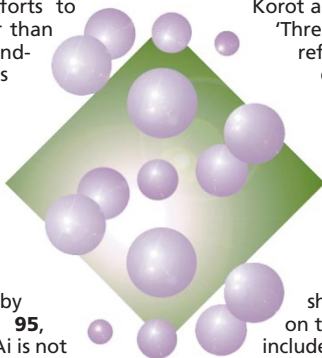


TOUCHINGbase

● Quick, dirty and reverse—RNAi in flies

With increasing sequence data available, reverse genetics becomes more and more valuable. Intense efforts to develop knockout techniques in organisms other than yeast and mouse have generally met with a resounding lack of success. In 1995, however, geneticists working on *Caenorhabditis elegans* stumbled upon what is now known as RNA interference, or RNAi. Injection of a target RNA causes a phenotype similar to that of loss-of-function alleles for the corresponding locus. The method has since been shown to work for many worm genes, and it is known that double-stranded RNA works much better than sense or antisense single strands. The mechanism, however, is still unclear. Thanks to recent work by Jason Kennerdell and Richard Carthew (*Cell* **95**, 1017–1026 (1998)), we now know at least that RNAi is not exclusive to worms. Injecting dsRNA into *Drosophila* embryos at the syncytial blastoderm stage, Kennerdell & Carthew phenocopied several embryonic patterning mutants. Having established a protocol, they used it to study the reception of the wingless (Wg) signal in fly embryos. Identification of the Wg receptor has proven difficult, and while this report does not prove that *Drosophila frizzled2* (*Dfz2*) encodes the receptor, it makes it a strong candidate. Injection of *Dfz2* RNA into wild-type embryos phenocopies *wingless* mutants, and epistasis tests—involving the injection of the RNA into mutant embryos—place *Dfz2* downstream of *wingless* and upstream of genes encoding intracellular components of the signalling pathway. With the complete *Drosophila* sequence hopefully around the corner, RNAi will help to provide clues to its function.



● Catastrophes of the 20th century?

Contemporary composer Steve Reich and video artist Beryl Korot are working on a documentary video opera entitled 'Three Tales'. Each act—*Hindenburg*, *Bikini* and *Dolly*—reflects on the growth and implications of technology during the twentieth century. *Hindenburg* is complete and uses historical footage, photographs and text about the famous zeppelin, which exploded in 1937, and the German general after whom it was named. The second act, *Bikini*, will make use of materials from the atomic bomb test at Bikini atoll in 1946 and may include footage of the eponymous bathing suit. *Dolly*, the third tale, will use film, photographs and text from the cloning of an adult sheep in Scotland in 1997. Materials from the debate on the ethics of genetic and biological research will be included, and technological aspects of genetic and biotechnical research covered. The complete work is scheduled for a world premiere in May of 2001.

● The Stazione Zoologica

At the end of last year, the Stazione Zoologica Anton Dohrn in Naples held a diverse and stimulating meeting on evolution to commemorate the significant contributions of Gaetano Salvatore to the Stazione. Its president for ten years at the time of his death in 1997, Salvatore played a significant role in recouping its international standing, which had lapsed after World War II. A desire to more equitably distribute resources (the northern provinces currently receive approximately 86% of the science budget) and enthusiastic lobbying by Salvatore—a man of some persuasion!—have resulted in a direct annual contribution to the Stazione of 20 billion lire (approximately 12 million dollars) from the Italian Ministry of Research. Giorgio Bernardi, the new president, affirms that the Stazione will continue to expand its research, in addition to fostering links between scientists from different disciplines and countries through visiting fellowships, regular meetings and a PhD programme. He also supports a founding principle of the Stazione: that the germination of good ideas comes from interactions between people from different disciplines—and that music and art provide rich substrates for such interactions. Bernardi trenchantly notes that "the general context in which biologists work gives them little time to think about the wider issues" and seeks to address this problem; Charles Darwin, who contributed to the funds for building the Stazione, would have approved wholeheartedly.



● The end of the world as we know it?

In a dramatic move away from mainstream scientific publishing, the *British Medical Journal* announced in its first issue of 1999 that it will abolish anonymous peer-review. Authors will be informed of referees' identity, and the journal may soon open up the whole system so that the peer-review process can be viewed on the internet by anyone who is interested. The editors have based their decision on a randomized trial and ethical argument (*B.M.J.* **318**, 4–5 (1999)). While it seems questionable how solid the evidence is at present, the journal's new policy will be closely watched by many editors (including those of *Nature Genetics*) who feel that while far from perfect, anonymous peer-review is the least problematic alternative in an imperfect scientific world.

● March of Dimes honours UK mouse embryologists . . .

This year's March of Dimes prize for developmental biology will be shared by Richard Gardner of the University of Oxford and Martin Evans of the Wellcome CRC Institute in Cambridge. Evans fiercely believed in and worked on making mouse embryonic stem (ES) cells when few others did, and it was in his lab that ES cell germline transmission was first achieved. With collaborators Elizabeth Robertson and Allan Bradley, he went on to show that ES cells could be used to genetically manipulate the germ line. Gardner and colleagues have made major contributions to understanding the cell lineages in the early mouse embryo—pioneering several approaches, in particular the generation of chimaeras. Like Evans, Gardner has an impressive list of F1 'offspring', including Janet Rossant, Rosa Beddington and Virginia Papaioannou. In accordance with the March of Dimes statutes, neither scientist has been previously awarded a major prize for their work.

. . . and Louis-Jeantet Prize provides funding for three geneticists

Intended to encourage innovative work, the Jeantet prize comes with some serious money to support future research. The 1999 laureates are Adrian Bird of the University of Edinburgh for his work on DNA methylation, Herbert Jäckle of the Max-Planck-Institute Goettingen for his contribution to our understanding of *Drosophila* development, and Jean-Louis Mandel of Strasbourg University for his work on human molecular genetics. Each of them will receive 600,000 Swiss Francs (\$430,000) for research and a personal award of 100,000 Swiss Francs.

When I was a kid, my mother used to arrange a surprise party every year for me, and I never figured it out . . . I was always completely surprised, and it was the same in this case. It is apparently in the genes.

—Noam Chomsky, commenting on his 'surprise' birthday website
<http://mitpress.mit.edu/celebration/>