



IO17 | Large Scale Bioinformatics for Immuno-Oncology

Deconvolution: exercise 4

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The cell fractions estimated by CIBERSORT (*Decon_CIBERSORT_PBMC_cell_fractions.txt*) can be compared with those obtained with flow cytometry (*CellFractions_FlowCytometry_PBMC.txt*).

For each cell type assessed with flow cytometry and for all cell types together:

- Make a **scatterplot** of the cell fractions obtained with flow cytometry (true) and deconvolution (estimated)
- Compute the Person's **correlation** (computed up to two decimals)
- Compute the **RMSE** (computed up to two decimals)

Hints: the fractions of resting and activated NK cells can be summed up to represent total NK cells. The functions saved in the *Decon_3_Assess_Performance.R* script can be used to perform the assessment.

```
source("Path/to/Decon_3_Assess_Performance.R")
```