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An obligation to mankind

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PEOPLE who are bestowed with an honour often speak of the powerful sense of obligation that comes with it.

Dr David Ho, the scientist who shot to international fame as TIME magazine's Man of the year in 1996, can certainly vouch for that.

Whether he likes it or not, he is now the world's foremost spokesperson on AIDS, described as one of the biggest health and national security crises of our time.

"With recognition comes a certain responsibility and pressure ... if you are given the platform to tell the world about this problem, then you have to spare the time (to do that)," says Dr Ho, who was here early this week at the invitation of the Nantah Education and Research Foundation, set up recently with the objectives of improving the educational level and quality of research in Malaysia.

Dr Ho tries to do his part to accommodate requests - "to educate, to give talks and to give opinions that might influence our leaders" on the pandemic.

But that has meant cutting into the time which should be spent on research and his family.

"Ultimately, where I can make the biggest impact is to focus my time and energy on research, but there are so many invitations now to talk ... and, in the end, what I do is be selective, and pick the ones which I think will have the most impact," he says.

Dr Ho concedes that it is tough to strike a balance between the various competing demands in his life - advocacy work, research and family.

He tries to save some time for the family and, it turns out to be short, and so he tries to make sure his time with his loved ones is of as high in quality as possible.

Yes, Dr Ho is as human as the next person.

If you have not heard of Dr Ho, he was the first scientist to find out, in the 1980s, that HIV could be transmitted through semen but not saliva.

He is also largely responsible for figuring out the propensity of the AIDS virus to replicate itself aggressively at a high mutant rate during the long, asymptomatic phase of the disease.

He and his colleagues were instrumental in introducing multi-drug treatment - involving a "cocktail" of two reverse transcriptase inhibitors and one protease inhibitor - to attack the virus from many levels and prevent it from evading the drugs through its many mutants.

That has the effect of reducing the viral load in the patient's bloodstream to undetectable levels. HIV is not as invincible as it appeared.

Even so, the combination drug therapy has been found to have disappointing limits.

Dr Ho says the therapies developed over the last four to five years have allowed control of the virus but not completely.

"We can control it and make patients better, but we would like to move beyond that," he says.

"Beyond that" would be a cure and to stop the medications which are expensive, often have side effects and are not easy to take.

But the next step is going to be very difficult because some of the virus can hide in "reservoirs" in the body.

"The drugs are not 100 per cent effective and so we have to get our drug

treatment to be 100 per cent effective to go after the viruses that are hiding out.

"These are difficult things and our research continues to explore ways to address both of these problems," says Dr Ho.

Despite being in the limelight and its attendant expectations, Dr Ho has not stopped working although he has to juggle his priorities.

"In fact gaining recognition like that (being named TIME magazine Man of the year in 1996) propels one to do even more. This is why we have to make sure we continue to develop better treatments and, at the same time, work on a vaccine," says Dr Ho.

About three years ago, President Bill Clinton threw a challenge to AIDS researchers to find an AIDS vaccine by 2007.

In one interview, Dr Ho said that it might be possible.

Today, he maintains that it is obviously possible but "it is still a very tough challenge".

Likening it to the Kennedy challenge to Americans to put a man on the moon in the 1960s, Dr Ho says: "Whether or not we will get there for this particular challenge is very difficult to know."

Even so, accomplishments over the last five years on the treatment side is really a testament to what science can do.

Encouraging as that may be, scientists also appreciate HIV's resilience.

Certainly, developing a vaccine to protect the uninfected population is the most important thing that scientists can do in AIDS research.

Yet, the search for a vaccine is painfully slow. It is said that the earliest introduction would be 2003, and the product may offer protection far below 100 per cent.

Tests in primates showed promising results and studies are being done to enable safe administration to humans.

"A vaccine is our only real hope to avert a disaster unparalleled in medical history," wrote Dr Ho in TIME magazine last year.

"But even if an AIDS vaccine is developed before 2025, it will require an extraordinary effort of political will among our leaders to get it to the people who need it most."

