may be indicative of CO freezing out onto dust grains, it might also indicate that the gas is depleted relative to the dust (*1*), the opposite effect of the gas enrichment expected if dust grains are forming planetesimals.

Besides the concern regarding the habitability of terrestrial planets in planetary systems without a Jupiter to eject killer comets (*2*), there was the concern of whether or not giant planets actually existed elsewhere. At least one dedicated search had yielded no evidence for Jupiter-mass extrasolar planets (*3*), raising the chance that our solar system happened to be anomalous in containing such a massive planet, thereby calling into question any parallels between the solar system and extrasolar planetary systems.

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Tail Evolution

Elizabeth Pennisi and Wade Roush (Special News Report, 4 July, p. 34), commenting on the elegant experiments of Billie J. Swalla and William R. Jeffery (Reports, 15 Nov. 1996, p. 1205) (*1*), which show that the development of a tunicate larva's tail is regulated by a single gene called *Manx*, state that the observations raise "the possibility that a single genetic change could be responsible for the innovation that led to a tail in primitive vertebrates." This seems to extrapolate beyond the conclusions of the original paper. Embryos of species with tailless larvae, such as *Molgula occulta* and a number of other species, possess all the different groups of progenitor cells of the tissues that form the tail in tadpole larvae (*2*). The difference between the two types is that one group of cells becomes differentiated and the tail subsequently becomes elongated in the species with tadpole larvae, whereas the differentiation is suppressed in the tailless larvae; the differentiation process appears to be regulated by the *Manx* gene. So the evolution of the chordates has likely involved not only the gene for differentiation and elongation of the elements of the tail, but also a series of genes regulating the formation of (and the cell groups that may become) tail muscles, chorda, and notochord with all the well-known interactions between these tissues.

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Permian Pollen Eating

The Random Samples item "Permian pollen eaters" (16 May, p. 1035) provides a stimulating account of the discovery by Russian paleobiologists Alexander Rasnitsyn and Valentin Krassilov of identifiable pollen in the guts of Early Permian insects. Paleobotanist William Chaloner is quoted as saying that inadvertent consumption of pollen could explain the occurrence of this pollen. One of the preserved insects is a