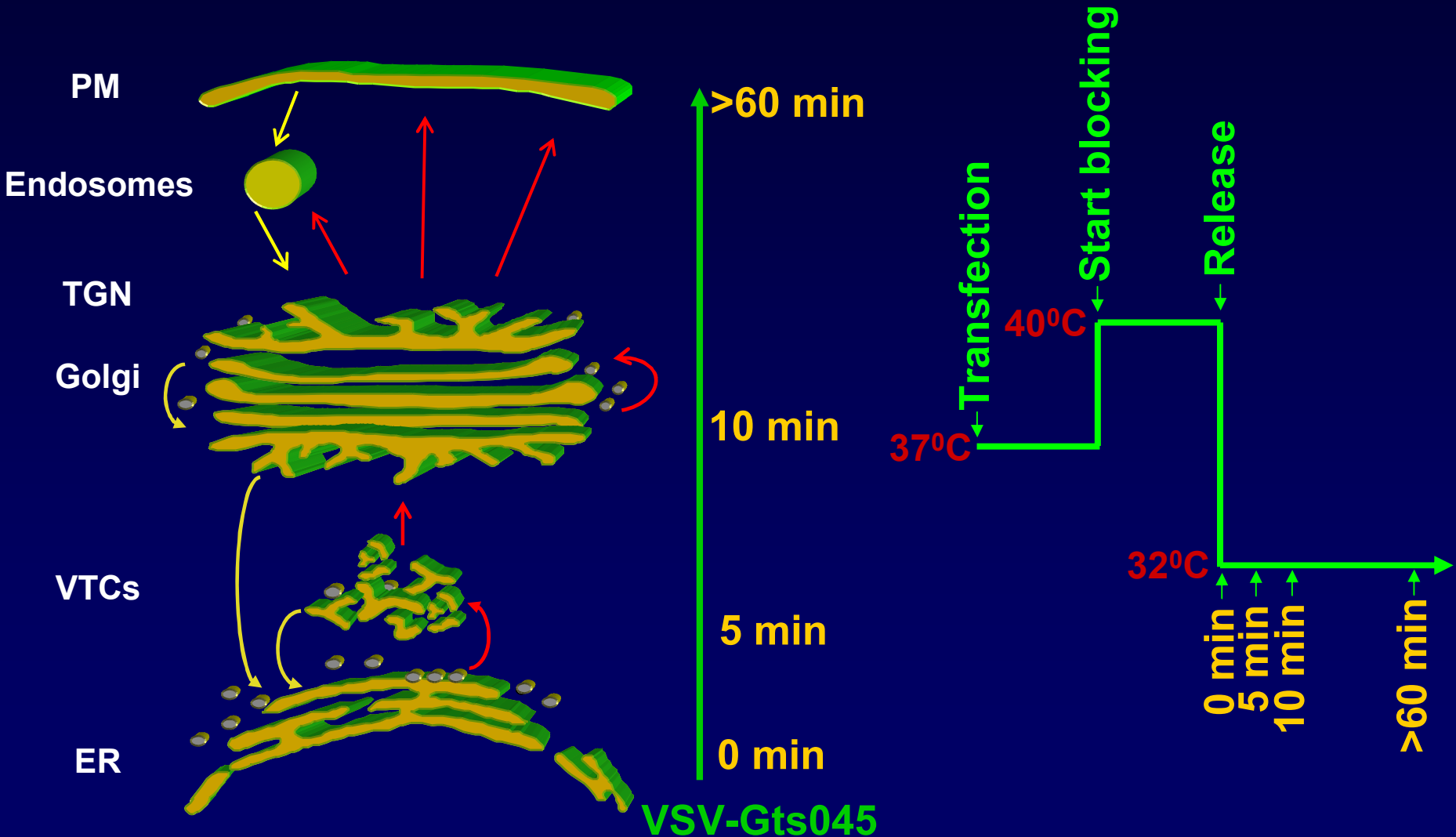
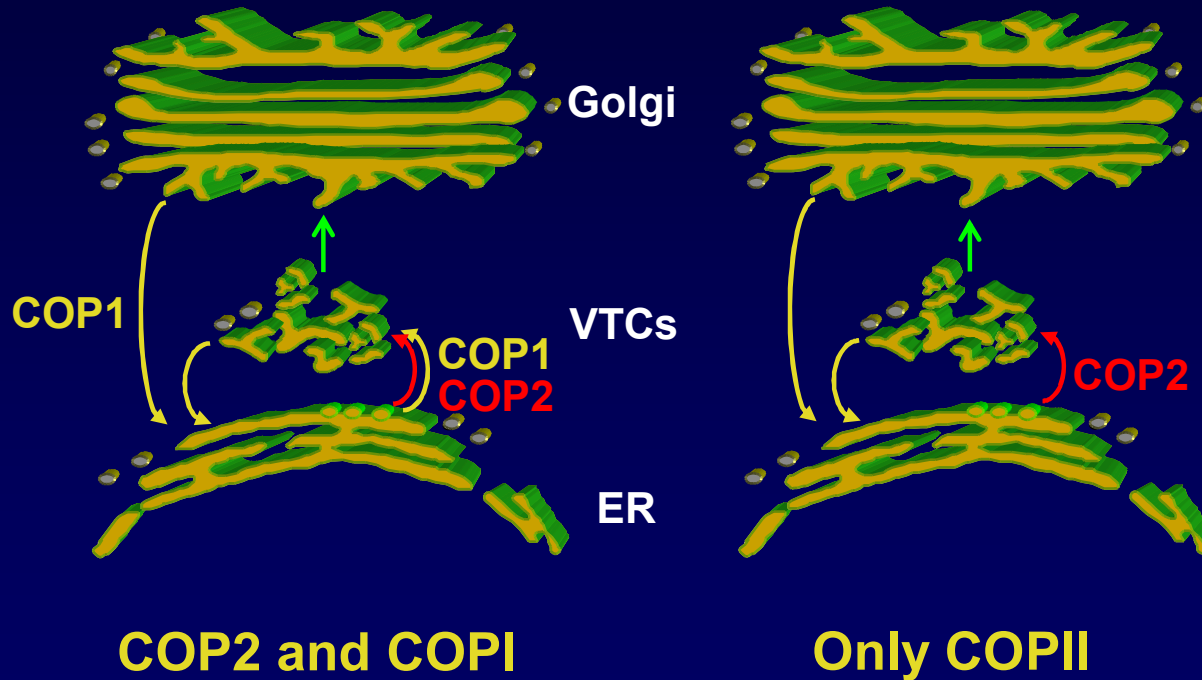


