



**Supplementary Movie S1:** Colocalization of *dbx1b* transcripts (red) and canonical Wnt reporter activity (green) in the presumptive dorsal habenulae of a *Tg(7xTCF-Xla.Siam:GFP)* <sup>ia4</sup> embryo at 35 hpf, with GFP detected by immunofluorescence. The movie is a Z-stack through 49 sections at 0.3 μm intervals along the dorsoventral axis (from dorsal to ventral then back to dorsal).

50.0 μm