Dr Ho predicted then that a cure for AIDS by the year 2025 is not inconceivable.

Recalling that forecast, Dr Ho says it was based on "the fact that progress in the treatment side is moving so quickly and in the last few years we have had many new drugs and some of them are so powerful ... in the next few, we will have even more, and 2025 seems so far away still".

However, he cautions that it is not a guarantee but simply a belief he holds.

Like other scientists and health experts in the war against AIDS, Dr Ho is concerned that treatments are not reaching those who require it most.

"That is sad," says Dr Ho. "We hope to develop a vaccine that will be applied in a more widespread manner worldwide with impact on a larger scale."

Access to treatment in HIV/AIDS is a major issue. Even though care and treatment is now possible, thousands of people all over the world continue to die of AIDS-related illnesses. It is a reality which will linger for a while more.

Malaysian AIDS council president Datin Paduka Marina Mahathir says nothing illustrates the gross discrepancy between the wealthy North and the underdeveloped and developing South than the question of access to treatment in HIV/AIDS.

"Whether one lives or not depends entirely on whether one can afford the drugs or not," says Marina.

"Unfortunately, the great majority of people living with HIV/AIDS live

in countries where the latest drugs are but a distant dream," she adds.

Ninety-five per cent of HIV-AIDS sufferers live in developing countries, 70 per cent in sub-Saharan Africa.

There are 13.2 million AIDS orphans in the world and their number will rise to 42 million by 2010.

African countries with high rates of infection may see their economic growth hit by 25 per cent in 20 years, compared to the theoretical level it could have reached without the AIDS epidemic.

The gross injustice has been a focus of great discussion and debate in the HIV/AIDS world and much has been done to draw attention to it.

The issue of access to treatment is poised to dominate discussions at the XIII World AIDS conference in Durban, South Africa, which starts today.

As if to underline the enormity of the scourge, the six-day conference is held in the country with the highest number of infections (4.2 million) and on a continent which has suffered the most from the impact of HIV/AIDS.

Aside from the lack of resources for treatment and education, the event in Durban is likely to dwell on the impact of AIDS in developing countries, the tragic phenomenon of AIDS orphans and the crippling cost of the epidemic on the economy.

Dr Ho is attending the conference along with other top brains in AIDS research. His visit to Malaysia, the first for the father of three, created much excitement among those who work in HIV/AIDS here.

Health Minister Datuk Chua Jui Meng hopes that more eminent scientists like Dr Ho will continue coming "to our shores to share their knowledge with us at scientific meetings organised in Malaysia".

At a public forum on Wednesday Dr Ho spoke on Pathogenesis of HIV and implications for therapy. The following day he spoke on AIDS Epidemic and Prospects for Control at the Third Dr Ranjeet Bhagwan Singh Memorial Lecture at the Academy of Sciences Malaysia in Kuala Lumpur.

Born in Taichung, Taiwan, on Nov 3, 1952, Dr Ho went to the United States at the age of 12. His father Paul Ho, a translator for US troops in China during World War II, had gone to America in 1956 to create a better life.

Nine years later he sent for his family - his wife, young David and his younger brother.

The precocious David Ho breezed through high school and various institutions of higher learning to become a doctor, teacher and researcher and scientist.

For 10 years now, he has been director and chief executive officer of the Aaron Diamond AIDS Research Centre in New York city, the largest private HIV/AIDS research centre in the world.

The Rockefeller University appointed him a professor in 1996.

Dr Ho feels that the United States should take the lead in the fight against AIDS in Third World countries by providing the funding and expertise for AIDS education.

He thinks the overall success rate of public education programmes on AIDS for the world is very poor and "that is why the epidemic is going crazy in both Africa and Asia".

As AIDS is likely to remain a threat for the next few generations, everyone should have a basic knowledge of this infection to fight the epidemic and to alleviate unwarranted fear.

He warns against complacency brought about by the discovery of the combination drug therapy. AIDS is not yet curable and all must stay vigilant against it.

Ensuring that vigilance is one obligation to mankind Dr Ho strives to

keep.

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