

TOUCHINGbase

● What's the frequency, Mendel?

The Online Mendelian Inheritance in Man (OMIM) database is a fairly comprehensive repository of information about genetic disease. But it has little information on the incidence and prevalence of specific genetic disorders. Writing in *Community Genetics* (vol. 4, 148–157; 2001), Layla Al-Jader and colleagues at the University of Wales College of Medicine in Cardiff describe the launch of a new website, The Frequency of Inherited Disorders Database, which aims to provide hard numbers on the frequencies of a variety of mendelian disorders. The searchable database has nearly 1,600 entries relating to 280 Mendelian disorders, and has an emphasis on neurological and neuromuscular disorders. The curators have gathered this information from the available literature—including yellowing conference proceedings—and have assessed its reliability, which depends on the size of the population examined, the possible ascertainment bias, the extent of the clinical characterization (or lack thereof), and other factors. The initial findings show why such careful annotation is needed: the reported incidence of Huntington disease can vary from study to study by an order of magnitude, even among populations in the same country. As the authors suggest, good estimates of incidence and prevalence may ultimately be used to direct the resources of government health departments and social services where they are most needed. This work in progress is accessible at <http://www.uwcm.ac.uk/uwcm/mg/fidd/>.

● "I'm a biologist and I'm OK"

According to the 2002 edition of *Jobs Rated Almanac*, a publication by the editors of *The Wall Street Journal*, the best job in the US in terms of low stress, physical safety, high compensation, lots of autonomy, and tremendous hiring demand, among other criteria, is "biologist." While some *Nature Genetics* readers may balk (especially about the low stress), think what it would be like to be a lumberjack, the profession that ranked at the bottom of the list as the nation's worst job. "The terrorist attacks and several related anthrax and chemical weapons fears are an obvious reason why biologists are in demand and receiving greater respect from their employers," writes Tony Lee, editor-in-chief of *The Wall Street Journal's* career site (careerjournal.com). "But several long-awaited developments have had a great impact, such as the recent completion of the human genetic map, which has made bioengineering possible, and generically altered agriculture, which is changing the ways in which the world's populations will eat for years to come." The jobs were analyzed according to several criteria using data from the US Bureau of Labor Statistics and the US Census Bureau, as well as studies from trade associations and industry groups. Biologist displaced financial planner, which was ranked as the nation's best-rated job in 2001 (and still made a strong showing at number 3 this year). If you are interested in a less stressful job, medical records technician, janitor and forklift operator are among the top in this area. The ratings are available at <http://www.careerjournal.com>.

● Watch out for those shark\$

The financial interests of companies versus the (sometimes) selfless pursuit of academics has been the topic of heated discussion in the field of genomics research since Venter announced it would sequence the human genome. The arguments show no signs of abating. A case in point is the cover of the abstract book of Cold Spring Harbor Laboratory's 2002 Genome Sequencing and Biology meeting. It depicts carefree surfers riding the waves on DNA helices while black sharks with white dollar signs on their fins swim ominously in the water.

● Marine genomics center sets sail

San Diego's Scripps Institution of Oceanography (SIO) is gearing up to launch a new center for genomics research. While the application of genomics tools to ocean research is being pursued at other institutes, "no one can boast our geography," says Charlie Kennel, who has been SIO director since 1998. Already one of the top oceanographic institutes, SIO is part of the University of California at San Diego (UCSD) and has close ties to the biotechnology companies in the La Jolla area. Marine life provides a largely untapped resource for understanding processes such as the global carbon cycle or how organisms can adapt to diverse environments. "We have studied two cyanobacteria, one that lives near the surface and one very deep in the ocean and found that the one near the surface has UV DNA repair genes but the one lower down lost them," says Brian Palenik, a biologist at SIO. Another SIO researcher has found that a symbiont of the sea organism *Bugula* produces anti-cancer compounds. By sequencing its genome, SIO scientists hope to identify all the genes responsible for these compounds, explains Palenik. Initially the new genomics center will be housed in the existing SIO building and the role of its director, who is being recruited, will be to build connections between SIO researchers, UCSD and the biotech community. Eventually the center will move to its own building.



Reproduced with permission from: Eddie Rubin, Flavio Robles and Cold Spring Harbor Laboratory



Scripps Institution of Oceanography

Gearing up to sequence sea creatures. The gutless hydrothermal vent tubeworm *Riftia pachyptila* contains bacterial symbionts inside its body. These microorganisms use the energy from reduced sulfur compounds to fix carbon dioxide and produce organic carbon. The symbionts cannot be cultured; one way to gain more information about their biology is by analyzing their genomes.