Contents

ACCOMPANYING MOVIES

Movies are freely available online at www.cshprotocols.org/imaging.

CHAPTER 15

Visualizing Cell Contacts and Cell Polarity in *Caenorhabditis elegans* Embryos

MOVIE 15.1. Contact between the C blastomere and the ABar blastomere directs the spindle orientation of ABar division in a wild-type *Caenorhabditis elegans* embryo. (*Left*) Contact between the C blastomere (membrane near contact outlined in blue) and the ABar blastomere (membrane near contact outlined in green). Focal depth (18 µm) of greatest contact is shown. (*Right*) Shortly after contact between the C and the ABar blastomeres, the mitotic spindle of the ABar blastomere (right line) is shifted toward the contact resulting in a cell division that is perpendicular to orientation of division of the neighboring ABpr blastomere (left line). Focal depth is 7.5 µm.

MOVIE 15.2. Disruption of the fate of the C blastomere using *pal-1(RNAi)* knockdown results in delayed and minimal contact between the C and the ABar blastomeres before division of ABar causing the ABar spindle to be misaligned. (*Left*) Contact is minimal and is delayed between the C blastomere (membrane near contact outlined in blue) and the ABar blastomere (membrane near contact outlined in green). Focal depth (14 µm) of greatest contact is shown. (*Right*) In lieu of a polarizing signal from the C blastomere, the ABar blastomere (right line) adopts the default spindle orientation and divides parallel with the ABpr blastomere (left line). Focal depth is 7 µm.