## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

**Description:** Clinical characteristics of the preterm infants

File Name: Supplementary Data 2

**Description:** Complete list of analyzed proteins

File Name: Supplementary Data 3

**Description:** Inter- and intra- individual variability of proteins

File Name: Supplementary Data 4

**Description:** Expressions of proteins in time-series clusters

File Name: Supplementary Data 5

**Description:** Tissue specificity of proteins in longitudinal clusters

File Name: Supplementary Data 6

**Description:** Immune cell specificity of proteins in longitudinal clusters

File Name: Supplementary Data 7

**Description:** Complete results of functional analysis of proteins in longitudinal clusters

File Name: Supplementary Data 8

**Description:** Variance explanation of protein levels after birth

File Name: Supplementary Data 9

**Description:** Blood proteins used for the predictive PNA model

File Name: Supplementary Data 10

**Description:** Differentially expressed proteins across GA groups

File Name: Source Data 1

**Description:** Source data for figure 1, figure 2a and figure 5.