ISPE Boston Area Chapter Presents:

Upstream Processing: Development and Optimization
Join Us and See Where it All Begins

Dual-Track Seminar & Tour

Thursday, May 15, 2014

5:30 pm to 8:30 pm

WPI Biomanufacturing Education and Training Center at Gateway Park

60 Prescott Street
Worcester, MA 01605

ISPE Connecting a World of Pharmaceutical Knowledge
Boston Area Chapter
Serving All of New England

PROGRAM SUMMARY:

The successful implementation of microbial and animal cell culture processes requires optimization of a number of variables. A clear understanding of cell line development, media optimization and the control of critical growth parameters assures that upstream scientists and technicians are capable and confident in their handling of these processes. This dual track program focusses on the principals of cell growth and the unit operations that facilitate the manufacturing process.

WHO SHOULD ATTEND:

- Bioprocess, automation and quality engineers
- Personnel involved in biomanufacturing facility design and construction
- Those new to biotech that want a broad understanding of upstream bioprocessing.
- Sales, service and marketing personnel who provide equipment, technical support or materials to biotech.
- Quality control and quality assurance personnel responsible for documentation generation and review.
- Those who do not have a scientific background yet wish to pursue a career in the field of biotechnology.
- Project and program managers for equipment and material vendors that serve the biotechnology industry.
- Quality assurance personnel responsible for the review of upstream process documentation.
- Technical writers responsible for generating batch records and recipes.
- Process Development associates.

TOUR:

During the reception, participants are invited to tour the New Biomanufacturing Education & Training Center (BETC) at Worcester Polytechnic Institute. The BETC is a 10,000 sq. ft. facility outfitted with bench to pilot scale biomanufacturing equipment that is dedicated to providing corporate and professional educational programs to respond to the needs of the biomanufacturing industry's workforce development efforts.

TRACK 1: Introduction to Upstream Bioprocessing

This presentation is for students and young professionals who are interested in learning how Biological products are produced and manufactured. Topics discussed will include:

- Animal cell culture vs. microbial fermentation
- Cell line generation
- Cell propagation from a frozen vial to a production reactor
- Critical growth parameters and Bioreactor / Fermenter overview
- Harvest and product recovery.

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SPEAKERS:

Norman Garceau, PhD, Chief Scientific Officer at Blue Sky BioServices

Dr. Norman Garceau is responsible for overseeing all science-related activities and for ensuring that scientific excellence is at the forefront of the company. Prior to joining Blue Sky, Dr. Garceau was employed at Pfizer Global Research and Development where he served in a variety of leadership roles in spanning molecular and cellular biology, protein production, and small molecule discovery. In addition, he served on global councils for Pfizer and was responsible for overseeing a collaboration with Life Span Biosciences. Dr. Garceau holds a PhD in Biochemistry from Dartmouth College where he studied the molecular basis of circadian rhythmicity in Neurospora crassa. Subsequently, he pursued postdoctoral research at Pfizer & Dartmouth Medical School studying the molecular basis of signal transduction for members of the TNF receptor family.

Scott Gridley, PhD, Vice President of Business Development, Blue Sky BioServices

Scott Gridley is responsible for the Business Development & Sales team at Blue Sky. With over 4 years of experience in sales at Blue Sky, Scott helps drive the company's partnership strategy and sales initiatives.

Before joining Blue Sky Scott spent 5 years working in the metabolic diseases division of Sandoz Research Institute (now Novartis Institutes for BioMedical Research) where he was involved in the design, development and deployment of automated, cell-based, high- throughput screens for anti-diabetic compounds.

Scott received his doctorate from Dartmouth Medical School, Department of Microbiology and Immunology, for his work in biochemically purifying and characterizing a human protein complex (NELF) which represses RNA polymerase II transcriptional elongation and is specifically overcome by the HIV-1 Tat protein. As a postdoctoral fellow, Scott joined Dr. Gustav Lienhard's lab in Dartmouth's Biochemistry department. His research focused on the insulin signaling pathway and led to the identification and characterization of several novel substrates of protein kinase B (Akt).

William Hermans, Head of Cell Culture and Scale Up, Blue Sky BioServices

Bill oversees all insect and mammalian cell culture projects. Bill joined Blue Sky in 2004, bringing with him nearly a decade of experience from Pfizer's core service laboratory where he was one of the co-inventors of the BIIC and TIPs technologies. Over the last ten years, Bill and his staff have significantly augmented research- scale bioreactor cell culture capacity to 200-300L/month and implemented leading edge technologies (IKM) that dramatically improve the productivity of insect cell expression services. Bill received his BS in biology from Rhode Island College.

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TRACK 2: Advanced Topics for Upstream Bioprocessing

This presentation is for seasoned professionals who are interested in learning how Upstream processing of biologics can be scaled up and optimized. Topics discussed will include:

- Cell line optimization
- Media development
- Process scale up considerations
- Continuous upstream processing.

