THE BRIDGE

Transmission of multi-drug resistant virus confirmed

John Mellors of the University of Pittsburgh opened Tuesday's session on antiretroviral resistance by reviewing the Lake Maggiori meeting on that topic, held last week. Two of the most important findings reported at that conference, he reported, were that multi-drug resistant viruses are being transmitted at clinically important frequencies and that retrospective studies in experienced patients show that baseline viral phenotype and genotype predict response to antiretrovirals – both singly and in combinations. What is most important for resistance studies, Mellors said, is that rapid, high throughput commercial assays for viral genotype and phenotype will be available soon.

Sabine Yerly of the laboratory of virology in Geneva illustrated the first of Mellors' points by presenting data on the frequency of resistance mutations in virus isolates from 67 persons with primary HIV infection. Reverse transcriptase (RT) and protease genes were sequenced from virus isolated within three months of acute seroconversion and before initiation of therapy. Five (7.5%) isolates had RT mutations known to be associated with resistance to AZT, while one isolate carried mutations conferring resistance to ddC, 3TC and nevirapine. After 12 months without therapy, in about half of those who started with an AZT-resistance mutation the genotype had reverted to being susceptible to that drug, Yerly reported. These results suggest that, in the absence of the drug, the resistance mutations may be eventually "out-competed" by the wildtype virus.

Six individuals' isolates had major protease inhibitor-resistance mutations, in combination with one to four minor mutations. Resistance mutations were found to all four approved PIs. All isolates were still sensitive to amprenavir, a newer protease inhibitor now in clinical trials.

Kurt Hertogs of Belgium generated complete PI resistance profiles for 2,900 isolates. Among isolates with more than ten-fold resistance to any one PI, 60% to 80% were equally resistant to the other three. Cross-resistance to all four PIs was seen in 64 isolates.

Comparing resistance profiles with patients' PI experience showed that 75% of patients with resistant viruses had been treated with two or more PIs. Moreover, "Resistance to all four PIs can occur following initial treatment with any PI," Hertogs said. "There is a clear need for design of a second-generation PI," he concluded.

Canadian activists marked their national holiday July 1st by wrapping the Canada booth in red tape. Protesting the slow approval of drugs, they say resistance to PIs makes access to drugs such as NNRTIs even more critical.

Véronique Nosbaum

Incarcerated populations require tailored interventions

Incarcerated people are frequently denied the same standard of care received by the rest of the community, according to Linda Frank, a US-based researcher who presented her findings at Thursday morning's session on care in special populations. Frank's study identified multiple barriers to treatment in prison populations, including care providers' assumptions that incarcerated substance abusers cannot handle complicated drug regimens. Providers' lack of cultural awareness, too, can stand in the way of adequate care – especially since a large number of incarcerated people in the US are African-Americans or Latinos.

Within the correctional system itself, perhaps the biggest barrier to adequate care stems from the inmates' lack of control over medication administration. Other barriers such as the stigmatisation of HIV-positive inmates, both by staff and peers, can dissuade inmates from seeking care. For example, prisoners with HIV are seen by other inmates and staff as "receiving special attention" which can lead to retributions. Or they are placed in special housing units, where they are isolated and denied access to standard rehabilitation or recreational programmes.

A follow-up intervention programme within another US-based study, HIV Epidemiological Research Study (HERS), demonstrated that "if you work with HIV-positive and at-risk women prior to their release from prison, and link them up with community resources, they will follow through with medical care," said Tim Flanigan. ¿This demonstrates that community care providers must enter the institution to form links with the women" before they are released. "The time of imprisonment is really an opportunity to make connections, to provide hope, and to decrease the rate of further incarceration" as well as improve their overall health.

Linking human rights and AIDS groups vital

"Are you sleeping? Can you go on doing nothing?" South African human rights activist and lawyer Mark Heywood asked human rights organisations, governments, and UN agencies during a Wednesday evening community symposium.

Despite international covenants on human rights, said Heywood, the HIV/AIDS epidemic in Africa has triggered a cascade of socio-economic disintegration and poverty. Infant mortality is rising again in many countries, and life expectancy is falling in others such as Botswana, Zimbabwe and Malawi.

"This should be setting off alarm bells in every UN agency, development NGO and human rights organisation in the world – to say nothing of governments," said Heywood, who is with an AIDS law project.

Heywood said human rights abuses related to HIV/AIDS have to be seen in a wider context of governments' behaviour, namely inaction on issues of social equity and, in some cases, outright action to suppress rights. He singled out Nigeria.

"In Nigeria, which may already be the country worst affected by AIDS in Africa, the draft national AIDS plan is effectively a secret document. Participants at a recent seminar in Abuja, Nigeria's capital, complained about being refused access to the draft policy."