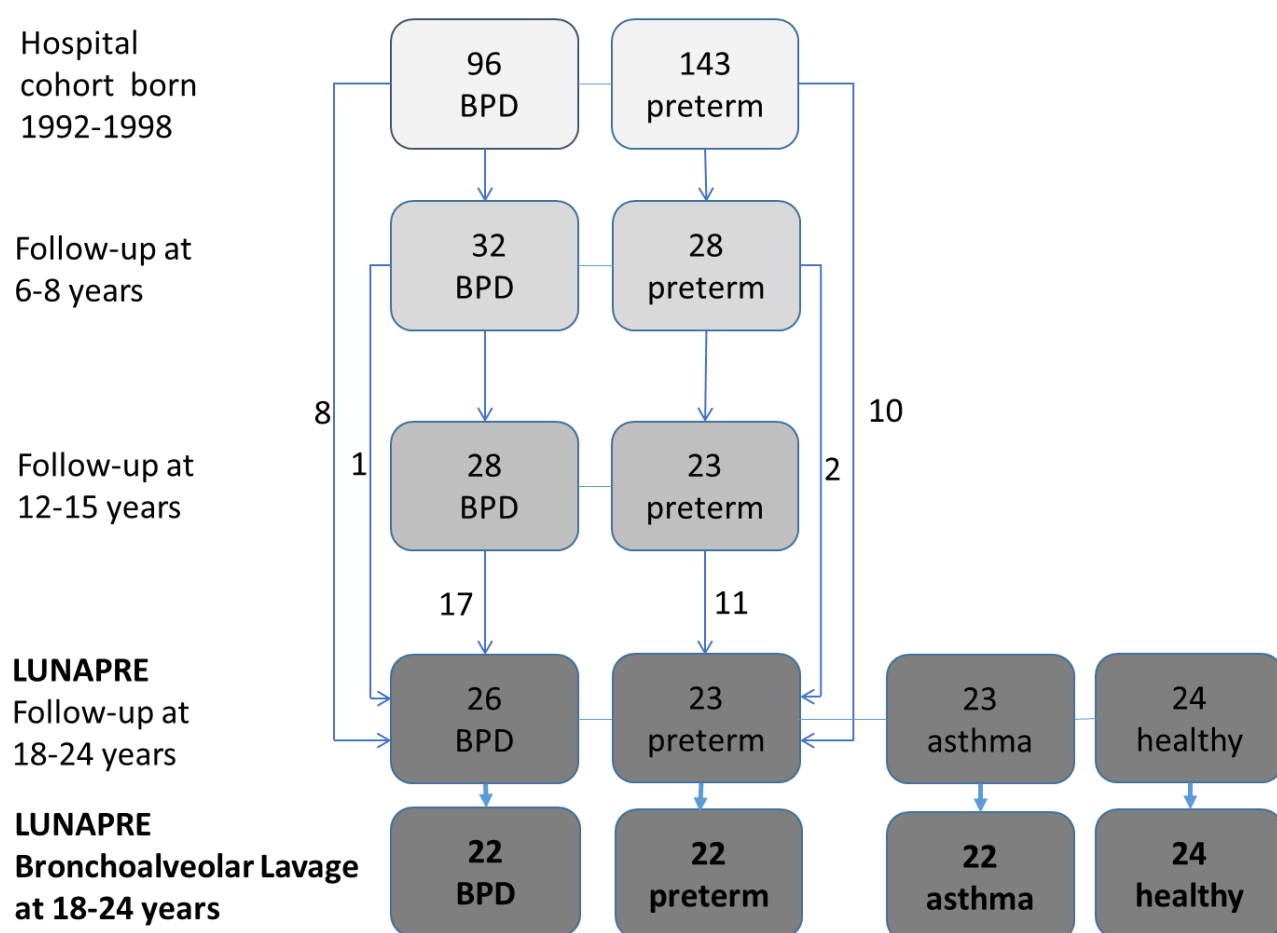**Increased cytotoxic T-cells in the airways of adults with former bronchopulmonary dysplasia**

