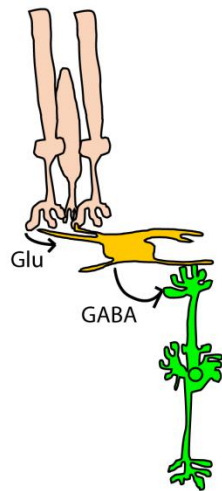
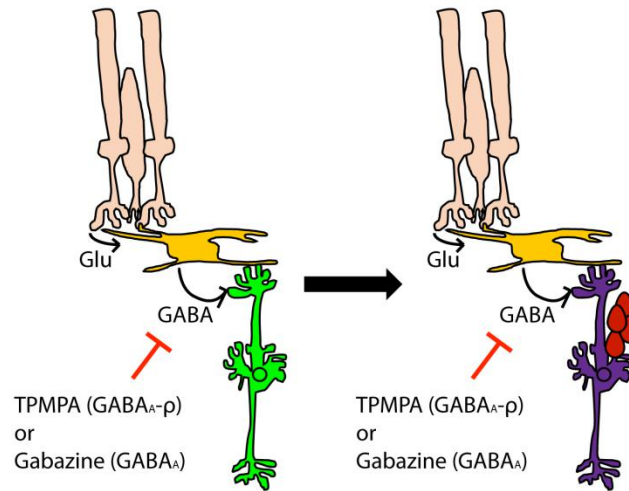


### A. Homeostasis



### B. GABA disruption by damage or drugs



#### **Additional Figure 5 Model of GABA receptor inhibition-induced proliferation.**

(A) Model of neuronal circuit maintaining Müller glia quiescence. Photoreceptors (taupe) normally release glutamate which is sensed by Horizontal cells (yellow) which release GABA that is then sensed by Müller glia (green) to remain quiescent. (B) Inhibiting GABA<sub>A-ρ</sub> receptors via the GABA<sub>A-ρ</sub> receptor inhibitor TPMPA and/or GABA<sub>A</sub> receptors via gabazine mimics disruption of the normal circuit as would occur after damage or disease. In this model, Müller glia sense decreased levels of GABA, dedifferentiate (purple) and generate proliferating progenitor cells (red) as part of a regenerative response. Pharmacological blocking of GABA receptors induces a regenerative response in the absence of damage. GABA: Gamma aminobutyric acid; gabazine: GABA<sub>A</sub> antagonist.