

N. KEDERSHA/SPL

in a way much more sensitive than large-scale phase III trials, which are very crude approaches to that question,” says Garret FitzGerald, director of the Institute for Translational Medicine and Therapeutics at the University of Pennsylvania in Philadelphia, whose mechanistic studies^{3,4} in humans and mice first pointed to the cardiovascular risks of COX2 inhibitors. FitzGerald wants to see more studies of these drugs in humans, to discover whether genetic and other differences can establish which patients can use them without heart risks.

Others are moving beyond COX2, downstream in the biochemical pathway that leads to PGE₂, to an enzyme called microsomal PGE₂ synthase. Blocking that enzyme, they think, could relieve pain by damping down PGE₂ — without causing stomach problems or suppressing heart-protecting PGI₂.

“This is based on a much more selective mechanism of action” than COX2 inhibitors, says Charlotte Edenius, chief scientific officer at Biolipox, a small Swedish company founded by scientists from the Karolinska Institute in Stockholm. The company, which signed a major development deal with Boehringer Ingelheim in 2005, is working “intensely” on its project, she says. ■

1. Cannon, C. P. *et al. Lancet* **368**, 1771–1781 (2006).
2. Xie, W. L., Chipman, J. G., Robertson, D. L., Erikson, R. L. & Simmons, D. L. *Proc. Natl Acad. Sci. USA* **88**, 2692–2696 (1991).
3. McAdam, B. F. *et al. Proc. Natl Acad. Sci. USA*, **5**, 272–277 (1999).
4. Catella-Lawson, F. *et al. J. Pharmacol. Exp. Ther.* **289**, 735–741 (1999).

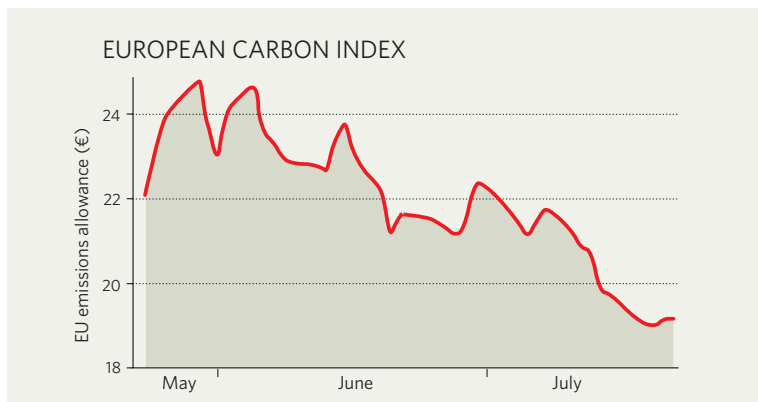
IN BRIEF

SMOOTH TRANSITION Roche says that Severin Schwan, a 40-year-old Austrian lawyer who currently runs its diagnostics division, will succeed Franz Humer as chief executive next March. Humer will stay on as chairman of the Swiss drug company, which has enjoyed an unparalleled run of success since he arrived from GlaxoSmithKline to take over as chief executive 12 years ago. Although some recent changes of senior personnel in the pharmaceuticals industry have been forced, Roche is making this one on a high: it just announced sales up 15% to SFr 23 billion (US\$ 19 billion), and profits up 29%, to SFr 5.9 billion, for the first half of this year.

PREPARING FOR TAKE-OFF NASA awarded Rocketdyne — a Californian subsidiary of aeroengine maker Pratt & Whitney — a US\$1.2-billion contract to supply the upper-stage engine of the space shuttle’s replacement. The company’s engine, known as the J-2X, will propel a crew of six through the final stage of the rocket’s ascent. It runs on liquid hydrogen and oxygen and bears a strong resemblance to the Apollo-era engines that took the first astronauts to the Moon. The contract covers design, development and testing. A separate contract for future engines will be awarded after the first test flight in 2012.

NORTHERN DRIVE A £12-million (US\$25-million) National Industrial Biotechnology Facility opened in the north of England, with the intention of making it easier for companies there to manufacture enzymes for use in industrial processes. The facility officially opened on 16 July at the Centre for Process Innovation at Wilton, Teeside — a traditional centre of the British chemical industry. It is supported by local development agencies, who hope that it will boost biotechnology innovation in the surrounding area, and will operate in partnership with the Manchester-based Centre of Excellence in Biocatalysis, Biotransformations and Biocatalytic Manufacturing.

MARKET WATCH



The price of carbon allowances for the second phase of the European Union’s emissions trading scheme, which runs from 2008 to 2012, has fallen to less than €20 from a late-May peak of €25.

Under the scheme, emissions trading credits are bought and sold — mainly by energy utilities — at five carbon exchanges, including the European Energy Exchange (EEX) in Leipzig, Germany. Analysts around the world are watching the market closely to see whether it will provide a stable and effective model for global trading in carbon emissions.

They attribute the latest price drop (see graph) to a new technical development. Some businesses are swapping so-called Certified Emission Reductions (CER), generated by approved clean development projects in poor nations, for European trading allowances, leading to

a surplus of the latter on the market.

CERs certify a specific amount of avoided emissions rather than granting permissions to emit extra carbon dioxide. Until recently, businesses were wary of them, because of doubts over whether the projects would deliver emission reductions that could be verified. But Stefan Kleeberg, a carbon asset manager with the 3C Group near Frankfurt, Germany, says that confidence is growing in the projects that are actually approved by the European Commission under the CER scheme.

Trading regular allowances for CERs, which are still 10–20% cheaper, has thus allowed some businesses to profit from emissions trading. However, the market is not yet very transparent, Kleeberg says, with only a handful of companies and brokers aware of its possibilities. ■

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