The Government Pharmaceutical Organization (GPO) is the state enterprise under the Ministry of Public Health, responsible for research and development, production and distribution of pharmaceutical products throughout the country mainly to the government sectors. We produce more than 200 items of medicines, not only for treatment, but also for prevention.

Vision
To be a leader in pharmaceutical products and medical supplies beneficial and essential to the Thai society with fairness.

Mission
1. To manufacture, sell and supply quality pharmaceutical products and medical supplies with an aim to achieve world-class standard
2. To develop business to ensure competitiveness and self-sustainability
3. To maintain price level of pharmaceutical products and medical supplies necessary for the Thai society to ensure people’s accessibility
4. To research and develop new pharmaceutical products and medical supplies to respond to the need and necessity of the Thai society.

INFLUENZA VACCINE PROJECT

Objective: To create sustainable capacity on R&D and production of LAIV/IV for self reliance in normal situation and for national security in time of pandemics.

Goals:
Development of influenza vaccine which meets the WHO-prequalification standard

Development of Pandemic Live Attenuated Influenza Vaccine (PLAIV)

Since the H5N1 outbreak in 2003, Thailand started to establish the project to build an industrial scale flu vaccine plant as part of the National Flu Pandemic Preparedness Plan. In 2007, GPO was one of the first six development partners of WHO program which supports developing countries on the development of flu vaccine production capacity. In 2008, GPO was successful in developing seasonal IV in the laboratory scale. The H5N1 pandemic in 2009 has shifted our effort to develop the PLAIV under the license from WHO with reassorted seed supplied from the Institute Experimental Medicine (IEM), Russia. With the experiences in LAIV, GPO also started developing H5N2 PLAIV in 2010.

H5N1 (2009) PLAIV:
- The clinical trial demonstrated safety of GPO H5N1 PLAIV among volunteers aged 18–49 years.
- The clinical trial demonstrated safety and immunogenicity of GPO H5N1 PLAIV among volunteers aged 12–18, 18–49 and ≥49 years.
- Vaccine approved (EUA) from Thai FDA for 18–49 years old since July 2011 and covered for 12–45 years old in March 2012.

H5N2 PLAIV:
- The clinical trial demonstrated safety and immunogenicity of GPO H5N2 PLAIV among volunteers aged 18–49 years.
- The clinical trial phase II has been finished since November 2013 and document file will be submitted for approval.
- Clinical Trial: Phase II supplement evaluation of Priming by GPO H5N2 PLAIV on sequential response to reassorted H5N1 vaccine in healthy Thai volunteers will be started in May 2014.

Development of Inactivated Seasonal Influenza Vaccine (IV)

Since Asian influenza H5N1 outbreak in 2003, Thai government realized in the importance of self-reliance in flu vaccine production and in 2007, allocated US$ 42 million to establish an industrial-scale influenza vaccine production plant and gave responsibility for this challenging project to GPO.

The plant has started constructing in Kang-kai, Saraburi province since 2009 and is expected to finish in early 2016. The capacity of production with egg-based technology is 2-30 million doses per year for trivalent seasonal Inactivated Influenza Vaccine, which can be increased to 60 million doses in case of pandemics.

Since 2010, GPO has gained on-site technical assistance from the Chemo-Sero Therapeutic Research Institute (KAKETSUKEN), Japan and has started conducting research and systematically developed IV production process.

In 2015, GPO seasonal IV produced at pilot-scale plant is in non-clinical study and is expected to start clinical trial phase I in late of 2014.

Contact Details:
The Government Pharmaceutical Organization
7F/1 Rama 4 Rd., Ratchathewi, Bangkok, Thailand 10400
Dr. Naree Plenprasit
Managing Director
Email: gpo@gpo.or.th
Tel: +66(0)2 505 8288
Fax: +66(0)2 514 0850

Acknowledgement:
WHO, TFDA, DUSC, and Japanese Government, IEM, NIBSC, Biocept, Nobilkin, Monsanto, KAKETSUKEN and Thai partners exp. MOPH, TFDA, DMSC, DLD, SJ and MU.