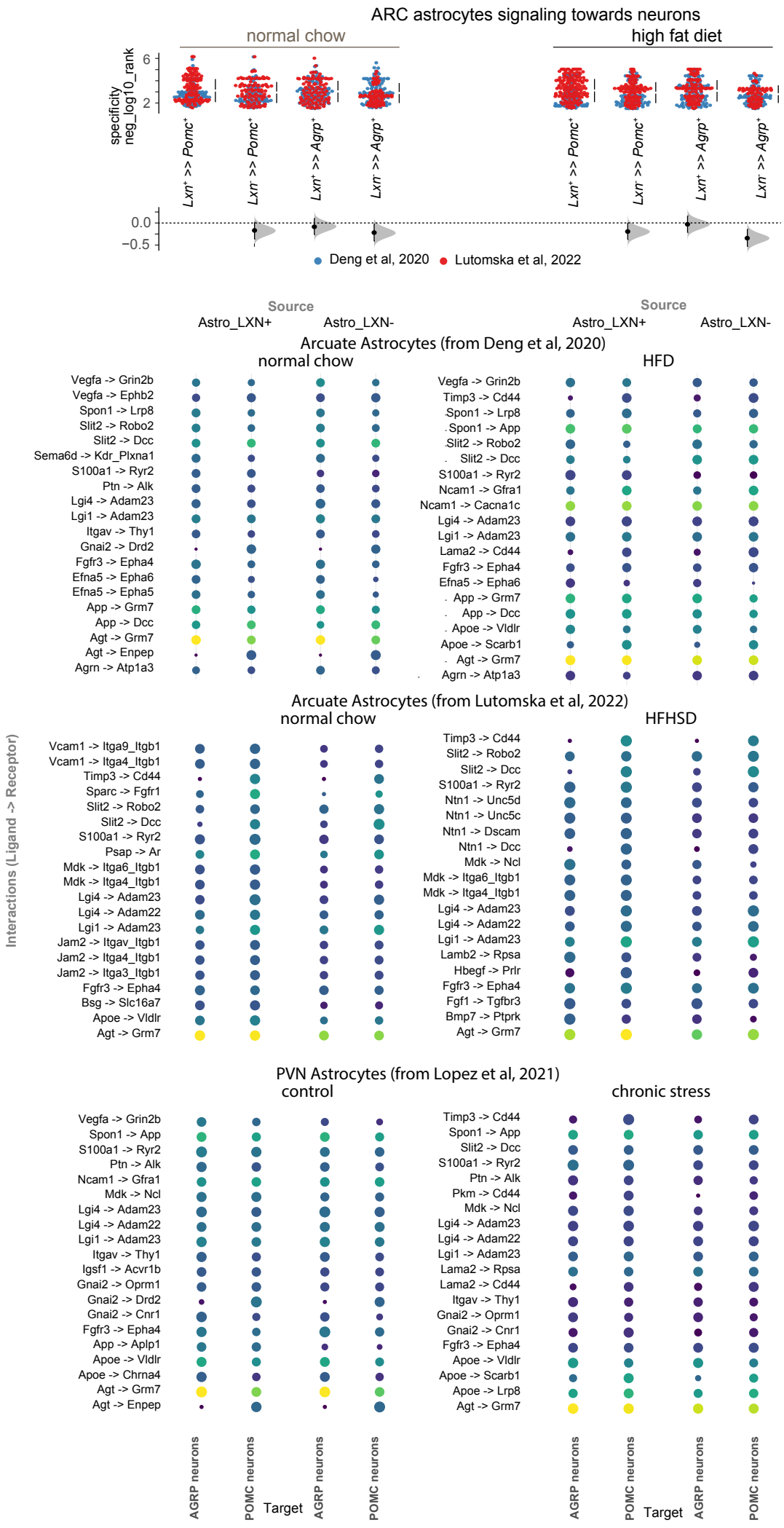
ARC astrocytes signaling towards neurons
normal chow
high fat diet
specificity
neg_log10_rank
6
2
0.0
−0.5
Lxn+ >> Pomc+
Lxn- >> Pomc+
Lxn+ >> Agrp+
Lxn- >> Agrp+
Deng et al, 2020
Lutomska et al, 2022
Source
Astro_LXN+
Astro_LXN-
Arcuate Astrocytes (from Deng et al, 2020)
normal chow
HFD
Vegfa -> Grin2b
Vegfa -> Ephb2
Spon1 -> Lrp8
Slit2 -> Robo2
Slit2 -> Dcc
Sema6d -> Kdr_Plxna1
S100a1 -> Ryr2
Ptn -> Alk
Lgi4 -> Adam23
Lgi1 -> Adam23
Itgav -> Thy1
Gnai2 -> Drd2
Fgfr3 -> Epha4
Efna5 -> Epha6
Efna5 -> Epha5
App -> Grm7
App -> Dcc
Agt -> Grm7
Agt -> Enpep
Agrn -> Atp1a3
Vegfa -> Grin2b
Timp3 -> Cd44
Spon1 -> Lrp8
Spon1 -> App
Slit2 -> Robo2
Slit2 -> Dcc
S100a1 -> Ryr2
Ncam1 -> Gfra1
Ncam1 -> Cacna1c
Lgi4 -> Adam23
Lgi1 -> Adam23
Lama2 -> Cd44
Fgfr3 -> Epha4
Efna5 -> Epha6
App -> Grm7
App -> Dcc
Apoe -> Vldlr
Apoe -> Scarb1
Agt -> Grm7
Agrn -> Atp1a3
Arcuate Astrocytes (from Lutomska et al, 2022)
normal chow
HFHSD
Interactions (Ligand -> Receptor)
Vcam1 -> Itga9_Itgb1
Vcam1 -> Itga4_Itgb1
Timp3 -> Cd44
Sparc -> Fgfr1
Slit2 -> Robo2
Slit2 -> Dcc
S100a1 -> Ryr2
Psap -> Ar
Mdk -> Itga6_Itgb1
Mdk -> Itga4_Itgb1
Lgi4 -> Adam23
