Services:

- Scale-up manufacturing process in pilot /industrial scale
- Manufacturing process development and optimization
- Biopharmaceutical GMP manufacturing services to serve research and industry needs
- Training and graduate courses on biomanufacturing process engineering, process quality control and quality assurance, and other related fields

National Biopharmaceutical Facility (NBF)

NBF serves as Thailand's prime manufacturing site for biopharmaceuticals by offering state-of-the-art manufacturing infrastructure for biopharmaceutical industry in Thailand. The facility have been set up under the collaboration between BIOTEC/NSTDA and KMUTT with the aim to enable translational research in healthcare to ensure self-reliance in the country for the production of drugs, vaccines and other high-value biomedical and biopharmaceutical products.

Contact us:

Biochemical Engineering and Pilot Plant Research and Development Unit
(Collaborative Unit between KMUTT & BIOTEC/NSTDA)
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Biopharmaceutical Manufacturing

We have expertise and experience in production of therapeutic proteins to meet our customers need in a timely and cost effective manner.

Expression Systems: *Pichia pastoris*, *Saccharomyces cerevisiae*, *Escherichia coli*, *Bacillus subtilis*, *Hansenula polymorpha*

Our current products: Human Growth Hormone; Human Serum Albumin; Consensus Interferon

Our Mission

- Provide contract research (CRO) & contract manufacturing (CMO) services for the manufacturing of biopharmaceuticals used for clinical trial research
- Provide training services to create specialists on biopharmaceutical manufacturing technology, quality control and quality assurance for Thailand and ASEAN countries
- Provide value creation / translational research on biopharmaceutical and related fields

Development of NBF towards National Contract Service Organization

Outcome/Impact

- Allow biopharmaceutical accessibility to everyone in Thailand and ASEAN countries for a better quality of life and longevity
- Provide biopharmaceutical and pharmaceutical security in case of shortage during outbreak, war, natural disaster or other unexpected events
- Increase motivations for translational research and development on biopharmaceuticals for various phases of clinical trial drugs to support local and overseas pharmaceutical industries
- Attract investment from abroad

NBF's GMP Bioprocess Pilot Plant Facility

NBF facility consists of a total utilization area of 13,000 square meters which is divided into 4 production units.

Phase I: Bioprocess Unit 1

With a total area of 600 square meters, Bioprocess Unit 1 has been designed to comply with PIC/S GMP regulation for cleanroom grade C, BSL-1 (Biosafety Level-1). The unit is consisted of submerged microbial fermentation and downstream process (completed and in operation).

Phase II: Bioprocess Unit 2

With a total area of 800 square meters, Bioprocess Unit 2 has been designed as cleanroom grade C, BSL-2 (Biosafety Level-2). The Unit is consisted of cell culture fermentation and downstream process with its own filling and packaging suite (Design completed, ready for construction in 2012)

Phase III:

Two units with a total area of 500 square meters each are available for design and construction of dedicated bioprocess production for potential collaboration or commercial project.

Quality Assurance and Quality Control Facility

Quality Management System

NBF has Quality Unit that serves to ensure that all manufacturing processes are compliant with PIC/S Good Manufacturing Practice (GMP) guidance.

Quality Assurance

Our Quality Assurance Unit is functioned to ensure quality system including conduct internal and external audit, archive of GMP documents, develop training plan for staff and handling/inspection from clients/local authorities.

Quality Control

NBF's Quality Control Unit is operated by highly trained staff and well equipped with modern scientific instruments for environmental monitoring, in-process control and final products release testing.