

TOOLS

Hearing Colors, Tasting Shapes

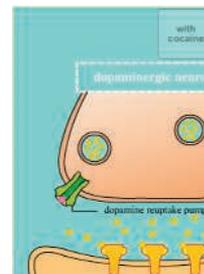
If you listen to the blues and actually see the color, you might have synesthesia, a neurological condition in which senses mingle. Potential synesthetes can assess their perceptions at the Synesthesia Battery, a standard set of questions from neuroscientist David Eagleman of the University of Texas Medical School in Houston. Researchers can send subjects who might have their sensory wires crossed to the site and receive the test results by e-mail. >>

www.synesthete.org

EDUCATION

Around the Brain in 20 Minutes >>

Cocaine occludes the molecular pumps that clear dopamine and other neurotransmitters from brain synapses (right). As a result, the molecular signals jolt neurons again and again, producing euphoria.



Students can learn more about how drugs tamper with synapses, how memory works, and other topics at *The Brain From Top to Bottom*, created by neuroscientist Bruno Dubuc of the Canadian Institutes of Health Research. The primer's eight chapters, which come in three levels of difficulty, explore not only the molecular and cellular mechanisms behind brain functions but also their psychological and social ramifications. In the pleasure and pain section, for example, you can step back for an overview of philosophers' thinking about these two sensory extremes. >>

www.thebrain.mcgill.ca/flash/index_d.html

IMAGES

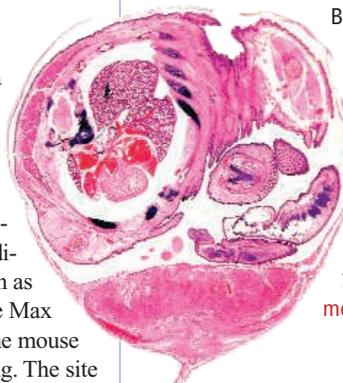
Wombs With a View

The placenta allows a mammalian mother to speed nutrients to her fast-growing embryos. Pathologists, evolutionary biologists, and other researchers can absorb information about the organ at Comparative Placentation from Kurt

Benirschke, a professor emeritus at the University of California, San Diego.

For more than 140 mammal species—from the house mouse to the African elephant—the site describes placental anatomy, gestation, implantation, and abnormalities. Accounts feature a wealth of images such as the cross section at left, which shows a 17-day-old mouse fetus in the uterus. >>

medicine.ucsd.edu/cpa



Send site suggestions to >>
netwatch@aaas.org

Archive: www.sciencemag.org/netwatch



RESOURCES

Species Pointer

Discover Life is a field guide and a biological encyclopedia rolled into one. Sponsored by the Polistes Foundation, a team of biodiversity mavens, teachers, and other experts co-founded by ecologist John Pickering of the University of Georgia, Athens, the site covers some 270,000 species from around the globe. Organized taxonomically, the All Living Things section provides descriptions, photos, and other information on particular species or groups such as the elephant ear sponges (*Agelas clathrodes*; above, a specimen from Florida). Offerings include original pages and compilations from other sites. The IDnature guides section holds interactive keys for North American birds, Jamaican land snails, and more than 20 other groups of organisms. The foundation hopes to amass range maps, identification keys, and other data for 1 million species by the year 2012. >>

www.discoverlife.org

DATABASES

Protein Geography

The heart and the eye depend on different lineups of proteins, and so do a mitochondrion and a lysosome. But scientists haven't compiled a comprehensive list of the proteins residing in each type of organ and organelle. Two databases announced earlier this month in *Cell* take a step in that direction. Using mass spectrometry and other techniques, researchers with the Mouse Proteome Project* at the University of Toronto in Canada pinpointed more than 3200 proteins in six organs. The project's database indicates whether each protein is present in four cellular compartments, such as the cytoplasm and mitochondria. The Organelle Map Database† from the Max Planck Institute for Biochemistry in Martinsried, Germany, focuses on the mouse liver and caches results from a method called protein correlation profiling. The site maps some 1400 proteins to 10 cellular locations. >>

* tap.med.utoronto.ca/~mts

† proteome.biochem.mpg.de/ormd.htm