Lgi4 -> Adam22
Lgi1 -> Adam23
Jam2 -> Itgav_Itgb1
Jam2 -> Itga4_Itgb1
Jam2 -> Itga3_Itgb1
Fgfr3 -> Epha4
Bsg -> Slc16a7
Apoe -> Vldlr
Agt -> Grm7
Timp3 -> Cd44
Slit2 -> Robo2
Slit2 -> Dcc
S100a1 -> Ryr2
Ntn1 -> Unc5d
Ntn1 -> Unc5c
Ntn1 -> Dscam
Ntn1 -> Dcc
Mdk -> Ncl
Mdk -> Itga6_Itgb1
Mdk -> Itga4_Itgb1
Lgi4 -> Adam23
Lgi4 -> Adam22
Lgi1 -> Adam23
Lamb2 -> Rpsa
Hbegf -> Prlr
Fgfr3 -> Epha4
Fgf1 -> Tgfbr3
Bmp7 -> Ptprk
Agt -> Grm7
PVN Astrocytes (from Lopez et al, 2021)
control
chronic stress
Vegfa -> Grin2b
Spon1 -> App
S100a1 -> Ryr2
Ptn -> Alk
Ncam1 -> Gfra1
Mdk -> Ncl
Lgi4 -> Adam23
Lgi4 -> Adam22
Lgi1 -> Adam23
Itgav -> Thy1
Igsf1 -> Acvr1b
Gnai2 -> Oprm1
Gnai2 -> Drd2
Gnai2 -> Cnr1
Fgfr3 -> Epha4
App -> Aplp1
Apoe -> Vldlr
Apoe -> Chrna4
Agt -> Grm7
Agt -> Enpep
Timp3 -> Cd44
Spon1 -> App
Slit2 -> Dcc
S100a1 -> Ryr2
Ptn -> Alk
Pkm -> Cd44
Mdk -> Ncl
Lgi4 -> Adam23
Lgi4 -> Adam22
Lgi1 -> Adam23
Lama2 -> Rpsa
Lama2 -> Cd44
Itgav -> Thy1
Gnai2 -> Oprm1
Gnai2 -> Cnr1
Fgfr3 -> Epha4
Apoe -> Vldlr
Apoe -> Scarb1
Apoe -> Lrp8
Agt -> Grm7
AGRP neurons
POMC neurons
Target
AGRP neurons
POMC neurons
Target
AGRP neurons
POMC neurons
AGRP neurons
POMC neurons