VSV-Gts045 cargo transport through ER-Golgi-PM secretory pathway

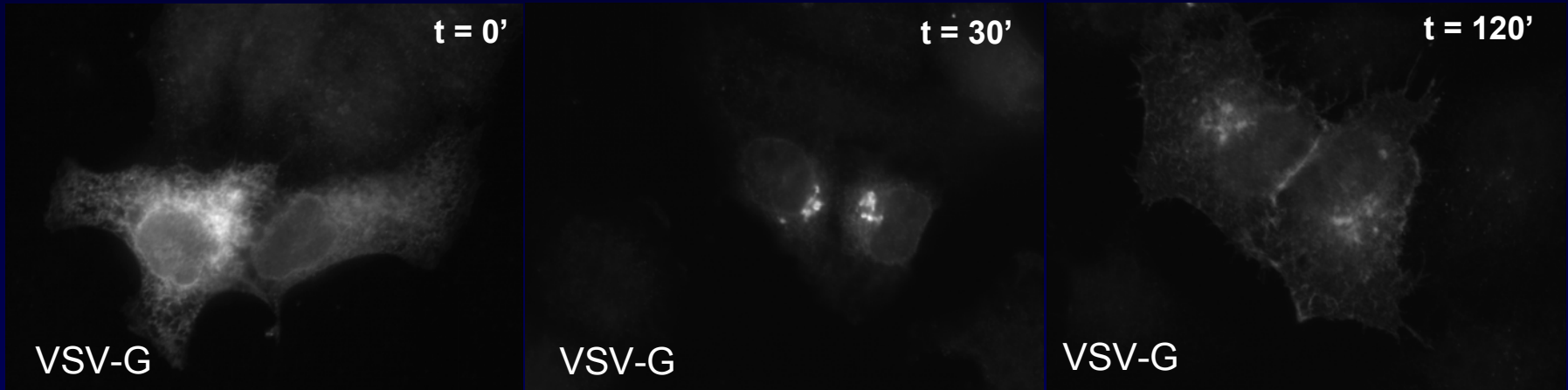


COPII and COPI involvement in sorting out of ERES



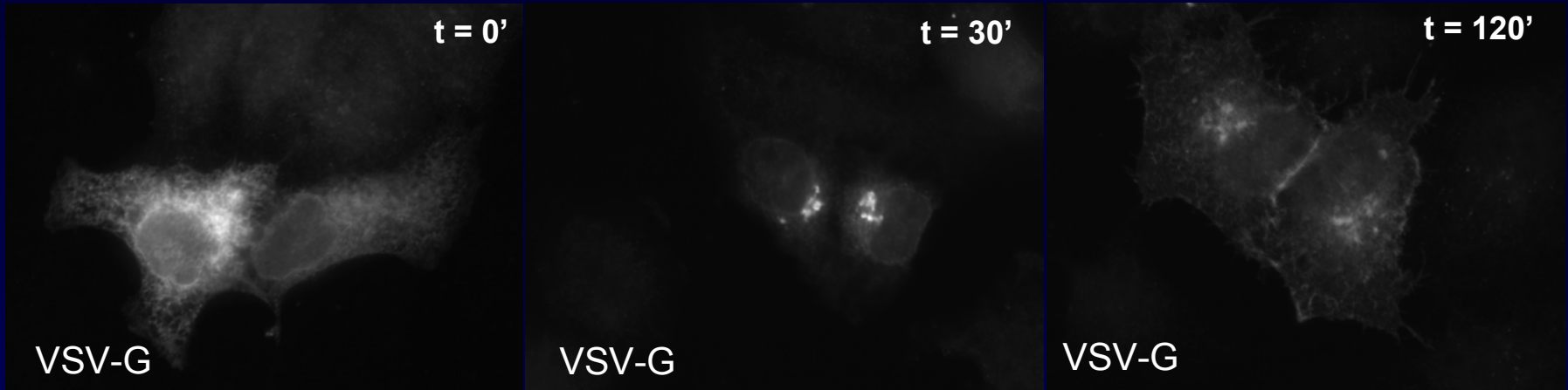
VSV-G traffic from ER to Golgi and PM

Mock Luciferase

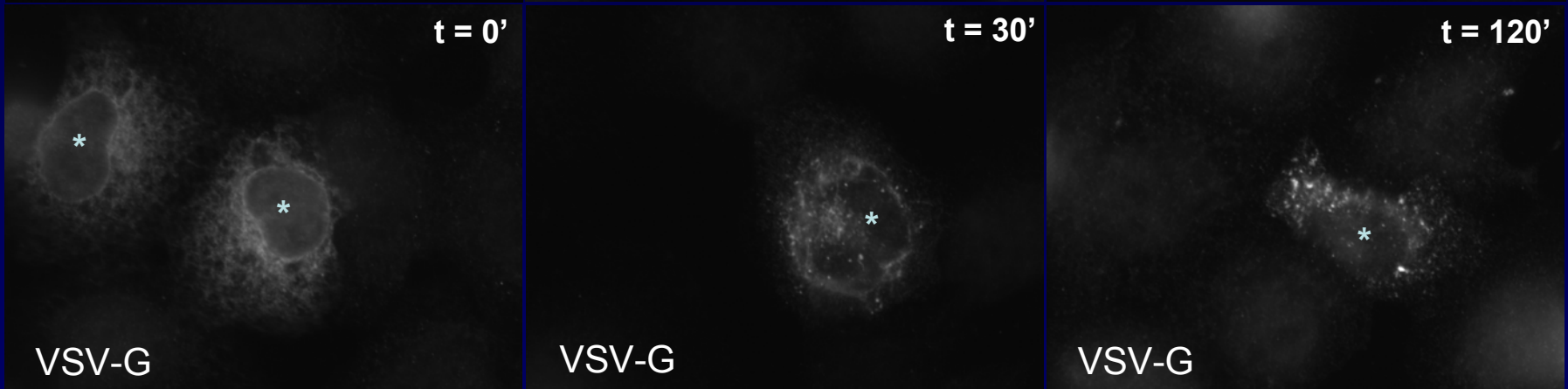


GBF1 knockdown block VSV-G traffic into a puncta structure

Mock Luciferase

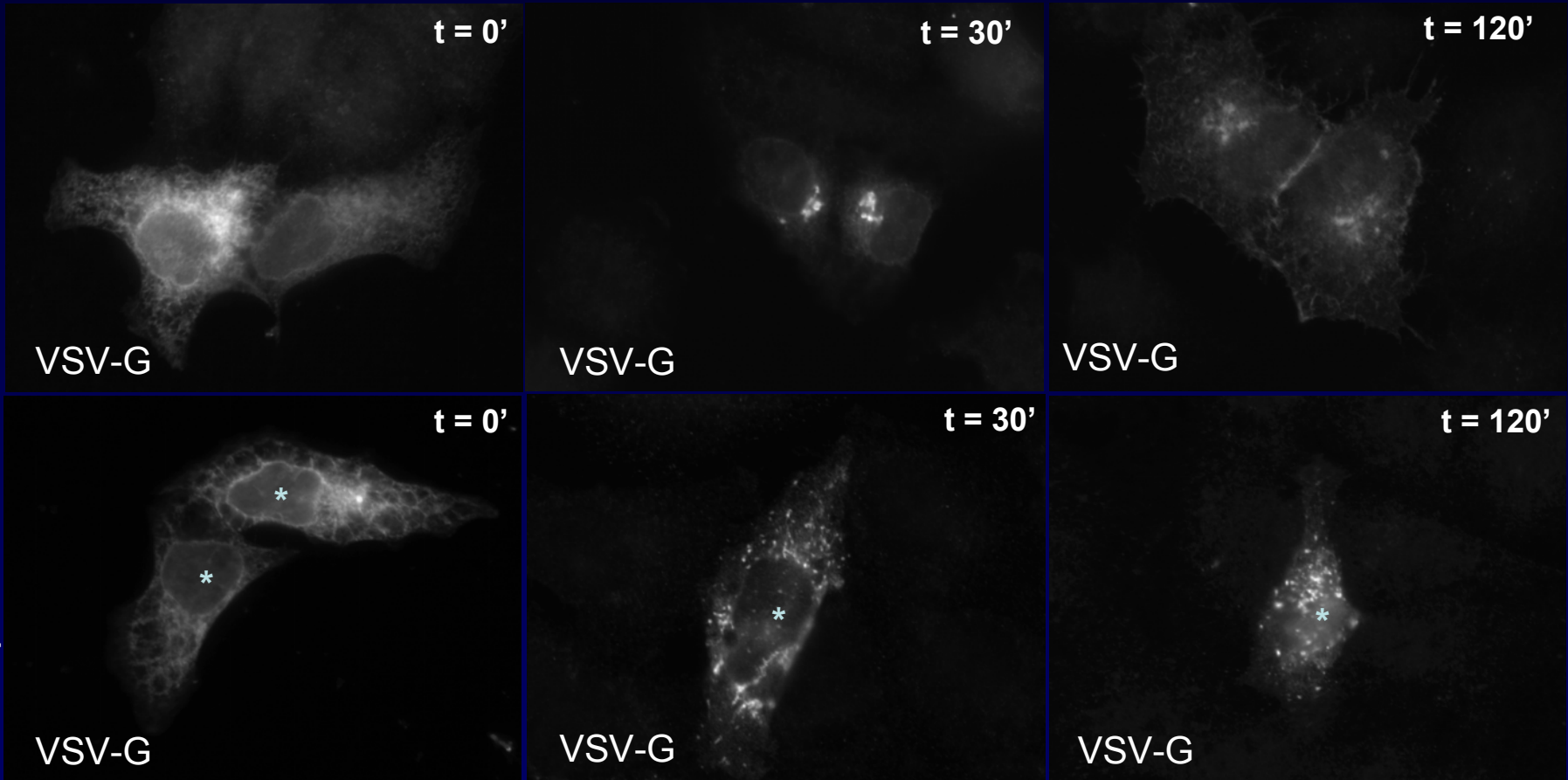


GBF1 KD



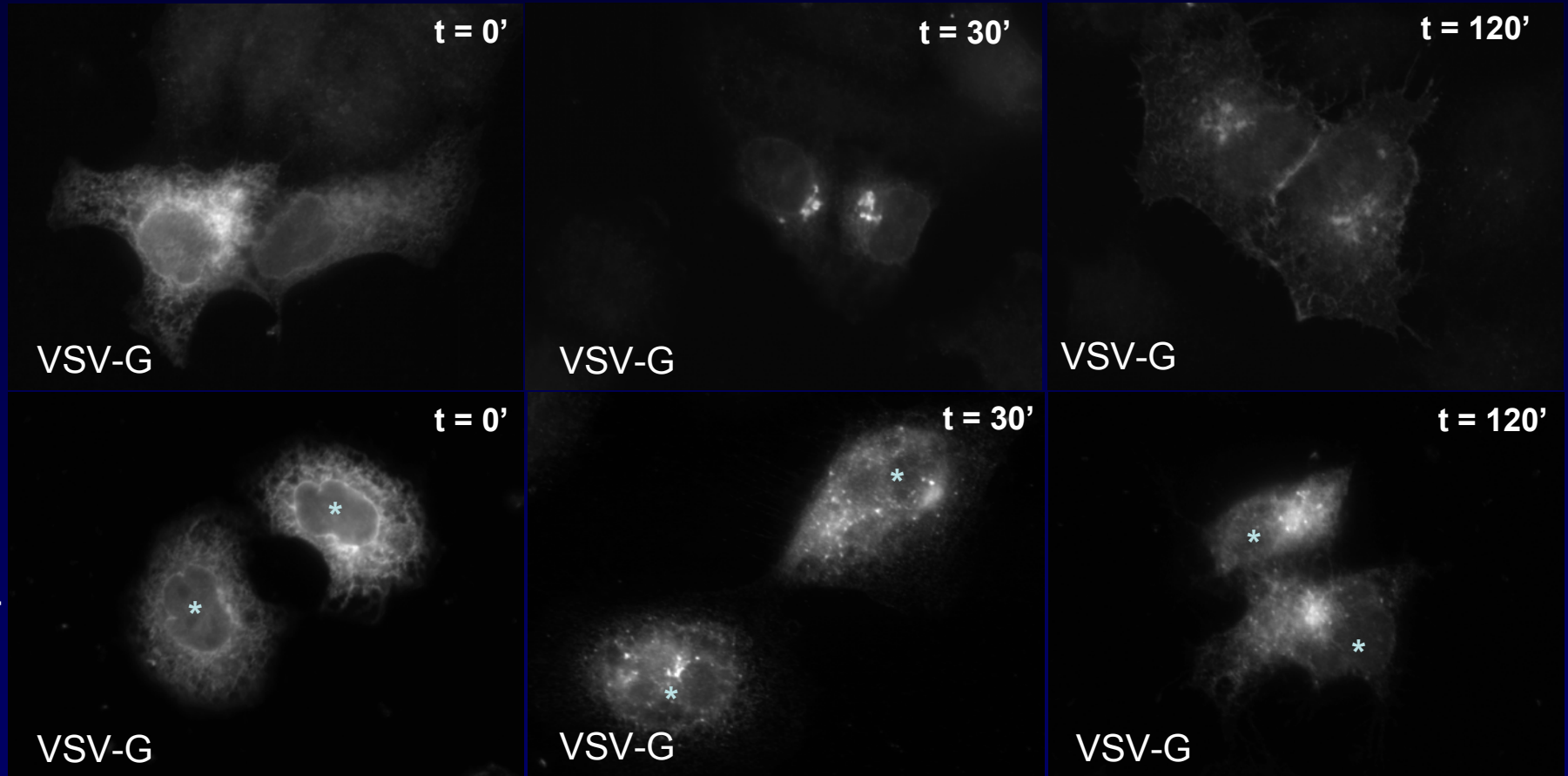
COP1 knockdown block VSV-G traffic into a puncta structure

Mock Luciferase



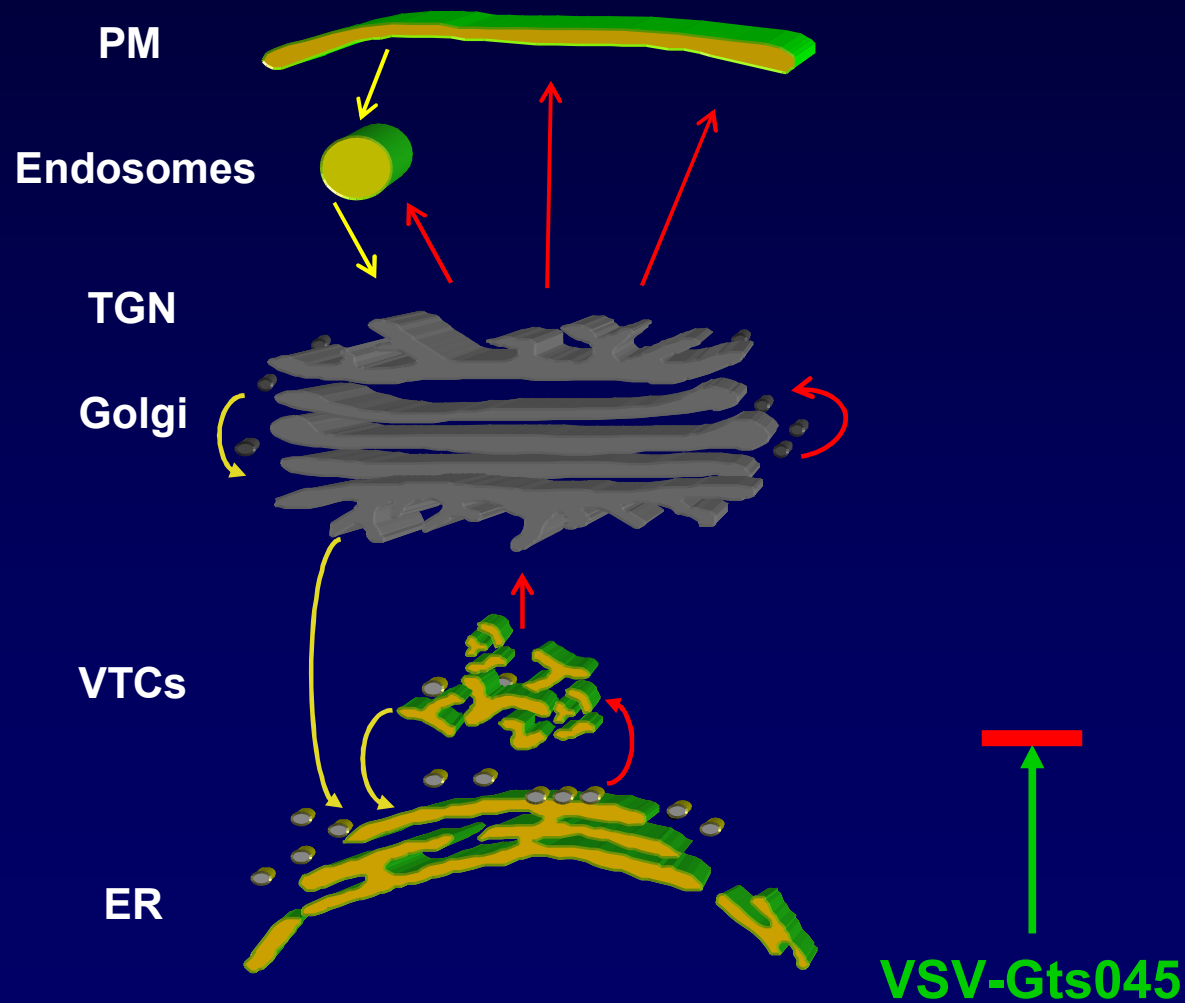
Knockdown of both GBF1 and COP1 blocks traffic into a puncta structure

