



FIGURE 9.27. The formation of the *Caenorhabditis elegans* vulva involves a series of signaling events. In the L3 stage larvae, the anchor cell (AC) secretes the *lin-3* protein, which controls the development of the three closest ectodermal cells P5.p, P6.p, and P7.p. The cell that receives the highest level of signal, P6.p, adopts the primary fate and the other two cells adopt a secondary fate. This signaling pathway ultimately affects the transcription of a number of genes within these ectodermal cells and thus controls their fate so that they undergo a specific pattern of division and differentiation to ultimately form the vulva in the proper position and with the proper morphology.

9.27 top, redrawn from Hall D.H. et al., *C. elegans Atlas*, Fig. 8.27B, © CSHLP, www.cshlpress.com; 9.27 bottom, redrawn from www.wormatlas.org/handbook/reproductivesystem/reproductivesystem1.htm