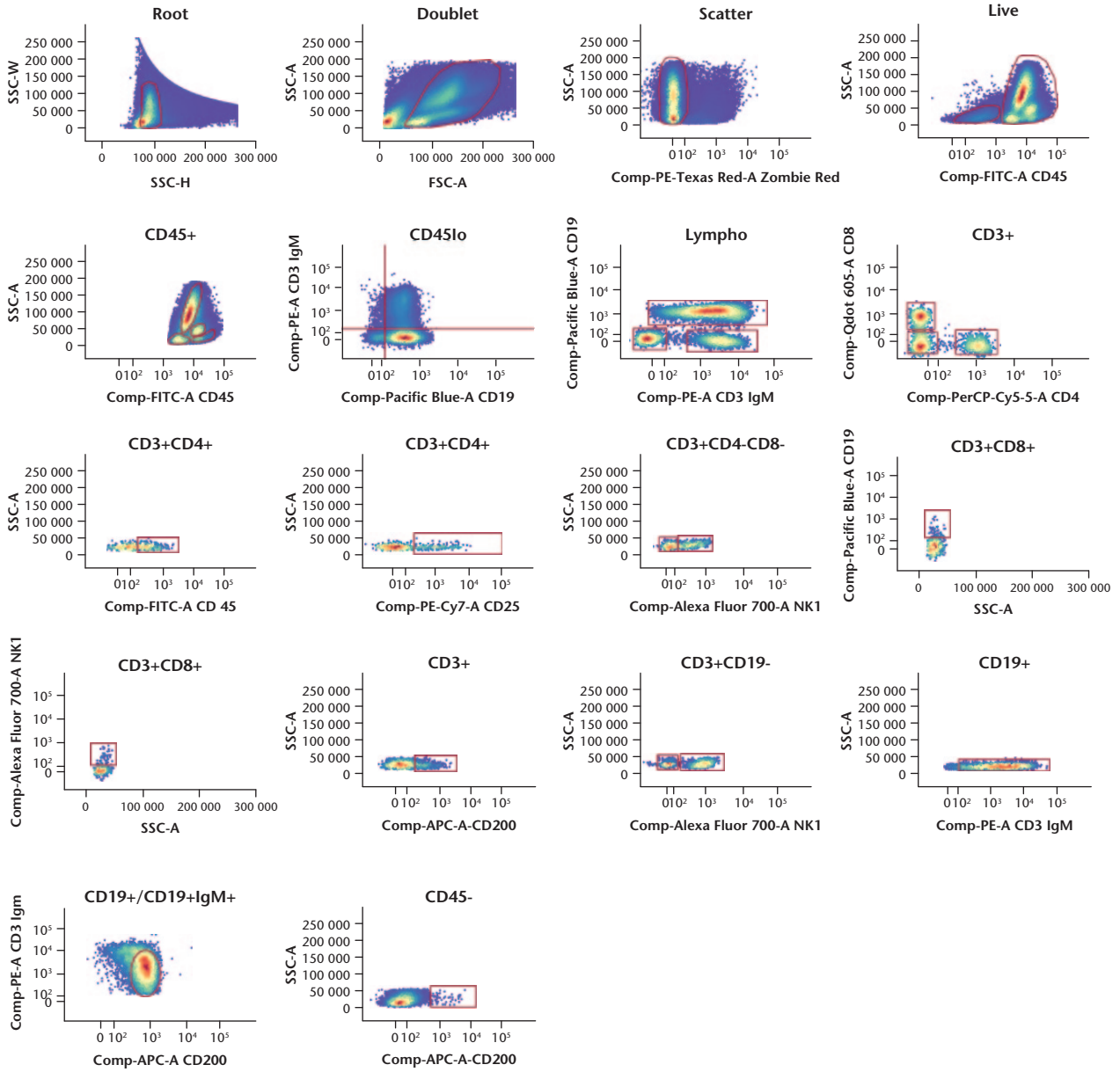


Fig. b

Gating of the lymphocyte panel, day 3. The header strip of a plot denotes the parent population. "Root" denotes all cells captured by the flow cytometer.