Mock Luciferase

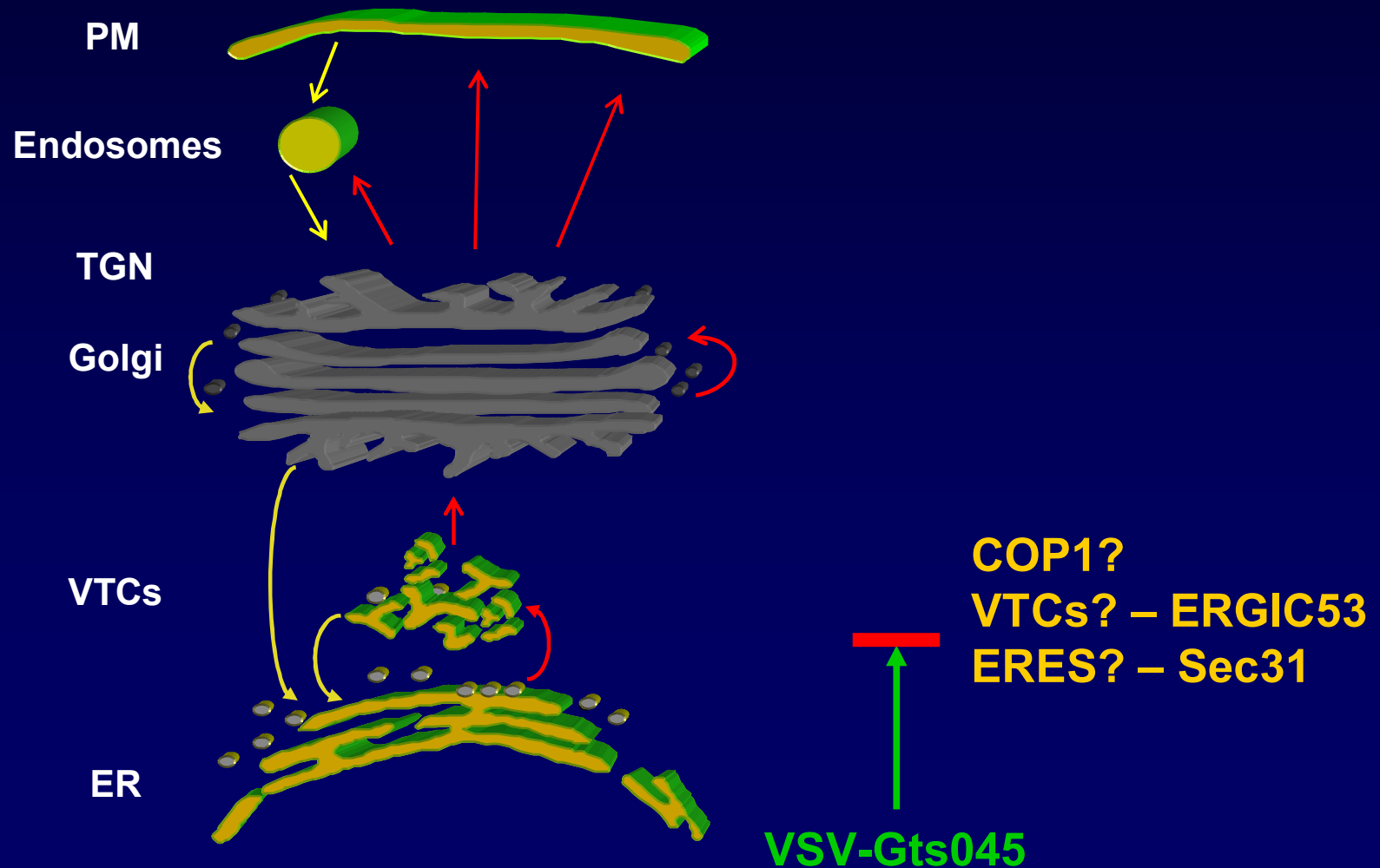


GBF1+βCOP KD

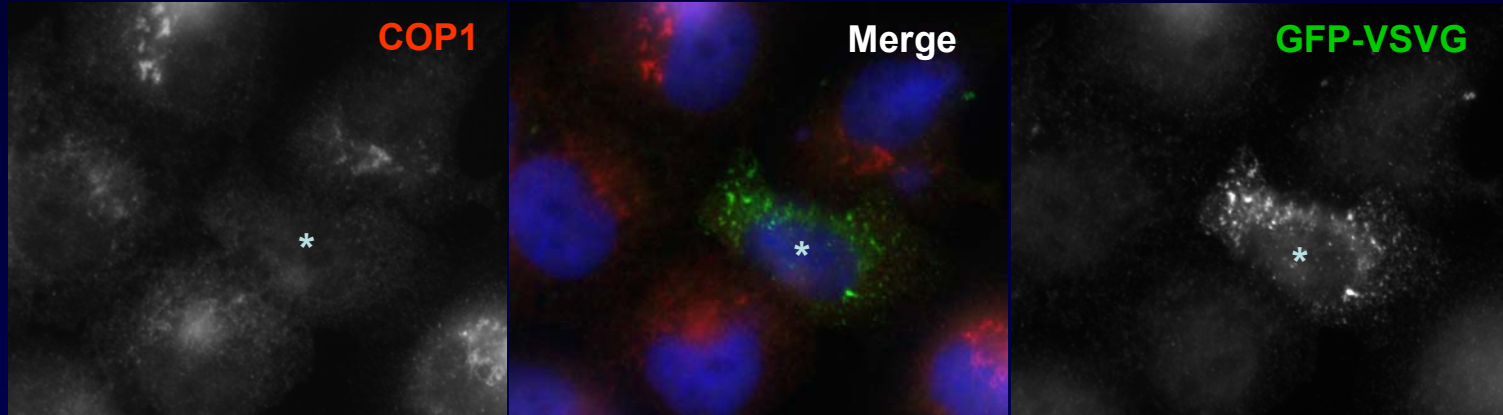
GBF1 knockdown block VSV-G traffic into a puncta structure



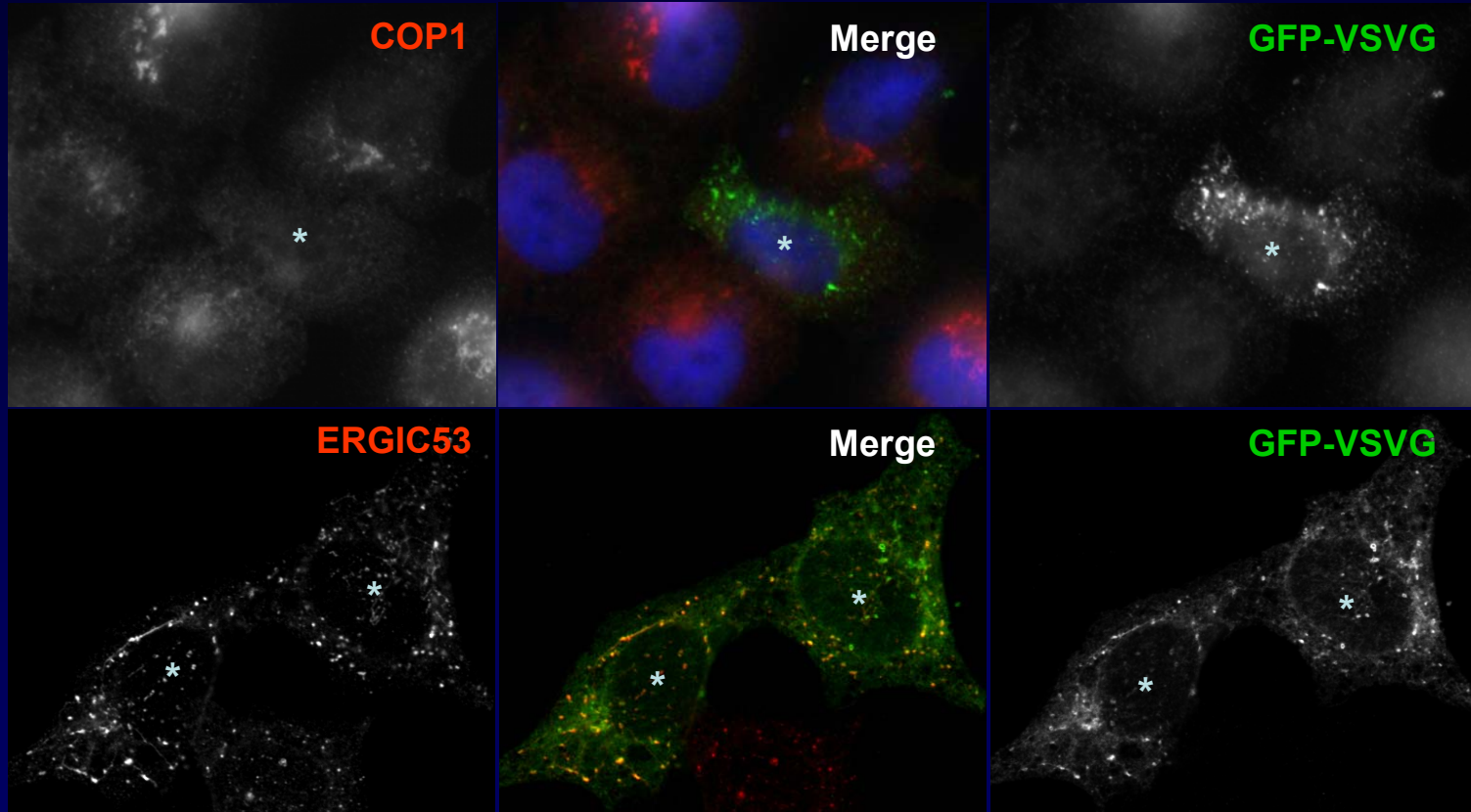
GBF1 knockdown block VSV-G traffic into a puncta structure



