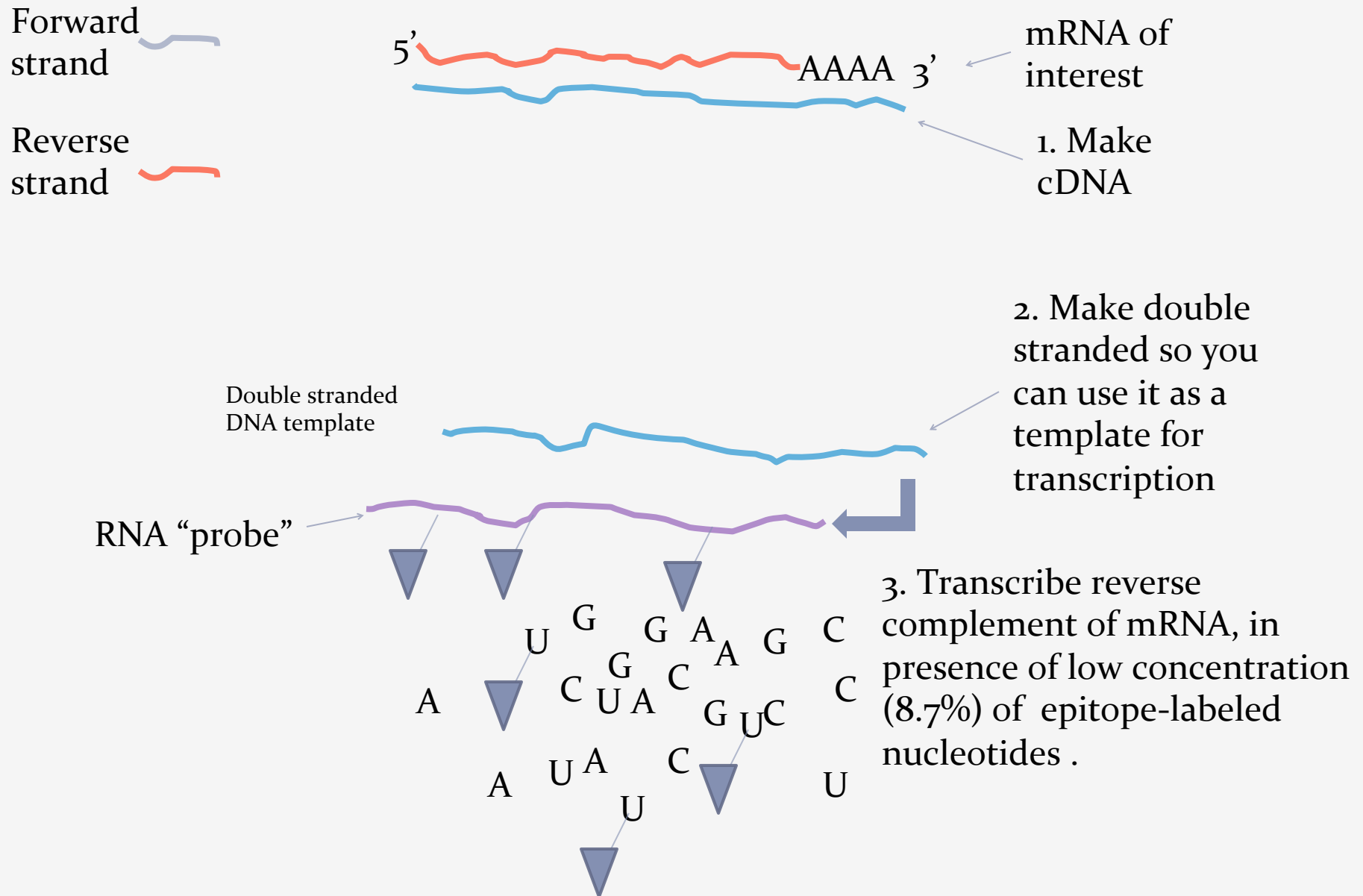
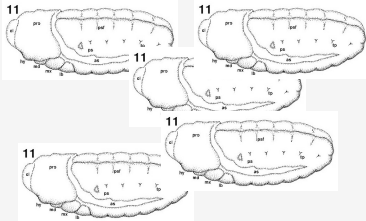


Make reverse complement probe in vitro

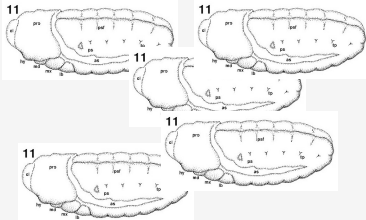


In situ: use mRNA probe to visualize time and place of gene expression (mRNA)

