



eFigure 7 Age-related degranulation capacity and cytokine expression of T cells from MS patients and HD.

Flow cytometric analysis of frozen PBMC from young (≤ 50 years) and old (> 50 years) patients with multiple sclerosis (MS) and healthy donors (HD). Demographic data of study subjects are depicted in eTable 1. **(A)** Proportions of CD107a expressing total, memory and naïve CD8 T cells after co-incubation with α -CD3 loaded P815 cells for 3 h (HD: young: $n=12$, old: $n=10$; MS: young: $n=29$, old: $n=26$). **(B)** Percentages of IFN- γ expressing CD4 and CD8 T cells upon short-term stimulation with leukocyte activation cocktail (LAC) for 4 h (HD: young: $n=20$, old: $n=19$; MS: young: $n=40$, old: $n=38$). **(C)** Percentages of TNF- α expressing CD4 and CD8 T cells upon short-term stimulation with LAC for 4 h (HD: young: $n=20$, old: $n=19$; MS: young: $n=40$, old: $n=38$). **(D)** Frequencies of perforin and granzyme B expressing CD8 T cells (HD: young: $n=20$, old: $n=20$; MS: young: $n=40$, old: $n=38$). Data are displayed as boxplots of the median and the 25th and 75th percentile \pm IQR. Statistical analysis was conducted by two-tailed Mann-Whitney test. Differences were considered statistically significant with the following P -values: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ and **** $P < 0.0001$