RNA inside fatty globules, Alnylam researchers successfully injected the drug into monkeys and silenced the expression of a gene that makes cholesterol. The resulting paper³ is the first to show that systemic RNAi might work in primates.

The drug-delivery problem has meant that RNAi's initial forays into the clinic have been aimed at diseases affecting the eye. This is because the RNA molecules can be delivered to the eye without coming into contact with the immune cells that would destroy them.

The first treatment to enter clinical trials was not from either Alnylam or Sirna, but from Acuity Pharmaceuticals of Philadelphia, Pennsylvania. Its treatment for macular degeneration, a common cause of adult blindness, began safety trials in October 2004. It has since completed phase II efficacy trials, and claims that the drug is effective — although it has yet to release the full data. Sirna is not far behind with its treatment for macular degeneration, which will enter phase II trials by the end of this year.

Alnylam, on the other hand, abandoned its therapy for the condition, correctly predicting that Genentech of South San Francisco, California, would quickly secure approval for its antibody treatment for the disease (see *Nature* 422, 123; 2006). Alnylam's most advanced programme uses direct delivery of RNA to the lungs by inhalation. It has completed two phase I studies for treatment of the respiratory syncytial virus, and plans to initiate another lung study later this year aimed at pandemic flu.

But Alnylam and Sirna are almost as heavily focused on claiming intellectual property as they are on drug discovery. Their respective prospects will rest heavily on which method for inducing gene silencing works best — and which firm ends up holding the rights to it. Alnylam says its exclusive licence to one of Tuschl's patents gives it the edge over Sirna. But Sirna claims its recent innovations bypass Tuschl's patents completely.

So far, investors are more impressed with Alnylam's position, says Srivastava. "We spoke with Novartis, and they said they signed their partnership with Alnylam mostly because of intellectual property," she says.

With their broad interests in treatments for different diseases, both Sirna and Alnylam dream of following in the footsteps of California's biotech powerhouses Genentech, and Amgen of Thousand Oaks.

"We think we have a good shot at becoming a major, biotechnology-based pharmaceutical company, given this technology," says Howard Robin, Sirna's chief executive.

IN BRIEF

TIME FOR PLAN B The US Food and Drug Administration (FDA) says it will consider permitting pharmacies to sell the morning-after contraceptive, Plan B. Critics have attacked the regulator for failing to allow such sales on non-scientific grounds, three years after its advisory panels said that they should go ahead. The day before Andrew von Eschenbach, who has been nominated by President Bush to serve as the FDA's commissioner, faced a Senate confirmation hearing, the agency announced that it wants to meet the Plan B's manufacturer, Barr Pharmaceuticals, to discuss terms for approval. Von Eschenbach's failure to approve the treatment while he was acting commissioner was a focal point of the hearing — but some senators said afterwards they'd still block his confirmation.

CHIPS ON THE TABLE The semiconductor industry is sitting on a US\$2-billion surplus of microchips, mainly because of overproduction at Intel, the largest chip producer, says California-based market-research firm iSuppli. The number of chips world wide almost doubled between the first and second quarters of 2006, the firm reports. But it says that because the glut of chips is largely down to miscalculations at just one manufacturer, it is unlikely to cause the industry any major problems.

MERCK COURT WIN A court in California has rejected a claim by a 71-year-old man that his heart attack was caused by taking Vioxx, the painkiller withdrawn from sale by Merck in September 2004. This latest ruling means that the drug firm has now won five Vioxx cases out of eight, leading some analysts to conclude that its strategy of fighting the cases one-by-one is bearing fruit. Merck says there are 14,200 cases pending in the United States over alleged side effects of the drug (see Nature 440, 277; 2006).

EUROPEAN CARBON INDEX 18 17 16 15 14 13 12 June July

The European market for emissions trading has recovered its balance after turbulence earlier in the spring, when uncertainty about the market's future saw allowances lose half of their value.

Options to emit a tonne of carbon dioxide are traded on five European exchanges, including the European Energy Exchange in Leipzig, Germany, charted here. The price rose from a low of about €10 (US\$13) per tonne in early May to a high of €18 on 18 July, before settling in a band of between €15 and €17. Although heatwaves throughout Europe have driven the demand for fossil energy, emission allowances are significantly cheaper than during the cooler summer of 2005, when the price peaked at almost €30.

This year's lower price is no surprise to market analysts. "Everybody knows by now that governments have overallocated emission rights to industry," says Stefan Kleeberg of Climate Change Consulting in Frankfurt, Germany. Increased sales bring down the price every time it approaches the €17 margin, which speculative traders believe is about the maximum value the options can currently achieve, he says.

The volume of transactions is down by half compared with its peaks last year, but analysts say that it is likely to rise again after the summer break.

Carbon dioxide emissions are expected to rise too, says Guy Turner, director of New Carbon Finance in London, as high oil and gas prices are forcing an increased use of coal in electricity generation. But analysts doubt whether prices on the emission allowances will go much higher, as most industries own plenty of surplus options.

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