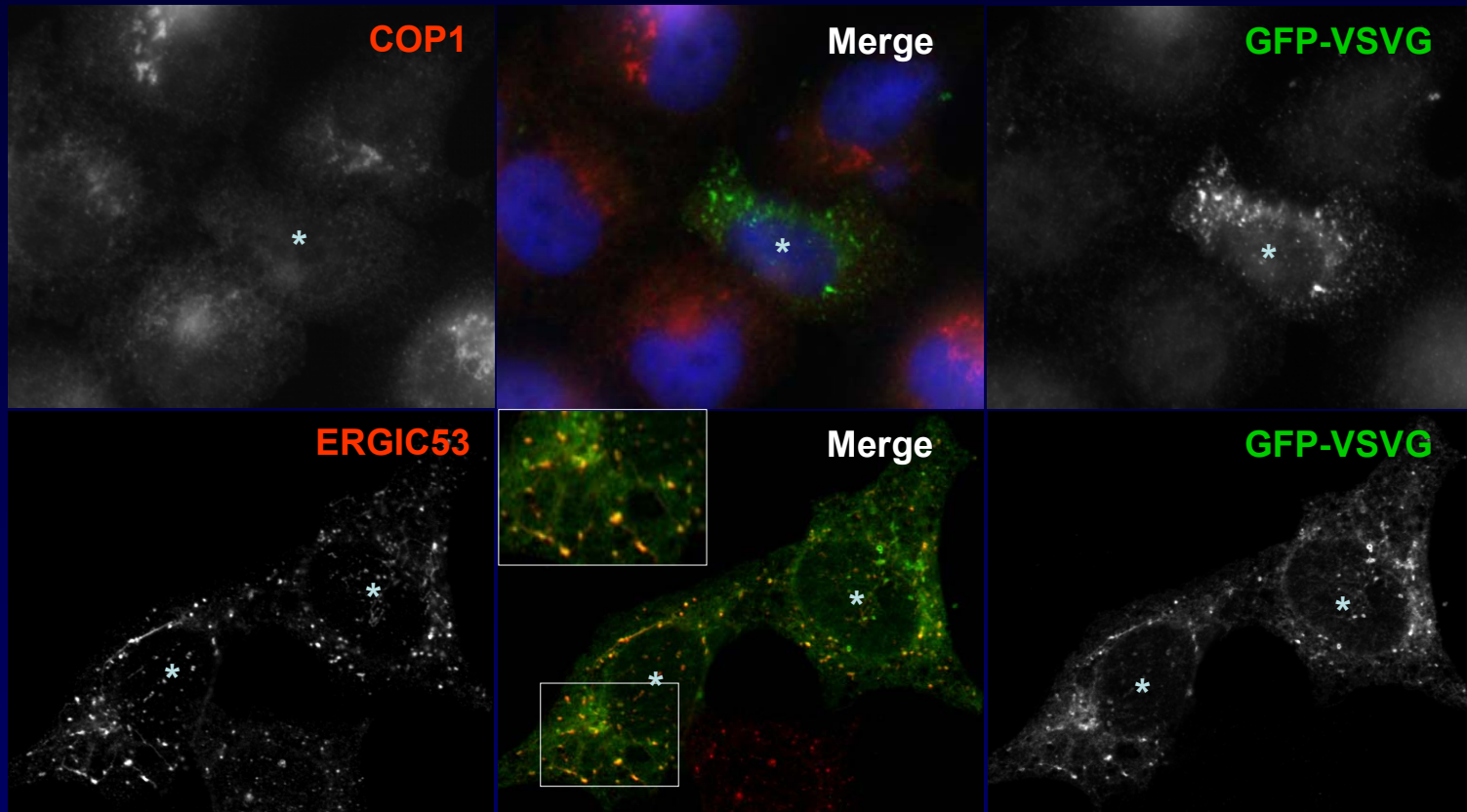
GBF1 knockdown block VSV-G traffic at VTC level and not at ERES



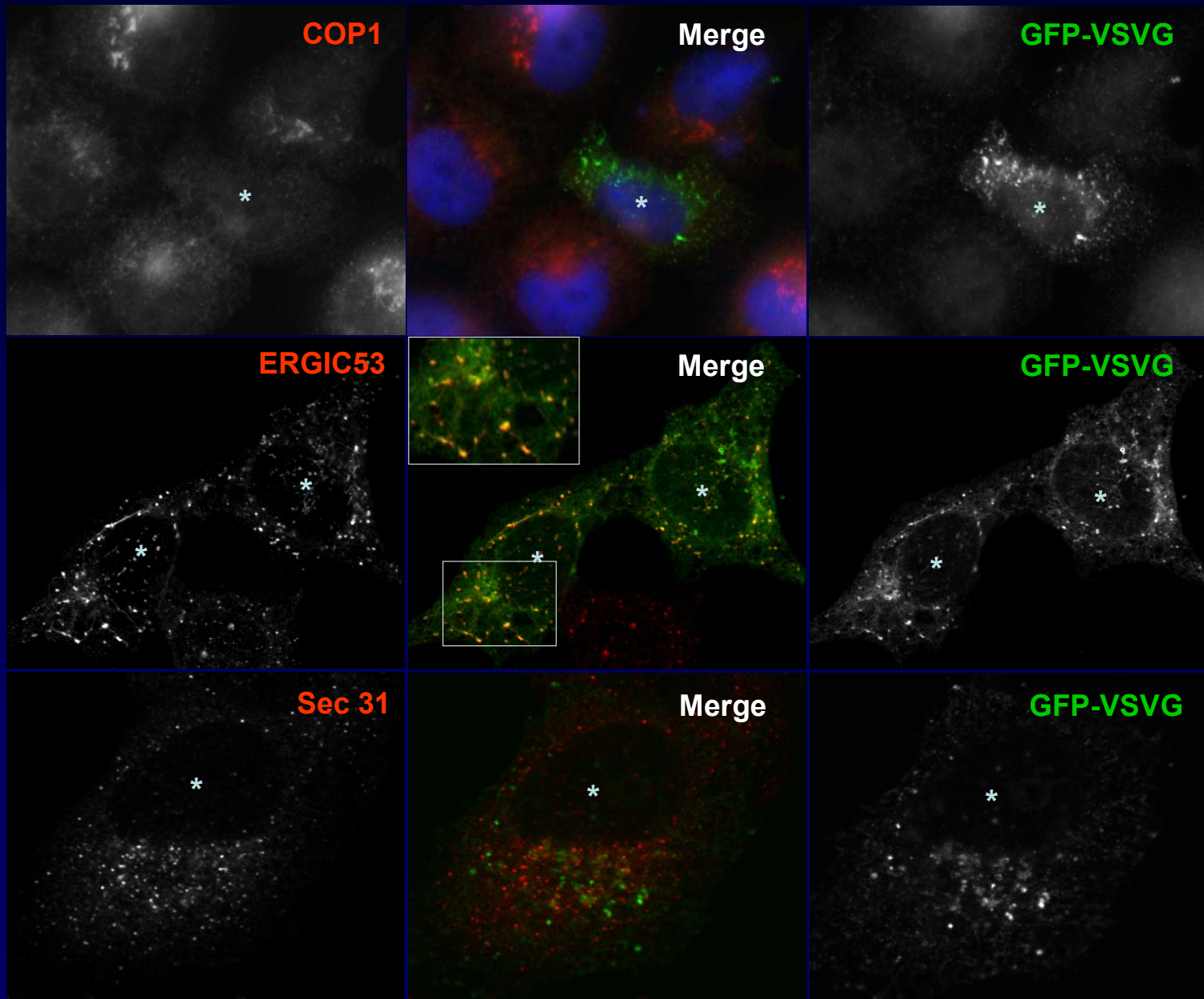
GBF1 knockdown block VSV-G traffic at VTC level and not at ERES



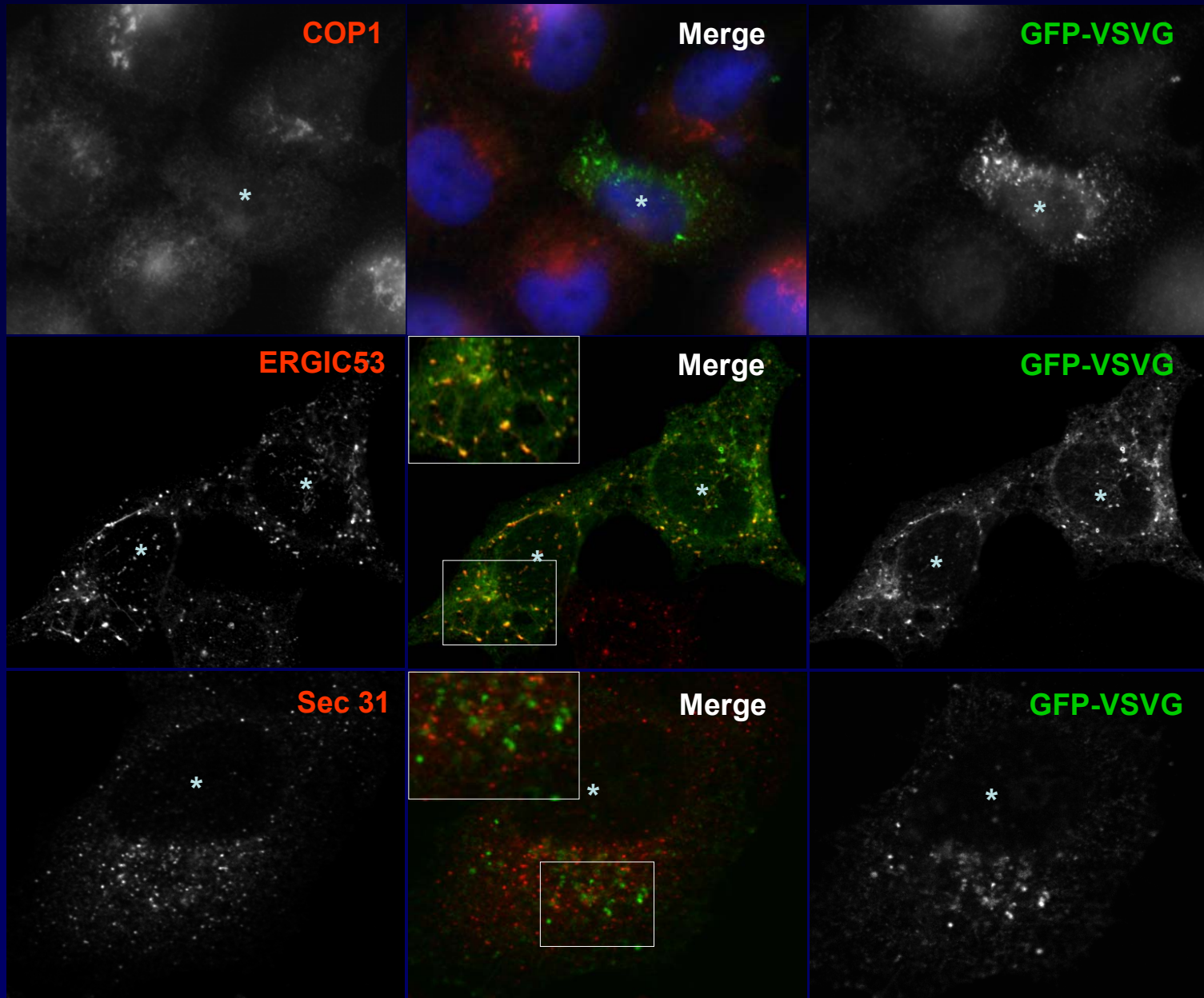
GBF1 knockdown block VSV-G traffic at VTC level and not at ERES



