

## HIV LABORATORY DEVELOPMENT AT ARMED FORCE RESEARCH INSTITUTE OF MEDICAL SCIENCES (AFRIMS)

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### ABSTRACT

The development of HIV laboratory at AFRIMS in supporting of HIV-1 vaccine trials in Thailand was implemented in 1991. The collaboration between AFRIMS, RTA and the US Military HIV Research Program with the ultimate goal to conduct the HIV-1 vaccine trial phase III in the future. The HIV serology lab was set up for surveillance program in military recruits and then, there were needed to strengthen more on the existing laboratories by training personnel to cope with the confidentiality of the lab results, specimen processing and data management which are critical. After that, the necessary laboratory for measuring of vaccine immunogenicity were developed, including immunophenotyping, neutralizing antibody, lymphoproliferation, and CTL assays. In addition, PCR, viral sequencing, HIV culture, were also developed. Keys factors in HIV laboratory management must include an ability to deal with routine problems, such as late specimen receiving, fluctuating of power supply; technical staffs maintained. Good laboratory practices must be strictly concerned for reliable lab results and safety in the laboratory. For the field trials, large repository and specimen processing, good equipment maintenance, reliable transportation and communication facilities must be available. Communication network among research facilities was also play an important role in HIV laboratory strengthening at AFRIMS.

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