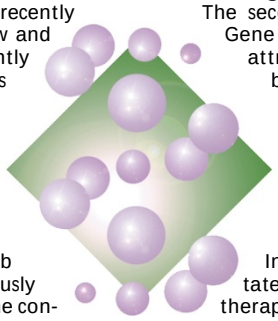
TOUCHING**base**

More SNPs in the pipeline



Making use of SNP-mining software they developed recently (*Nature Genet.* **21**, 323–325; 1999), Kenneth Buetow and colleagues at the Genetic Annotation Initiative recently announced the release of over 10,000 candidate SNPs into the web site of the Cancer Genome Anatomy Project (http://lpg.nci.nih.gov/GAI). The SNPs have also been submitted to NCBI's dbSNP (http://www.ncbi.nlm.nih.gov/SNP), which is anticipating exponential growth over the next two years, with the SNP consortium (*Nature* **398**, 545–546; 1999) preparing to release SNPs into the public domain. The consortium will have its own web site (http://snp.cshl.org), but SNPs will be synchronously deposited into dbSNP. In its first year of operation, the consortium aims to identify 80,000 SNPs—these will be released on a quarterly basis until April 2000, when they will be released at monthly intervals. By the time the two-year project is completed, 300,000 SNPs (200,000 of them mapped) should be in the public domain—with no strings attached.

ASGT gains momentum

The second annual meeting of the American Society of Gene Therapy (Washington DC, 9–13 June 1999) attracted more than 2,000 delegates, testimony to the belief of the founding president, George Stamatoyannopoulos, that the time was ripe for a forum for gene therapy investigators. James Wilson, in his final address as ASGT president (before handing the reins over to Savio Woo), highlighted the society's key activities over the past year, which included discussions with the Food and Drug Administration and the National Institutes of Health (NIH) to identify ways to facilitate the translation of basic science into viable gene therapy protocols. The society also announced that its journal, *Molecular Therapy*, would be launched in January 2000, with Inder Verma as editor-in-chief. Concurrent with the meeting, the society also invited high-school teachers to the NIH campus for a day of seminars on gene therapy and held an evening public education program at the National Museum of American History. The past few years have been valuable for "recalibrating public expectations of gene therapy," as noted by Harold Varmus, Director of the NIH, in his keynote lecture at the meeting; nevertheless, the optimism surrounding this year's ASGT meeting signals that the community remains confident that it can deliver on therapeutic promise.

Chips go forensic

"We need to see some form of identification. No, not your driver's licence, a DNA sample will do." This scenario may seem fictional, but the advent of a new coin-sized analytical DNA chip from the Nanogen corporation may change that. So far, DNA testing has been slow, requiring postage of samples for analysis (which routinely takes weeks or months, and is quite costly, averaging US $1,200 per sample). These factors have resulted in a US-wide backlog of about 600,000 samples. The new chip is intended to enable testing of DNA samples at a crime scene in only minutes, and profiles the same 13 short tandem repeats (STRs) traditionally analysed in DNA tests. Results can then be rapidly queried against the national FBI database (which went on-line last autumn) using a portable network-linked computer. Advocates of the Nanogen chip predict that it will decrease the time and cost of DNA testing significantly. Tests of the chip are scheduled to begin this month, and while police departments hope to put the technology on the street within a few years, civil libertarians fear the increased potential for abuse and discrimination that such technology might foster. According to Philip Reilly, a member of the National Commission on the Future of DNA Evidence, these fears are unfounded. "It [misuse of DNA evidence] is really fantasy at this point… it would take a litany of implausible events." Reilly stresses that this is because only the 13 STR sites are used in DNA identification, which does not allow examination of other, potentially more revealing sequences that could compromise an individual's right to privacy. Reilly emphasizes that privacy must be paramount, and notes, with caution, that "no system can guarantee abuse would never happen."

> ***Very few scientists I know are anywhere close to loony bins. A lot more of us are like Michael Douglas—slightly evil, highly competitive.***
>
> —James Watson

Tackling the complex issues of complex diseases

Conceived by Ann E. Pulver, associate professor of psychiatry at John Hopkins University, the Foundation for Genetic Education & Counseling, will focus on complex human diseases. Pulver's research on the genetics of schizophrenia and bipolar disorder (see *Nature Genet.* **20**, 70–73; 1998) led her to realize that issues arising from the discovery of genes associated with susceptibility to these and other complex disorders will require careful consideration. Headed by Joseph D. McInerney, formerly director of the Biological Sciences Curriculum Study, the new foundation (which began operation on 1 June) will develop educational materials for patients, families, health care providers and the general public. It also hopes to devise counselling protocols that address the prospect of gene discovery associated with mental illness. "We plan to involve a representative sample of the research subjects," McInerney says, "by asking them what they want to know about the results of the research and what types of support they will need to deal with the discovery of disease-related genes." Initial funding of the foundation is provided by Genset, a biotechnology company engaged in the comprehensive analysis of genetic variation related to common diseases and drug response. Genset's management is hopeful that other organizations in the public and private sectors will also contribute.

Atonality and deafness

Depending on sex and cultural background, hair can be a good thing or a nuisance—body hair, that is. Hair loss in the inner ear, in contrast, is always problematic, as two basic functions, hearing and balance, depend on hair cells and their capacity for mechanoreception. Huda Zoghbi and colleagues have recently reported the identification of a key regulator of hair cell development in the inner ear (*Science* **284**, 1837–1841; 1999). Mice lacking *Math1*, a homologue of the *Drosophila* proneural gene *atonal*, fail to develop cochlear or vestibular hair cells. Determination of hair cells is likely to involve a lateral inhibition process in which the interplay of members of the *Notch* and *Delta* gene families results in the selection of individual hair cells from clusters of competent cells. The authors propose that *Math1* functions as a "pro-hair cell" gene whose expression is essential for hair cell specification in the selected cell. *Drosophila atonal* is both necessary and sufficient for the development of mechanoreceptors. It remains to be determined whether *Math1* expression is sufficient for hair cell development in mammals—such a finding could have important implications for patients suffering secondary hair cell loss.