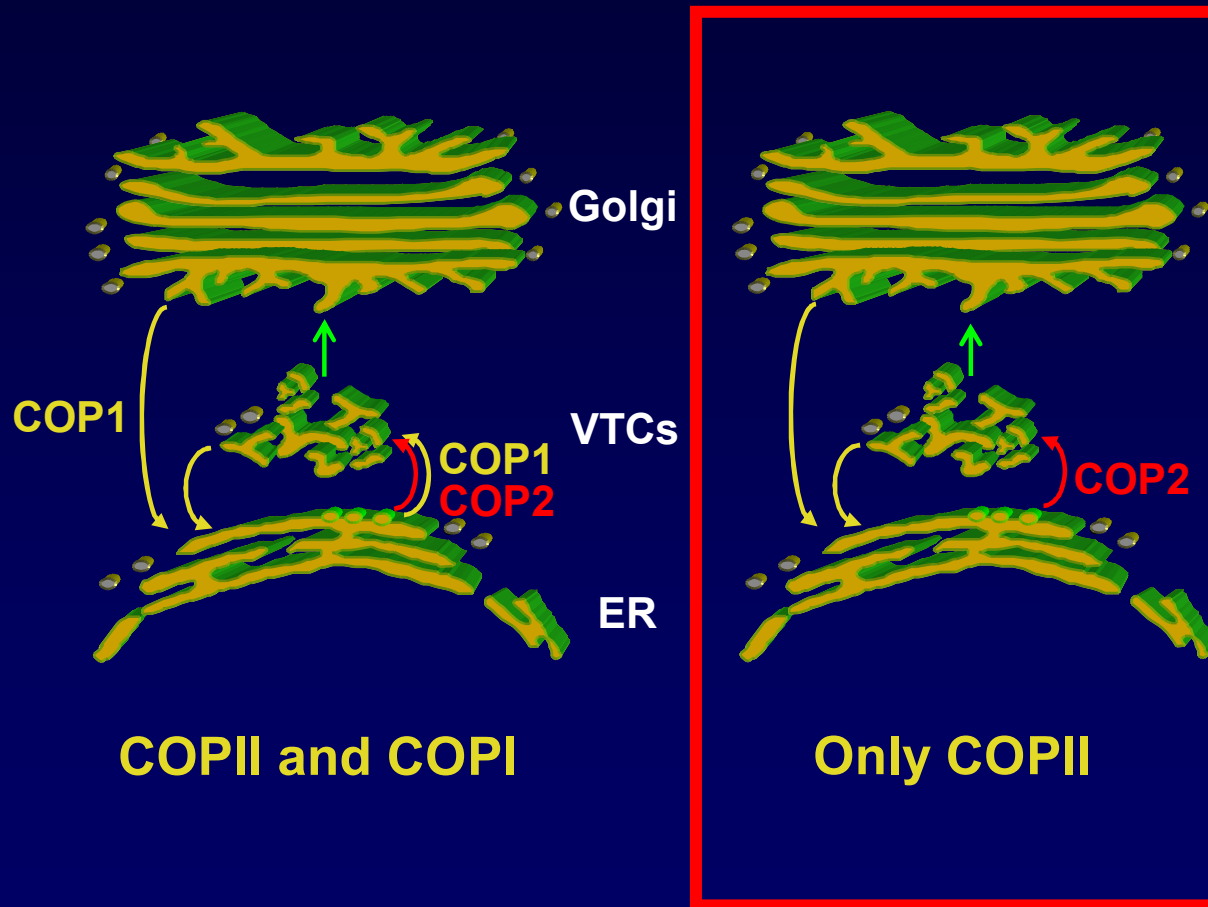
GBF1 knockdown block VSV-G traffic at VTC level and not at ERES



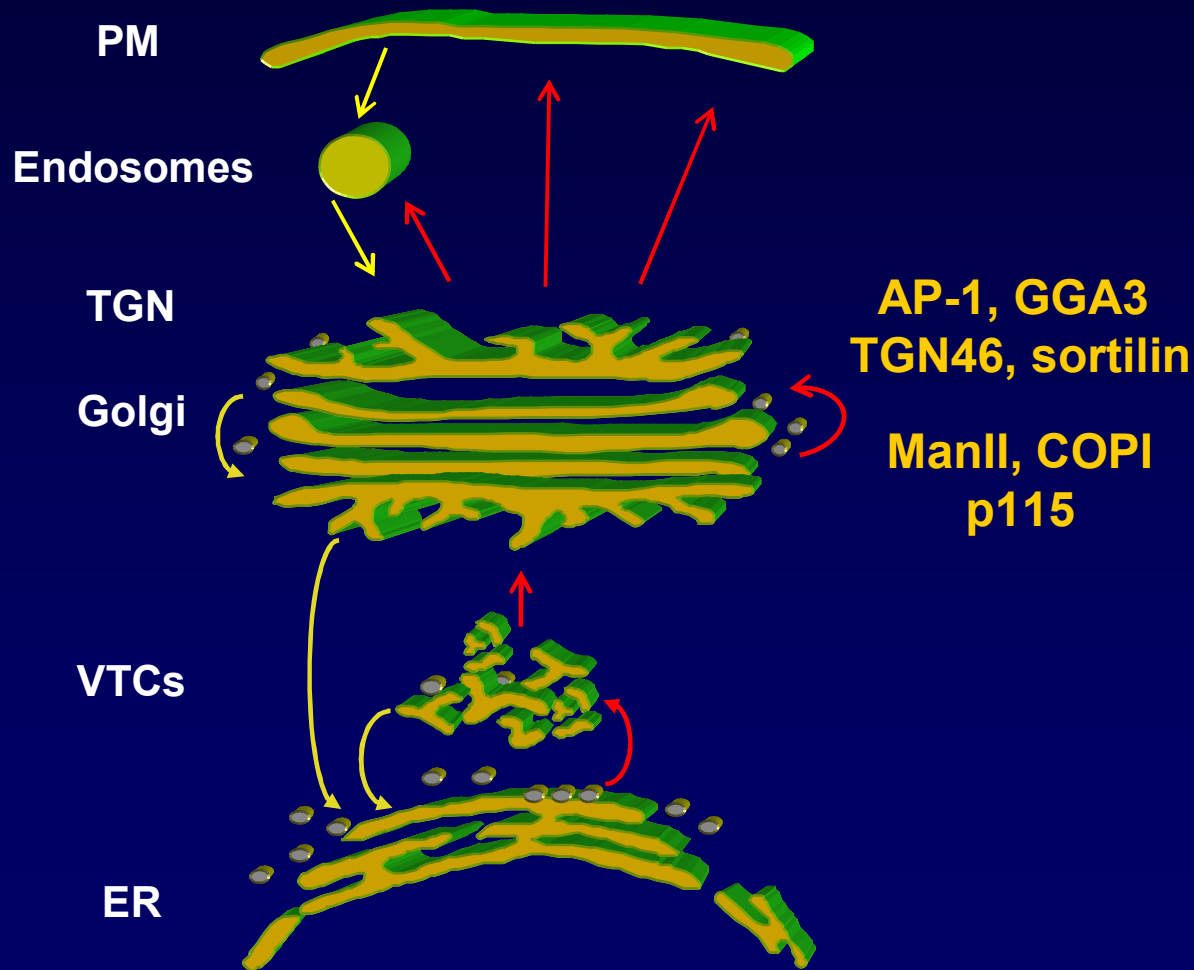
GBF1 knockdown block VSV-G traffic at VTC level and not at ERES



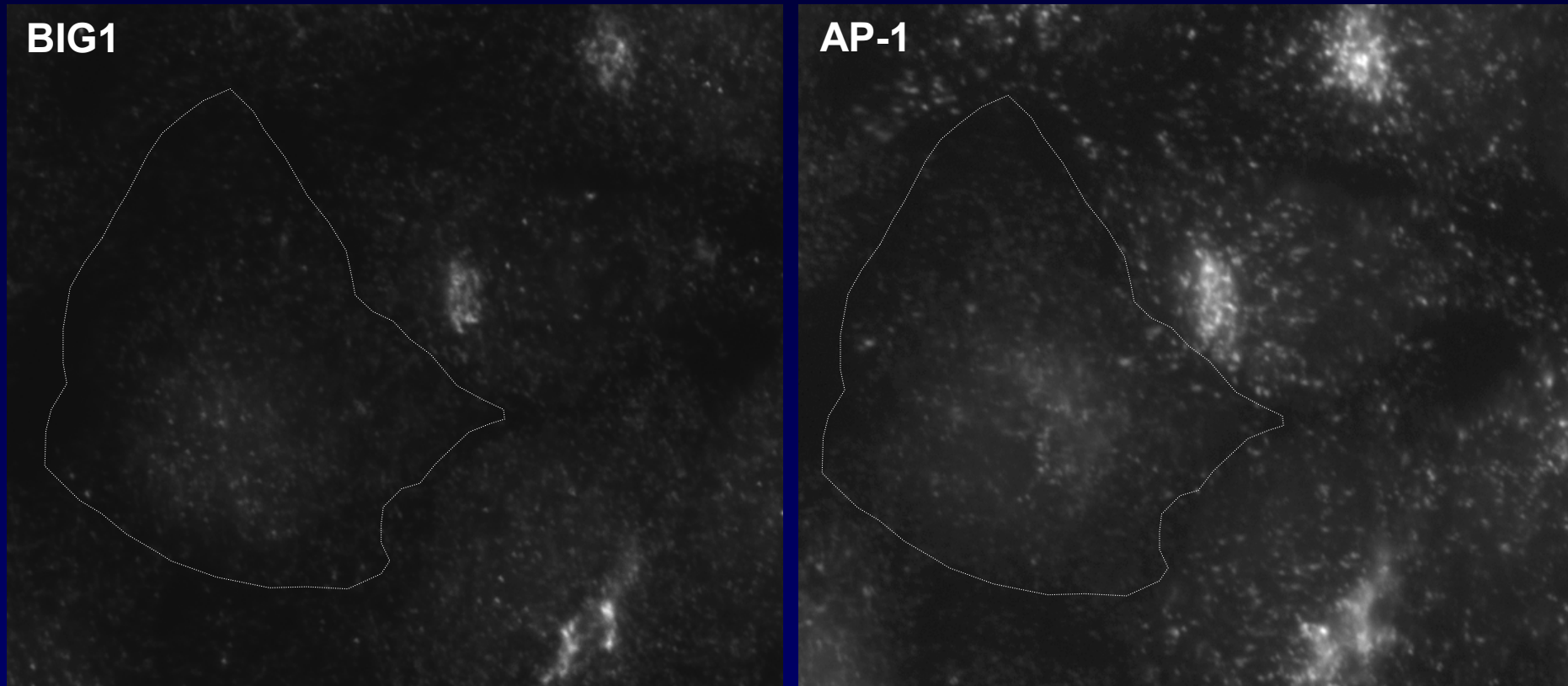
COPI is not required for sorting out of ERES



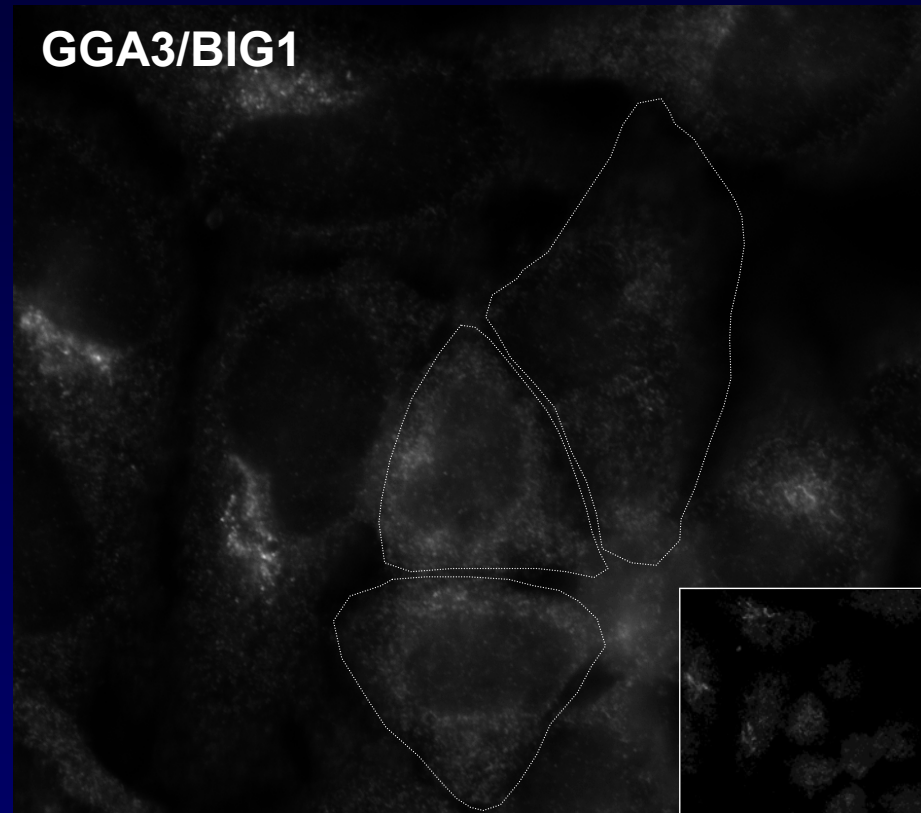
Knockdown of BIGs and specific markers analyzed



