ICHINGbase

More mice with hearing loss

The mouse has already contributed to the identification of genes for non-syndromic hearing loss in humansmutants paved the way to the discovery of mutations in human MYO7A, MYO15 and POU4F3 genes. A study by Qing Yin Zheng and colleagues (at the Jackson Laboratory and the University of Cincinnati; *Hearing Res.* **130**, 94–107; 1999) suggests that this list may be extended. Upon screening 80 inbred strains for auditory brainstem response (ABR) thresholds, they found that 19 had elevated thresholds before 13 weeks, whereas 16 showed 'late'-onset hearing loss. All hearing-impaired strains were able to hear better at younger ages, and their ABR wave patterns suggested that defects were due to aberrations in the peripheral, rather than central, part of the hearing system. Zheng et al. also found that four substrains of the 129 strain showed different levels of hearing impairment, which could confound interpretations of hearing loss in mutant mice with a 129 genetic background—something that should prick up the ears of those using mice to elucidate mechanisms of hearing impairment.

> Appointing pals increases the risk of cloning. You end up with too many devoted Dereks with a limited view of life.

-Yasmin Alibhai-Brown, on Lord Chancellor Derry Irvine's conviction of sex discrimination

Nkx3-1 and prostate cancer

Prostate cancer is the second leading cause of cancer death in North American men, but only a handful of genes—such as HPC1, MXI1, KAI1 and PTEN-have been associated with its onset and progression. Last month, Cory Abate-Shen, Michael Shen (of the Center for Advanced Biotechnology and Medicine, New Jersey) and colleagues reported that mice deficient in the homeobox gene Nkx3-1 display abnormal proliferation of the prostate epithelium, which increases in severity with age and is reminiscent of the preneoplastic condition (*Genes Dev.* **13**, 966–977; 1999). Furthermore, they show that *Nkx3-1* is the earliest known molecular marker of the prostate gland, demarcating the regions of the urogenital sinus epithelium that give rise to its lobes. Although Nkx3-1-deficient mice are fertile, their prostate glands show significantly lower numbers of mucin-producing cells and a reduction in secretory protein production. Hyperproliferation of the prostate epithelium is observed in mice both homozygous and heterozygous for the null Nkx3-1 allele, suggesting that loss of even one copy of Nkx3-1 can trigger abnormal morphological changes of the prostate. NKX3A, the human homologue of Nkx3-1, maps to a region of chromosome 8p21 that shows loss of heterozygosity in 60–80% of prostate tumours. While one report indicates that human NKX3A is not mutated in prostate cancer (Voeller, H.J. et al. Cancer Res. 57, 4455-4459; 1997), these findings suggest that mice may have a tale to tell when it comes to defining the molecular markers of prostate carcinogenesis.

● D.I.Y. home DNA testing The "Easy Answers™" kit, from DNA Security Inc., offers individuals a means of resolving questions of fatherhood, motherhood or identical twin sibship in the privacy of the home without involving an attorney, physician or medical facility. The cost of the DNA testing ser-vice, which is marketed over the Internet by Dallas and Fort Worth Mall (http://www.dfwmall.com/DNA/dna_testing.htm), starts at US \$280. The user is supplied with a kit for collecting buccal swab samples from relevant family members; the samples are then sent to the DNA testing facility and the results provided in the mail within a month. The results cannot, however, be used in legal proceedings, which require a documented 'chain of custody' (whereby someone witnesses the collection, packaging and shipping of samples, and the identity of all parties tested is verified). While home-based DNA testing may offer peace of mind for some, the possible implications of determining genetic identity surely warrant the support of suitable counselling. Nevertheless, the kit might be useful for those who would like to record their own DNA profile or that of a relative-for identification in the event of abduction, accident or disaster-or maybe just for fun!

Nurturing norms

Fed up with the lab, fed up with your colleagues? For some, the latest incarnation of the computer 'pet' may provide some relief. Creatures 2 (a program marketed by CyberLife Technology, Ltd.) allows you to "build relationships with the world's most advanced artificial life commercially available today". On the web, of course. Apparently, all that remains of the norn species, created by a "highly advanced scientific race called the Shee", are six eggs. The Shee couldn't be bothered to stick around,

and so you-and others who might purchase this game-are the norns' only hope. Like its electronic relation, Tamagot-

chi, the norn must be caretended. fully After taking a picture of its birth, you get to teach it how to speak and hunt for food (those who buy food at shops should think carefully about taking on this responsibility). Its

health is also of apparent concern, and it mustn't be

allowed to eat poisonous fungi or fall into oceans. Geneticists will be gratified to learn that norns pass their genes along to their offspring (assuming that you will be able to coach a norn through the mating ritual), a gene-splicing machine allows you to eliminate another species, and a "Genetics Editor" enables you to "tinker with the very building blocks of Albian life!" And when you tire of the screen, there's always the real world-albeit one with editors of lesser powers.

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