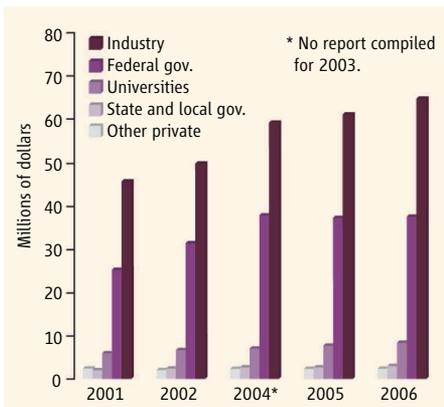


Health Research Funding: No Relief in Sight

Some policy wonks have suggested that foundations and other private sources will compensate for the flat National Institutes of Health (NIH) budget (*Science*, 11 May, p. 817). That's wishful thinking, says Research!America, a nonprofit group in Alexandria, Virginia, that tracks U.S. health research funding. Its latest analysis (below) shows that nonindustry private funding represented 2% of the \$116 billion spent on U.S. health research in 2006 and has been "completely flat" since 2001, says Research!America policy analyst Stacie Propst.



Spending by industry has risen slightly since NIH's budget stalled at about \$29 billion after 2004, but Propst predicts a dip because industry research funding typically follows federal patterns with a lag of a few years. The proportion of each U.S. health care dollar that now goes to research is 5.5 cents and falling, Propst adds; meanwhile, countries such as the United Kingdom and Singapore, although still behind the United States, are expanding their investments. "The trends are not good," says Research!America President Mary Woolley.

Filet of Zebrafish



Long a favorite of developmental biologists, the zebrafish is now catching on with researchers studying cancer, drug addiction, and numerous other conditions.

A new anatomical atlas for this scientific school is FishNet from the Victor Chang Cardiac Research Institute in Sydney, Australia.

The reference, which features 36,000 images captured using optical projection tomography, is the first to detail the fish's structure from embryo to adult. For each stage, visitors can call

up lengthwise or cross-sectional slices, many of which include labels that pinpoint nascent organs and other features. Additional image sets highlight the developing nervous system and the skeleton. >>

www.FishNet.org.au

Crisp, With a Hint of Calculus

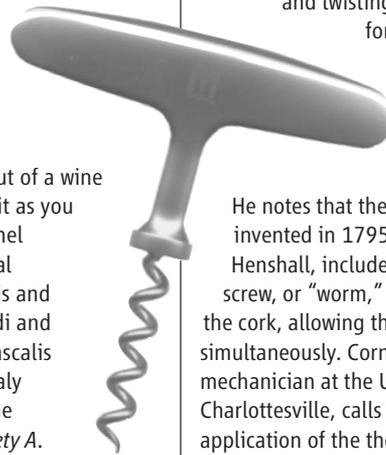
It's official: A cork will come out of a wine bottle more easily if you twist it as you pull. That's what physicist Michel Destrade of the French national research agency, CNRS, in Paris and engineer Giuseppe Saccomandi and mathematician Riccardo De Pascalis of the University of Lecce in Italy reported last week online in the *Proceedings of the Royal Society A*.

The team analyzed the problem to underscore that solids can deform in

counterintuitive ways. For example, they show that a cork can twist internally even if it is pulled straight up. Such "secondary deformations" should not be overlooked, Destrade says. As a sidelight, the team also showed that pulling and twisting extracts the cork with less force than pulling alone.

That result won't surprise enophiles, says Rajendra Kanodia, proprietor of the Web site Corkscrew.com.

He notes that the first patented corkscrew, invented in 1795 by Englishman Samuel Henshall, included a disk just above the screw, or "worm," that butts up against the cork, allowing the user to twist and pull it simultaneously. Cornelius Horgan, an applied mechanician at the University of Virginia, Charlottesville, calls the analysis "a very nice application of the theory of nonlinear elasticity," which is currently undergoing a renaissance with its applications to biological materials.



No Mean Cat Feat

Researchers working in central China have photographed one of the world's most poorly studied mammals, the Chinese mountain cat. First described by scientists in 1892, the cat (*Felis bieti*) is known only from a few skins in museums and six live animals in Chinese zoos, says Jim Sanderson, a mammalogist and founder of the Small Cat Conservation Alliance. In May 2003, Sanderson and colleagues Yin Yufeng and Drubgyal (his single Tibetan name) set out to find it in the wild. The effort paid off this summer, when their camera traps on the Tibetan Plateau in northwestern Sichuan Province caught eight photos of the cats hunting at night. Sanderson hopes the images will encourage conservation of the cat.

