Zebrafish as Developmental Models

Marcia Barinaga (Research News, 5 Oct., p. 34) gives several reasons for suggesting that the zebrafish, an Asian cyprinid, may fulfill the need of developmental biologists for a vertebrate model. The reasons include previous genetic studies on the species, its brief (3-month) generation time and prolific egg production, and its transparent embryos. The genetic information about the species is a valid reason for adopting the zebrafish as a developmental model. The other reasons, hailed as recent "discoveries," are no more valid for the zebrafish than for a multitude of other small fishes. Many cyprinids and other small fishes have short generation times and are as prolific as the zebrafish. Virtually all fishes have transparent embryos. These characteristics are far from unique to the zebrafish and certainly are not "discoveries."

Although the emphasis during the past couple of decades on molecular biology has caused a serious decline in the availability of systematists and other organismal biologists, a few, including ichthyologists, can still be found. Rather than reporting such well-known phenomena as transparent fish embryos and short generation times in tropical cyprinids as "discoveries," I suggest that organismal biologists be consulted from time to time.

Although the scientific names of the species well known to molecular biologists, *Drosophila* and *Caenorhabditis elegans*, are given in Barinaga's article, the name of the zebrafish is not. In case no one knows whom to ask or where to look, it is *Brachydanio rerio*.

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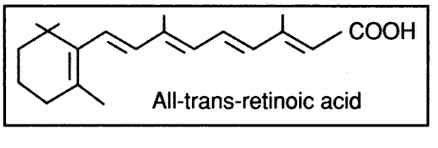
Erratum: In the Research News article "Mapping terra incognita (humani corporis)" by Barbara J. Culliton (12 Oct., p. 210), the illustration on page 212 showing the chromosome 1 polymorphism that segregates with blood group in the Donahue family was printed upside down.

Erratum: In the Editors' response to the letter by George Legge (16 Nov., p. 889), the third sentence should have read, "However, the Oxford group claims the distinction of being, as Frank Watt puts it, 'the first group to achieve 1-μm spot sizes and currently holds the state-of-the-art performance of 300-μm beam spot for 100 pA of beam.' "

Erratum: In the Research News article "The embryo takes its vitamins" by Michelle Hoffman (19 Oct., p. 372), three double bonds were omitted from the side chain of the structure shown on page 372 for all-*trans*-retinoic acid. The correct structure is shown below.



All-trans-retinoic acid