

Unfamiliar phyla

There are a number of well-known, well-established species used in basic and preclinical research. Rodents are staples of the research lab, as are easy-to-manipulate invertebrates like *Drosophila* and *C. elegans* and aquatic animals like the zebrafish. Larger animals, like nonhuman primates, feature frequently too, for their resemblance to the humans they are often intended to model.

The traditional animal models, however, represent a small fraction of the overall diversity in the animal kingdom. At the “edge” of the kingdom are less familiar animals that are making their way out of their marine habitats and into the lab. This month, we’re featuring some new faces: the ctenophores, the sponges, and the placozoans.

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Maternal microbiome metabolism

A human’s health as they age can be a reflection of their *in utero* environment. Nutrient availability to a developing fetus is critical, and increasing evidence suggests that the link is an epigenetic one—the enzymes involved in epigenetic modifications can be sensitive to dietary factors. But there are competing demands for nutrients in the body from the microbiome. Kymberleigh Romano and Federico Rey from the University of Wisconsin-Madison review the links between nutrients like choline, the maternal microbiome, and infant health and development, as well as the role animal models can play in teasing out these relationships.

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