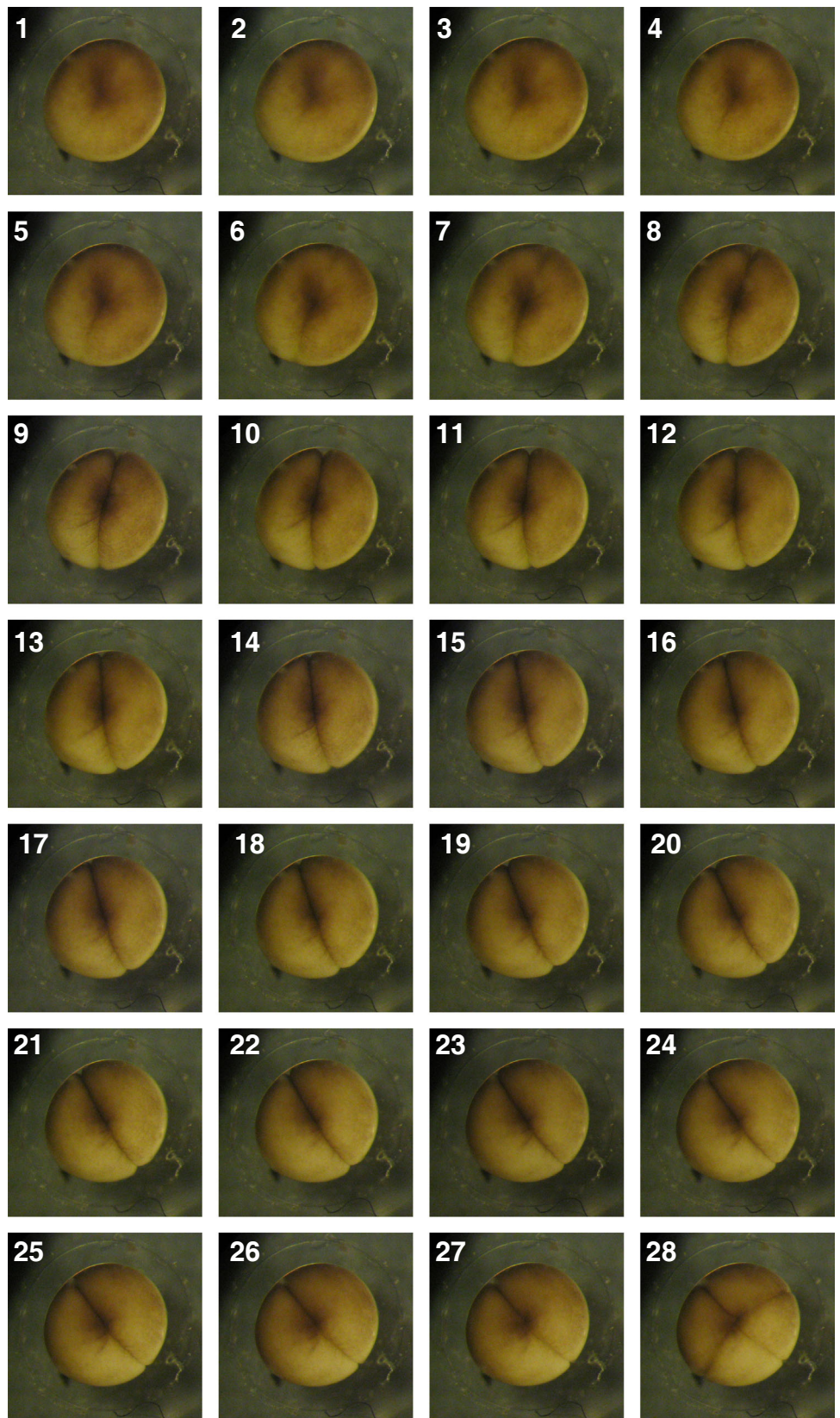


SUPPLEMENTARY MATERIAL

corresponding to:

**Rotation in *Xenopus laevis* embryos
during the second cell cycle**

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The serial microphotographs (Nos. 1-28) demonstrate the "second rotation" in one *Xenopus laevis* embryo. We found that such rotation, which we termed the second rotation, took place during the second cell cycle in about 38% of *Xenopus laevis* embryos. It started approximately during the appearance of the first cleavage furrow and proceeded clockwise or counterclockwise around the vertical axis. Rotations lasted for 5-30 minutes, i.e. up to the beginning of the third cell cycle. The mean rotation angle was 36.4° , with a maximum rotation of about 80° . The nature of the second rotation is unknown till now. It may be a rotation of whole embryo or rotation of embryo cortex together with developing first furrow. We suppose that the latter is more probable. The second rotation which can be seen in serial images (Nos. 1-27) proceeds counterclockwise around the vertical axis. This rotation begins when the first cleavage furrow arises and lasts for all the second cell cycle (about 30 minutes), up to the second cleavage furrow appearance (No. 28). The angle of this rotation is about 74° . (Intervals between Nos. 1-24 are about 1 minute and between Nos. 24-28 are 2-3 minutes).