

Supplementary legends

Supplementary Video 1. PLM cell migration in uninjected wild type embryo.

A time-lapse imaging of uninjected *fli1:GFP; phldb1:Gal4-mCherry* double transgenic embryo. The video was captured from 14hpf onwards. The embryo is shown in a dorsal view, with head to the left. Elapsed time is shown at the top right.

Supplementary Video 2. PLM cell migration in *jam1a* MOatg-injected embryo.

A time-lapse imaging of *fli1:GFP; phldb1:Gal4-mCherry* double transgenic embryo injected with *jam1a* MOatg. The video was captured from 14hpf onwards. The embryo is shown in a dorsal view, with head to the left. Elapsed time is shown at the top right.

Supplementary Video 3. PLM cell migration in *jam1a* MOex7-injected embryo.

A time-lapse imaging of *fli1:GFP; phldb1:Gal4-mCherry* double transgenic embryo injected with *jam1a* MOex7. The video was captured from 14hpf onwards. The embryo is shown in a dorsal view, with head to the left. Elapsed time is shown at the top right.

Supplementary Video 4. PLM cell migration in *jam2a* MO-injected embryo.

A time-lapse imaging of *fli1:GFP; phldb1:Gal4-mCherry* double transgenic embryo injected with *jam2a* MO. The video was captured from 14hpf onwards. The embryo is shown in a dorsal view, with head to the left. Elapsed time is shown at the top right. It should be noted that *jam2a* morphants show torsion in the development of the left-right body axis.

Supplementary Video 5. PLM cell migration in *jam2a* MOex5-injected embryo.

A time-lapse imaging of *fli1:GFP; phldb1:Gal4-mCherry* double transgenic embryo injected with *jam2a* MOex5. The video was captured from 14hpf onwards. The embryo is shown in a dorsal view, with head to the left. Elapsed time is shown at the top right.

Supplementary Table 1. Effects of morpholino oligonucleotides.

Supplementary Table 2. Primer sequences for cDNA cloning, RT-PCR, and qPCR