SPEAKER: Kamal Rashid, PhD Director, WPI Biomanufacturing Education and Training Center

Dr. Kamal A. Rashid has over thirty years of academic experience in both research and biotechnology educational program development. During his career he has developed, directed and implemented biotechnology and biomanufacturing training courses at Worcester Polytechnic Institute, Utah State University, Penn State University and internationally. He joined Worcester Polytechnic Institute in 2013 to direct the newly established state-of-the-art Biomanufacturing Education and Training Center (BETC).

Dr. Rashid has delivered numerous lectures and training programs in countries, including Canada, China, The Dominican Republic, Egypt, Indonesia, Iraq, Korea, Malaysia, Philippines, Vietnam, Thailand, Taiwan, Singapore and US. Dr. Rashid is very well recognized for his continuing education, teaching and international programs. He received a national Faculty Service Award in 1997 from US University Continuing Education Association for his meritorious service to Penn State University. He was also honored in 2011 as the international professor of the year in College of Agriculture at Utah State University. His present research emphasis is on bioprocessing utilizing both microbial and mammalian cell systems. Dr. Rashid received his MSc and PhD degrees from Penn State University.

MEETING MANAGERS:

Dan Mardirosian, Worcester Polytechnic Institute
Mallory Duquesne, Consultant

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PROGRAM SCHEDULE:

5:00 – 6:00 PM Registration and Tour
5:30 – 6:30 PM Networking Reception
6:30 – 8:00 PM Presentations (Track 1 and Track 2 Run Concurrently

REGISTRATION FEES:

		Registration by 05/8/2014	Registration After 05/8/2014
☐	Members	$50	$60
☐	Young Professional Members	$20	$30
☐	Non-members **	$95	$115
☐	Students Members	FREE	FREE

** Attendees may only attend one program as a non-member.

REGISTRATION IS NOW OPEN ONLINE!

Don't waste time filling in the form! Register online at www.ISPEBoston.org/Events.
Pay by credit card OR check.

I want to sign up for Track 1: ☐ OR Track 2: ☐

Name: _____ Title: _____
Do you wish to opt out of being listed on the attendee roster: ☐
Company: _____ Member #: _____
Address: _____ City: _____ State: _____ Zip: _____
Tel: _____ Fax: _____ Email: _____
PAY BY CREDIT CARD: ☐ Visa ☐ MasterCard ☐ American Express
Card #: _____ Expiration Date: _____
Cardholder Name (as it appears on card): _____
Cardholder Signature: _____

Payment may be mailed to: ISPE, Boston Area Chapter, 411 Waverley Oaks Road, Suite 331B, Waltham, MA 02452
Telephone: 781-647-ISPE (4773) Fax: 781-647-7222 Email: office@ispeboston.org

****PLEASE NOTE: CANCELLATIONS RECEIVED AFTER MAY 8TH ARE SUBJECT TO BILLING****

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DIRECTIONS:

From the East (Mass. Turnpike, including Logan Airport)
Take Mass. Turnpike (I-90) to Exit 11A (I-495). Proceed north to exit 25B (I-290), then west into Worcester. Take Exit 18 (Lincoln Sq., Rte. 9). Turn right at end of ramp, bear right (again) onto Concord St., and take an immediate right onto Prescott St. Take your first right onto Washburn Way and follow past the The WPI Life Sciences and Bioengineering Center (which will be the building on your left). Visitor parking is next to the building.

From the East (Rte. 9)
Follow Rte. 9 to Worcester. After crossing I-290, proceed down the hill to Lincoln Sq. Bear right onto Lincoln St., getting into the middle lane. At the next set of lights, turn left onto Concord St. and take an immediate right onto Prescott St. Take your first right onto Washburn Way and follow past the The WPI Life Sciences and Bioengineering Center (which will be the building on your left). Visitor parking is next to the building.

From the North
Take I-495 south to I-290. Follow directions from east (Mass. Turnpike). Take Exit 18 (Lincoln Sq., Rte. 9). Turn right at end of ramp, bear right (again) onto Concord St., and take an immediate right onto Prescott St. Take your first right onto Washburn Way and follow past the The WPI Life Sciences and Bioengineering Center (which will be the building on your left). Visitor parking is next to the building.

From the South and West
From western Massachusetts and Connecticut: Take I-84 to Mass. Turnpike (I-90). Take Exit 10 (Auburn) and proceed east on I-290 into Worcester. Take Exit 17 (Lincoln Sq., Rte. 9). Turn left at end of ramp and follow Rte. 9 west, down the hill, to Lincoln Sq. Bear right onto Lincoln St., getting into the middle lane. At the next set of lights, turn left onto Concord St. and take an immediate right onto Prescott St. Take your first right onto Washburn Way and follow past the The WPI Life Sciences and Bioengineering Center (which will be the building on your left). Visitor parking is next to the building.

Parking options include:
Parking lot adjacent to the Parking Garage
The WPI Visitors Lot is adjacent to Gateway Park I (60 Prescott Street).
Park on far side of 50 and 60 Prescott Street, across from both Gateway Park buildings.
Park on Washburn Street, the street behind the two Gateway Park buildings, and in front of the parking garage.
Please pay close attention to no parking signs to avoid being ticketed.

For door to door directions, click here.