Online supplement
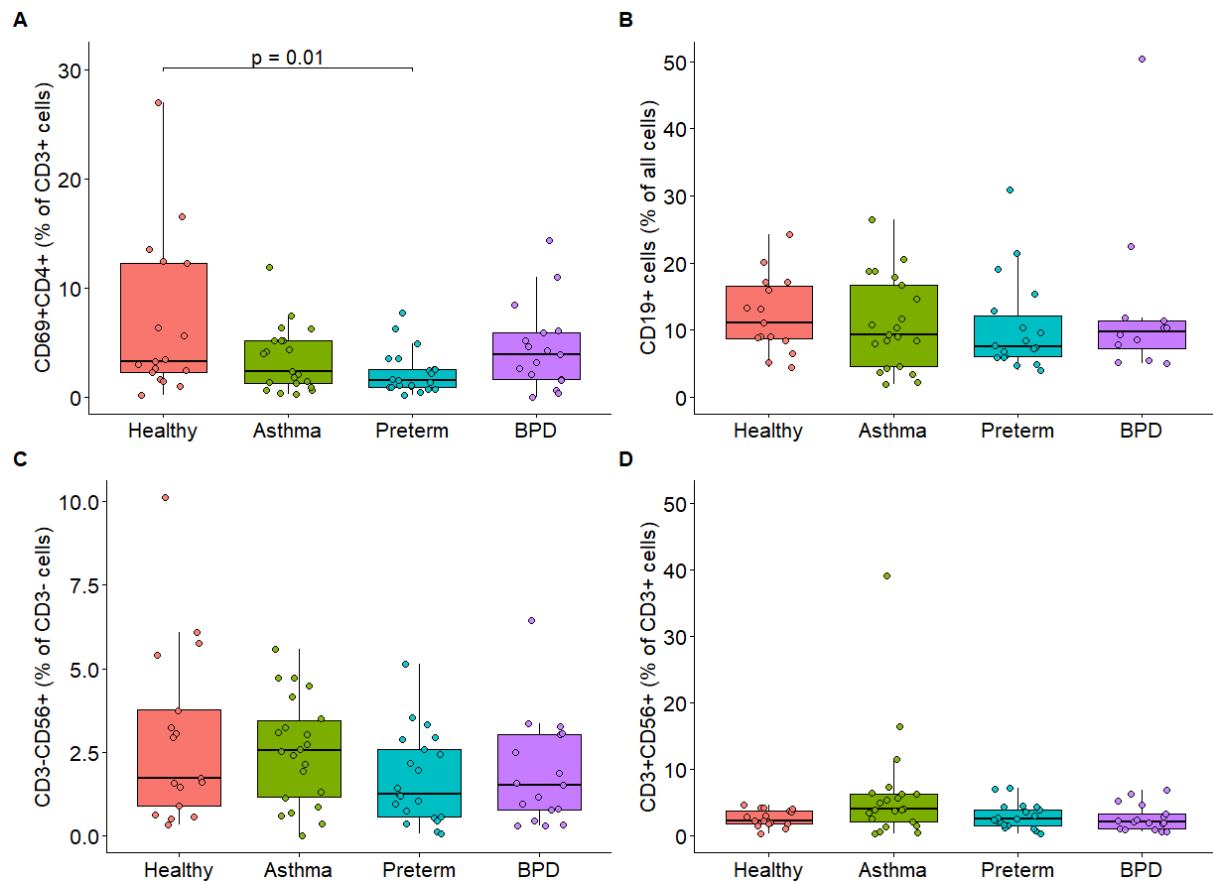
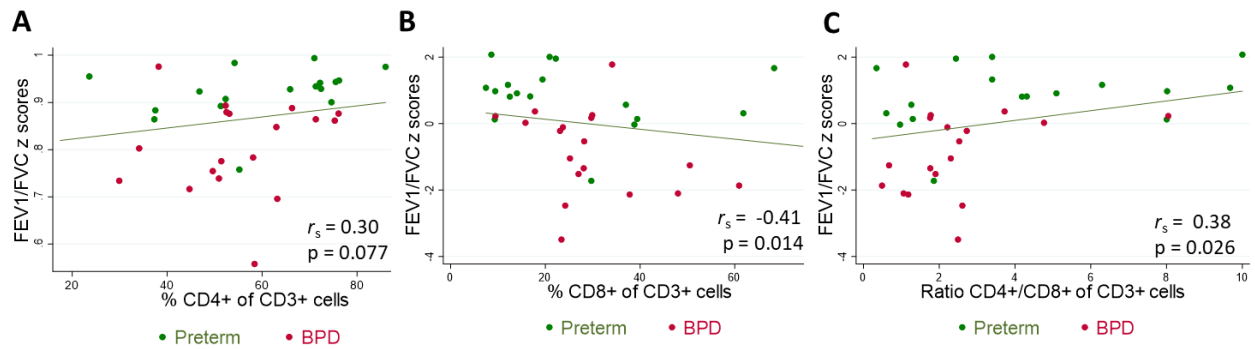**APPENDIX 3. Figures**