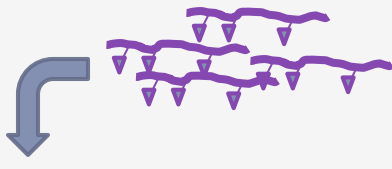


1. Live fly embryos

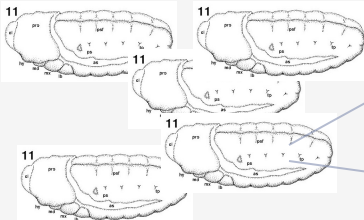
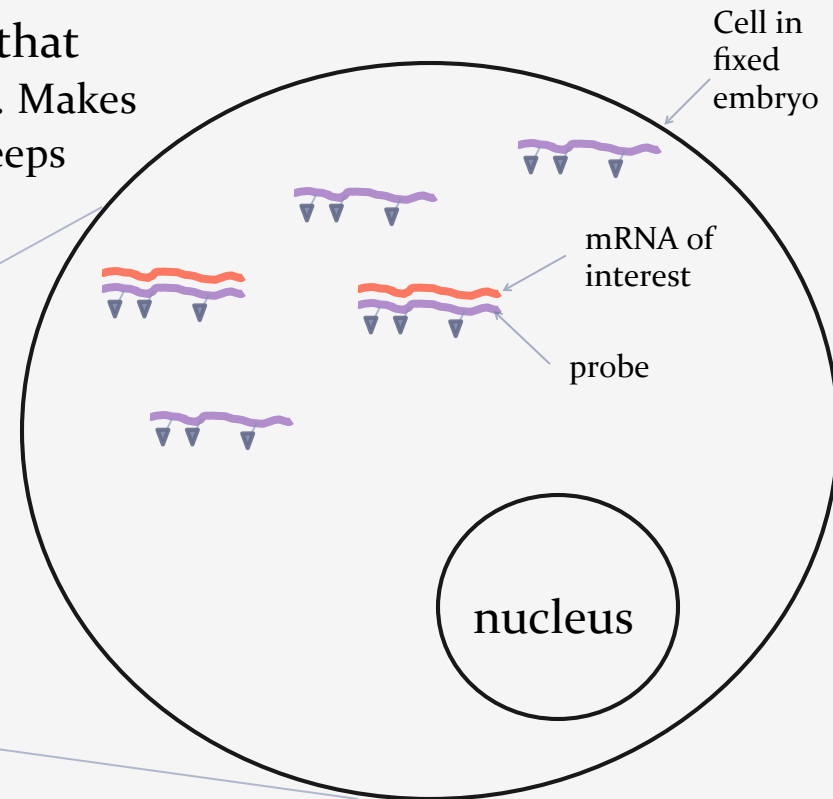
formaldehyde



2. Fix tissue with chemicals that cross-link proteins together. Makes tissue “jelly-like”, less fragile, keeps mRNA in place

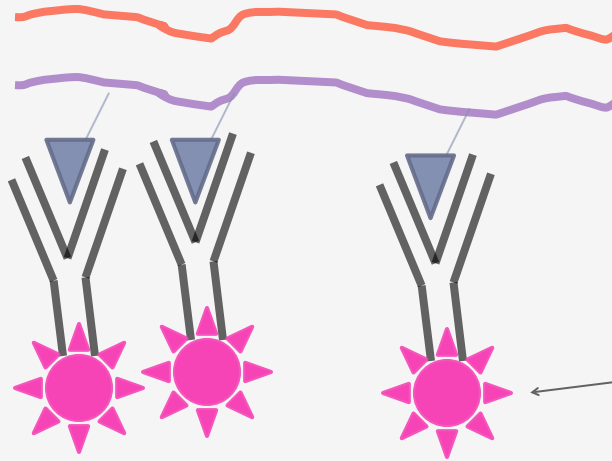
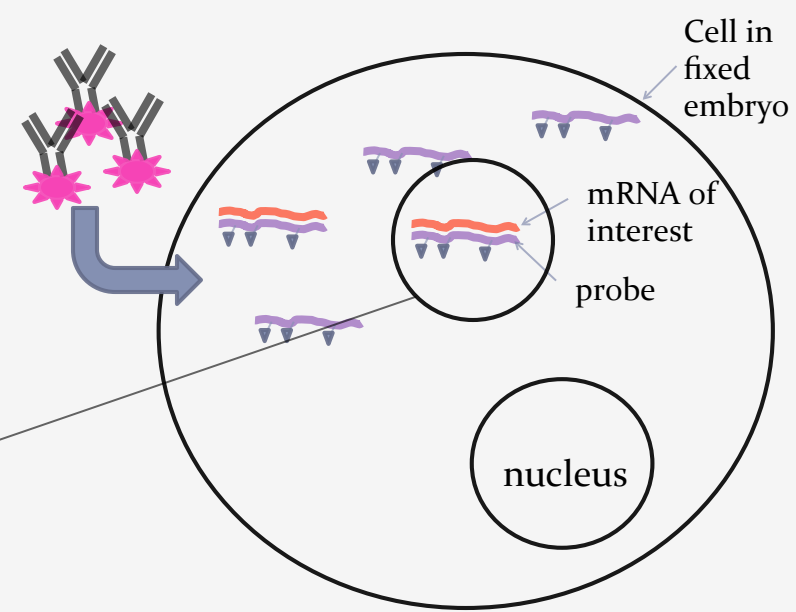


3. Add probe to fixed tissue



4. If a cell is expressing the mRNA of interest, the probe anneals to it.

5. Add antibody that recognizes epitope-labeled nucleotide on probe



6. Antibody has fluorescent label attached to it for visualization. Cells that are expressing the gene of interest will therefore fluoresce.

