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The Caenorhabditis elegans lin-4 and let-7 genes encode small RNAs that bind to complementary sequences in the 3' untranslated region of various developmental genes. Both genes control developmental timing, with *let-7* driving a transition from late larval to adult cell fates. In the 2 November Nature, Pasquinelli *et al*. report that homologs of *let-7* (but not *lin-4*) are found in a wide range of bilaterian animals, including flies, abalone, sea urchins, sea squirts, zebrafish, frog and human (*Nature* 2000, **408:**86-89). The timing of *let-7*'s appearance suggests it may share a developmental function in these other organisms. In flies the *let-7* RNA appears at the late third instar, just before metamorphosis, and in the zebrafish it appears between 24 and 48 hours after fertilization. The *let-7* sequence is not evident in unicellular organisms or plants.

References

1. The *C. elegans* heterochronic gene lin-4 encodes small RNAs with antisense complementarity to lin-14.

2. The 21-nucleotide let-7 RNA regulates developmental timing in *Caenorhabditis elegans*.

3. *Nature*, [http://www.nature.com/nature/]