

TOUCHINGbase

● Of mice and birds

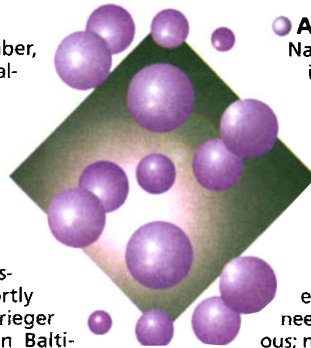
During a baseball game in Toronto last September, Roberto Alomar, the star second-baseman for the Baltimore Orioles, disgraced fans of America's game by spitting in the face of umpire John Hirschbeck while protesting a third-strike call. Alomar made matter worse when he claimed that Hirschbeck had not been the same person since his eldest son died in 1993 at age 7 from adrenoleukodystrophy (ALD), a rare but often fatal X-linked disorder of myelin formation featured in the film *Lorenzo's Oil*. Alomar, who was suspended for his actions, tried to make amends shortly thereafter by donating \$50,000 to the Kennedy Krieger



Roberto Alomar attempting to turn a double-play.

Institute in Baltimore for research into ALD—a sum that was matched by the Orioles. That money has evidently been put to good use; at a news conference held just before this year's All-Star game (which Alomar was appearing in for the eighth time), Kirby Smith and colleagues announced that they had successfully created knockout mice lacking the equivalent mouse ALD gene. "The mice could not have been created without the donations from Mr. Alomar and the Orioles", says Hugo Moser, the Institute's director of Neurogenetics (portrayed by Peter Ustinov in *Lorenzo's Oil*) who treated Hirschbeck's two sons. A pair of breeding mice have been shipped to France, where they will be bred and studied by Patrick Auborg's group in Paris. Meanwhile, Alomar, who shook hand with Hirschbeck at a game earlier this season, commented: "I am glad something good could come out of this incident. I sincerely hope . . . that a cure will be found soon."

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● A gene by any other name . . .

Naming something is a peculiar act—a name can imply identity, function, character, and for some, ownership. In *Log from the Sea of Cortez*, John Steinbeck went so far as to suggest that certain places 'emanate' names. A gene is a different entity altogether, as folk on the HUGO nomenclature committee will readily testify . . . while functional identity may inform a given gene name, the ego often pitches in, too. With an ever-increasing number of genes being discovered and re-discovered in new physical and functional contexts, the need for a systematic method of naming genes is obvious; not only does it avoid the tedium of having to give two or more alternative names every time the gene is mentioned, and of missing that critical paper in a literature search for want of the alternative name, it also ensures that people approaching gene function from different directions will have one less obstacle in their path—language. Nomenclature committees have been established to advise on gene names in different species; humans are lucky enough to have the HUGO nomenclature committee which is happy to advise on the naming of genes. Their website URL is <http://www.gene.ucl.ac.uk/nomenclature/> . . . where you will find guidelines, an up-to-date list of currently approved names (approaching 7,000) and links to websites on nomenclature for other genes. You will not find *HASH2*, a name proposed by a group from Amsterdam, nor *GOK*—'God Only Knows' (the function of this gene).

● A blow for APOE ε4

Failure to recover from a severe blow to the head may be due to *APOE* ε4, the allele predisposing to Alzheimer disease (AD), according to a preliminary study of professional boxers by researchers at New York Hospital-Cornell Medical Center (*JAMA*, **278**, 137–140 (1997)). Thirty boxers were clinically assessed for their degree of brain injury, level of boxing exposure and *APOE* genotype. 'High-exposure' boxers (12 or more professional bouts) with at least one copy of the *APOE* ε4 allele had a significant increase in brain injury compared with boxers who had equivalent exposure without the allele. Norman Relkin, one of the principal authors of the boxer study, believes that "in the future, there is the potential to use DNA-based testing to improve safety in sports". Although preliminary, these findings are "consistent with other work in the field", according to Richard Mayeux at the Sergievsky Center, Columbia University, whose team found evidence that the effects of serious head injury acts synergistically with *APOE* ε4 to give a tenfold increased risk of developing AD. Graeme Teasdale, James Nicoll and coworkers at Southern General Hospital, Glasgow, have conducted another clinical study, soon to be published. They followed the outcome of patients with head injuries and found that those patients with the *APOE* ε4 fared worse than those without. Increasing evidence that *APOE* ε4 confers a genetic susceptibility to the effects of a head injury will have an impact not only in the boxing ring, but also in other high-risk sports, including American football and ice hockey.

In a certain way, we humans clone ourselves . . . that to me is a more serious issue—how our propaganda, our social-psychological manipulation through the media, actually makes people behave as if they were clones.

—Ravi Ravindra, Dalhousie University, Canada

● Prostate progress

"What's the next big gene?"—a question journalists often ask when digging for a story on positional cloning. While the days of the monogenic monoliths are behind us, the polygenic puzzle has some big pieces which have yet to be pulled out of the box, prostate cancer being a prime example. Following up on the identification of a locus (*HPC1*) published last year by Jeff Trent and colleagues at the NIH, a group led by Kathleen Cooney at the University of Michigan Medical School reported statistical confirmation in an independent set of families in May's issue of the *Journal of the National Cancer Institute*. Others have tried and failed to replicate the findings; this may be due to a variety of factors, such as insufficient statistical power and different ages of onset. To overcome the problem of power, a consortium has now been established between several centres; it is co-ordinated by Jainfeng Xu of the University of Maryland. Its *raison d'être* is to pool data and resources so that loci may be more effectively mapped; a sensible arrangement, and lauded by Elaine Ostrander of the Fred Hutchinson Cancer Research Center, as a rare example of major competitors working together towards a common goal. Meanwhile, of course, cogs also whir behind closed doors, two of which belong to Genset and Myriad. In addition to assessing the extent to which the *HPC1* locus plays a role in prostate cancer, efforts are also underway to narrow the locus, identify the gene that belies it, and to collar additional loci, the identity of which are probably not too far off.