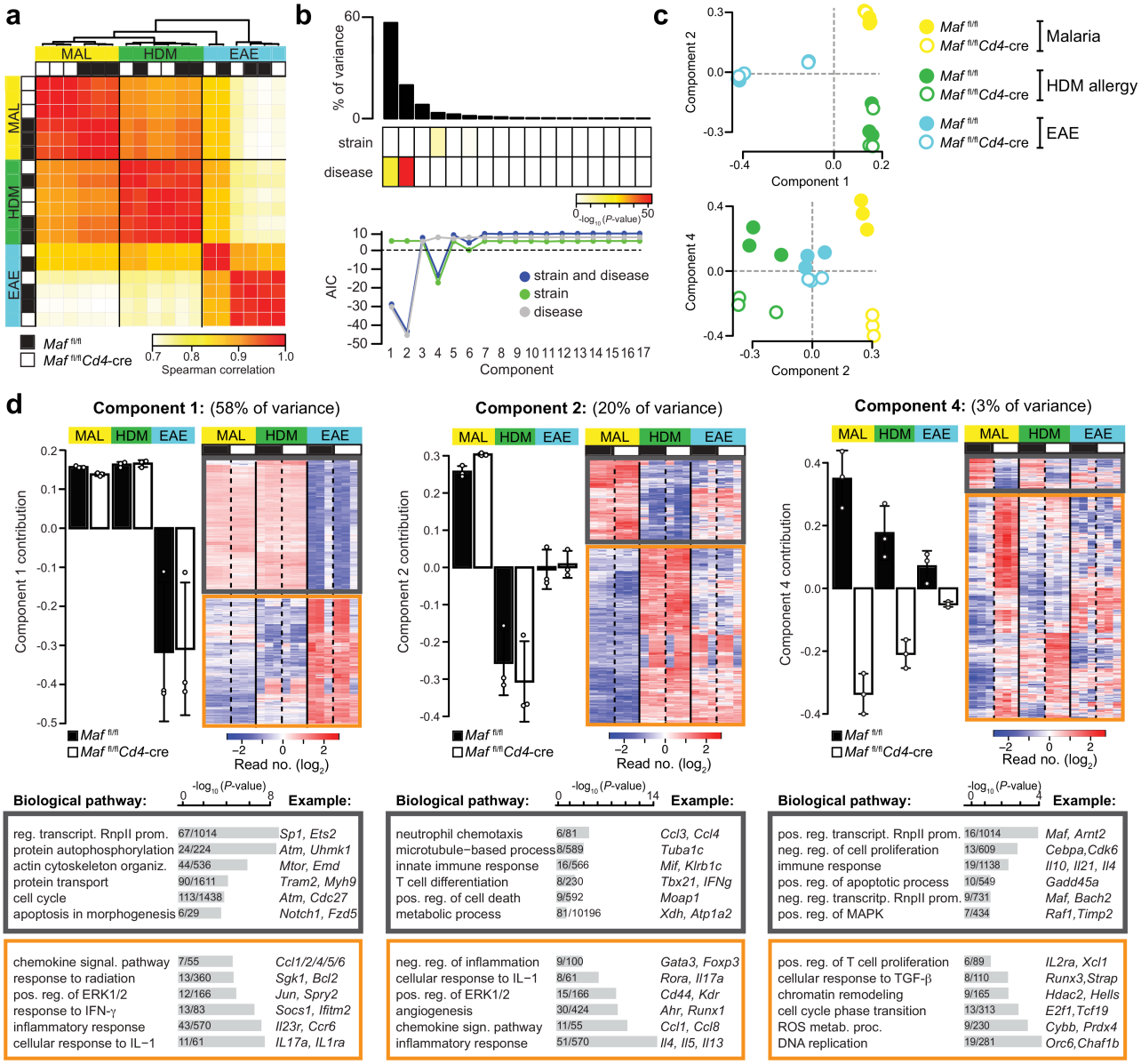
a
MAL
HDM
EAE
Maf fl/fl
Maf fl/flCd4-cre
0.7 0.8 0.9 1.0
Spearman correlation
b
% of variance
strain
disease
-log10 (P-value)
AIC
strain and disease
strain
disease
Component
c
Component 2
Component 1
Component 4
Malaria
HDM allergy
EAE
d
Component 1: (58% of variance)
Component 2: (20% of variance)
Component 4: (3% of variance)
Component 1 contribution
Component 2 contribution
Component 4 contribution
Read no. (log2)
Biological pathway:
Example:
reg. transcript. RnpII prom. 67/1014 Sp1, Ets2
protein autophosphorylation 24/224 Atm, Uhmk1
actin cytoskeleton organiz. 44/536 Mtor, Emd
protein transport 90/1611 Tram2, Myh9
cell cycle 113/1438 Atm, Cdc27
apoptosis in morphogenesis 6/29 Notch1, Fzd5
chemokine signal. pathway 7/55 Ccl1/2/4/5/6
response to radiation 13/360 Sgk1, Bcl2
pos. reg. of ERK1/2 12/166 Jun, Spry2
response to IFN-γ 13/83 Socs1, Ifitm2
inflammatory response 43/570 Il23r, Ccr6
cellular response to IL−1 11/61 IL17a, IL1ra
neutrophil chemotaxis 6/81 Ccl3, Ccl4
microtubule−based process 8/589 Tuba1c
innate immune response 16/566 Mif, Klrb1c
T cell differentiation 8/230 Tbx21, IFNg
pos. reg. of cell death 9/592 Moap1
metabolic process 81/10196 Xdh, Atp1a2
neg. reg. of inflammation 9/100 Gata3, Foxp3
cellular response to IL−1 8/61 Rora, Il17a
pos. reg. of ERK1/2 15/166 Cd44, Kdr
angiogenesis 30/424 Ahr, Runx1
chemokine sign. pathway 11/55 Ccl1, Ccl8
inflammatory response 51/570 Il4, Il5, Il13
pos. reg. of transcript. RnpII prom. 16/1014 Maf, Arnt2
neg. reg. of cell proliferation 13/609 Cebpa,Cdk6
immune response 19/1138 Il10, Il21, Il4
pos. reg. of apoptotic process 10/549 Gadd45a
neg. reg. transcritp. RnpII prom. 9/731 Maf, Bach2
pos. reg. of MAPK 7/434 Raf1,Timp2
pos. reg. of T cell proliferation 6/89 IL2ra, Xcl1
cellular response to TGF-β 8/110 Runx3,Strap
chromatin remodeling 9/165 Hdac2, Hells
cell cycle phase transition 13/313 E2f1,Tcf19
ROS metab. proc. 9/230 Cybb, Prdx4
DNA replication 19/281 Orc6,Chaf1b

Figure 3: