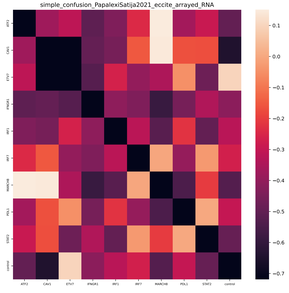
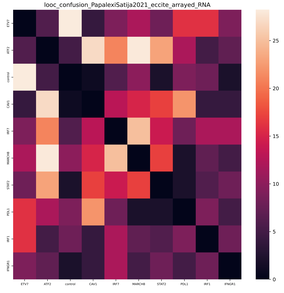
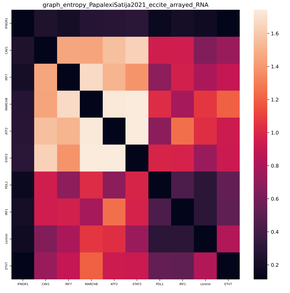
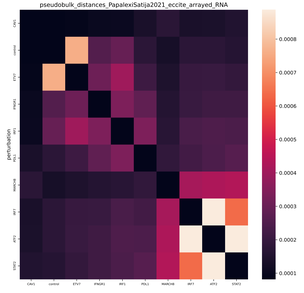
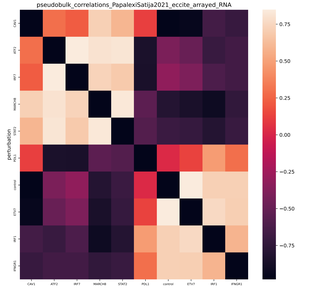
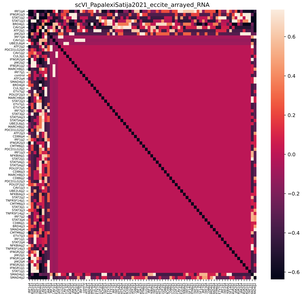

simple_confusion_PapalexiSatija2021_eccite_arrayed_RNA
ATF2
CREB1
ETS1
FOXA1
IRF1
JAK1
MAFK/B
POU2
STAT1
control
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7

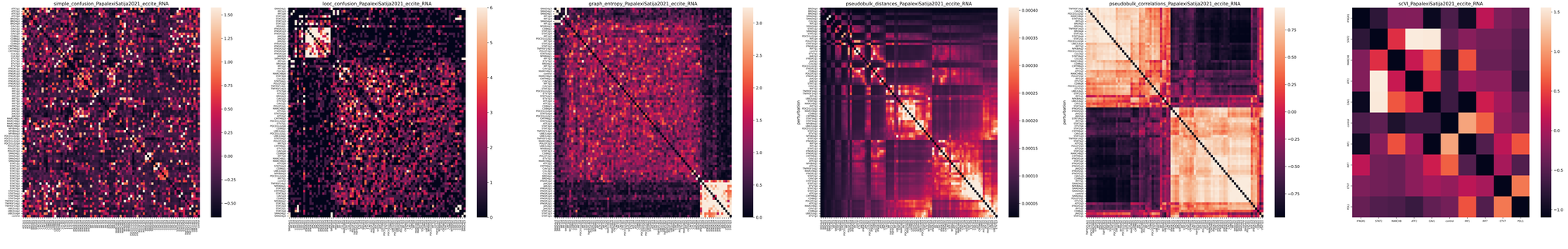

looc_confusion_PapalexiSatija2021_eccite_arrayed_RNA
ATF2
CREB1
control
ETS1
FOXA1
IRF1
JAK1
MAFK/B
POU2
STAT1
25
20
15
10
5
0

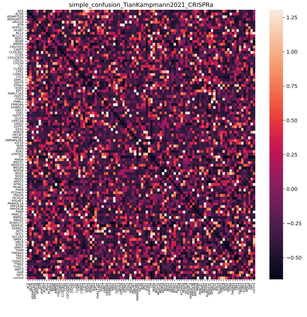

graph_entropy_PapalexiSatija2021_eccite_arrayed_RNA
FOXA1
CREB1
IRF1
MAFK/B
ATF2
STAT1
POU2
JAK1
control
ETS1
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2

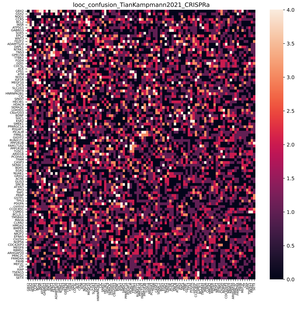

pseudobulk_distances_PapalexiSatija2021_eccite_arrayed_RNA
perturbation
CREB1
control
ETS1
FOXA1
POU2
MAFK/B
JAK1
ATF2
STAT1
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001

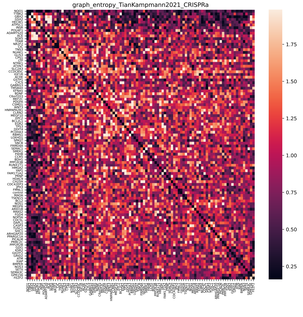

pseudobulk_correlations_PapalexiSatija2021_eccite_arrayed_RNA
perturbation
CREB1
ATF2
JAK1
MAFK/B
STAT1
POU2
control
ETS1
IRF1
FOXA1
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75

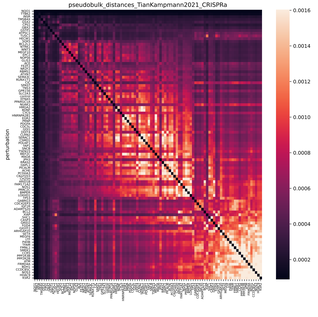

scVI_PapalexiSatija2021_eccite_arrayed_RNA
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6

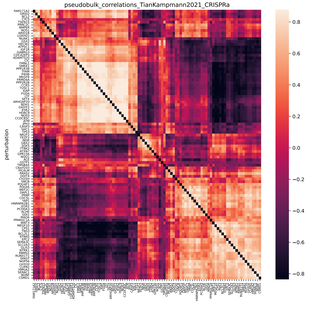

simple_confusion_PapalexiSatija2021_eccite_RNA
looc_confusion_PapalexiSatija2021_eccite_RNA
graph_entropy_PapalexiSatija2021_eccite_RNA
pseudobulk_distances_PapalexiSatija2021_eccite_RNA
pseudobulk_correlations_PapalexiSatija2021_eccite_RNA
scVI_PapalexiSatija2021_eccite_RNA
perturbation
perturbation

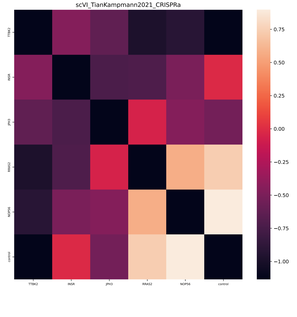

simple_confusion_TianKampmann2021_CRISPRa

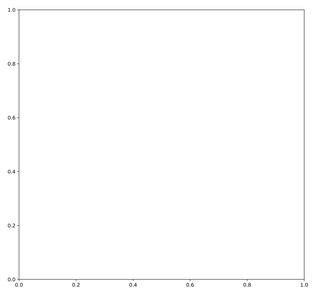

looc_confusion_TianKampmann2021_CRISPRa

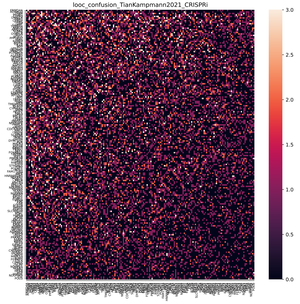

graph_entropy_TianKampmann2021_CRISPRa

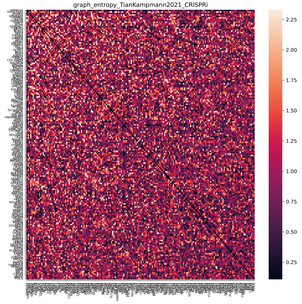

pseudobulk_distances_TianKampmann2021_CRISPRa
perturbation

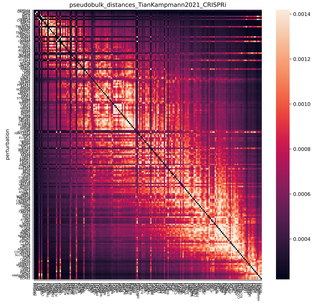

pseudobulk_correlations_TianKampmann2021_CRISPRa
perturbation

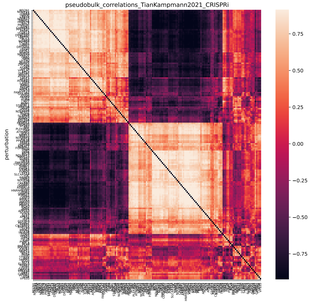

scVI_TianKampmann2021_CRISPRa
TYBP
MAP
JPH3
RNGO
SUPV3
control

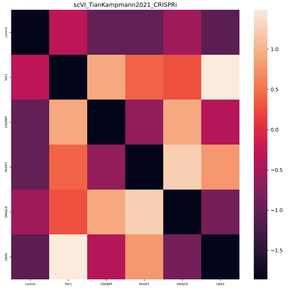

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

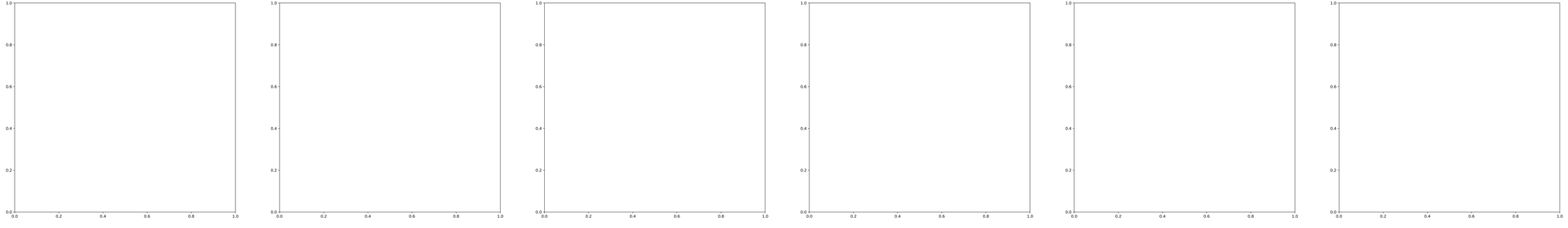

looc_confusion_TianKampmann2021_CRISPRi
3.0
2.5
2.0
1.5
1.0
0.5
0.0

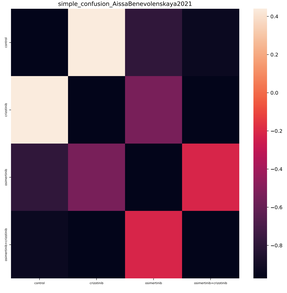

graph_entropy_TianKampmann2021_CRISPRi
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25

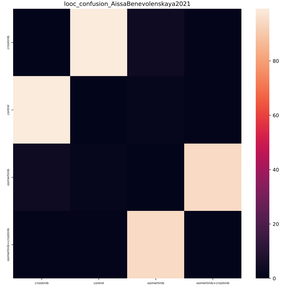

pseudobulk_distances_TianKampmann2021_CRISPRi
perturbation
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004

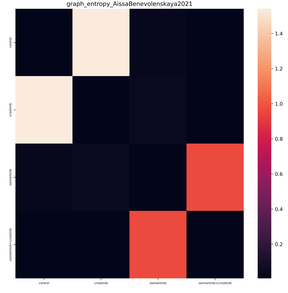

pseudobulk_correlations_TianKampmann2021_CRISPRi
perturbation
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75

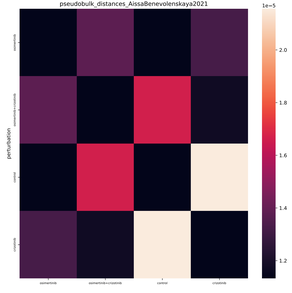

scVI_TianKampmann2021_CRISPRi
control
TAF1
CHEMP
PAAF1
DNAJC9
NMT
1.0
0.5
0.0
−0.5
−1.0
−1.5

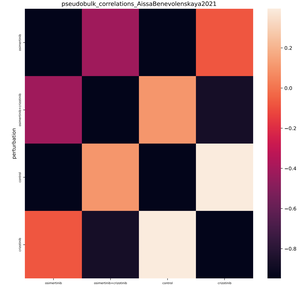

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

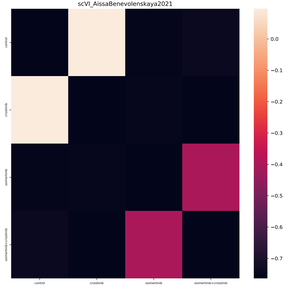

simple_confusion_AissaBenevolenskaya2021
control
cirrhotic
sarcoidosis
sarcoidosis+cirrhotic
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

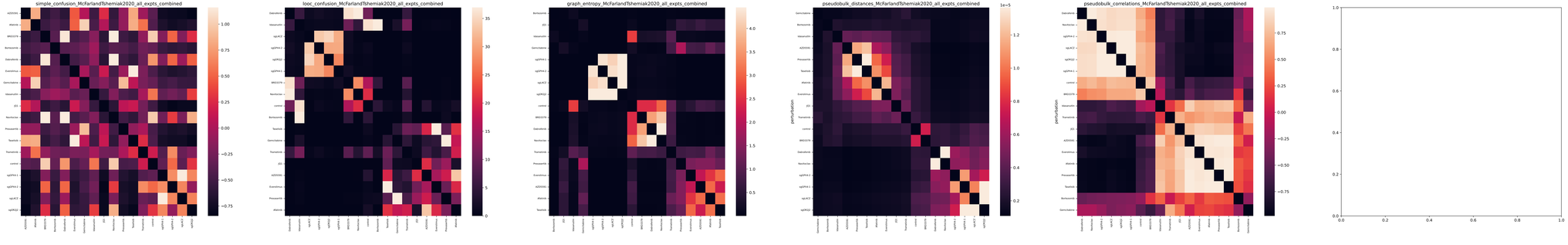

looc_confusion_AissaBenevolenskaya2021
cirrhotic
control
sarcoidosis
sarcoidosis+cirrhotic
80
60
40
20
0

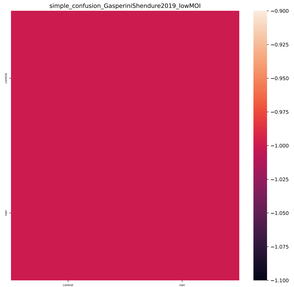

graph_entropy_AissaBenevolenskaya2021
control
cirrhotic
sarcoidosis
sarcoidosis+cirrhotic
1.4
1.2
1.0
0.8
0.6
0.4
0.2


pseudobulk_distances_AissaBenevolenskaya2021
perturbation
sarcoidosis
sarcoidosis+cirrhotic
control
cirrhotic
1e−5
2.0
1.8
1.6
1.4
1.2


pseudobulk_correlations_AissaBenevolenskaya2021
perturbation
sarcoidosis
sarcoidosis+cirrhotic
control
cirrhotic
0.2
0.0
−0.2
−0.4
−0.6
−0.8


scVI_AissaBenevolenskaya2021
control
cirrhotic
sarcoidosis
sarcoidosis+cirrhotic
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7


simple_confusion_McFarlandTshemiak2020_all_expts_combined
looc_confusion_McFarlandTshemiak2020_all_expts_combined
graph_entropy_McFarlandTshemiak2020_all_expts_combined
pseudobulk_distances_McFarlandTshemiak2020_all_expts_combined
pseudobulk_correlations_McFarlandTshemiak2020_all_expts_combined
partitipation


simple_confusion_GasperiniShendure2019_lowMOI
control
tap
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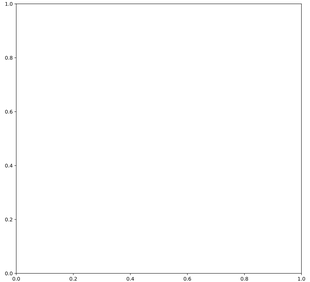
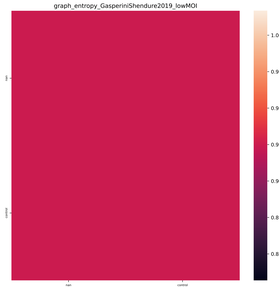
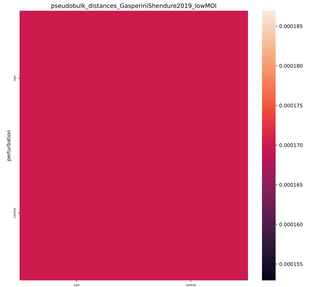
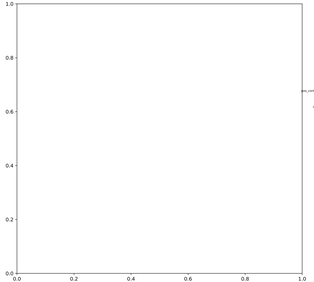
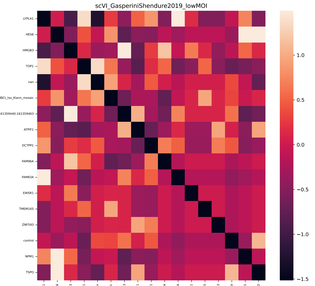
−0.925
−0.950
−0.975
−1.000
−1.025
−1.050
−1.075
−1.100

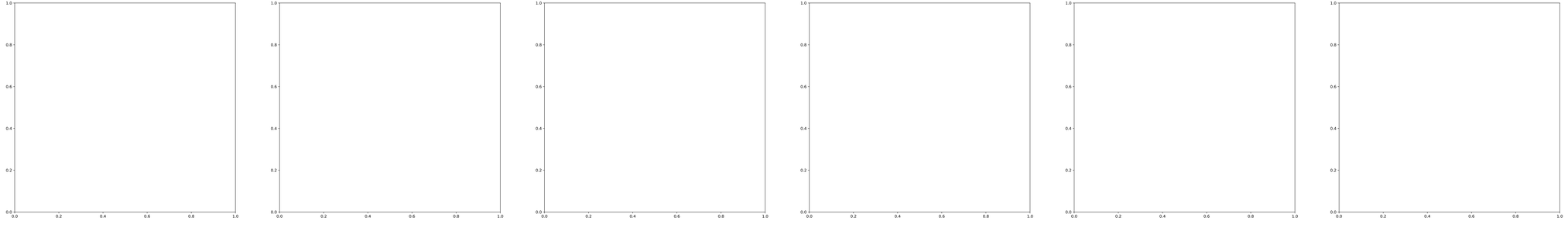

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

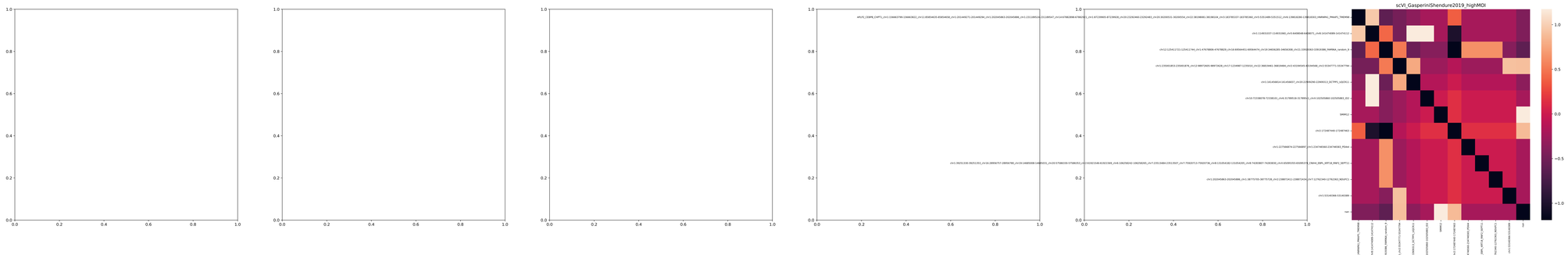

graph_entropy_GasperiniShendure2019_lowMOI
tap
control
1.000
0.975
0.950
0.925
0.900
0.875
0.850

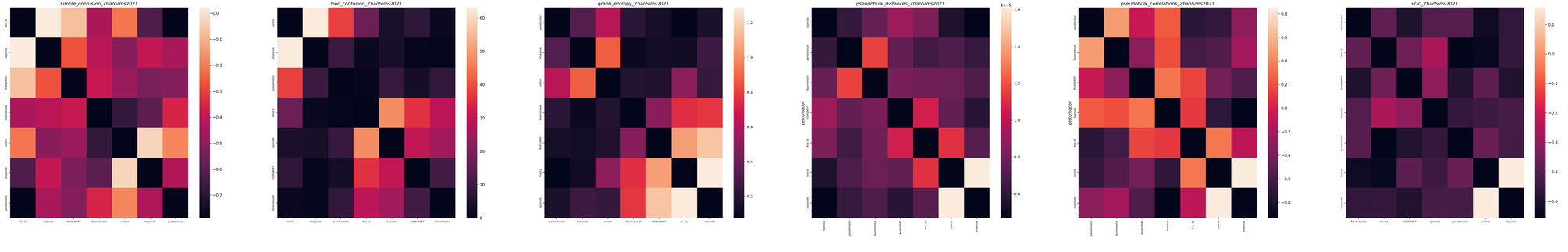

pseudobulk_distances_GasperiniShendure2019_lowMOI
perturbation
tap
control
0.000185
0.000180
0.000175
0.000170
0.000165
0.000160
0.000155

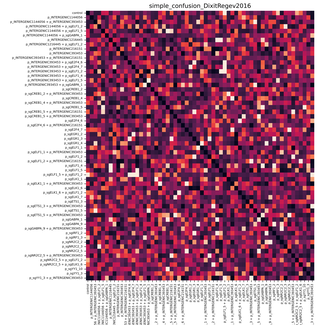

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

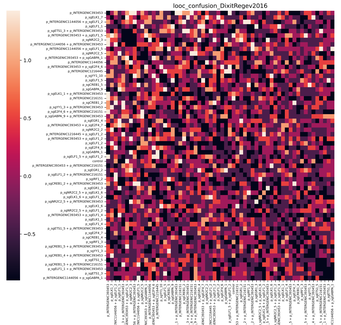

scVI_GasperiniShendure2019_lowMOI
CPPLL1
HEXB
HMGB3
TOP1
TAF1
ctrl_control_ABED_Tet_Plate_Protein
chr1:161250440-161255663
ATP6V1
SLC9B1
RAMDA
RAMDA
EWSR1
TMEM165
ZNF503
control
NPM1
TSPO
1.0
0.5
0.0
−0.5
−1.0
−1.5

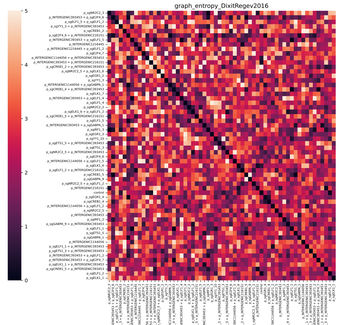

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

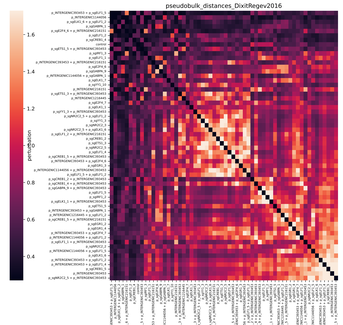

scVI_GasperiniShendure2019_highMOI

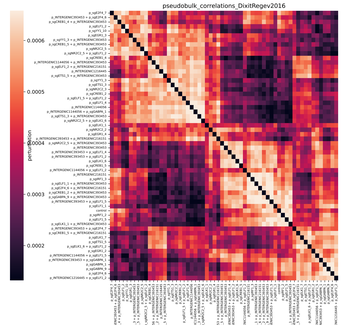

simple_confusion_ZhaoSims2021
looc_confusion_ZhaoSims2021
graph_entropy_ZhaoSims2021
pseudobulk_distances_ZhaoSims2021
pseudobulk_correlations_ZhaoSims2021
scVI_ZhaoSims2021
perturbation

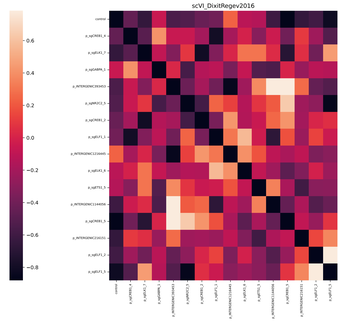

simple_confusion_DixitRegev2016

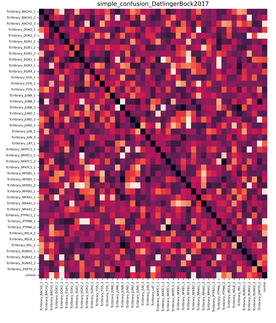

looc_confusion_DixitRegev2016

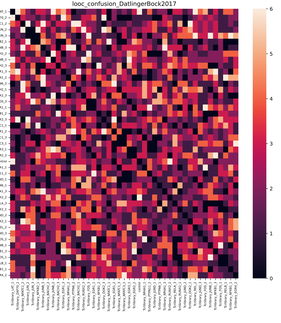

graph_entropy_DixitRegev2016
participation

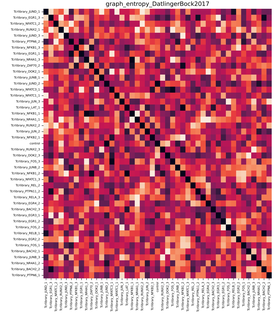

pseudobulk_distances_DixitRegev2016

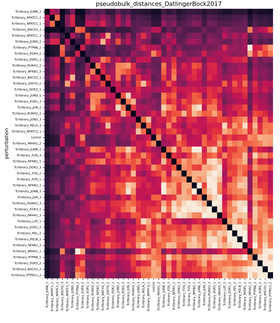

pseudobulk_correlations_DixitRegev2016
participation

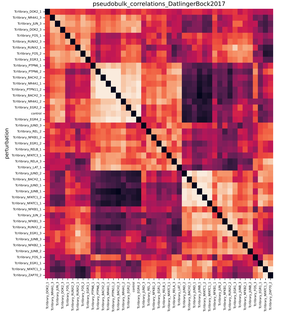

scVI_DixitRegev2016

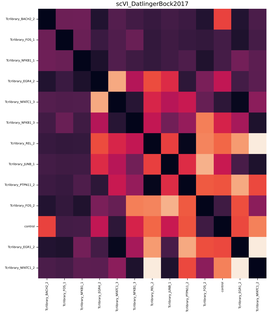

simple_confusion_DatlingerBock2017

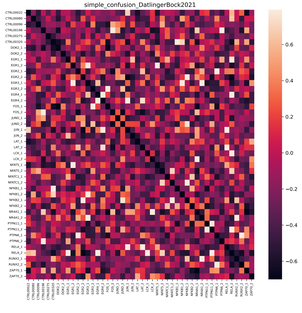

looc_confusion_DatlingerBock2017

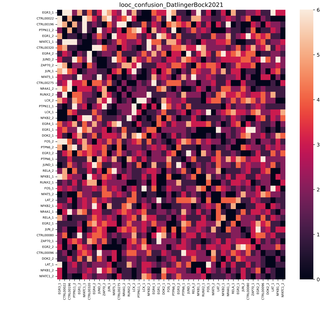

graph_entropy_DatlingerBock2017

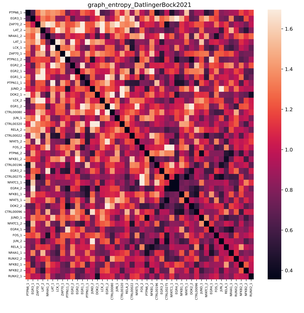

pseudobulk_distances_DatlingerBock2017
perturbation

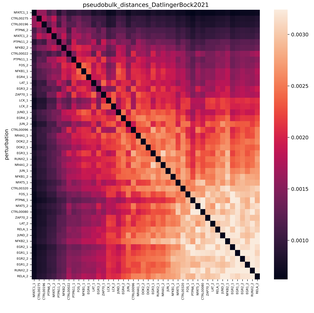

pseudobulk_correlations_DatlingerBock2017
perturbation

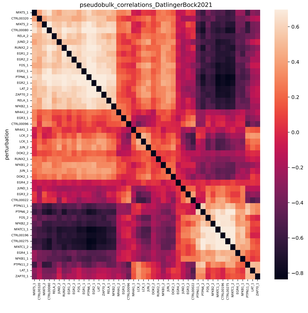

scVI_DatlingerBock2017

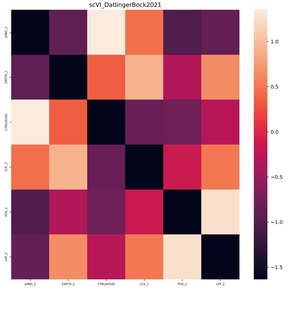

simple_confusion_DatlingerBock2021

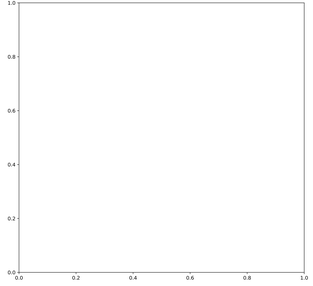

looc_confusion_DatlingerBock2021

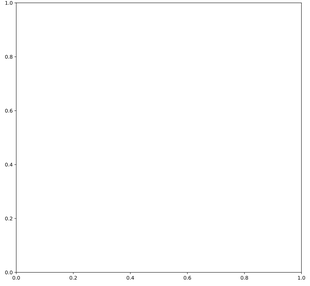

graph_entropy_DatlingerBock2021

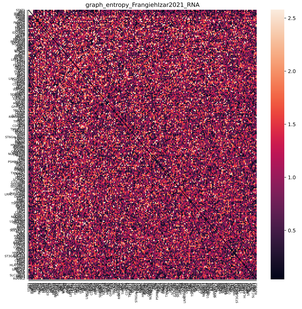

pseudobulk_distances_DatlingerBock2021
perturbation

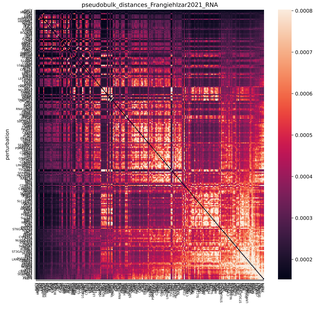

pseudobulk_correlations_DatlingerBock2021
perturbation

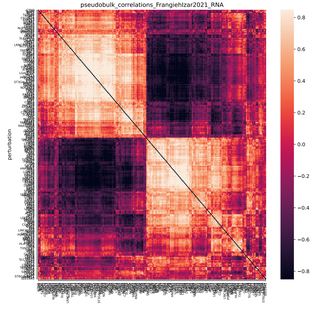

scVI_DatlingerBock2021

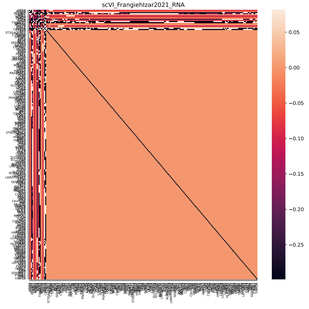

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

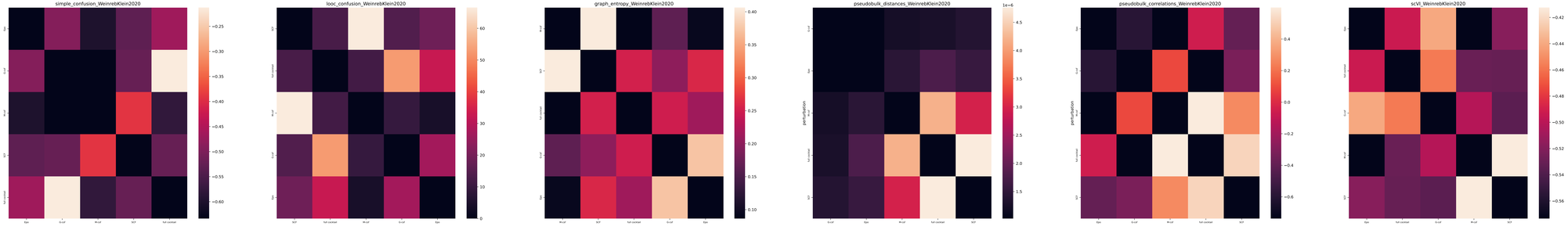

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

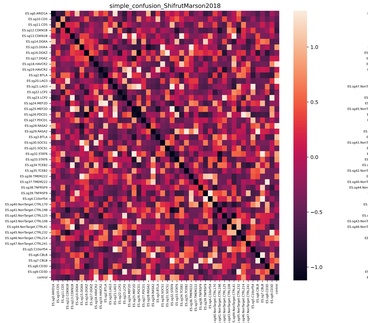

graph_entropy_Frangiehizar2021_RNA
2.5
2.0
1.5
1.0
0.5

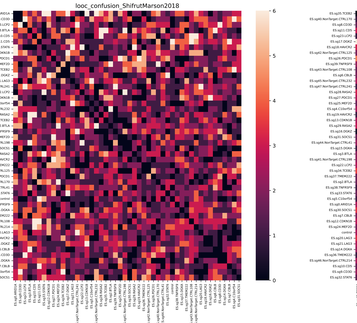

pseudobulk_distances_Frangiehizar2021_RNA
perturbation
0.0008
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002

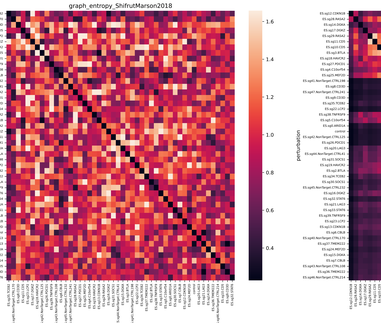

pseudobulk_correlations_Frangiehizar2021_RNA
perturbation
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

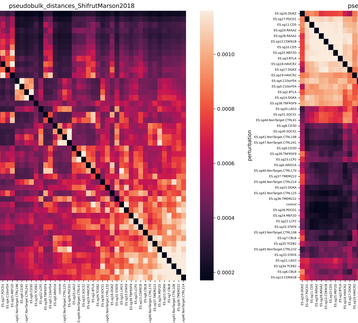

scVI_Frangiehizar2021_RNA
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25

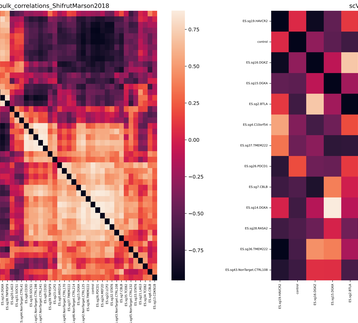

simple_confusion_WeinrebKlein2020
Epi
G-cyt
M-cyt
SCT
full-context
−0.25
−0.30
−0.35
−0.40
−0.45
−0.50
−0.55
−0.60
looc_confusion_WeinrebKlein2020
SCT
full-context
M-cyt
G-cyt
Epi
60
50
40
30
20
10
0
graph_entropy_WeinrebKlein2020
M-cyt
SCT
full-context
G-cyt
Epi
0.40
0.35
0.30
0.25
0.20
0.15
0.10
pseudobulk_distances_WeinrebKlein2020
perturbation
G-cyt
Epi
M-cyt
full-context
SCT
1e−6
4.5
4.0
3.5
3.0
2.5
2.0
1.5
pseudobulk_correlations_WeinrebKlein2020
perturbation
Epi
G-cyt
M-cyt
full-context
SCT
0.4
0.2
0.0
−0.2
−0.4
−0.6
scVI_WeinrebKlein2020
Epi
full-context
G-cyt
M-cyt
SCT
−0.42
−0.44
−0.46
−0.48
−0.50
−0.52
−0.54
−0.56

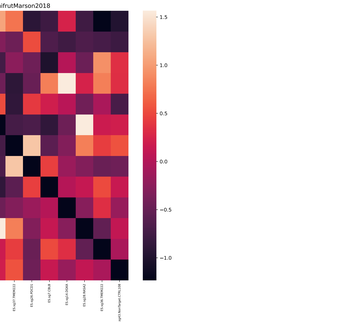

simple_confusion_ShifrutMarson2018

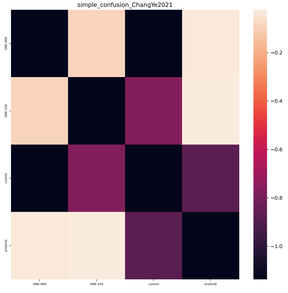

looc_confusion_ShifrutMarson2018

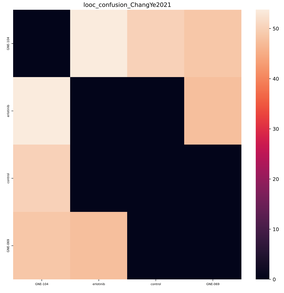

graph_entropy_ShifrutMarson2018

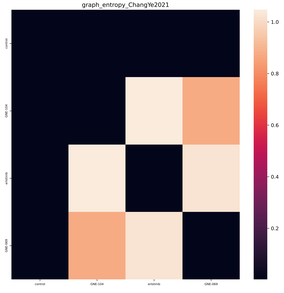

pseudobulk_distances_ShifrutMarson2018
perturbation

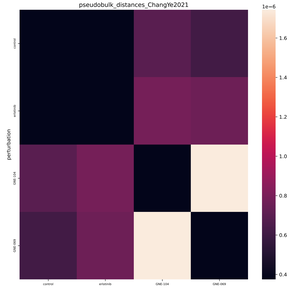

pseudobulk_correlations_ShifrutMarson2018
perturbation

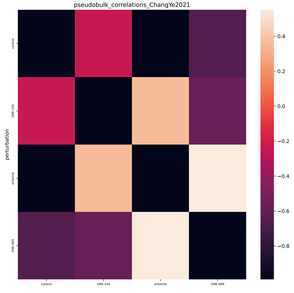

scVI_ShifrutMarson2018

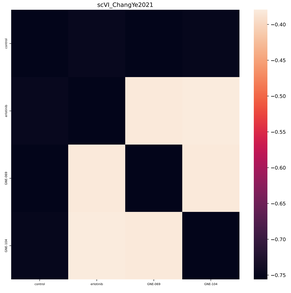

simple_confusion_ChangYe2021
CNE-889
CNE-124
control
ertoxin
−0.2
−0.4
−0.6
−0.8
−1.0

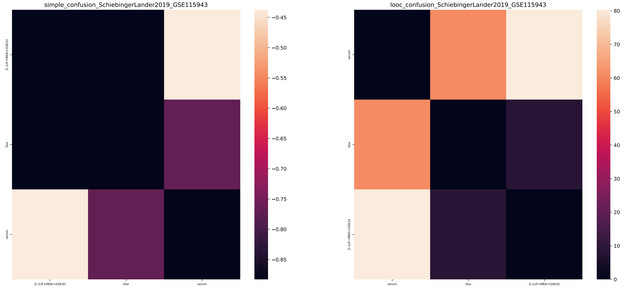

looc_confusion_ChangYe2021
CNE-124
ertoxin
control
CNE-889
50
40
30
20
10
0


graph_entropy_ChangYe2021
control
CNE-124
ertoxin
CNE-889
1.0
0.8
0.6
0.4
0.2

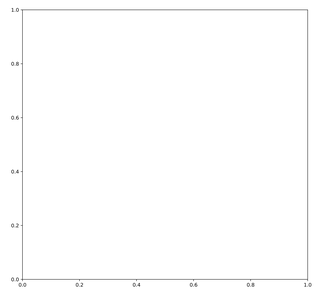

pseudobulk_distances_ChangYe2021
perturbation
control
ertoxin
CNE-124
CNE-889
1e−6
1.6
1.4
1.2
1.0
0.8
0.6
0.4

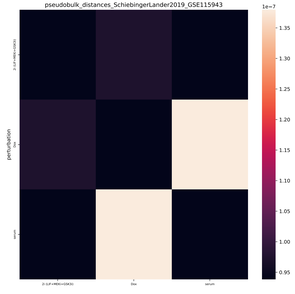

pseudobulk_correlations_ChangYe2021
perturbation
control
CNE-124
ertoxin
CNE-889
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

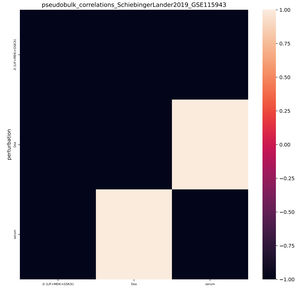

scVI_ChangYe2021
control
ertoxin
CNE-889
CNE-124
−0.40
−0.45
−0.50
−0.55
−0.60
−0.65
−0.70
−0.75

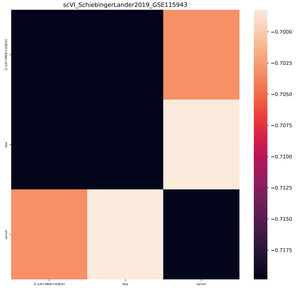

simple_confusion_SchiebingerLander2019_GSE115943
2-(LP-HRD+COCO)
Dox
velum
−0.45
−0.50
−0.55
−0.60
−0.65
−0.70
−0.75
−0.80
−0.85

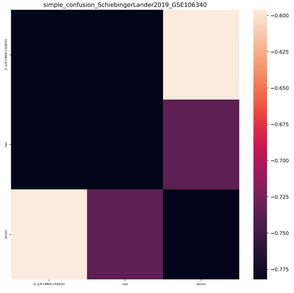
looc_confusion_SchiebingerLander2019_GSE115943
velum
Dox
2-(LP-HRD+COCO)
80
70
60
50
40
30
20
10
0

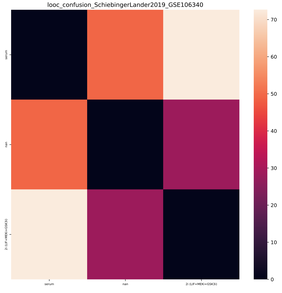

1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

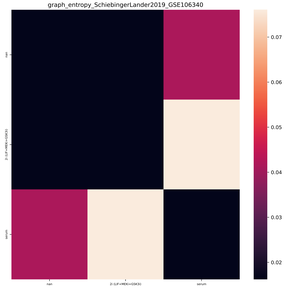

pseudobulk_distances_SchiebingerLander2019_GSE115943
perturbation
2-(LP-HRD+COCO)
Dox
velum
1e−7
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95

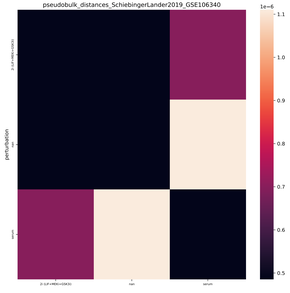

pseudobulk_correlations_SchiebingerLander2019_GSE115943
perturbation
2-(LP-HRD+COCO)
Dox
velum
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00

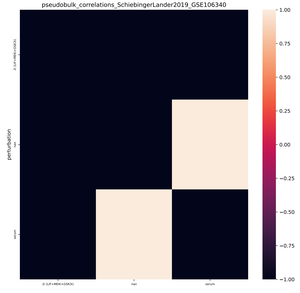

scVI_SchiebingerLander2019_GSE115943
2-(LP-HRD+COCO)
Dox
velum
−0.7000
−0.7025
−0.7050
−0.7075
−0.7100
−0.7125
−0.7150
−0.7175

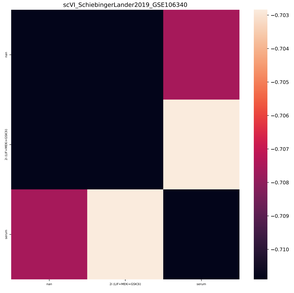

simple_confusion_SchiebingerLander2019_GSE106340
2-(LP-HRN)+(DEX)
rapa
vehicle
−0.600
−0.625
−0.650
−0.675
−0.700
−0.725
−0.750
−0.775

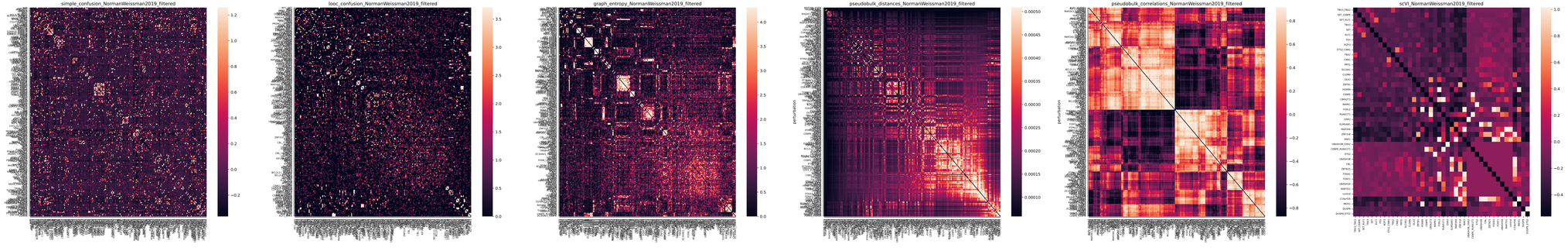

looc_confusion_SchiebingerLander2019_GSE106340
rapa
1
2-(LP-HRN)+(DEX)
vehicle
rapa
2-(LP-HRN)+(DEX)
70
60
50
40
30
20
10
0

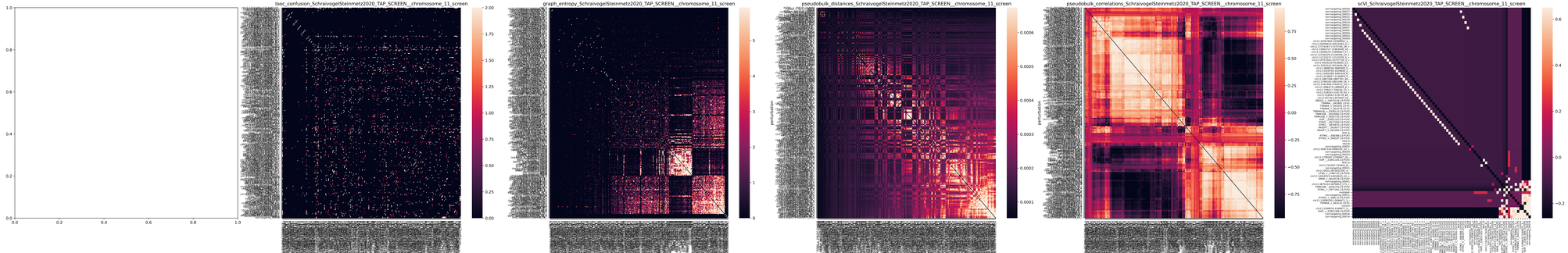

graph_entropy_SchiebingerLander2019_GSE106340
rapa
2-(LP-HRN)+(DEX)
vehicle
rapa
2-(LP-HRN)+(DEX)
vehicle
0.07
0.06
0.05
0.04
0.03
0.02

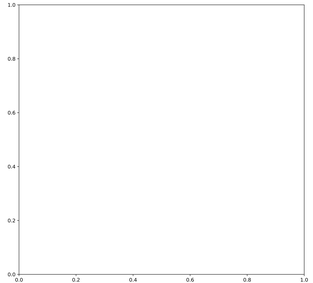

pseudobulk_distances_SchiebingerLander2019_GSE106340
1e−6
perturbation
2-(LP-HRN)+(DEX)
rapa
vehicle
2-(LP-HRN)+(DEX)
rapa
vehicle
1.1
1.0
0.9
0.8
0.7
0.6
0.5

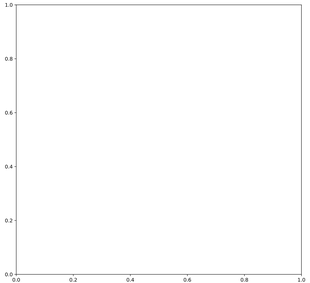

pseudobulk_correlations_SchiebingerLander2019_GSE106340
perturbation
2-(LP-HRN)+(DEX)
rapa
vehicle
2-(LP-HRN)+(DEX)
rapa
vehicle
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00

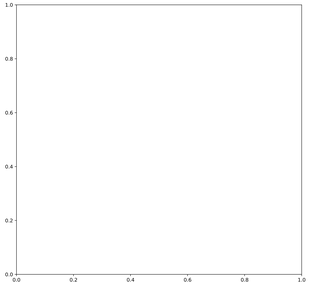

scVI_SchiebingerLander2019_GSE106340
rapa
2-(LP-HRN)+(DEX)
vehicle
rapa
2-(LP-HRN)+(DEX)
vehicle
−0.703
−0.704
−0.705
−0.706
−0.707
−0.708
−0.709
−0.710

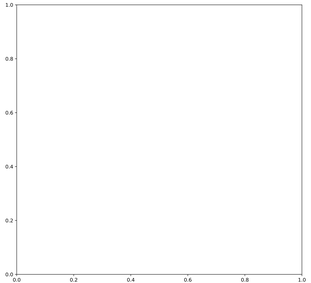

simple_confusion_NormanWeissman2019_filtered
looc_confusion_NormanWeissman2019_filtered
graph_entropy_NormanWeissman2019_filtered
pseudobulk_distances_NormanWeissman2019_filtered
perturbation
pseudobulk_correlations_NormanWeissman2019_filtered
perturbation
scVI_NormanWeissman2019_filtered

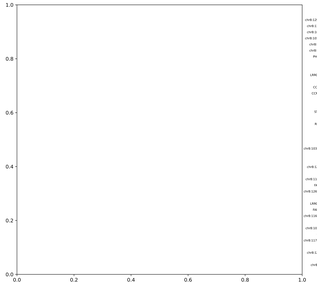

looc_confusion_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_11_screen
graph_entropy_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_11_screen
pseudobulk_distances_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_11_screen
pseudobulk_correlations_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_11_screen
scVI_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_11_screen
perturbation

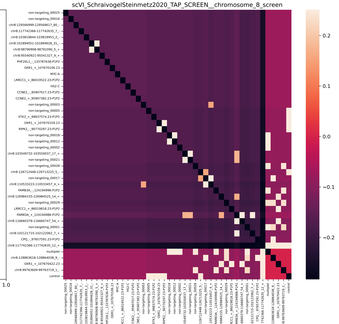


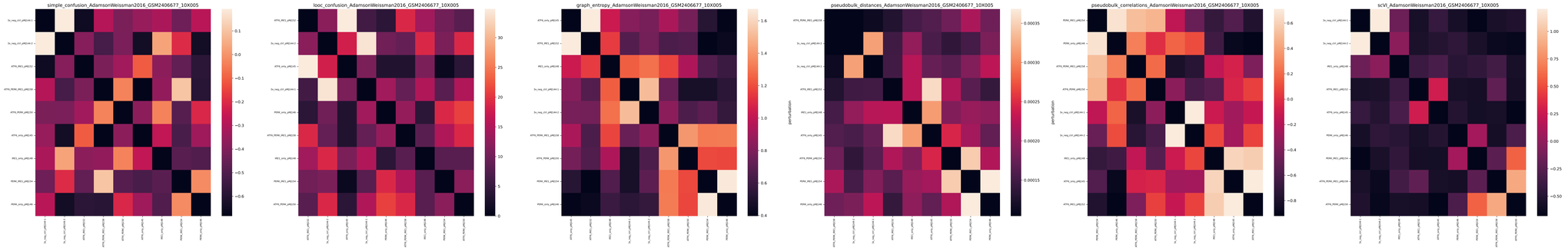


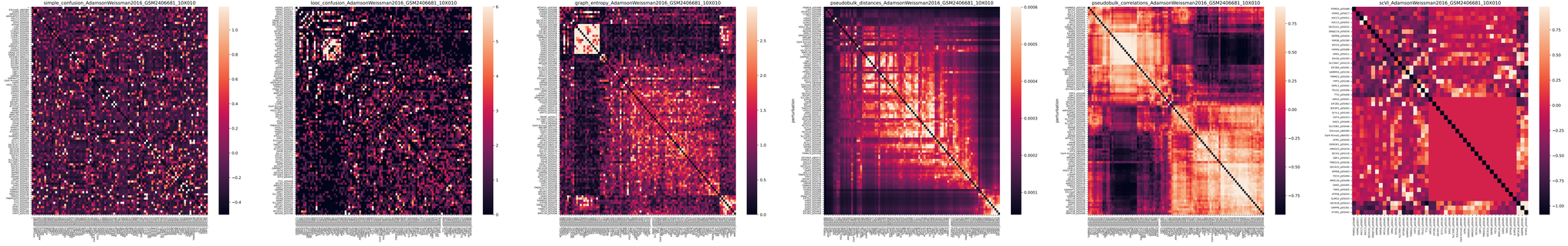


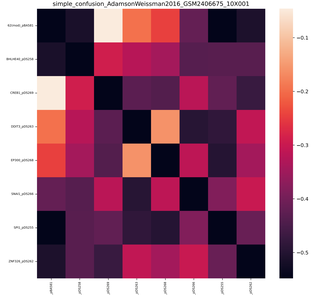


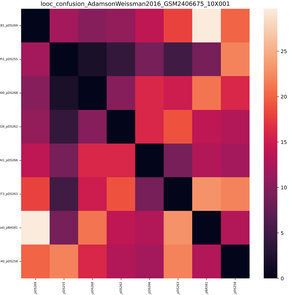


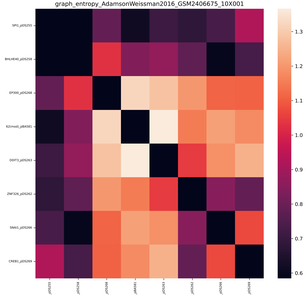

scVI_SchraivogelSteinmetz2020_TAP_SCREEN__chromosome_8_screen

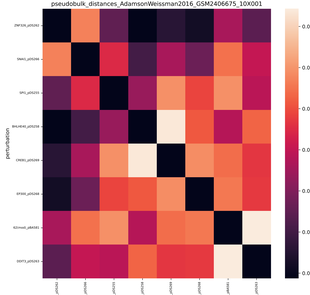

simple_confusion_AdamsonWeissman2016_GSM2406677_10X005
looc_confusion_AdamsonWeissman2016_GSM2406677_10X005
graph_entropy_AdamsonWeissman2016_GSM2406677_10X005
pseudobulk_distances_AdamsonWeissman2016_GSM2406677_10X005
perturbation
pseudobulk_correlations_AdamsonWeissman2016_GSM2406677_10X005
perturbation
scVI_AdamsonWeissman2016_GSM2406677_10X005

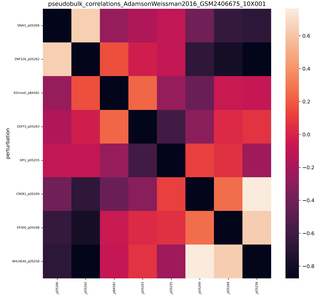

simple_confusion_AdamsonWeissman2016_GSM2406681_10X010
looc_confusion_AdamsonWeissman2016_GSM2406681_10X010
graph_entropy_AdamsonWeissman2016_GSM2406681_10X010
pseudobulk_distances_AdamsonWeissman2016_GSM2406681_10X010
pseudobulk_correlations_AdamsonWeissman2016_GSM2406681_10X010
scVI_AdamsonWeissman2016_GSM2406681_10X010
perturbation
perturbation

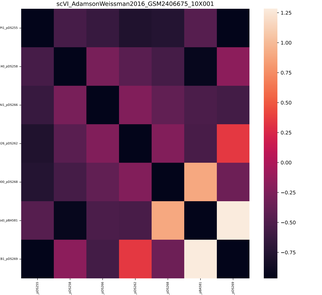

simple_confusion_AdamsonWeissman2016_GSM2406675_10X001
62mod_p86581
BHLHE40_p05256
CREB1_p05269
DDIT3_p05263
EP300_p05264
SMAD1_p05266
SP1_p05270
ZNF326_p05262
−0.1
−0.2
−0.3
−0.4
−0.5

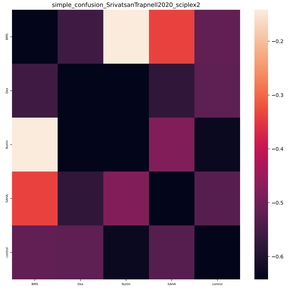

looc_confusion_AdamsonWeissman2016_GSM2406675_10X001
CREB1_p05269
SP1_p05270
EP300_p05264
ZNF326_p05262
SMAD1_p05266
DDIT3_p05263
62mod_p86581
BHLHE40_p05256
25
20
15
10
5
0

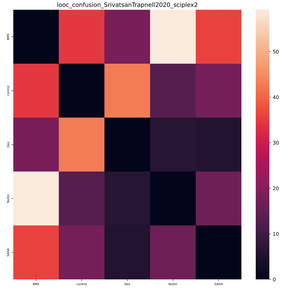

graph_entropy_AdamsonWeissman2016_GSM2406675_10X001
SP1_p05270
BHLHE40_p05256
EP300_p05264
62mod_p86581
DDIT3_p05263
ZNF326_p05262
SMAD1_p05266
CREB1_p05269
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6

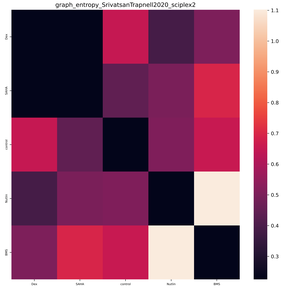

pseudobulk_distances_AdamsonWeissman2016_GSM2406675_10X001
ZNF326_p05262
SMAD1_p05266
SP1_p05270
BHLHE40_p05256
CREB1_p05269
EP300_p05264
62mod_p86581
DDIT3_p05263
perturbation
0.0010
0.0009
0.0008
0.0007
0.0006
0.0005
0.0004

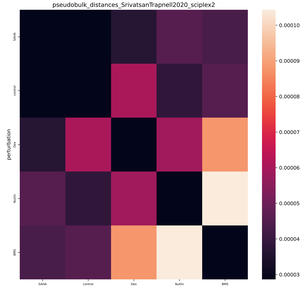

pseudobulk_correlations_AdamsonWeissman2016_GSM2406675_10X001
SMAD1_p05266
ZNF326_p05262
62mod_p86581
DDIT3_p05263
SP1_p05270
CREB1_p05269
EP300_p05264
BHLHE40_p05256
perturbation
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

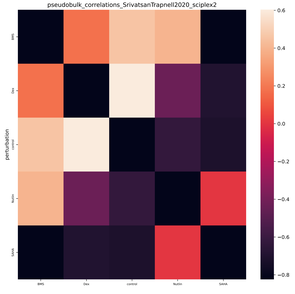

scVI_AdamsonWeissman2016_GSM2406675_10X001
SP1_p05270
BHLHE40_p05256
SMAD1_p05266
ZNF326_p05262
EP300_p05264
62mod_p86581
CREB1_p05269
1.25
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75

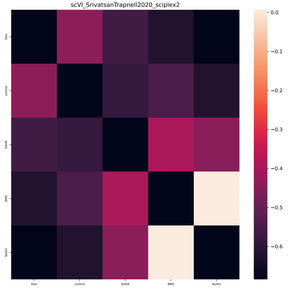

simple_confusion_SrivatsanTrapnell2020_sciplex2
BRD
Dox
Nutlin
Vehicle
control
−0.2
−0.3
−0.4
−0.5
−0.6

