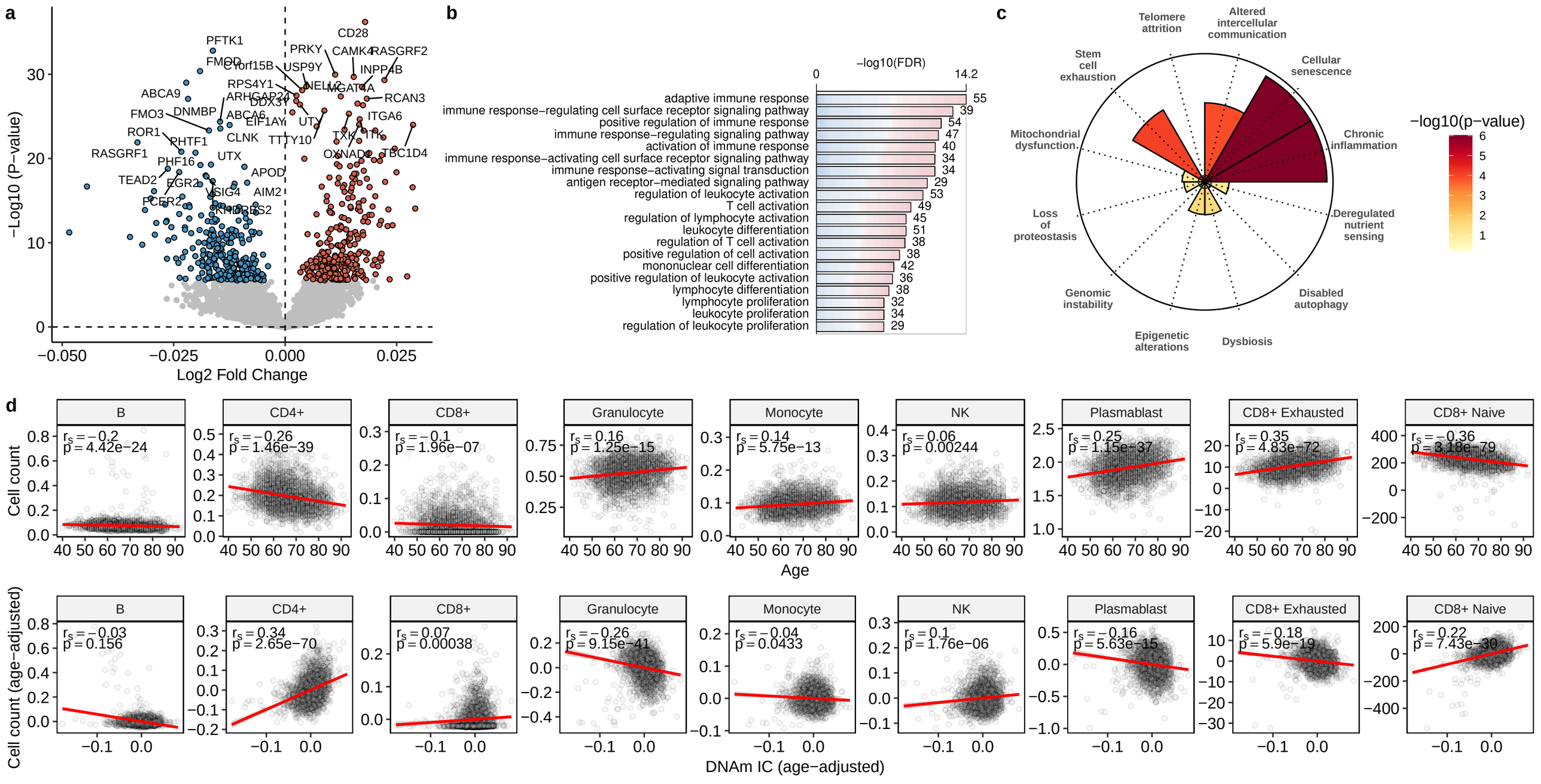
a
−Log10 (P−value)
Log2 Fold Change
PFTK1
FMOD
C1orf15B
USP9Y
PRKY
CD28
CAMK4
RASGRF2
INPP4B
RPS4Y1
NELL2
MGAT4A
ABCA9
ARHGAP24
DDX3Y
RCAN3
FMO3
DNMBP
ABCA6
EIF1AY
UTY
ITGA6
ROR1
PHTF1
CLNK
TTTY10
TXK
ITK
RASGRF1
PHF16
UTX
OXNAD1
TBC1D4
TEAD2
APOD
EGR2
SIG4
AIM2
FCER2
KRT8P15
RPS2
b
−log10(FDR)
0
14.2
adaptive immune response 55
immune response−regulating cell surface receptor signaling pathway 39
positive regulation of immune response 54
immune response−regulating signaling pathway 47
activation of immune response 40
immune response−activating cell surface receptor signaling pathway 34
immune response−activating signal transduction 34
antigen receptor−mediated signaling pathway 29
regulation of leukocyte activation 53
T cell activation 49
regulation of lymphocyte activation 45
leukocyte differentiation 51
regulation of T cell activation 38
positive regulation of cell activation 38
mononuclear cell differentiation 42
positive regulation of leukocyte activation 36
lymphocyte differentiation 38
lymphocyte proliferation 32
leukocyte proliferation 34
regulation of leukocyte proliferation 29
c
Telomere attrition
Altered intercellular communication
Stem cell exhaustion
Cellular senescence
Mitochondrial dysfunction
Chronic inflammation
Loss of proteostasis
Deregulated nutrient sensing
Genomic instability
Disabled autophagy
Epigenetic alterations
Dysbiosis
−log10(p−value)
d
B
CD4+
CD8+
Granulocyte
Monocyte
NK
Plasmablast
CD8+ Exhausted
CD8+ Naive
Cell count
Age
rs = −0.2 p = 4.42e−24
rs = −0.26 p = 1.46e−39
rs = −0.1 p = 1.96e−07
rs = 0.16 p = 1.25e−15
rs = 0.14 p = 5.75e−13
rs = 0.06 p = 0.00244
rs = 0.25 p = 1.15e−37
rs = 0.35 p = 4.83e−72
rs = −0.36 p = 3.18e−79
Cell count (age−adjusted)
DNAm IC (age−adjusted)
rs = −0.03 p = 0.156
rs = 0.34 p = 2.65e−70
rs = 0.07 p = 0.00038
rs = −0.26 p = 9.15e−41
rs = −0.04 p = 0.0433
rs = 0.1 p = 1.76e−06
rs = −0.16 p = 5.63e−15
rs = −0.18 p = 5.9e−19
rs = 0.22 p = 7.43e−30