A member of The Texas A&M University System, the NCTM is an interdisciplinary workforce education and research support center serving the biopharmaceutical and vaccine industries.

Upstream Processing Lab

BSL2 suite for microbial and mammalian cell expression from bench-top to pilot scales including rocking bag and stirred tank bioreactors in single-use and reusable varieties

Downstream Processing Lab

BSL2 suite for product clarification, normal flow filtration, tangential flow filtration, chromatographic methods, formulation and lyophilization

Product Analysis Lab

BSL2 suite supporting various analytical assays used in both quantifying and analyzing biomolecules and potential contaminants

NCTM
NATIONAL CENTER FOR THERAPEUTICS MANUFACTURING

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Biopharmaceutical Workforce Development

NCTM training equips your biomanufacturing workforce with on-the-job skills needed to reduce operator error, increase productivity, and improve your company's bottom line.

TEES | TEXAS A&M ENGINEERING EXPERIMENT STATION

The amount of time it takes for a biomanufacturing hire to be self-sufficient (Door-to-Floor) is 1 year.

On average, recruiting and training expenses for a new employee costs 9 months' salary.

– Society for Human Resource Management

NCTM Training Core Competencies

Cell Culture and Upstream Processes

- Bioreactor assembly, sterilization, operation
- Microbial and mammalian cell cultivation
- Harvest and storage of biomass
- Single-use options for unit operations
- Process optimization and scale-up

Recovery and Downstream Processes

- Cell lysis, centrifugation, clarification, and TFF
- Sterile filtration and membrane integrity testing
- UNICORN chromatography software
- Column packing and evaluation
- Ion exchange/hydrophobic interaction chromatography and single-use alternatives

Quality Systems and Analytical Techniques

- Documentation practices
- Aseptic technique, sterile operations
- Bacterial endotoxin testing, SDS-PAGE assay, total protein assay, TOC analysis, and HPLC
- Gowning, environmental monitoring
- Cleaning, sterilization, CIP/SIP
- Equipment calibration, validation (IQ/OQ/PQ)

cGMP Principles and Regulatory Matters

- Product development cycle and creating a design space
- Biopharmaceutical facility operations/safety
- Process documentation, control, and pathway
- Regulatory compliance, FDA interactions
- Corrective and preventative actions
- Quality Risk Management, science and risk-based approaches

AFFORDABLE CUSTOMIZED TRAINING

STEP 1:
5 courses (~20 hours) of self-paced online training

STEP 2:
WebEx lectures and virtual demos

STEP 3:
Short, intensive hands-on capstone course at NCTM

Upon completion of any NCTM course, your employees will receive a certificate and continuing education units from Texas A&M University.

Contact us to learn more:
Programs@NCTMmail.tamu.edu