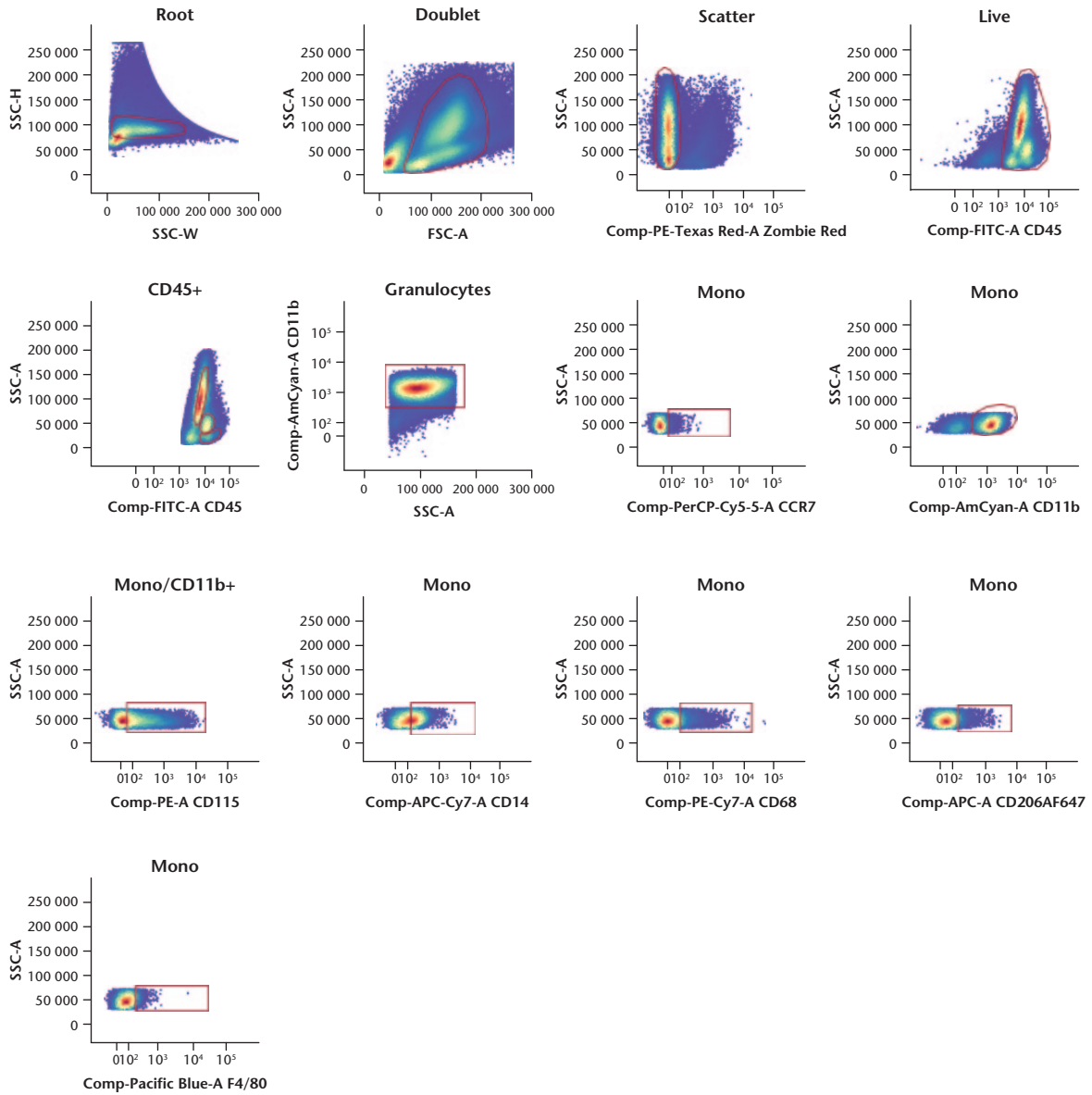
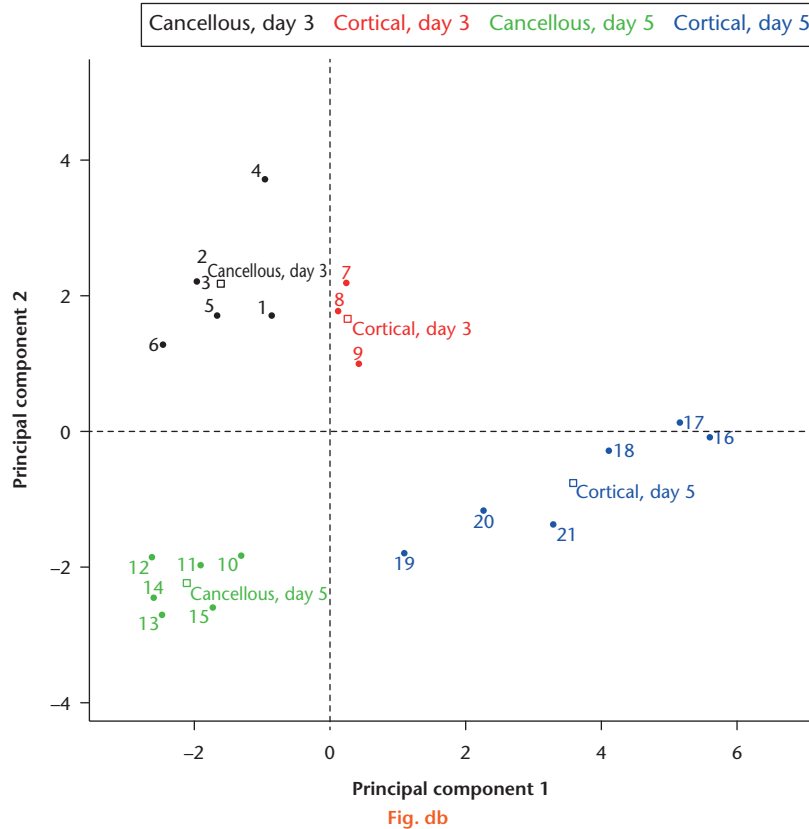
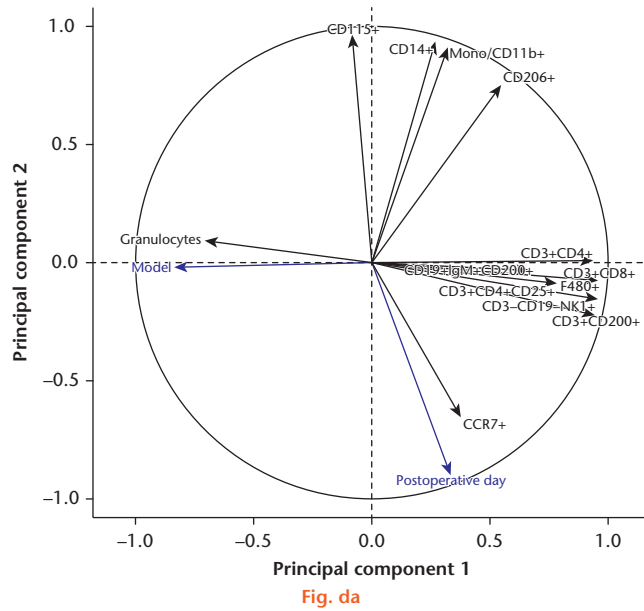


