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Pillars of the community: the petrochemical industry is benefiting from high-throughput techniques, and others will follow its lead.

area has seen such an upswing."

Being first off the blocks, Symyx has developed a wide range of patented materials, usually in partnership with clients. These include a phosphorus-based material that helps store X-ray images — developed with German film company Agfa — and a plastic used by Japanese semiconductor firm JSR. In total, it has struck deals with major industrial corporations that are worth more than US\$600 million, including a \$200-million, five-year research collaboration with ExxonMobil, the world's largest oil company, and a similar, \$120-million deal with Dow Chemical.

"Chemical corporations aren't used to working with small companies on research in the way pharmaceutical companies are," Goldwasser says. "Over ten years, we've developed a business model to find ways clients can work with us to solve tough problems. High-throughput technologies are applied to that problem, and the customer owns and commercializes the material while we get royalties based on the value we add."

Symyx's existing clients spend more than \$10 billion between them on research and development, leaving plenty of scope for expansion. "In my opinion," says Goldwasser, "we've only scratched the surface of ways high-throughput research can improve the effectiveness of research and development."

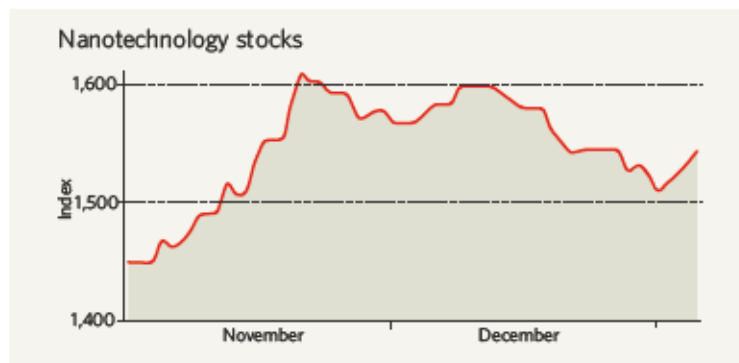
IN BRIEF

LEG UP Wyeth reached an agreement with Seattle biotechnology company Trubion to back its development of drugs based on molecules known as small modular immunopharmaceuticals, or SMIPs. The New Jersey drug company will invest \$40 million in Trubion immediately, with up to \$800 million to follow if certain milestones are met. Wyeth will gain most worldwide rights for marketing drugs developed under the deal, including a treatment for rheumatoid arthritis that is already in phase II trials.

INTEL OUTSIDE Semiconductor manufacturers announced plans to move their products — and their brand images — into people's living rooms. At a huge consumer electronics show in Las Vegas, Intel and its largest rival, AMD, said that their next generation of chips would serve as the brains of multimedia home entertainment systems. The companies will brand computers containing the chips, and seek to make them compatible with a range of televisions and stereos. Intel's chip is called Viiiv (rhymes with 'five') and AMD's offering is called AMD Live.

HIGH POINT A British pharmaceutical company has won permission from the US Food and Drug Administration to conduct phase III trials of a cannabis-based drug for the treatment of cancer pain. The drug, Sativex, which is obtained from cannabis plants grown at an undisclosed location in Britain, has already been approved in Canada for the treatment of pain caused by multiple sclerosis. The US trial will involve 250 people and take up to three years to complete. The Wiltshire-based company, G W Pharmaceuticals, also announced that it had obtained a US\$15-million cash infusion from Polygon, an international investment trust.

MARKET WATCH



SOURCE: LUX RESEARCH

Nanotech stocks ended a topsy-turvy 2005 in customary style, with a sharp rise in November followed by a dip last month. The turbulence emphasizes the point that, although investor interest in the fledgling sector seems to be growing, returns are far from assured.

The Lux Nanotech Index tracks about 30 companies: most of them specialize in nanotechnology equipment or applications, but a few are large manufacturing companies that make use of the new technology.

The index fell slightly over the course of 2005 — and ended the year significantly below its peak value of almost 2,000, attained in April 2004.

Nonetheless, Peter Hebert, founder of New York-based consultancy Lux Research, which compiles the index, claims that the upturn in November bodes well for the new year. Nanotechnology stocks "are starting to

outperform the market and we expect that to continue", he says.

Strong performers towards the end of the year included Westaim, whose stock rose when it said it would stage an initial public offering of shares in its daughter company Nucryst. The Massachusetts-based subsidiary makes wound dressings, based on silver nanoparticles, that fight infection and inflammation.

The offer took place on 22 December and raised US\$45 million. But it provided no cash-in for initial investors, whose shares on the Nasdaq have since remained stubbornly stuck at their opening price of \$10.

Accelrys, a San Diego company that sells software to help others apply nanotechnology, also surged in value after announcing a nanobiology initiative that will be chaired by top biologist Leroy Hood.