Figure E1.

Figure E1. Schematic description of recruitment to the LUNAPRE-study. Reason for not completing LUNAPRE in all four groups was unwillingness to go through bronchoalveolar lavage.
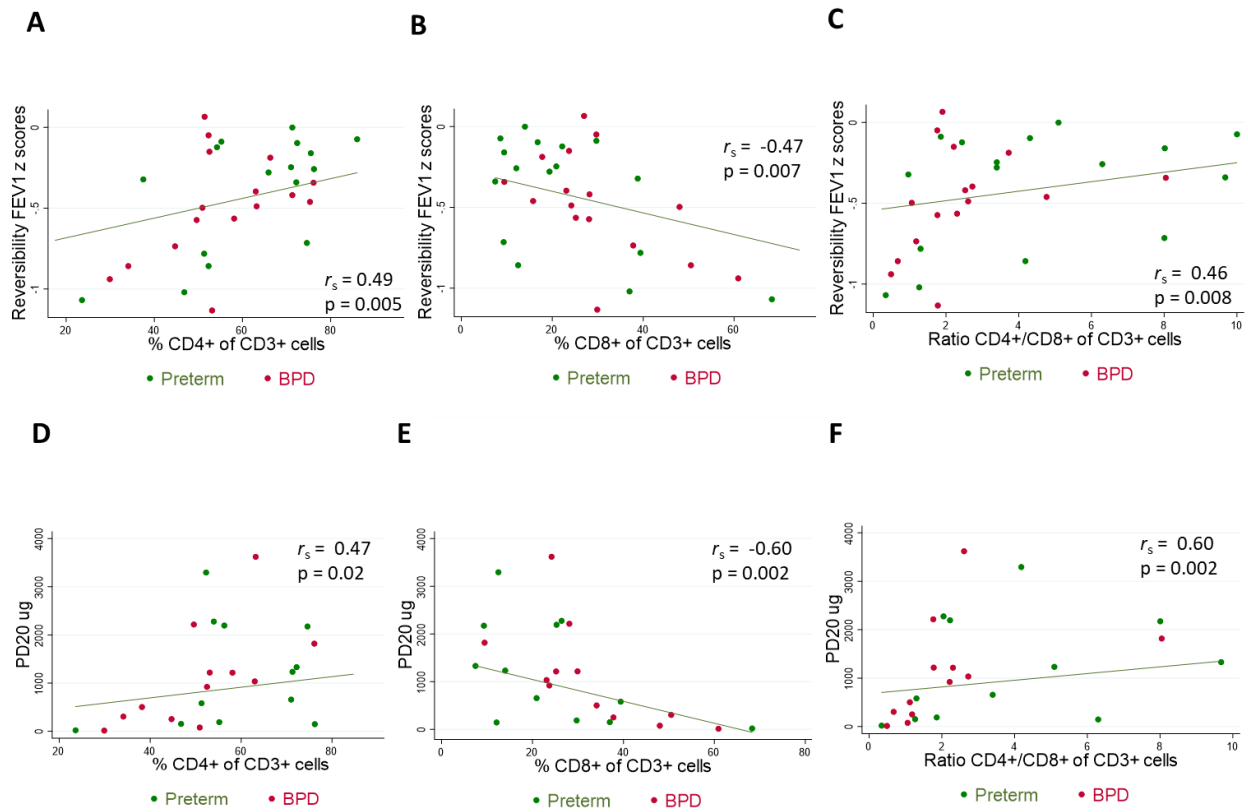
Figure E2

