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TOUCHINGbase

PLoS makes a go of it

Most scientists have caught wind of the efforts of the Public Library of Sciences (PLoS) to make the world's scientific and medical literature a free public resource. One of the first actions of the coalition was to send an open letter to scientific publishers encouraging them to make their archival primary research articles free to the public. The letter, which was signed by over 30,000 scientists, encouraged publishers to take steps towards freer access to research published in their journals. Last December, the PLoS announced that it had received a grant for \$9 million from the Gordon and Betty Moore Foundation to begin its publishing venture. The coalition has gathered a prestigious group of editors, including Vivian Siegel (former editor of Cell), Barbara Cohen (formerly at Journal of Clinical Investigation, Nature and Nature Genetics), Mark Patterson (formerly at Trends in Genetics, Nature and Nature Reviews Genetics), Philip Bernstein (formerly at Journal of Experimental Medicine and Nature Biotechnology) and Hemai Parthasarathy (former editor at Nature), to launch PLoS Biology and PLoS Medicine. The launches are set for this fall and next spring, respectively. PLoS Biology will be accepting submissions as of May 1st. And, of course, the journals will be available online free of charge. To find out more about the PLoS, check out http://www.plos.org/.

Cancer meeting canceled

The annual meeting of the American Association for Cancer Research (AACR)—one of the main events on the scientific calendar—was canceled (or at least postponed) owing to concerns over Severe Acute Respiratory Syndrome (SARS). About 16,000 attendees were expected in Toronto on April 5-9 to discuss the latest in cancer research. Reports of almost 200 possible cases of SARS in the province of Ontario, however, led to concerns that visitors—including some of world's leading oncologists responsible for patient care—might be exposed, ultimately putting their patients back home at risk. According to a news story on biomednet.com, the US Centers for Disease Control, the World Health Organization and Toronto health authorities had assured meeting organizers that appropriate precautions had been taken. But some leading cancer centers advised their employees with clinical responsibilities to skip the meeting, especially in light of the health status of their patients, many of whom might be immunocompromised. A representative of Tourism Toronto estimated the cancellation will cause a \$20 million loss to Toronto's tourism industry. According to AACR president Margaret Foti, the meeting may be rescheduled for July or September. As Nature Genetics went to press, a new date and location was to be announced within a week or two.

Wrinkle-free

Would you rather be wrinkly or bald? Researchers at Washington University in St. Louis recently described the positional cloning of a spontaneous mutation in wrinkle-free mice (wrfr), grafted skin from which is defective in hair growth. The homozygous mutant mice have extremely thick and tight skin with no wrinkles, but don't throw out that wrinkle cream yet! Though this phenotype may be desirable among the Hollywood nip-andtuck crowd, wrinkle-free mice have difficulty breathing because the skin is too tight and have a defective barrier capability, which causes them to die hours after birth (Joan Rivers-are you paying attention?). The phenotype also happens to resemble that of a rare human disease called restrictive dermopathy. The wrfr mutation was localized to Slc27a4, which encodes fatty acid transport protein 4 (FATP4), the primary fatty acid transporter in the intestine thought to be important in dietary fatty acid uptake. When skin from wrinkle-free mice was grafted onto nude mice, fewer follicles developed and growth was impaired relative to grafts from control mice. Although the mechanism that leads to the skin defects is still unclear, the authors speculate that it could be due either to essential fatty acid deficiency in skin or to developmental defects in the skin from lack of essential fatty acids (because FATP4 is expressed in the placenta). The complete report appears in the Proceedings of the National Academy of Sciences Online Early Edition for the week of April 7, 2003.

Mutant of the Month

For the May MoM, we give you weissherbst (VICE-hehrbst; top). This little zebrafish (Danio rerio) carries a mutation in slc39a1, encoding the iron transporter ferroportin1 that delivers maternal iron stores from the yolk sac to the developing embryo. Both he and his wild-type counterpart (bottom) are stained for hemoglobin at embryonic day





Photos courtesy of P. Fraenkel

4. His name translates roughly to 'white autumn' or 'white harvest' and refers to rosé wines produced from a single grape variety. Like a rosé, this guy suffers from pigment envy. His anemia derives from defective hemoglobin production. Both mouse and human orthologs probably participate in placental iron transport and basolateral iron transport. Recently, individuals with hemochromatosis type IV were found to have mutations in the human ortholog, *SLC11A3* (*Nat. Genet.* 28, 213–214; 2001). And for you iron junkies—two Letters in this issue investigate the nature of iron overload in Hfe-deficient mice (See pages 97–101 and 102–107).

A final note on last months MoM, stargazer: curiously, the spike wave discharges that the mouse experiences are not directly associated with the head-tossing behavior for which he is named. We still prefer to think he has an interest in astronomy though.

Remembering Pauling's other Nobel

The fiftieth anniversary of Watson and Crick's determination of the structure of DNA has received much attention in the scientific and public domains this year. In examining the period of research that led to this discovery, invariably the point is made that Linus Pauling failed in his own attempts to resolve a structure of DNA. As James Crow reminded us in last month's issue (pages 449–450), at the time that Watson and Crick were able to see Rosalind Franklin's X-ray images, Pauling's passport was being held by US authorities. This year marks the fortieth anniversary of Pauling receiving the Nobel Peace Prize* for his efforts during that period to galvanize scientists in condemnation of the testing and proliferation of nuclear weapons. Pauling's efforts towards peace were manifested in his conviction that science bears an ethical responsibility to the world. In his 1963 Nobel lecture, he stated that the US was spending \$100 million per year on the development of biological and chemical weapons and that the USSR had embarked on similar programs. Pauling decried the insanity of such efforts and offered an all too prescient warning: "The hazard is especially great in that, once the knowledge [to use biological weapons] is obtained through a large-scale development program such as is now being carried out, it might well spread over the world and might permit some small group of evil men, perhaps in one of the smaller countries, to launch a devastating attack."

*The 1962 prize was reserved that year and awarded to Pauling in 1963.