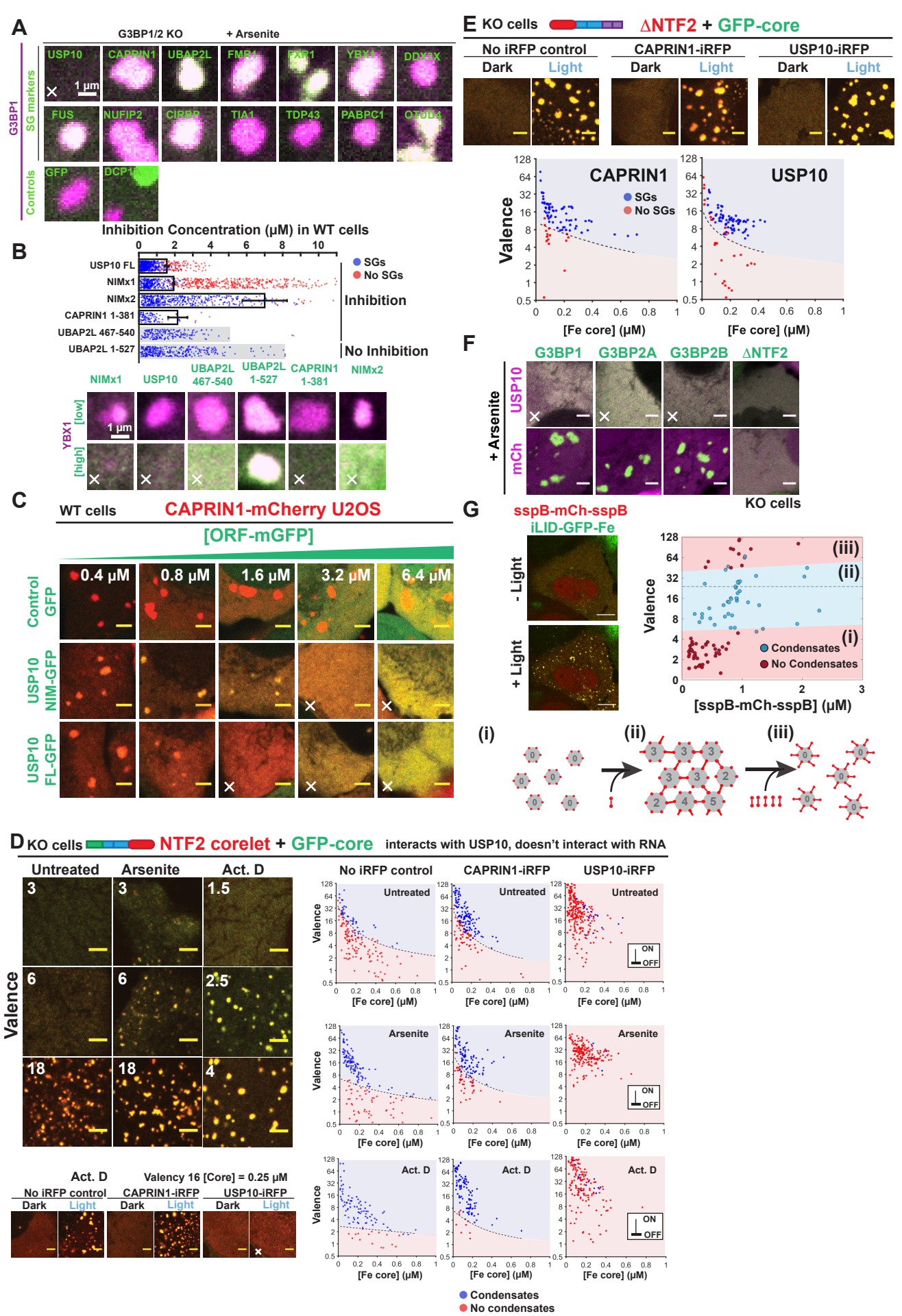
A
G3BP1/2 KO
+ Arsenite
G3BP1
SG markers
Controls
USP10
CAPRIN1
UBAP2L
FMR1
FXR1
YBX1
DDX3X
FUS
NUFIP2
CIRBP
TIA1
TDP43
PABPC1
OTUD4
GFP
DCP1
1 µm
B
Inhibition Concentration (µM) in WT cells
SGs
No SGs
Inhibition
No Inhibition
USP10 FL
NIMx1
NIMx2
CAPRIN1 1-381
UBAP2L 467-540
UBAP2L 1-527
YBX1
[low]
[high]
C
WT cells
CAPRIN1-mCherry U2OS
[ORF-mGFP]
0.4 µM
0.8 µM
1.6 µM
3.2 µM
6.4 µM
Control GFP
USP10 NIM-GFP
USP10 FL-GFP
D
KO cells
NTF2 corelet + GFP-core
interacts with USP10, doesn't interact with RNA
Untreated
Arsenite
Act. D
Valence
No iRFP control
CAPRIN1-iRFP
USP10-iRFP
ON
OFF
[Fe core] (µM)
Valency 16 [Core] = 0.25 µM
Dark
Light
Condensates
No condensates
E
KO cells
ΔNTF2 + GFP-core
CAPRIN1
USP10
SGs
No SGs
F
G3BP1
G3BP2A
G3BP2B
ΔNTF2
+ Arsenite
mCh
KO cells
G
sspB-mCh-sspB
iLID-GFP-Fe
- Light
+ Light
(i)
(ii)
(iii)
Condensates
No Condensates
[sspB-mCh-sspB] (µM)