Figure E2 A-D. The dot plots show the percentage, and the boxes demonstrate IQR with the horizontal line for median, in BAL cells for (**A**): $CD3^+CD4^+CD69^+$ (Activated T helper cells) (%) (**B**): B cells, identified as $CD19^+$ cells (**D**): $CD56^+$ cells of $CD3^-$ cells (NK cells) (%) and, (**H**): $CD56^+$ cells of $CD3^+$ cells (%) (NKT, γδT cells). All cells were gated for live cells. Analysis with Mann-Whitney U-test. Abbreviations: BPD: bronchopulmonary dysplasia

Figure E3

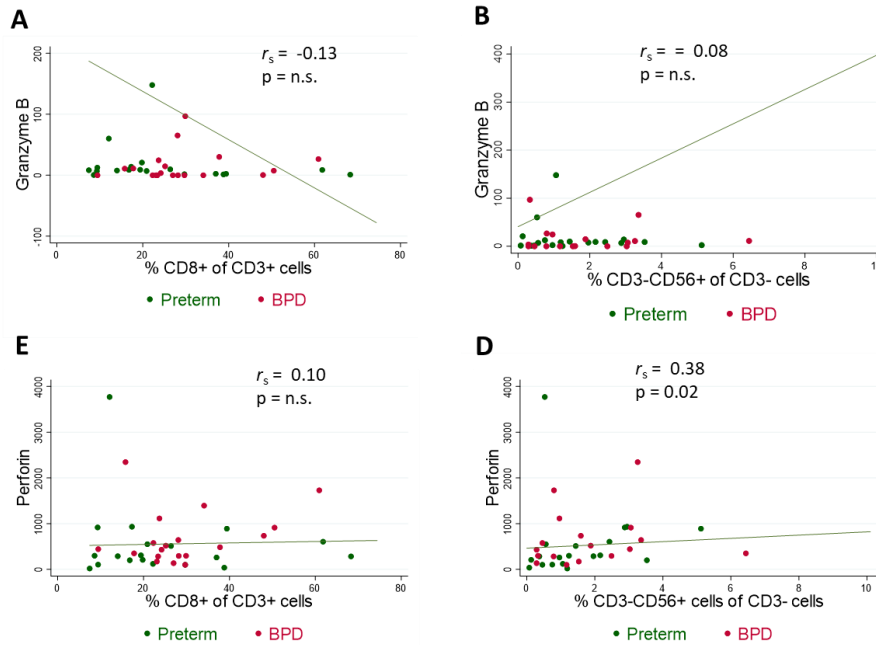**Figure E3 A-C.** Correlation in pooled preterm group (preterm + BPD) between (A): $CD3^{+}CD4^{+}$ T-cells in BAL and FEV_1/FVC z-scores; (B): $CD3^{+}CD8^{+}$ T-cells in BAL and FEV_1/FVC z-scores (C): CD4/CD8 of $CD3^{+}$ cells in BAL and FEV_1/FVC z-scores Abbreviations: BPD: bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; FEV_1: forced expiratory volume in 1 s; FVC: forced vital capacity; r_s : Spearman rank correlation coefficient

Figure E4

Figure E4 A-F. Correlation in pooled preterm group (preterm + BPD) between (**A**): CD3$^+$CD4$^+$ T-cells (%) in BAL and reversibility FEV1 z-scores; (**B**): CD3$^+$CD8$^+$ T-cells (%) in BAL and reversibility FEV$_1$ z-scores; (**C**): CD4/CD8 ratio of CD3$^+$ T-cells in BAL and reversibility FEV$_1$ z-scores; (**D**): CD3$^+$CD4$^+$ T-cells in BAL and PD20 ug (**E**): CD3$^+$CD8$^+$ T-cells in BAL and PD20 ug; (**F**): CD4/CD8 ratio of CD3$^+$ T-cells in BAL and PD20 ug Abbreviations: BPD: bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; r_s : Spearman rank correlation coefficient; PD20: Provocative dose of methacholine causing a 20% fall in FEV$_1$.

