bulked-up resources."I can see a renaissance in single gene disorder work because the sequencers can be put in there to find something useful for patients. There's no question in my mind that these sequencers will be put to work in the Chinese population," adds Cotton.

But that won't necessarily be enough, he says. Healthcare infrastructure will also be critical. "They've got to (obtain) the material to put in them. Single gene disease research is not highthroughput. A patient comes in the door of a doctor's office and then leaves, but that rate is not very high. If they get themselves organized in China, they could get a lot of samples coming in," adds Cotton.

Along with its continued strengthening of expertise in sequencing and analysis, "China is now producing more well-trained scientists than any other country," says Cantor. As long as this trend continues, China's impact on progress in research and technology is likely to continue to rise proportionally. "It is inevitable," he adds. And in terms of both investment (Nature

463, 282, 2010) and scientific output, China's genome centers are already beginning to rival some genome centers in Europe and North America, although today the emphasis is more on collaborative research between many international centers than on competition.

China's efforts could well spur development elsewhere. "I think there is a tremendous opportunity for any country or funding agency to really empower that discovery by making some investment. I assume that China understands that. They have a good group at BGI, which has a pretty good track record of making this kind of thing work," says Richard Wilson, director of The Genome Center at the Washington University School of Medicine, St. Louis, Missouri. "If countries such as the US, or the UK, or anyone else sees that as a good reason to build up their own genetic sequencing infrastructure, I think that's a good thing. The more the better."

> John Fox Hong Kong and Jim Kling Bellingham, Washington

IN brief

RNAi delivery shop

Silence Therapeutics of London and Intradigm Corporation of Palo Alto, California, have merged, in a deal designed to boost their competitiveness as providers of RNA interference (RNAi) delivery solutions. The two firms have developed separate technologies to enhance RNAi delivery and stability, currently the biggest challenge in RNAi-based therapeutics. By merging, the new company hopes to offer a set of systems to overcome these problems. Silence will contribute the AtuPlex delivery platform designed to stabilize siRNA within a liposome, whereas Intradigm's system is a biodegradable, synthetic peptide-based polymer that allows any tissue in the body to be targeted by adding a ligand. The deal, which took place as a reverse merger and for which Silence issued close to 80 million shares to acquire Intradigm, has been valued at about £20 million (\$32.6 million). According to Simos Simeonidis, an analyst at Rodman & Renshaw, the combined company (which retains the name Silence Therapeutics) may become a more attractive partner for big pharma than its predecessors were because it has more platforms to offer. But he doesn't think the merger makes Silence any more competitive compared with market leaders Alnylam and Sirna because pharma can always partner with multiple biotechs, each offering different technologies. Besides, said Simeonidis, "no one has all the answers, not even Silence with their multiple delivery technologies." Nazlie Latefi

IN their words



"Women would not even know they had [a] BRCA gene if it weren't discovered under a system that incentivizes patents." Defense attorney Brian Poissant pitches the importance of gene patents in motivating commercialization

of discoveries at a hearing in the lawsuit on Myriad's BRCA1 and BRCA2 claims opposed by the American Civil Liberties Union, a coalition of civil rights, research and women's health groups. (GenomeWeb, 2 February 2010)

"Over the last 30 years, we as a nation have spent \$9 per American per year on cancer research. Enough to buy you a couple of lattes." Francis Collins recalibrates the US public's understanding of how much has been spent on the 'war on cancer' declared by President Nixon almost 40 years ago. (CBS Evening News, 28 Jan 2010)

"His members think he gave away the farm for nothing. So he was really tossed because of a falling out with the board over miscalculating how to negotiate." An unnamed industry source gives the inside view on Billy Tauzin's decision to resign as chairman of PhRMA, which spent \$26,150,520 in 2009 on lobbying, according to the nonpartisan Center for Responsive Politics. (ABC News, 12 February 2010)

"I now believe it is time I move on and hand the mantle of leadership of this great organization

to others as passionate as myself and to explore the many other interests I would like to pursue in this special second-chance life that I have been given." Billy Tauzin, cancer survivor and president of pharma industry trade group PhRMA resigns amid criticisms over the group's involvement in proposed US healthcare reform. (ABC News, 12 February 2010)

"There's no doubt there's risk in pharmaceuticals, and there should be! If you make 30% returns it should be a risky business. If you don't want risk, go be a grocery store and make 6%." Andrew Witty, GlaxoSmithKline's CEO, comments on pharmaceutical R&D in the light of controversy over anti-aging compounds developed by their 2008 acquisition Sirtris. (Forbes, 25 January 2010)

"There are physicians earning so much money [from drug makers] that they would give up their jobs...It's a shocking story. Normally, you'd give up the [company] honoraria." Steve Nissen, head of cardiovascular medicine at the Cleveland Clinic Foundation, comments on Lawrence DuBuske's decision to leave Harvard rather than forgo payments from industry (which had totaled \$99,375 for 40 talks). (The Boston Globe, 23 January 2010)

"Arrays are a hundred times cheaper, a hundred times faster and materially more accurate than sequencing will be over the next couple of years." Illumina's Jay Flatley told delegates at the J.P. Morgan conference in San Francisco in January that arrays are likely to hold the upper hand for genomewide association studies over next-generation sequencers. (GenomeWeb, 15 January 2009)

Brazil boosts bioscience

Brazil's national economic and social development bank BNDES has signed an agreement to invest in a selection of innovative bioscience and infrastructure projects at the state-owned Oswaldo Cruz Foundation, part of the Brazilian Ministry of Health (Nat. Biotechnol. 27, 1063-1064, 2009). The Rio de Janeiro-headquartered foundation, also known as Fiocruz, is planning a range of R&D projects that would require an estimated R\$1 billion (US\$536 million). BNDES will cover part of these costs, and Fiocruz hopes to get the rest through partnerships with the private sector. Fiocruz has already received the first R\$40 million (\$21.4 million) installment, which is being used to finish the facilities of a new Center for Technological Development in Health (CDTS) and to fund several projects at the Immunobiological Technology Institute in Rio de Janeiro (known as Bio-Manguinhos). Among the schemes selected for funding is the production of recombinant epoetin alpha, recombinant human alpha-interferon and PEG-interferon. The recently launched Integrated Center for Prototypes, Biodrugs and Diagnostic Reagents in Rio de Janeiro will partner to develop new bacterial and viral vaccines. This year, Fiocruz hopes to start producing 50 million doses of recombinant human insulin per year, thanks to a technological exchange with the Ukrainian Indar Institute. Brazil now imports around 170 million doses of insulin a year. Ricardo Bonalume Neto