Fig. c

Gating of the monocyte panel, day 3. The header strip of a plot denotes the parent population. "Root" denotes all cells captured by the flow cytometer.



a) Variable contribution of variables to the two first principal components in principal component analysis (PCA). The analysis was performed on both models and both time points. Principal component 1 is displayed on the x-axis and explains 52% of variance among all variables. Principal component 2 is displayed on the y-axis and explains 27% of variance among all variables. Model and postoperative day were used as supplemental variables in the analysis. For the model variable, the cortical model was represented as number 1 and the cancellous model as number 2. Lymphocytes and granulocytes dominate in contribution to variance in the data. The analysis indicates granulocytes to be closely related to the cancellous model and lymphocytes to the cortical model. Postoperative days were described by their nominal numbers, 3 and 5. The analysis indicates that monocytic cells' variance is roughly equally explained by the model variable and postoperative day. Interestingly, CD115+ and CCR7+ monocytes can clearly be seen to correlate with postoperative day, in opposite directions. Analysis was performed on count data of cell populations. PCA was performed in R (R Version 3.4; The R Foundation, Vienna, Austria) with the package FactoMineR (version 1.41). b) Each observation plotted in the coordinates of the first and second principal components. Note the clear distinctions between models and time points. Both models move in the negative direction of principal component 2 from day 3 to 5 (corresponding to an increase of CCR7 monocytes and decrease of CD115 monocytes). The cancellous model moves slightly in the negative direction of principal component 1, and the cortical model strongly, but with a wide spread, in the positive direction of principal component 1. This corresponds to the increase of granulocytes in the cancellous model and the increase of lymphocytes in the cortical model.