BY THE NUMBERS

655,000 Estimated number of worldwide malaria deaths in 2010, a 5% reduction over 2009, according to the World Health Organization's *World Malaria Report* issued this week.

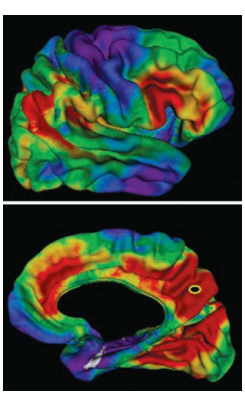
10% The amount by which Cancer Research UK will cut its annual £330 million research budget over each of the next 3 years in response to declining donations.

$388,375 Amount paid at an auction for the Apollo 13 checklist of commander James Lovell, which includes his handwritten calculations. It's the second most expensive space item on record, after a $2.9 million Vostok 3KA spacecraft sold last April.

grown or introduced to the United States only once or twice, Schal said last week at the annual meeting of the American Society of Tropical Medicine and Hygiene in Philadelphia. There were "astoundingly" few genetic differences within populations, however, indicating a high inbreeding rate that allows a single female to start a new population. **http://scim.ag/bedbugorigins**

Connected Brain Regions Grow Up Together

Brain regions that work together grow together. The brain is more than the sum of its parts, and connectivity is key to its many functions. To look for evidence of how that connectivity develops, Armin Raznahan, a child psychiatrist and neuroscientist at the National Institute of Mental Health in Bethesda, Maryland, and his colleagues analyzed magnetic resonance imaging scans of brain anatomy from 108 healthy children who had had at least three scans taken between the ages of 9 and 22.



In sync. Coordinated maturation in some regions of the brain.

The researchers calculated the thickness of the cerebral cortex, the brain's outermost layer of tissue, which is involved in virtually every aspect of cognition and behavior. In general, the cortex thickens in early childhood and thins in adolescence or adulthood. These changes occurred simultaneously in brain regions that talk to each other a lot, such as areas of the temporal and frontal cortex involved in language, reasoning, and decision making, he and his colleagues reported last week in *Neuron*. In contrast, parts of the cortex involved in narrowly focused tasks, such as making sense of sights and sounds or telling muscles what to do, appear to mature more independently. The work could have implications for understanding various puzzles in neuroscience, such as what goes wrong in autism or why adolescent boys are prone to risky behavior, says Raznahan. **http://scim.ag/brainconnection**

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Random Sample

Earwax from a gray whale.

Tracking Contaminants in Whales—Using Their Earwax

Hold the giant Q-tip: The waxy buildup in a whale's ears may contain interesting data about its exposure to contaminants. A wall of blubber and muscle protects whales' ears from seawater, sealing the wax inside. The wax plugs are made up of laminated layers that can be matched roughly to a whale's age, like tree rings—and those layers can also be the repository of chemicals from the surrounding ocean.

Graduate student Eleanor Robinson, with environmental scientist Sascha Usenko and biologist Stephen Trumble, all at Baylor University in Texas, have worked out an analytical method to quantify the compounds sequestered in each wax layer. They use earplugs taken from dead whales (the earwax harvesting must be done posthumously, because marine mammals are protected by U.S. law).

Last month at the North American meeting of the Society of Environmental Toxicology and Chemistry in Boston, Robinson reported the team's first data, from an earwax plug from a whale that died in 1969 along the California coast; the plug ended up in the Smithsonian Institution's collection. The 6-centimeter-long earplug included a decade's worth of data and yielded small amounts of the pesticide chlordane, banned in the United States in 1988, as well as PCBs. The concentrations of chlordane decreased over the years, whereas the levels of PCBs remained relatively steady throughout the whale's life.

Unfortunately, the analytical method destroys the sample, Robinson says. And although the team may eventually be able to extrapolate earwax data to a whale's total "body burden" of chemical contaminants, determining when and where the animal picked those contaminants up, and whether they affected its health, will be an entirely different ball of wax.

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