



**Figure S3: Profile likelihood analysis for parameter estimates of CD4<sup>+</sup> T cells:** Profile likelihoods for the different proliferation,  $\rho$ , and death rates,  $\delta$ , (each  $\text{h}^{-1}$ ) considered within the model identified for CD4<sup>+</sup> T cell turnover dynamics in suspension (blue) and collagen (red). The y-axes show the value of the cost function defined in Eq. (5) (see *Methods*). The last three panels show the profile likelihoods for the estimated standard deviation of the data,  $\sigma$  and the adaptation times for suspension,  $\tau_S$ , and collagen,  $\tau_C$  (in hours). Red lines indicate the boundaries of the confidence intervals. Corresponding parameter values are shown in Table 1 in the manuscript.