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JULIA MAROUS STRAUT

A Zuni myth tells the story of Kiaklo, who, when sent by his people to scout northern lands, became lost in the hidden world beneath the snow. Cold, lame, and blinded by the white landscape, Kiaklo's very heart died; he cried continuously until he came upon a duck, whose cry was like his own, and he sought out her counsel. She assured him she knew of his country, so he followed her home on a worm that had transformed itself into a rainbow.

We may be worlds away from the mythological realm of the Zuni people, who reserved an honored place in their culture for animals, yet animals still have the power to, in a sense, point us to where we came from. Charles Darwin was one of the first naturalists to appreciate the notion of an animal model for the study of the human condition. In 1872, he wrote a book that remains fresh for those with an interest in comparing emotional expression between animals and humans to illuminate core themes in human behavior—themes that have been conserved through evolution and not been confounded by social structure and culture. Here is Darwin on cats, when terrified: [*they*] *stand at full height, and arch their backs in a well-known and ridiculous fashion …. the hair … becomes erect. … I am inclined to believe that, in the same manner as many birds, whilst they ruffle their feathers, spread out their wings and tail, to make themselves look as big as possible, so cats stand upright … arch their backs … and erect their hair*. Does this not bring to mind colleagues who, anxious about their standing among their peers, "puff themselves up"?

The advances made by scientists driven to learn what other beings can tell us sound like the makings of modern myths: Imagine—fish may help repair a heart condition in infants. The zebra fish has the facile genetics of a fruit fly, but, like us, it is a vertebrate and shares many of our key genes. A particular zebra fish mutant has been found with diminished blood flow through its aorta. Researchers have identified a similar, if not identical, mutation that gives rise in human infants to coarctation of the aorta. One can imagine a gene-based screening to ensure recognition of the need for surgery at the earliest possible time. Even more fantastic—might a worm reveal secrets of long life? *Caenorhabditis elegans*, the worm which was the subject of last year's Nobel Prize, may be our best model for understanding aging. Amazingly, worms with a mutant daf-2 gene live twice as long as normal worms. The mutation allows them to outlive unfavorable environments (e.g., no food) and postpone reproduction in such environments. These phenomena seem to involve the insulin pathway. Again, a seemingly simple organism will teach us much about human biology and disease.

In this issue, we describe the establishment of our facility for zebra fish research. In fact, we are investing much thought, effort, and monies in quickly developing one of the nation's leading such facilities, with plans for 10,000 fish tanks and a half-dozen principal researchers ("zebrafishermen") in Biomedical Science Tower 3, the extraordinary research building we're now constructing. Next in line for a major new effort in developmental biology here will be that wiggly Nobel laureate, *Caenorhabditis elegans*. As the worm turns, so will we!

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