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## **ScienceShots**

Winter's end. NASA's Hubble Space Telescope has captured the sharpest images yet of the erstwhile planet Pluto. Synthesized from hundreds of individual photos snapped in 2002 and 2003, the images show that Pluto's appearance is changing remarkably quickly, as the dwarf planet makes its 248-year orbit of the sun. Compared with earlier images taken from the ground, the Hubble shots show that Pluto grew significantly brighter between 2000 and 2002. That change may have been triggered by temperature increases, which would have vaporized carbon dioxide ice on the dwarf planet's surface, scientists speculate. They expect to learn more about the phenomenon when NASA's New Horizons probe arrives in 2015. (Photo: NASA/ESA/M. Buie-Southwest Research Institute)

• **Bug repellent.** White horses have a tough time in the wild. They're prone to skin cancer, and they stick out to predators. But they do have one advantage: They attract far fewer blood-sucking horseflies than do brown or black horses. The reason has to do with physics, researchers report online 3 February in the *Proceedings of the Royal Society B*. The flies home in on polarized light--light whose electric field vibrates in a single direction--which a horse's glossy coat reflects in abundance. But a white horse's pale hide and hair also reflect large amounts of non-polarized light, scrambling the signal that otherwise says "I'm tasty" to hungry horseflies. (*Photo: Photos. com*)

• Crystal trophy. Growing crystals of proteins requires skill, perseverance, and imagination. Witness the first crystallization of a retroviral integrase enzyme, which HIV uses to infect human cells. Researchers led by biochemist Peter Cherepanov of Imperial College London attempted to crystallize it 40,000 times. Eventually, they crystalized the integrase from prototype foamy virus, which they contend closely matches the enzyme used by HIV. Drugs that thwart this enzyme are highly effective, but the new work, published online 31 January in *Nature*, offers the first explanation for how these inhibitors actually work. The researchers hope the new insights will lead to even more effective treatments. (*Photo: Hare* et al., Nature, *Advanced Online Publication (January 2010)*