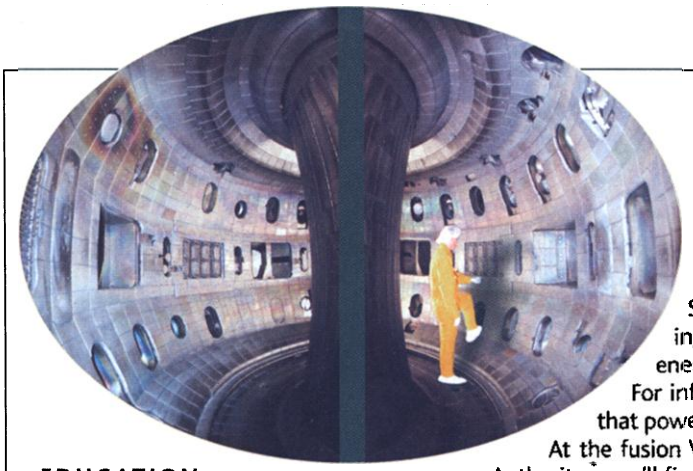
NETWATCH

edited by MITCH LESLIE



RESOURCES

Star Power

Scientists have long dreamed of building a fusion reactor that could harvest the energy released when hydrogen atoms merge. For information on efforts to harness the reactions that power the sun, try these two government sites.

At the fusion Web site of the United Kingdom Atomic Energy Authority,* you'll find a mixture of technical and general offerings. Researchers can access papers and reports dating back to 1995 or get the lowdown on experimental reactors at the authority's Culham facility. For novices, there's a primer on fusion history and science, a glossary, and an "Ask the Expert" feature. You can also peek inside a working fusion reactor during a 1998 run that set the world record for efficiency. High-speed footage captures a ghostly globe of high-temperature plasma as it swells and seethes.

Focused on researchers, this U.S. Department of Energy site† provides information on grants, a calendar of upcoming conferences, and a directory of workers at 25 organizations involved in fusion studies, from government labs and universities to private companies. A roster of more than 50 links allows you to follow the progress of fusion projects worldwide, such as the work at General Atomics in San Diego, where a technician checks out the DIII-D tokamak reactor (above).

* www.fusion.org.uk
† wwwofe.er.doe.gov

RESOURCES

The Bioterrorism File

The recent spate of anthrax attacks has made this collection of biowarfare documents essential reading. Among the resources posted by the Center for Civilian Biodefense Studies at Johns Hopkins University are fact sheets on likely bioweapons such as botulinum toxin and anthrax, as well as *The Journal of the American Medical Association*'s consensus statements on diagnosing and treating those infected with these agents. Although many of the documents predate 11 September, recent additions include a sobering postmortem on Dark Winter, an exercise held last June at Andrews Air Force Base near Washington, D.C., to gauge the country's preparedness for a smallpox attack.

www.hopkins-biodefense.org

EDUCATION

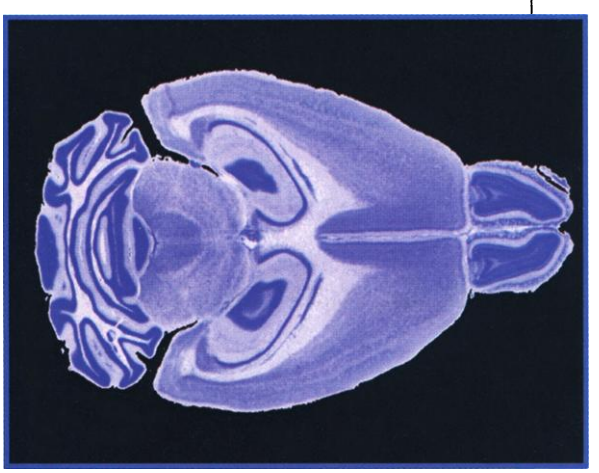
Name That Doc

Most people have heard of Down syndrome and Creutzfeldt-Jakob disease. But what do you know about John Langdon Down, Hans Gerhard Creutzfeldt, and Alfons Maria Jakob? Although we remember the diseases, the researchers who discovered them often slide into obscurity. Uncover the doctors and scientists behind more than 4500 medical eponyms at WhoNamedIt.com, an enlightening site whose entries run from Aaron's sign (pain in the thorax or upper abdomen associated with appendicitis) to Zuelzer-Wilson syndrome (a nerve disorder of the colon). Besides describing the diseases, syndromes, tests, and procedures, the site offers brief biographies of many of the 59 women and 1814 men who gave their names to science.

www.whonamedit.com

NET NEWS

Neuroscientists Link Up to Study Brain Diseases



The brain is a testament to the power of networking. Now neuroscientists are building their own high-speed network to battle brain diseases.

The Biomedical Informatics Research Network, which just received a $20 million grant from the National Institutes of Health, will connect topflight labs at sites that include Harvard, Caltech, the University of California (UC), and Duke. Participants will be able to compare and analyze images stored in any of the network's databases and to pool data to boost sample sizes. One of the novel aims of the project is integrating images made across different scales and using different techniques, such as electron tomography, magnetic resonance imaging, and various kinds of microscopy (above, a mouse brain image). To smooth the way for exchanging giant files, the network will rely on the speedy, capacious Internet 2.

The 3-year project will initially focus on two studies, says neuroscientist Mark Ellisman of UC San Diego, the principal investigator for the network's Coordinating Center. One group will scrutinize the brains of knockout mice that mimic multiple sclerosis and dopamine-scarcity diseases such as Parkinson's. The other team will hunt for early structural signs of disorders like Alzheimer's disease in human brains. As the project matures, Ellisman says, it will welcome more participants and expand to encompass data from genomic and protein studies. "My collaborators here at Duke are quite excited to be involved," says G. Allan Johnson, who heads the mouse brain collaboration.

birn.ncrr.nih.gov/birn

Send great Web site suggestions to netwatch@aaas.org

CREDITS: (TOP) GENERAL ATOMICS, SAN DIEGO; (BOTTOM) THE BIOMEDICAL INFORMATICS RESEARCH NETWORK