


SUPPLEMENTARY MATERIAL

corresponding to:

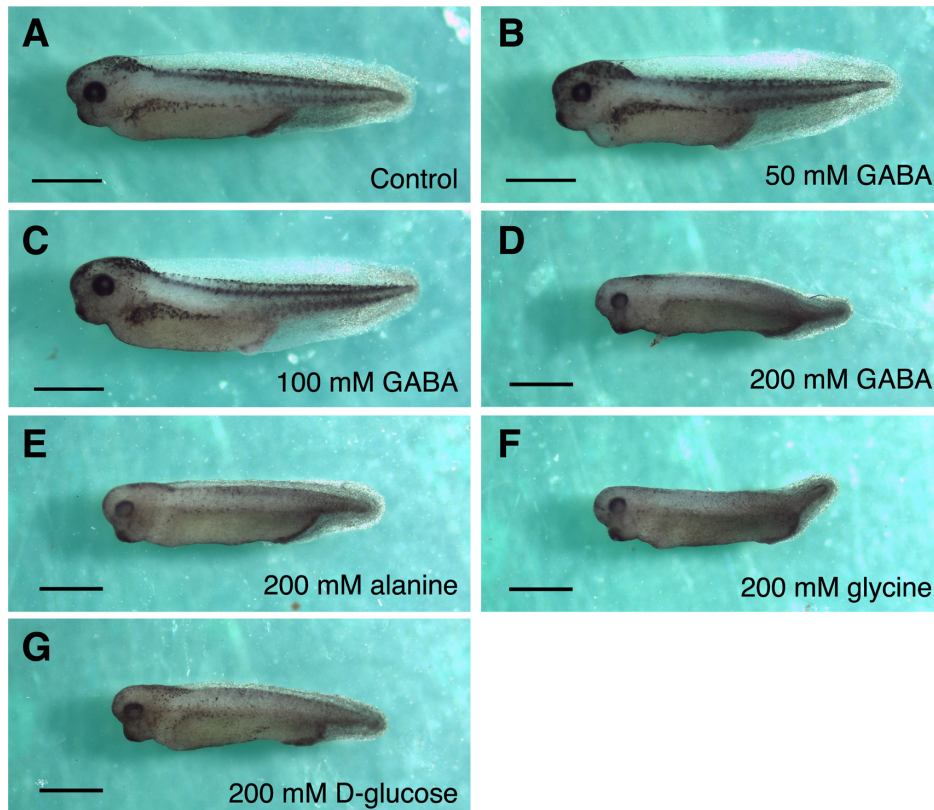
**Axis elongation during *Xenopus* tail-bud stage is regulated
by GABA expressed in the anterior-to-mid neural tube**

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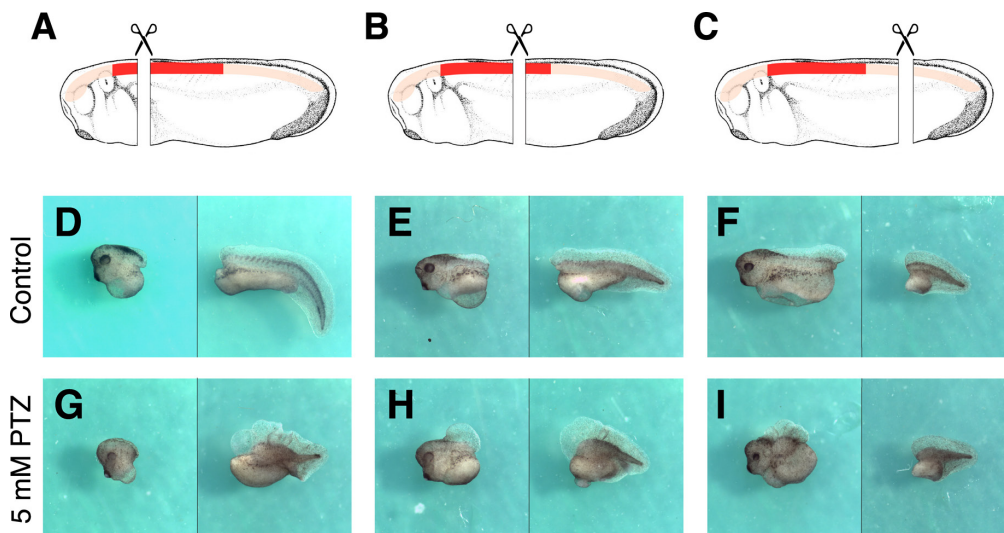
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Supp. Fig. S1. GABA treatment does not lead to any phenotypic effects. (A) Control embryo at stage 38. (B-D) GABA-treated embryos. (E) Embryos treated with 200 mM of alanine. (F) 200 mM of glycine. (G) 200 mM of D-glucose. No phenotypic effect was observed in the cases of 50 mM (B) and 100 mM of GABA (C). A shrinkage of tail and larval fin was observed in embryos treated with 200 mM of GABA, but the same effect was also observed in embryos treated with other reagents (E-G). We concluded that these morphological changes were induced by osmotic pressure. Scale bars represent 1 mm.



Supp. Fig. S2. PTZ treatment is very effective for dissected embryo containing *gabr*- and *gad1*-overlapped regions. (A-C) Schematics represent the positions of embryo dissections; at anterior (A), middle (B), and posterior positions (C). Embryos were cut with a single edge razor blade in 1 x SS, washed with 1 x SS, and cultured. Red regions indicate *gabr*- and *gad1*-overlapped region (GGR) in the neural tube. Faint red regions indicate the rest of the neural tube. (D,G) Lateral views of the explants dissected at the anterior position in control (D) and 5 mM PTZ-treated embryo (G). (E,H) Lateral views of the explants dissected at the middle position in control (E) and 5 mM PTZ-treated embryo (H). (F,I) Lateral views of the explants dissected at the posterior position in control (F) and 5 mM PTZ-treated embryo (I). Left and right panels show anterior- and posterior-half embryos in each figure (D<I), respectively. The number of inhibitions of axis elongation in PTZ-treated explants compared to control was 0 in anterior part (n=10) and 8 in posterior part (n=10) in G, 9 (n=9) and 8 (n=8) in H, 10 (n=10) and 0 (n=9) in I.