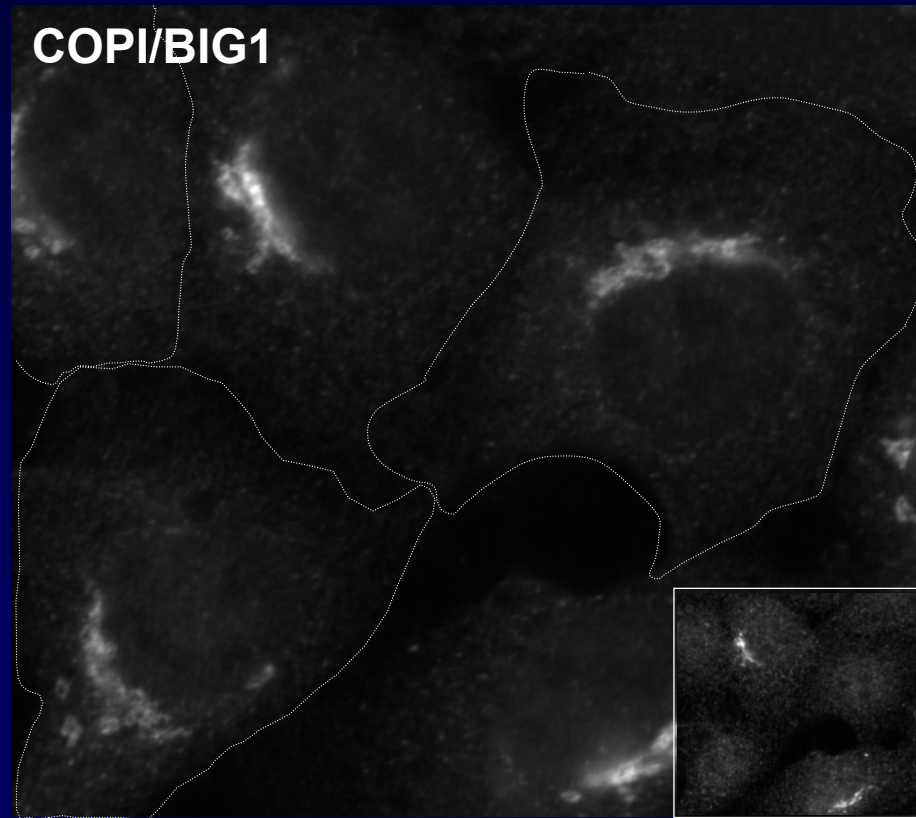
Knockdown of BIG1 redistribute the juxtenucleolar AP-1 staining



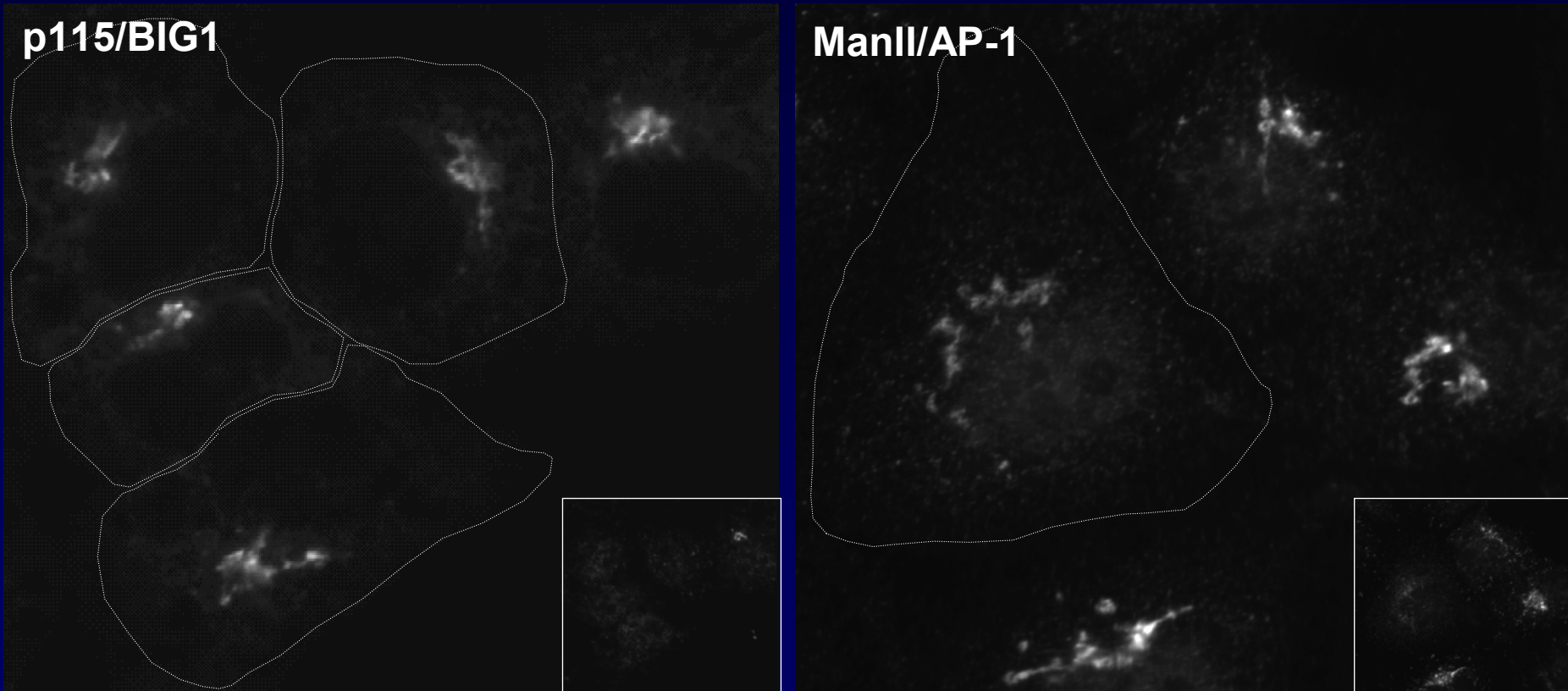
Knockdown of BIG1 redistribute the juxtannucleolar GGA3 staining