Figure E5

Figure E5 A-D. Correlation in pooled preterm group (preterm + BPD) between (**A**): CD8$^+$CD3$^+$ T-cells (%) in BAL and Granzyme B (pg/mL); (**B** CD56$^+$ cells of CD3$^-$ cells (NK cells) (%) in BAL and Granzyme B (pg/mL); (**C**): CD8$^+$CD3$^+$ T-cells (%) in BAL and perforin (pg/mL); (**D**): CD56$^+$ cells of CD3$^-$ cells (NK cells) (%) in BAL and perforin (pg/mL). Abbreviations: BPD: bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; r_s : Spearman rank correlation coefficient

APPENDIX FIGURE LEGENDS

Figure E1. Schematic description of recruitment to the LUNAPRE-study. Reason for not completing LUNAPRE in all four groups was unwillingness to go through bronchoalveolar lavage

Figure E2 A-D. The dot plots show the percentage, and the boxes demonstrate IQR with the horizontal line for median, in BAL cells for (**A**): $CD3^+CD4^+CD69^+$ (Activated T helper cells) (%) (**B**): B cells, identified as $CD19^+$ cells (**D**): $CD56^+$ cells of $CD3^-$ cells (NK cells) (%) and, (**H**): $CD56^+$ cells of $CD3^+$ cells (%) (NKT, γδT cells). All cells were gated for live cells. Analysis with Mann-Whitney U-test. Abbreviations: BPD: bronchopulmonary dysplasia.

Figure E3 A-C. Correlation in pooled preterm group (preterm + BPD) between (A): $CD3^+CD4^+$ T-cells in BAL and post-bronchodilator FEV_1/FVC z-scores; (B): $CD3^+CD8^+$ T-cells in BAL and post-bronchodilator FEV_1/FVC z-scores (C): CD4/CD8 of $CD3^+$ cells in BAL and post-bronchodilator FEV_1/FVC z-scores Abbreviations: BPD: bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; FEV_1: forced expiratory volume in 1 s; FVC: forced vital capacity; r_s : Spearman rank correlation coefficient

Figure E4 A-F. Correlation in pooled preterm group (preterm + BPD) between (**A**): $CD3^+CD4^+$ T-cells (%) in BAL and reversibility FEV1 z scores; (**B**): $CD3^+CD8^+$ T-cells (%) in BAL and reversibility FEV_1 z scores; (**C**): CD4/CD8 ratio of $CD3^+$ T-cells in BAL and reversibility FEV_1 z scores; (**D**): $CD3^+CD4^+$ T-cells in BAL and PD20 ug (**E**): $CD3^+CD8^+$ T-cells in BAL and PD20 ug; (**F**): CD4/CD8 ratio of $CD3^+$ T-cells in BAL and PD20 ug Abbreviations: BPD:

bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; r_s : Spearman rank correlation

coefficient; PD20: Provocative dose of metacholine causing a 20% fall in FEV_1.

Figure E5 A-D. Correlation in pooled preterm group (preterm + BPD) between (**A**): $CD8^+CD3^+$

T-cells (%) in BAL and Granzyme B (pg/mL); (**B** $CD56^+$ cells of $CD3^-$ cells (NK cells) (%) in BAL

and Granzyme B (pg/mL); (**C**): $CD8^+CD3^+$ T-cells (%) in BAL and perforin (pg/mL); (**D**): $CD56^+$

cells of $CD3^-$ cells (NK cells) (%) in BAL and perforin (pg/mL). Abbreviations: BPD:

bronchopulmonary dysplasia; BAL: bronchoalveolar lavage; r_s : Spearman rank correlation

coefficient