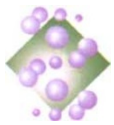

touching base

Dopamine Delivers

A paper in the April/May issue of *Molecular Psychiatry* offers support for the studies published in February's edition of *Nature Genetics* regarding the replicated association of the dopamine D4 receptor and the psychiatric trait, Novelty Seeking. Researchers at the University of California, Irvine, and the University of Toronto have found that children with attention deficit hyperactivity disorder (ADHD) are more likely to have the long repeat form (7-fold) of the receptor than healthy controls (G.J. LaHoste *et al. Molec. Psych.* **1**, 128–131; 1996). The authors compared the D4DR alleles of 39 affected children with appropriate controls, and found that 49% of ADHD patients possessed the 7-repeat form of the receptor, compared to just 21% of controls. There is also evidence that the patients with the longer repeat are more severely affected than those who do not. The authors point out that there are numerous similarities between ADHD and Novelty Seeking, although until the results are confirmed, co-author James Kennedy says he is "optimistically sceptical" about the findings. Several other groups are examining the thrill seeking claims in their own datasets.

British Biotechnology Boost

There are growing signs that all may not be lost with the British biotechnology industry. Therexsys, a gene therapy company founded in 1992 by Roger Craig, Frank Grosveld and Michael Dexter, reports that it has successfully raised more than £22 million in its second round of private financing — more than twice the sum it expected. (The first round, completed in 1993, raised a paltry £6.4 million by comparison.) The company, which is based in Keele, Staffordshire, says that the new money will be used to fund research and clinical programmes in oncology, vaccines, metabolic diseases (such as Gaucher's disease) and antivirals, based on its strategy of developing safe, non-viral based gene delivery systems. Therexys's first product for treating solid tumours *in vivo* is presently undergoing toxicology testing.

Meanwhile, a promising new genomics company called Gemini Research has been established that will focus on twin studies, using datasets such as the one set up by Timothy Spector at St Thomas' Hospital in London. The company hopes to gather data on as many as 10,000 people in the next few years, mostly non-identical pairs of twins, with the aim of measuring the genetic contribution to phenotypic traits in non-identical twins (and sib pairs) who have been brought up in the same environmental conditions.

Lagging strands

The chairman of Amgen, Inc., Gordon Binder, says that it is close to commencing human trials with its obesity drug, leptin, which it paid $20 million last year to the Rockefeller University for licensing rights ...

According to the *Washington City Paper*, the pristine new downtown offices of the American Association for the Advancement of Science and *Science* magazine have been experiencing a minor problem with rodents. Some staffers believe that the rats may have used the automated elevators to check out the *Science* suites on the top floor.

Evaluating DNA Evidence

A new report from the National Research Council's Committee on DNA Forensic Science concludes that new statistical approaches should be adopted for the purpose of estimating the likelihood that two unrelated DNA samples could match by chance. "Courts need to use the principles of population genetics to tell jurors just how unlikely it is that two matching DNA samples have appeared by coincidence," says committee chairman James F. Crow, professor emeritus of genetics at the University of Wisconsin. The new report says that the 'interim ceiling principle', advocated in the first NRC report published in 1992, is no longer necessary:

Genetic markers commonly used in DNA forensics

Locus	Locus category	Detection method	Number of alleles	Diversity
D2S44	VNTR	RFLP	75 (700–8,500 bp)	95%
D1S80	VNTR	PCR	30 (350–1,000 bp)	80–90%
HUMTHO1	STR	PCR	8 (179–203 bp)	70–85%
DQA	SSV	PCR	8	85–95%
Polymarker	SSV	PCR	5 loci; 972 combinations	37–65%
MtDNA D loop	SSV	PCR	hundreds known	>95%

VNTR, Variable Number Tandem Repeats; STR, Short Tandem Repeat; SSV, Simple Sequence Variation.

this controversial idea was designed to help safeguard defendant's rights by placing limits on the estimated frequencies of specific alleles in the general population. However, the new report argues that the abundance of genetic data now available in different racial groups provide the means for less arbitrary (but still reasonably conservative) procedures in assessing profile frequencies. The report also recommends proficiency testing for laboratories handling primary forensic evidence and calls for research to improve the accessibility of expert testimony on DNA profiling evidence in court. "Though we have no illusions that our report will eliminate all controversy over DNA evidence," says Crow, "we hope that it helps to provide the legal community with an accepted scientific guide to ensure that the enormous power of DNA evidence is put to proper use."

Behind Closed Doors

Following a series of conflicting and highly publicized claims regarding the localization and putative mode of action of the BRCA1 protein involved in hereditary breast and ovarian cancer, the director of the National Cancer Institute (NCI), Richard Klausner, invited many of the groups working in the field to a closed meeting last month to try to sort out some of the discrepancies in the data. "I would like to catalyze a good open exchange about the experimental and conceptual complexities of this fascinating protein," Klausner told *Nature Genetics* just before the planned meeting. Klausner's invitation was warmly received by the researchers, most of whom are NCI grantees, and he hopes that the frank exchange of unpublished results would lead to new ideas, and possibly the sharing of reagents and materials. Last year, Wen-Hwa Lee's group from the University of Texas reported that BRCA1 was a 220-kD nuclear protein which became strewn throughout the cytoplasm in cancer cell lines (Y. Chen *et al. Science* **270**, 789–791; 1995 and **272**, 125-126; 1996). David Livingstone (Dana Farber Cancer Center, Boston) and colleagues recently responded that in their hands, BRCA1 is also localized exclusively in the nucleus in normal cells but that the cytoplasmic staining seen in some cancer cell lines might be an artifact of fixation procedures (R. Scully *et al. Science* **272**, 123–125; 1996). In the March issue of *Nature Genetics*, researchers from Vanderbilt and the University of Washington presented evidence that BRCA1 is a 190-kD, secreted protein that resembles members of the granin family (R. Jensen *et al. Nature Genet.* **12**, 303–308; 1996).

N.B. Next month's issue of *Nature Genetics* will contain several pieces of correspondence on the BRCA1 controversy.