

Inside Information

The general scheme of signal transduction is pretty simple—information outside the cell is conveyed inside to elicit a cellular response. Many extracellular signaling molecules interact with cell surface receptors and initiate an internal signal, without ever entering the cell. Others, like steroid hormones,

however, are invaders that dock with protein shepherds in the cytoplasm. These ligand-bound receptors move to the nucleus where they initiate transcription of genes important for many cellular processes. The Nuclear Receptor dataBASE (NuReBase) provides access to data on this fascinating group of receptor

proteins. Search options for retrieving gene sequences or gene families (estrogen receptors, for example) help to make NuReBase a valuable tool for researchers investigating the process of signaling.

@ www.ens-lyon.fr/LBMC/laudet/nurebase/nurebase.html

Eatabugaday

Humans have a love/hate relationship with insects. Universally, we adore butterflies, but aside from entomologists, no one likes ants at a picnic, house flies, or mosquitoes buzzing after dark on a warm summer night. We design chemicals to poison the pests and use UV lights and phero-



mones to entice them to fly into high voltage screens. We're not alone in having mixed feelings about chitinous creatures. Many plants depend on winged species for pollination, yet others see insects as dinner. The Carnivorous Plants web site tracks the "meat eaters" with an information-loaded set of pages. If you thought the Venus Fly Trap was the only carnivorous plant, you're in for a surprise. From the Pitcher plants of the southeast, to the *Darlingtonia* of the Pacific Northwest, carnivorous plants are surprising beauties to behold and friends to insect haters everywhere.

@ www.honda-e.com

Biocopia

Maybe you want a job in the biotech industry. Perhaps you are trying to troubleshoot a pesky experimental protocol in molecular biology. You might be searching for databases, educational content, or literature specific to microarrays, but no matter what aspect of biological science interests you, there's a good chance you'll find it at Biowww.net. Packed tightly into Biowww's hierarchically organized opening page are links to subject sites that span topics ranging from neurosciences and immunology to jobs and journals, as well as a methods database. There are resources for mass spectrometrists, tools for drug discovery, protocols for site-directed mutagenesis, and even euthanasia guidelines for lab animals. It doesn't matter if your bag is molecular biology, pharmacology, protein chemistry, immunology, electron microscopy, or cell biology, there's something at Biowww almost guaranteed to tickle your fancy.

@ biowww.net

Out of Africa

Originally developed as a part of Dr. Tulio de Oliveira's Ph.D. thesis at the University of Pretoria, BioAfrica has a mission—"to organize and distribute information on the HIV/AIDS subtype C epidemic in Africa." Numerous resources support this effort, including epidemiological information, country-

by-country fact sheets, a phylogenetic tree of 116 sequences, software for BLASTing, and miscellaneous pieces of information relating to the serotype's prevalence and infection rate. Visitors can download software products, perform proteomics analyses, and get miscellaneous information on workshops, maps, and reports. Like a one-stop shop, BioAfrica has something for everyone.

@ www.bioafrica.net

Choice Cuts

One of the surprises of the human genome was the relatively small number of genes discovered. We needn't fear a protein diversity shortage, however, as the slicing and dicing of mRNAs via alternative splicing gives rise to hundreds of thousands of different combinations. Keeping on top of the multiple forms of the 30,000+ delicately carved human (and other species') transcripts is the job of the Alternative Splicing Database (ASD) of the European Bioinformatics Institute, where visitors can examine alternate splice junctions in the AltSplice annotated database or sequences of alternative human exons and introns in the AltExtron database. From sequences to functional analyses to disease information, ASD has it covered.

@ www.ebi.ac.uk/asd/index.html

- Kevin Ahern - Please send web site recommendations to ahernk@orst.edu