Knockdown of BIG1 has no effect on COPI staining

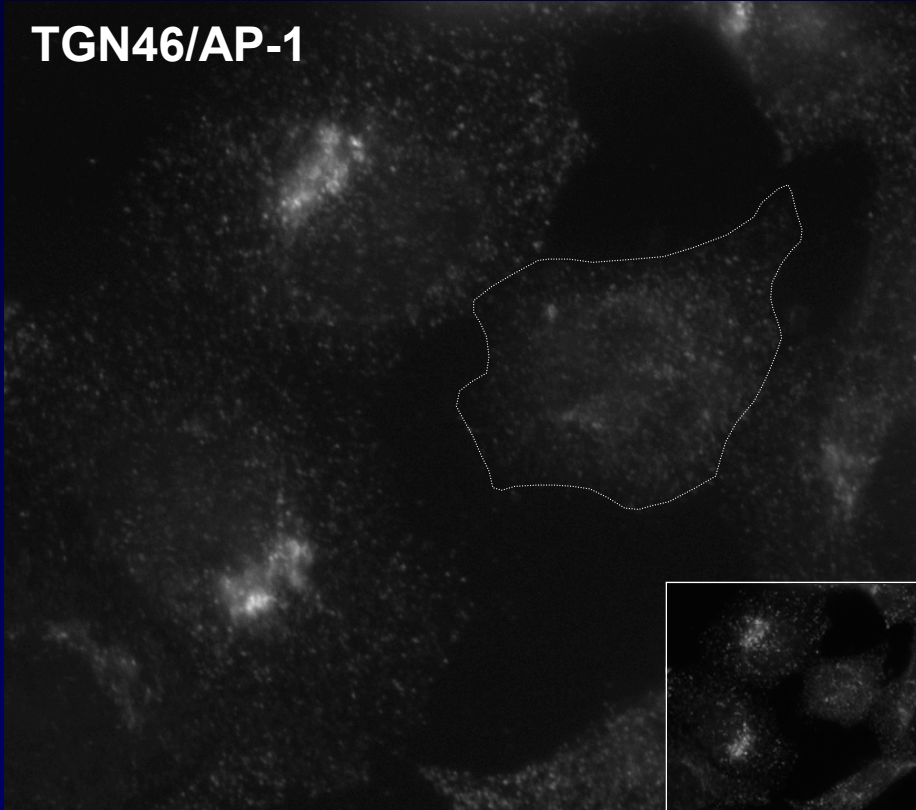


Knockdown of BIG1 has no effect on p115 or ManII staining

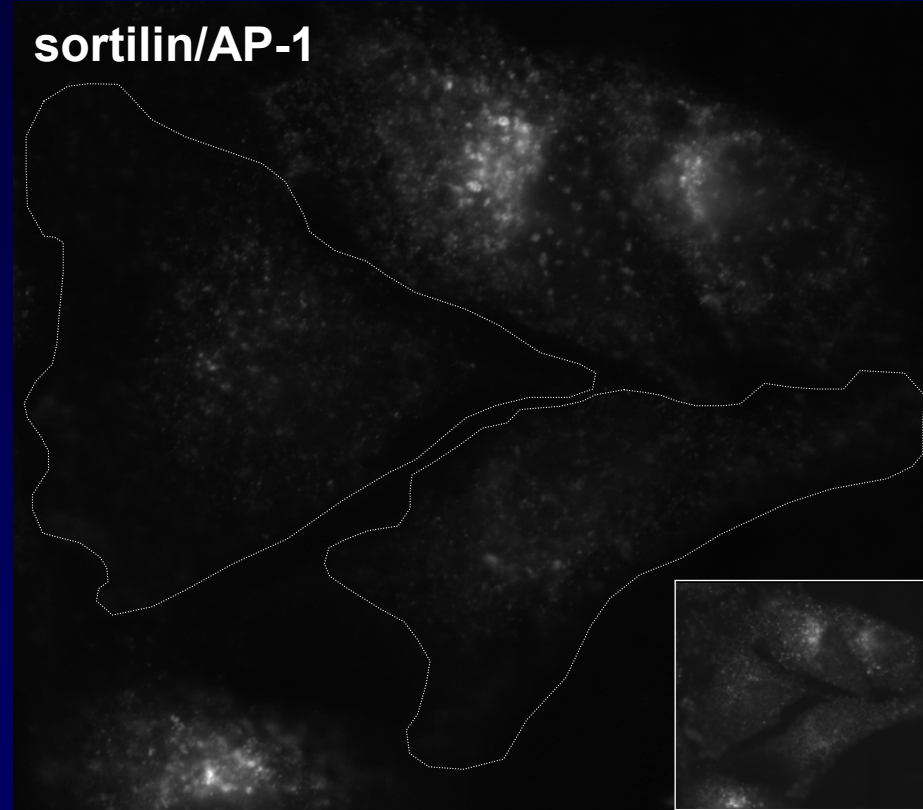


Knockdown of BIG1 redistribute the juxtannucleolar TGN46 and sortilin staining

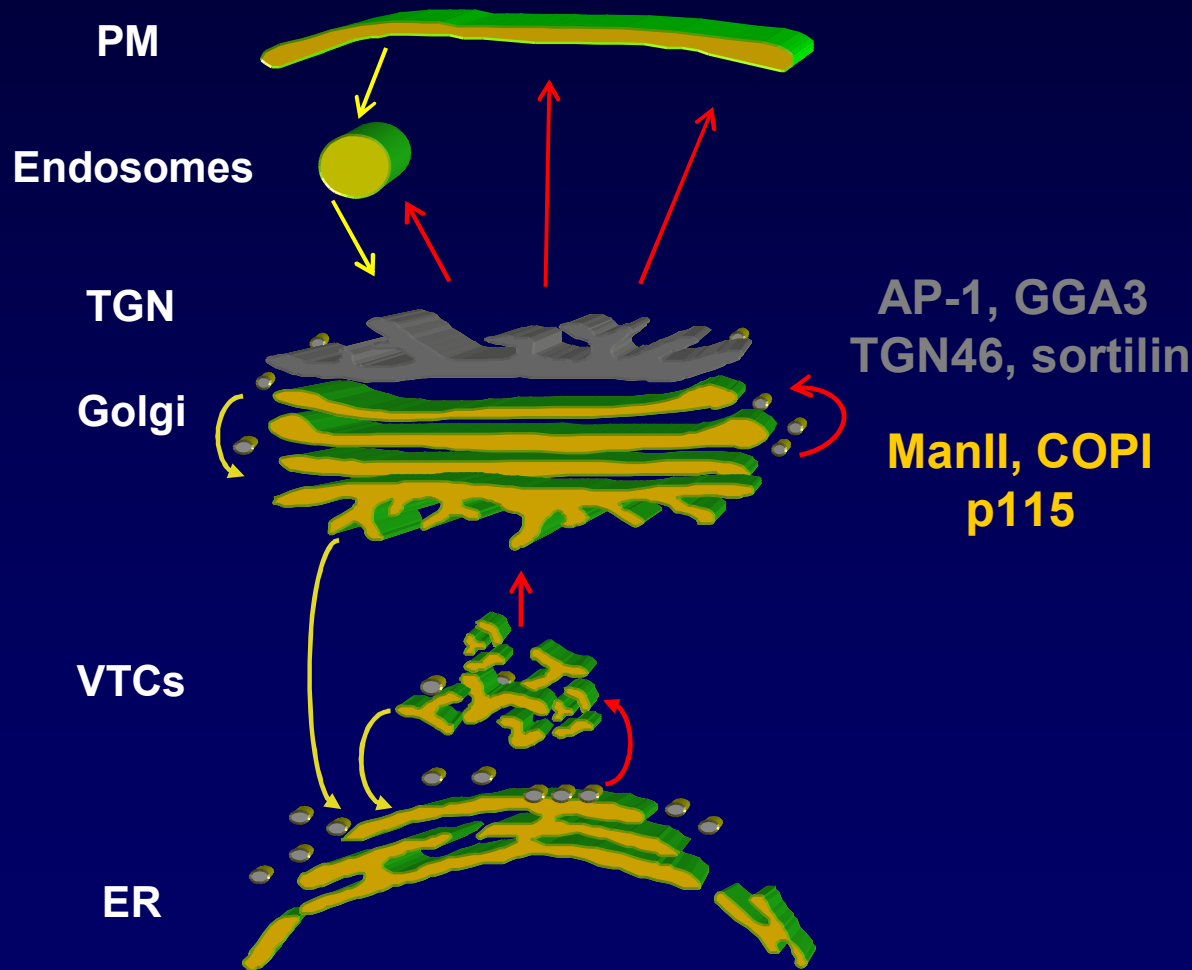
TGN46/AP-1



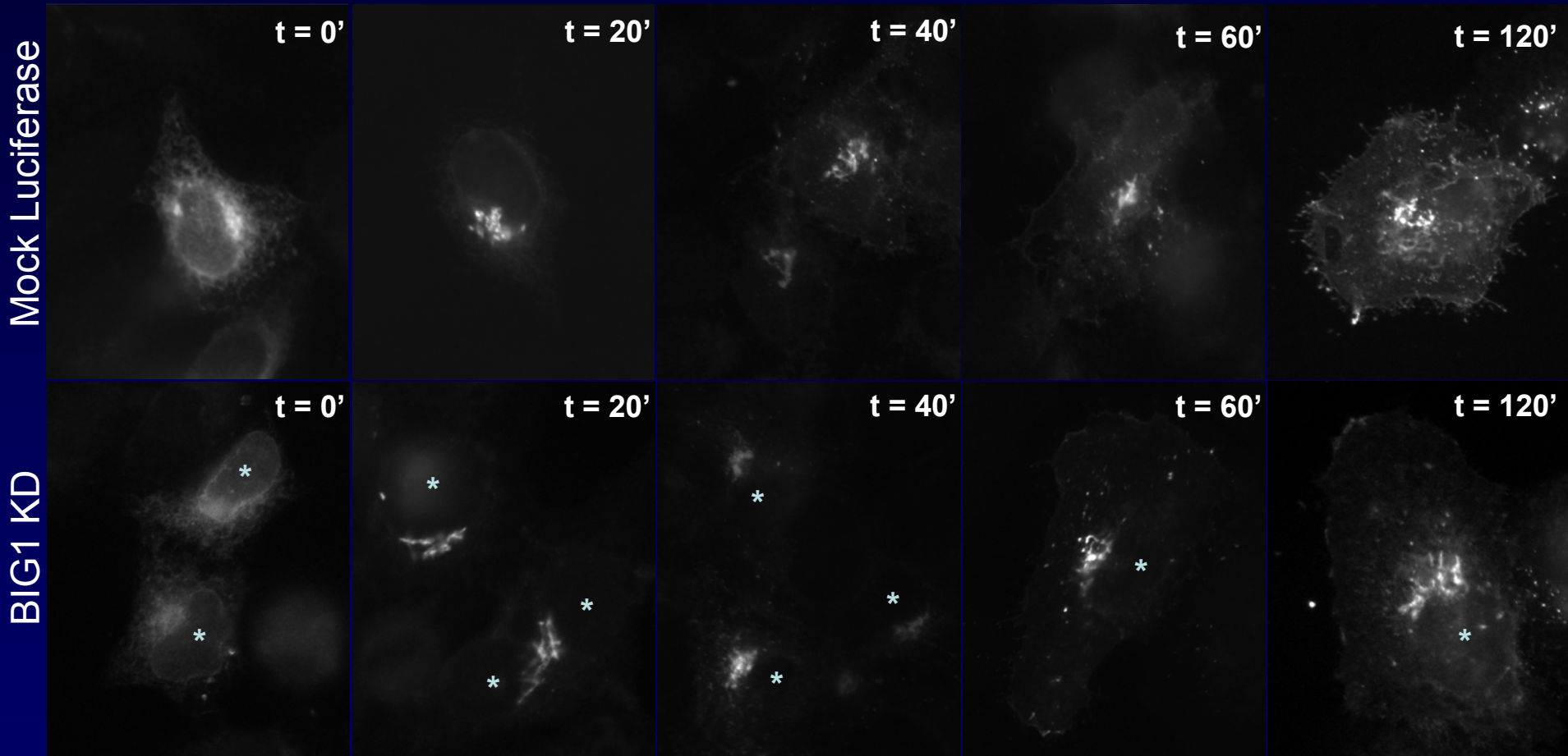
sortilin/AP-1



Knockdown of BIGs blocks recruitment of TGN-specific coats but has no impact on Golgi stack.



Knockdown of BIGs has no impact on traffic of VSV-G to the cell surface



Knockdown of BIGs has no impact on traffic of VSV-G to the cell surface

Mock Luciferase

t = 0'

t = 20'

t = 40'

t = 60'

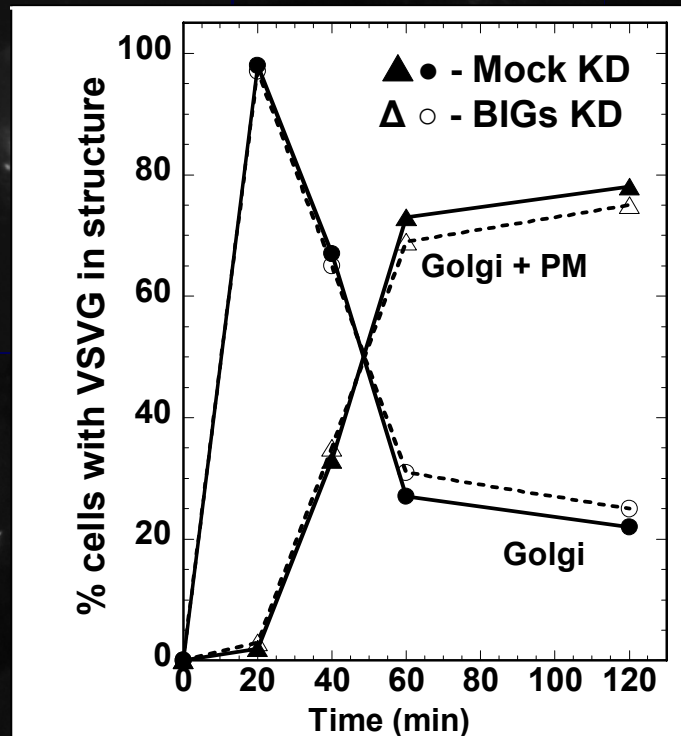
t = 120'

BIG1 KD

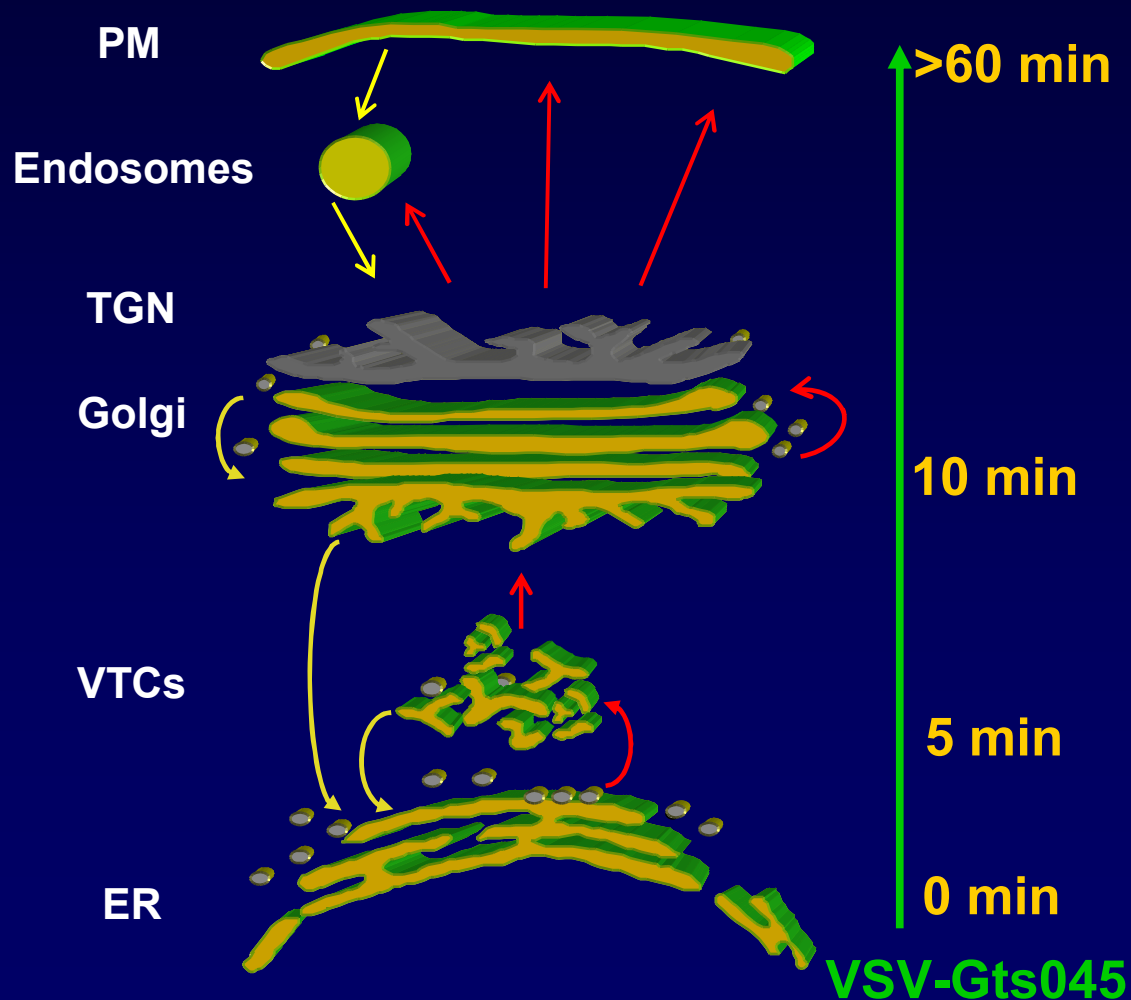
t = 0'

t = 60'

