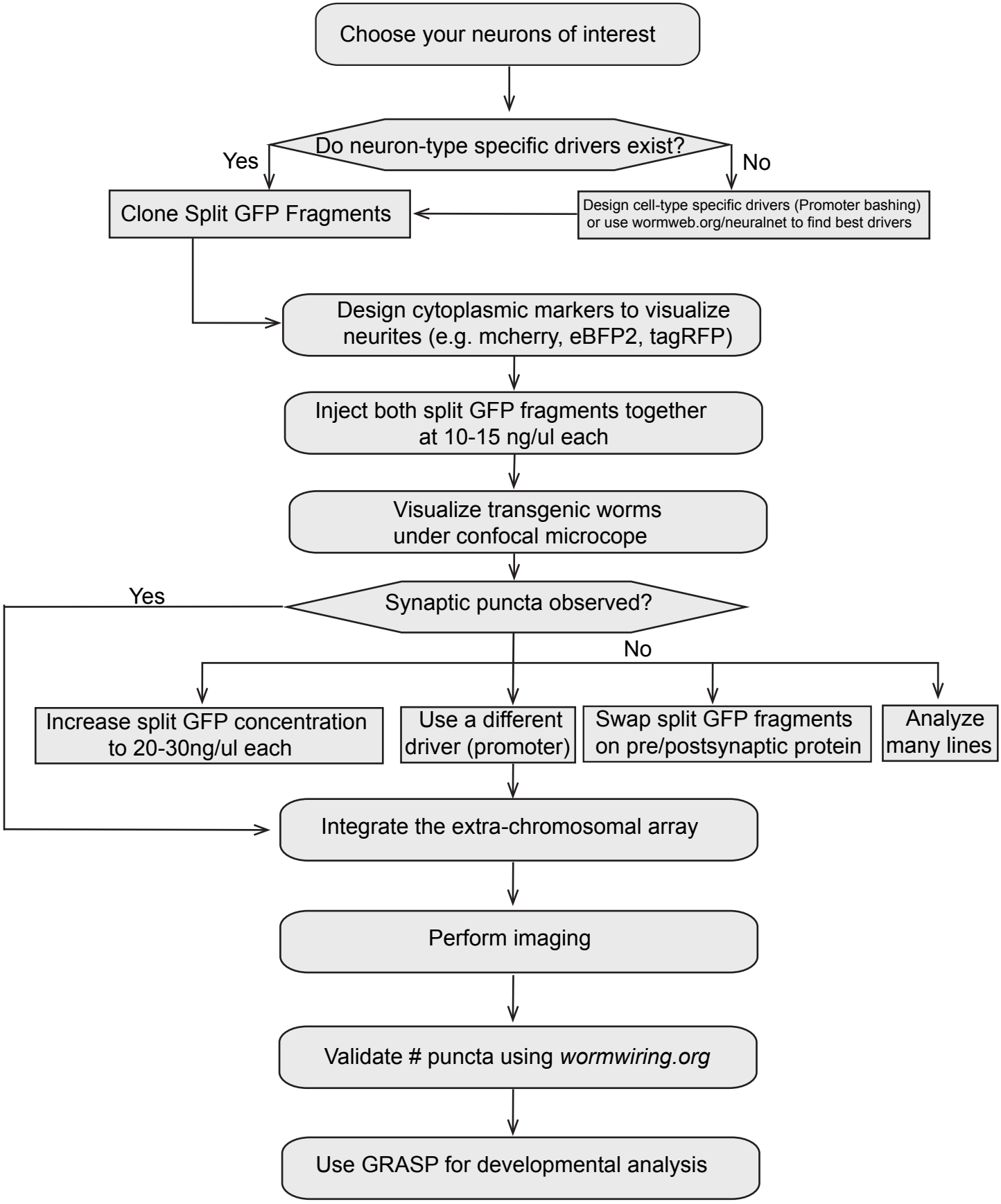
Choose your neurons of interest
Do neuron-type specific drivers exist?
Yes
No
Clone Split GFP Fragments
Design cell-type specific drivers (Promoter bashing) or use wormweb.org/neuralnet to find best drivers
Design cytoplasmic markers to visualize neurites (e.g. mcherry, eBFP2, tagRFP)
Inject both split GFP fragments together at 10-15 ng/ul each
Visualize transgenic worms under confocal microcope
Synaptic puncta observed?
Yes
No
Increase split GFP concentration to 20-30ng/ul each
Use a different driver (promoter)
Swap split GFP fragments on pre/postsynaptic protein
Analyze many lines
Integrate the extra-chromosomal array
Perform imaging
Validate # puncta using wormwiring.org
Use GRASP for developmental analysis