

**Session 1: Update on Virology and Pharmacology of Antiviral Agents**

**AIDS 2010 : From Reality to Research**

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**Abstract**

Since the first reported HIV infected case in Thailand in 1984, the number of accumulated HIV/AIDS case increased to more than 1 million in 2007. With the first Antiretroviral drug (ARV) Zidovudine (AZT) launched in 1987, currently more than 25 effective antiretroviral drugs were approved and available. From the worse prognosis that all AIDS case died within one and a half year returned to good prognosis with same life expectancy and quality as general population by treated with highly active antiretroviral therapy(HAART). These reflected dedicated, effective research work from all related scientists and clinicians and also all contributed institutes.

The milestone of research works that created to save life of HIV infected people were:

1. 1996 – 2001: An achieve of markedly reduce mortality of AIDS patients from various opportunistic infections and boosted immunological status to the treated patients
2. 2001-2006: A successful attempt in suppressing circulated virus to undetectable level and maintaining such level more than 7 years.
3. 1996-2010: A marvelous research in preventing mother to child transmission (PMTCT) from the high rate at 30% in year 1995 to less than 2% in year 2008 or even at 0% nowadays.

Current unending research in HIV/AIDS fields are the challenging to improve ARV efficacy and its profile to more adherence and less long term adverse events in which alive treated patients are facing. These 2 decades saga proved that the reality suffers could be definitely solved by the research mind and hands.

**Keywords:** highly active antiretroviral therapy (HAART), undetectable virus, preventing mother to child transmission (PMTCT), reality, research