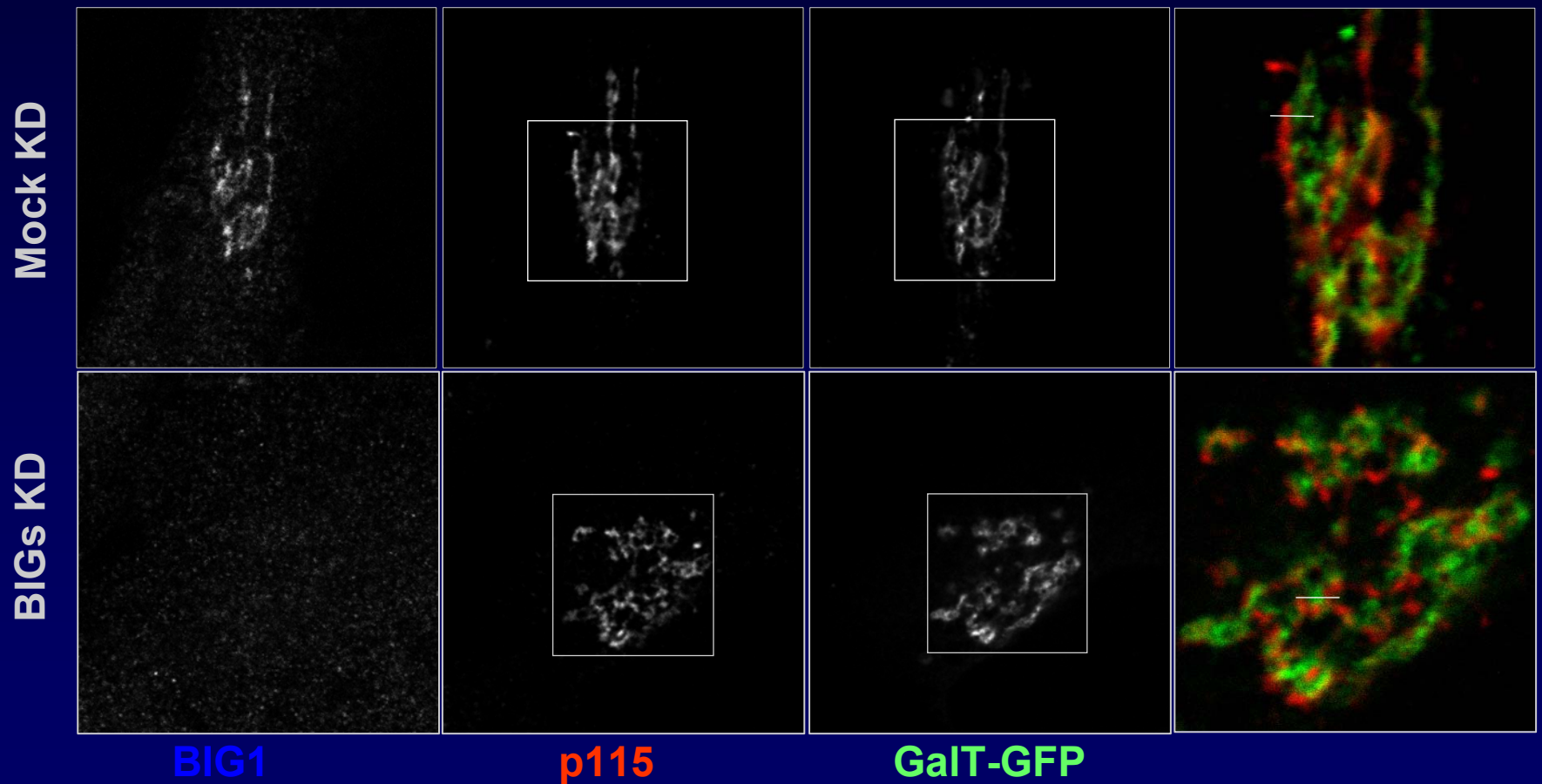
t = 120'



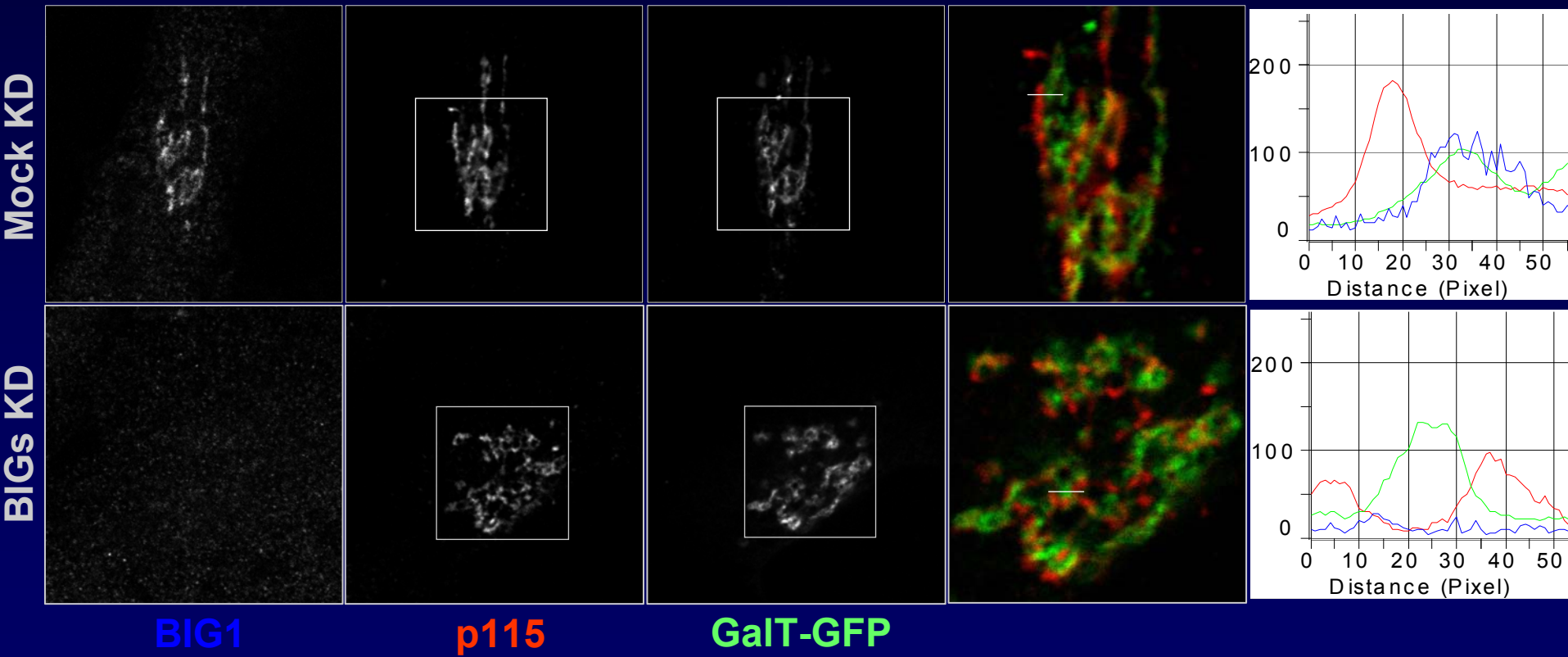
Knockdown of BIGs has no impact on traffic of VSV-G to the cell surface



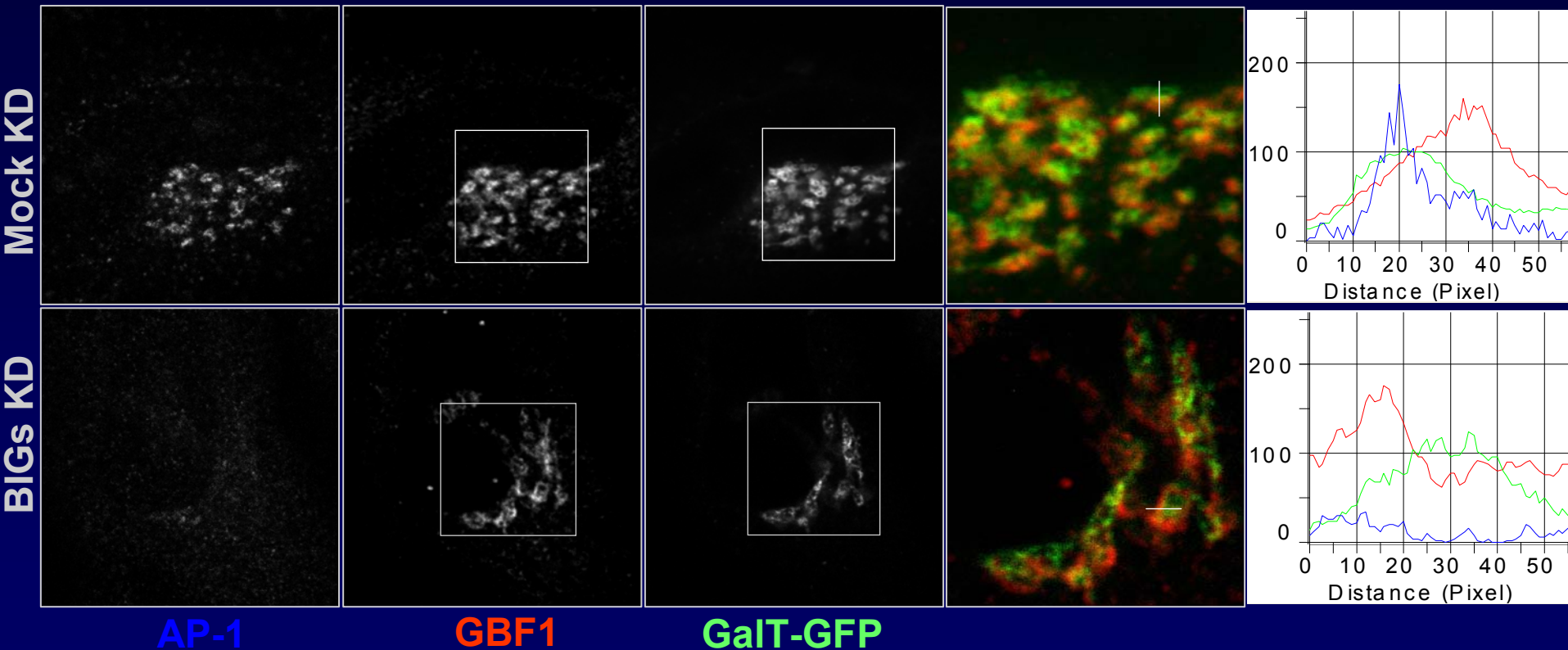
BIGs knockdown does not prevent assembly of polarized Golgi stack



BIGs knockdown does not prevent assembly of polarized Golgi stack



BIGs knockdown does not prevent assembly of polarized Golgi stack



Overall Conclusions

- ✓ GBF1 functions at the *cis*-Golgi to recruit COPI and promote assembly and maintenance of the Golgi complex, while BIGs have distinct functions at the TGN.
- ✓ COPI is not required for sorting and export out of ERES.
- ✓ Anterograde traffic from the ER to the plasma membrane is independent of BIGs.
- ✓ GBF1-COPI machinery alone is sufficient to drive the maturation process responsible for Golgi organization.

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