

HLA profiles

The difference in the viral load between people who are only 20–40% adapted and those who are 80–100% adapted suggests that this adaptation of HLA is more important than many other recognized host genome effects. 'These results provide evidence that host HLA is an important factor affecting on viral evolution,' says Christiansen.

'We think this has important lessons for vaccine design, in that the HLA profiles of individuals provide specific selective pressure for HIV mutation, and

can be a very important genetic barrier to resistance,' he concluded. 'The ultimate vaccine design will require the consideration of the frequency of the HLA alleles in the [local] population, the likelihood of the virus adapting to them and the consequences of such adaptation.'

Professor Andrew McMichael, Director of the Medical Research Council (MRC) human immunology group at the John Radcliffe Hospital in Oxford, UK (<http://www.oxfordradcliffe.nhs.uk/>), is impressed by the work. 'I think it is very interesting in terms of the evolution of

the virus and the variability of the virus,' he said.

But he has reservations about how practical it will be to design vaccines taking the results into consideration. 'I suppose what he's saying is that the virus is shaped by the HLA system in the local population. So for instance, in India and South Africa, the HLA systems that are common to each population will be different, and you would have to have a vaccine tailored for each,' he said. 'But there is a practical limit to how many vaccines you can actually make.'

Hottest news from the Cordia EuropaBio Convention 2003, 2–4 December 2003 in Vienna, Austria.

European biotech gets personal

Henry Nicholls, BMN News



It will take only 10–20 years for the realization of 'proper personalized medicine' for the prevention

and treatment of cancer, claims a leading European oncologist.

It is inevitable that biotech will achieve this goal, says Karol Sikora, Professor of Cancer Medicine at the Hammersmith Hospital in London, UK (<http://www.hhnt.org/>), and a senior consultant to the pharmaceutical company AstraZeneca (<http://www.astrazeneca.com>).

The winds of change

The speed of change is not so predictable, he admits, but he predicts it will take between 10 and 20 years to realize the goal of personalized therapy for cancer.

Within about five years, says Sikora, routine genetic profiling should make it possible to identify those at risk of cancer

long before there is any sign of a tumour. 'So far, nobody has tried to develop a drug for cancer prevention,' he said, while insisting that this will become integral to healthcare in the future.

There is one thing that could complicate the pace of change, warns Sikora. Most existing cancer drugs will reach the end of their patents in 2008, opening the way for competition from generic drugs. The resulting loss of revenue could lead to a shortfall in investment in current development, he fears.

Ripples in biotechnology

Sikora was speaking after a plenary session at the CORDIA–EuropaBio Convention, 2–4 December 2003 in Vienna, Austria – the first Europe-wide meeting specifically tailored for the biotechnology industry (see <http://www.cordia-forum.com>). His predictions were echoed by fellow delegate Mary Harney, Ireland's Minister for Enterprise, Trade and Employment.

Europe is beginning to create significant ripples in biotechnology, says Harney. The UK, Germany and France have more than 1000 biotech companies backed by more than 40 universities and 10,000 researchers, she told delegates in her keynote address. This makes up around a quarter of the world's biotech companies, she says.

But on the first day of the meeting, several exhibitors and delegates commented that the turnout was not as good as it might have been. This could just be because there are several other big biotech-based meetings going on at the end of the year, says Alasdair Street, Business Development Manager at PharmaLinks, a Glasgow-based initiative set up to develop and promote research coming out of the Universities of Glasgow and Strathclyde.

Alternatively, say delegates, the poorly perceived turnout could reflect the cautious mood of an industry that has yet to deliver and is struggling to compete with the USA.