The acquired immunodeficiency syndrome (AIDS) was first described in homosexual men in the United States in 1981. Later, in 1983 and 1984, respectively, French and American scientists isolated the human immunodeficiency virus (HIV) as the causative agent of AIDS. This year, 2008, marks the 25th year since the initial isolation and description of HIV-1. Globally, 33 million people are infected with HIV at present, and cumulatively 25 million have died from AIDS. The US Centers for Disease Control (CDC) estimates that 1.1 million Americans are currently infected with HIV, and that 56,300 people become newly infected annually in the US. Amongst the 1.1 million estimated infected individuals in America, the US CDC surmises that one in five (approximately 233,000) do not know that they are infected.

How is the AIDS/HIV situation in Taiwan and China? Arguably, HIV/AIDS is a less visible topic in Taiwan and China compared to the US and other parts of the world. Today, China has an estimated 700,000 infections, with 38% of the cases arising from heterosexual transmission. Genotypically, the major HIV-1 strains in China appear to be circulating recombinant forms (CRF) of different clades. Hence, the HIV-1 CRF_BC strain currently accounts for over 50% of infections, while the HIV-1 Thai B (B') strain contributes to roughly 31% of total prevalence. In Taiwan, 15,011 individuals are HIV-infected, of whom 4250 have progressed to AIDS and 1870 have died cumulatively from AIDS (Figure). The major genotype of the virus in Taiwan is subtype B and CRF_AE, with a recent emergence of CRF_BC (similar to that in China) in intravenous drug users. The presence of CRF forms of HIV suggests that the viruses in China and Taiwan are evolving dynamically. The current numbers in China and Taiwan suggest a serious disease that could become much worse in the future.

Going forward, now 25 years after the discovery of HIV, how should Taiwan address her AIDS/HIV question? There are no easy answers. Today, there are at least 23 US Food and Drug Administration-approved antiretroviral drugs that can be used to treat HIV-1 in vivo. Taiwan citizens have access to several of these therapeutic drugs, which in many ways have converted HIV-1 infection from an acute death sentence to a chronic treatable disease. Nevertheless, recent failures in the development of a prophylactic HIV-1 vaccine and protective microbicides have cast sobering doubts on "curative" solutions. Hence, the reality is that HIV/AIDS will likely be with us for decades to come. In view of that scenario, it is mandatory that sound education, prevention, and public health measures come from both governmental and non-governmental sources. One area that Taiwan should not neglect is the development of self-sufficiency in leadership for basic and clinical HIV-1 research. The virus is a clever foe with many faces; the problem that faces Asia may be sufficiently nuanced that
it will not fit an American or European solution. Investing in the fundamental infrastructure and personnel required for the science and medicine of HIV/AIDS will put Taiwan in good stead should this pandemic rage for another 25 years.

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References