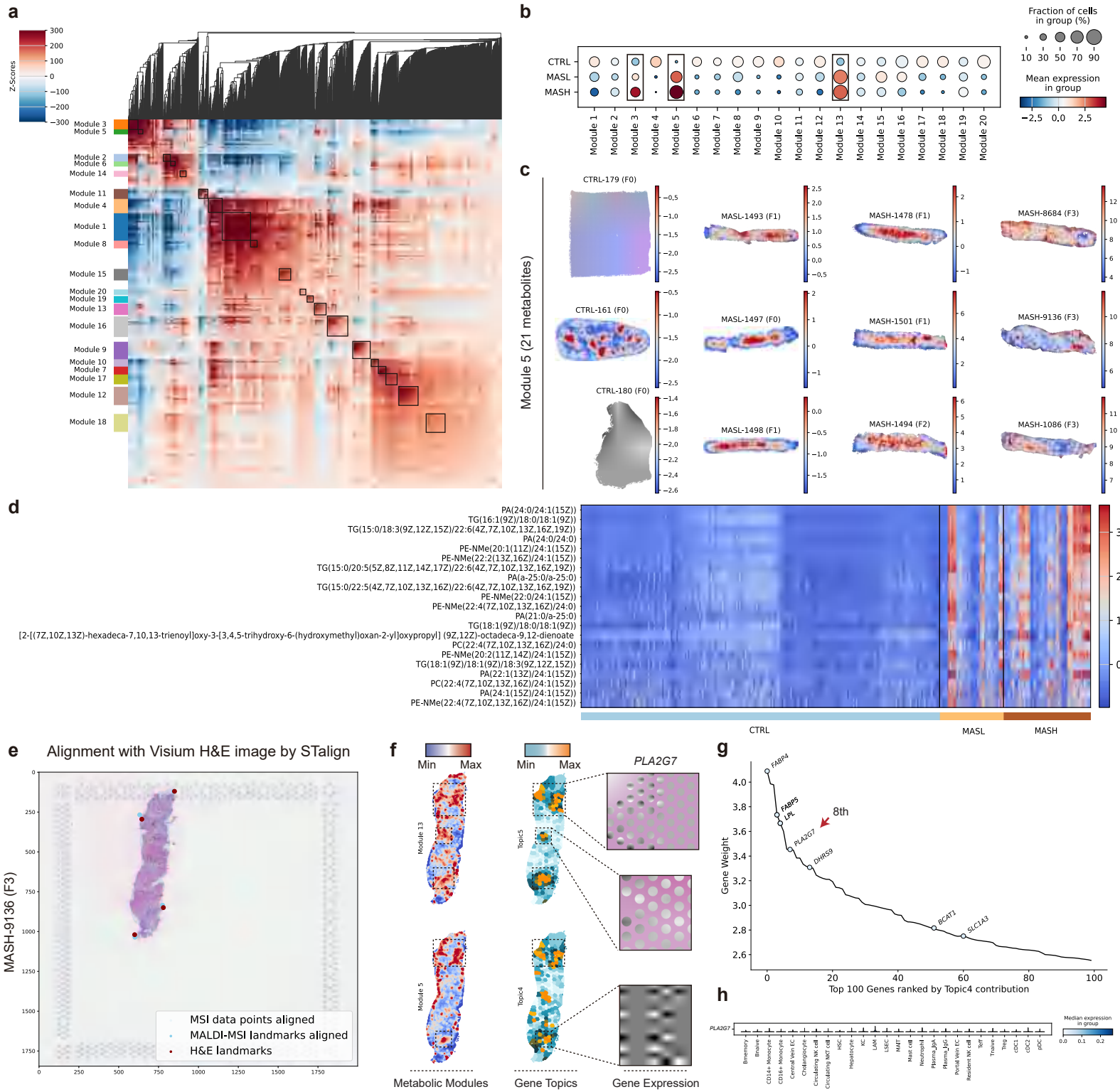
# Figure 7


a
Z-Scores
Module 3
Module 5
Module 2
Module 6
Module 14
Module 11
Module 4
Module 1
Module 8
Module 15
Module 20
Module 19
Module 13
Module 16
Module 9
Module 10
Module 7
Module 17
Module 12
Module 18
b
Fraction of cells in group (%)
Mean expression in group
CTRL
MASL
MASH
c
Module 5 (21 metabolites)
CTRL-179 (F0)
MASL-1493 (F1)
MASH-1478 (F1)
MASH-8684 (F3)
CTRL-161 (F0)
MASL-1497 (F0)
MASH-1501 (F1)
MASH-9136 (F3)
CTRL-180 (F0)
MASL-1498 (F1)
MASH-1494 (F2)
MASH-1086 (F3)
d
PA(24:0/24:1(15Z))
TG(16:1(9Z)/18:0/18:1(9Z))
TG(15:0/18:3(9Z,12Z,15Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))
PA(24:0/24:0)
PE-NMe(20:1(11Z)/24:1(15Z))
PE-NMe(22:2(13Z,16Z)/24:1(15Z))
TG(15:0/20:5(5Z,8Z,11Z,14Z,17Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))
PA(a-25:0/a-25:0)
TG(15:0/22:5(4Z,7Z,10Z,13Z,16Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))
PE-NMe(22:0/24:1(15Z))
PE-NMe(22:4(7Z,10Z,13Z,16Z)/24:0)
PA(21:0/a-25:0)
TG(18:1(9Z)/18:0/18:1(9Z))
[2-[(7Z,10Z,13Z)-hexadeca-7,10,13-trienoyl]oxy-3-[3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxypropyl] (9Z,12Z)-octadeca-9,12-dienoate
PC(22:4(7Z,10Z,13Z,16Z)/24:0)
PE-NMe(20:2(11Z,14Z)/24:1(15Z))
TG(18:1(9Z)/18:1(9Z)/18:3(9Z,12Z,15Z))
PA(22:1(13Z)/24:1(15Z))
PC(22:4(7Z,10Z,13Z,16Z)/24:1(15Z))
PA(24:1(15Z)/24:1(15Z))
PE-NMe(22:4(7Z,10Z,13Z,16Z)/24:1(15Z))
CTRL
MASL
MASH
e
Alignment with Visium H&E image by STalign
MASH-9136 (F3)
MSI data points aligned
MALDI-MSI landmarks aligned
H&E landmarks
f
Min
Max
Module 13
Module 5
Topic5
Topic4
PLA2G7
Metabolic Modules
Gene Topics
Gene Expression
g
FABP4
FABP5
LPL
8th
PLA2G7
DHRS9
BCAT1
SLC1A3
Gene Weight
Top 100 Genes ranked by Topic4 contribution
h
PLA2G7
Median expression in group
Bmemory
Bnaive
CD14+ Monocyte
CD16+ Monocyte
Central Vein EC
Cholangiocyte
Circulating NK cell
Circulating NKT cell
HSC
Hepatocyte
KC
LAM
LSEC
MAIT
Mast cell
Neutrophil
Plasma_IgA
Plasma_IgG
Portal Vein EC
Resident NK cell
Teff
Tnaive
Treg
cDC1
cDC2
pDC