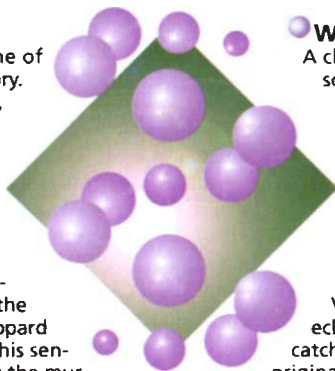


TOUCHINGbase

Forensics finds for the Fugitive

New DNA evidence has come close to settling one of the most infamous murder cases in American history. In 1954, Dr Sam Sheppard, a physician from Ohio, was convicted of murdering his pregnant wife, Marilyn, after police and public alike refused to take seriously his claims that he had been sleeping while his wife was stabbed (30 times in all), and then knocked unconscious when he heard his wife's screams and confronted the 'bushy-haired' assailant. The case gave rise to the successful television series 'The Fugitive', and more recently the Oscar-winning film of the same name (starring Harrison Ford). Although Sheppard was released from jail after serving ten years of his sentence, his son (who was seven and sleeping during the murder) has continued to search for evidence to exonerate his father. Last month, forensic DNA expert Mohammad Tahir announced that DNA from blood samples taken from the house did not belong to Marilyn Sheppard, but did match the DNA from semen samples at the crime scene. Previously, the police had believed that the blood was Marilyn's, as Sam Sheppard was not cut during the alleged assault. The new results indicate that a third person was present and likely killed Marilyn Sheppard. The identity of the murderer is not yet known, but additional DNA tests suggest that it could have been handyman Richard Eberling, who was washing windows at the Sheppard house around the time of the killing, but who has denied any knowledge of Sheppard's death. Eberling is currently in jail after being convicted for another murder.



Wild Type – Live at the Academy

A classical start that quickly segued into rock music soon had a somewhat staid crowd of science writers dancing the night away at the annual Washington DC Science Writers Association Christmas party at that prestigious music venue, the National Academy of Sciences. A closer look at the 'talent' on stage, however, revealed that the local Baltimore band, called *Wild Type*, was made up of some of the foremost biological scientists at Johns Hopkins University, including none other than Bert Vogelstein on keyboards. The band's repertoire is eclectic — Beatles to blues — but also includes some catchy original tunes (by Pat Morin and Bob Casero). Despite a rough start at the Academy, *Wild Type* quickly gelled into a tight groove, propelled by Ken Kinzler on drums and featuring rich vocals by Ellie Carson-Walter. Complementing the band's professional sound was a slick stage presence, including choreographed lighting and a smoke machine. One is left wondering when they have time to do research. According to one band member, "Bert is as demanding about us attending the weekly practices" as he is about quality of science; such dedication was evidenced by the cries of "encore" at the end of the gig. *Wild Type* is available for parties, barmitzvahs and your next grant-renewal celebration.

Wild Type: (left to right): Back row: Fred Bunz, Bert Vogelstein, Ken Kinzler, Chris Torrence. Front row: Greg Riggins, Pat Morin, Christoph Lengauer, Bob Casero, Ellie Carson-Walter and Victor Velculescu. (Photo credit Zuhair Kareem).

IMAGE
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REASONS

I am the best geneticist of all musicians and the best musician of all geneticists.

— DANIEL COHEN (*Genset*), former director of *Généthon* and co-founder of *CEPH*, quoted in *Science* on his new role with the French functional genomics company and his love of the piano.

When *Xist* no longer exists

Rudolf Jaenisch and colleagues at the Whitehead Institute have described the gene targeting of *Xist*, the gene on the long arm of the X chromosome that is expressed exclusively from the inactive X chromosome and plays a fundamental role in X inactivation (Y. Marahrens *et al. Genes Dev.* **11**, 156–166; 1997). The Whitehead group removed most of the structural portion of the *Xist* gene without disrupting the promoter or transcription of the truncated gene. Males with the mutated allele develop normally and are fertile. Females who inherit the mutant gene from the mother also develop normally, with the paternal X being exclusively inactivated. However, female mice inheriting the mutant *Xist* allele from the father die early in embryogenesis. In contrast to normal trophoblasts which only express the maternal X, the mutant trophoblasts featured expression from both X chromosomes, and as a result might disrupt the supply of nutrients and growth factors to the embryo itself. Nevertheless, Davor Solter and Grace Wei, in an accompanying minireview, conclude that many questions regarding counting mechanisms for X inactivation remain, and 'the problem of X inactivation in mammals remains as complex and tantalizing as ever'.

Cell appears to be engaged in some form of a 'tabloid journalism' circulation war with *Nature* and *Science* — to the benefit of nobody. Instead, it needs to develop a sense of social responsibility. Perhaps then it would achieve a status in the academic community equivalent to that of its 'competitors'.

— John Moore (Aaron Diamond AIDS Research Center), commenting in the *Journal of NIH Research on differences in journals' policies to allow authors of papers 'in press' to present data prior to publication.*

Intentional walks

The National Center for Human Genome Research has won a promotion to a fully fledged institute at the National Institutes of Health (NIH). The new name is the National Human Genome Research Institute, or NHGRI. Among the privileges associated with the new ranking is the belated inclusion of its staff in the NIH phone directory . . . Myriad Genetics has announced that, in collaboration with researchers at the University of Texas M.D. Anderson Cancer Center, it has identified a brain cancer tumour suppressor gene named *BNC1*. In common with other recent genomics company pronouncements on genes for diabetes and obesity, the news was issued in the form of a short press release aimed squarely at the business rather than the scientific community — a practice roundly condemned in a recent editorial in *Nature* (**384**, 389) . . . Researchers from the University of Sheffield and elsewhere have uncovered evidence that a specific genotype at the interleukin-1A/1B gene cluster on chromosome 2 is associated with severe periodontal (gum) disease. Kornman *et al.*, writing in the January issue of the *Journal of Clinical Periodontology*, found that 78% of middle-aged non-smokers with severe gum disease possessed the haplotype, suggesting that "some individuals, if challenged by bacterial accumulations, may have a more vigorous immuno-inflammatory response, leading to more severe periodontitis" . . . Three researchers — Peter Goodfellow, Robin Lovell-Badge and David Page — have been awarded the Amory Prize for Reproductive Biology by the American Academy of Arts and Sciences for their discovery of the gene for maleness. The Academy praises the trio for solving "one of the central problems in biology, namely how the two sexes form." Some might argue there is a little more work left to do.