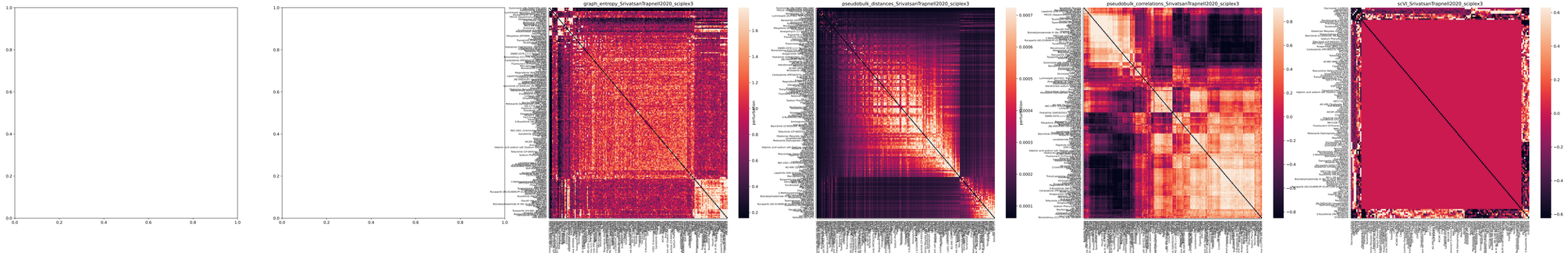

looc_confusion_SrivatsanTrapnell2020_sciplex2
BRD
control
Dox
Nutlin
Vehicle
50
40
30
20
10
0

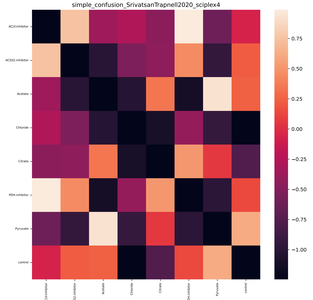

graph_entropy_SrivatsanTrapnell2020_sciplex2
Dox
Vehicle
control
Nutlin
BRD
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3

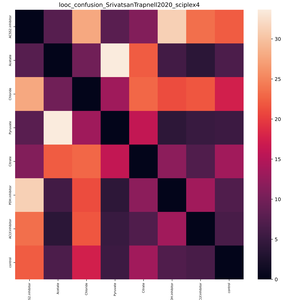

pseudobulk_distances_SrivatsanTrapnell2020_sciplex2
perturbation
Vehicle
control
Dox
Nutlin
BRD
0.00010
0.00009
0.00008
0.00007
0.00006
0.00005
0.00004
0.00003

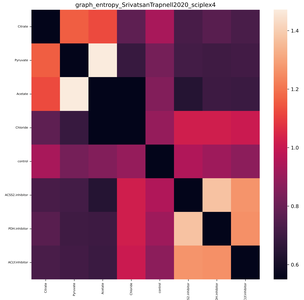

pseudobulk_correlations_SrivatsanTrapnell2020_sciplex2
perturbation
BRD
Dox
control
Nutlin
Vehicle
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8

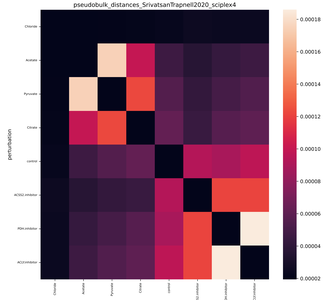

scVI_SrivatsanTrapnell2020_sciplex2
Dox
control
Vehicle
BRD
Nutlin
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6

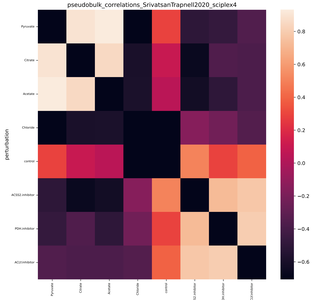

graph_entropy_SrivatsanTrapnell2020_sciplex3
pseudobulk_distances_SrivatsanTrapnell2020_sciplex3
pseudobulk_correlations_SrivatsanTrapnell2020_sciplex3
scVI_SrivatsanTrapnell2020_sciplex3
perturbation

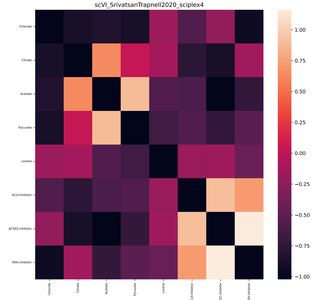

simple_confusion_SrivatsanTrapnell2020_sciplex4
AC220:inhibitor
AC262:inhibitor
Acetate
Chloride
Citrate
PDH:inhibitor
Pyruvate
control
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00

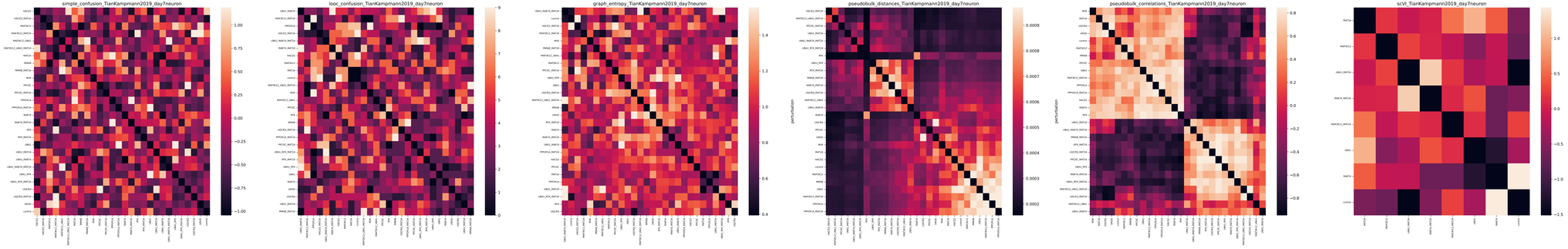

looc_confusion_SrivatsanTrapnell2020_sciplex4
AC220:inhibitor
Acetate
Chloride
Pyruvate
Citrate
PDH:inhibitor
AC262:inhibitor
control
30
25
20
15
10
5
0

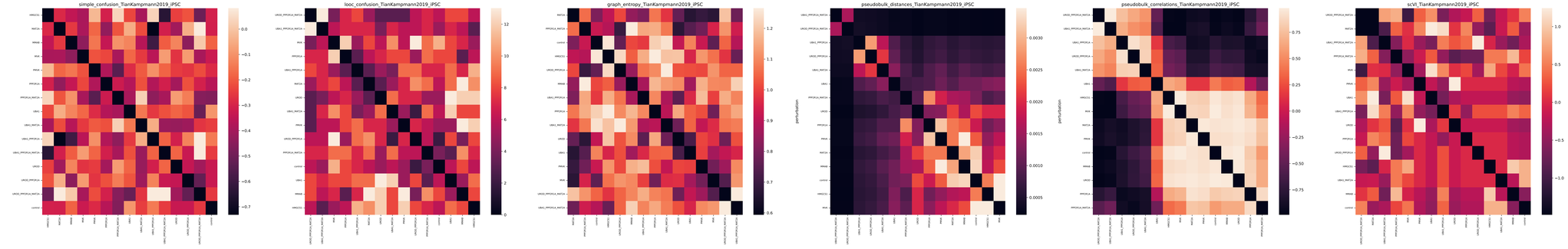

graph_entropy_SrivatsanTrapnell2020_sciplex4
Chloride
Pyruvate
Acetate
Citrate
control
AC262:inhibitor
PDH:inhibitor
AC220:inhibitor
1.4
1.2
1.0
0.8
0.6


pseudobulk_distances_SrivatsanTrapnell2020_sciplex4
perturbation
Chloride
Acetate
Pyruvate
Citrate
control
AC262:inhibitor
PDH:inhibitor
AC220:inhibitor
0.00018
0.00016
0.00014
0.00012
0.00010
0.00008
0.00006
0.00004
0.00002


pseudobulk_correlations_SrivatsanTrapnell2020_sciplex4
perturbation
Pyruvate
Citrate
Acetate
Chloride
control
AC262:inhibitor
PDH:inhibitor
AC220:inhibitor
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6


scVI_SrivatsanTrapnell2020_sciplex4
Chloride
Citrate
Acetate
Pyruvate
control
AC220:inhibitor
AC262:inhibitor
PDH:inhibitor
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00


simple_confusion_TianKampmann2019_day7neuron
looc_confusion_TianKampmann2019_day7neuron
graph_entropy_TianKampmann2019_day7neuron
pseudobulk_distances_TianKampmann2019_day7neuron
perturbation
pseudobulk_correlations_TianKampmann2019_day7neuron
perturbation
scVI_TianKampmann2019_day7neuron


simple_confusion_TianKampmann2019_iPSC
looc_confusion_TianKampmann2019_iPSC
graph_entropy_TianKampmann2019_iPSC
pseudobulk_distances_TianKampmann2019_iPSC
pseudobulk_correlations_TianKampmann2019_iPSC
scVI_TianKampmann2019_iPSC
perturbation
perturbation