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BIOZESTA

A MONTHLY NEWSLETTER OF BIOCON ACADEMY

Cover Story – BiOZEEN Visit

Biocon Academy's hands-on training allows students to engage in kinesthetic learning. It allows students to experiment with trial and error, learn from their mistakes, and understand the potential gaps between theory and practice. Biocon Academy has collaborated with Bengaluru-based biopharmaceutical services company BiOZEEN as a training partner for hands-on industry training for the students.

As a part of their training program, students of the Biocon KGI Certificate Program in Biosciences Batch 16 received one-week hands-on training in BiOZEEN on Pilot Scale Fermentation, Clean-in-Place (CIP), Sterilization-in-Place (SIP) and the students of BITS Biocon Certificate Program in Applied Industrial Microbiology Batch 6 received one-week training on basic and applied techniques in Microbiology.

The students of Biocon KGI Program in Biosciences was trained by two highly experienced BiOZEEN trainers; Ms Elizabeth Eldo and Ms Julie Mathew, and the training for BITS Biocon Certificate Program in Applied Industrial Microbiology (AIM) were conducted by Dr. Nellaiah Hariharan, Head R&D, and his team.

During the 5-day exclusive 'hands-on training' the AIM batch were taken through the basic and applied techniques in microbiology which includes, serial dilution, plating methods for enumeration and characterization of microorganisms, storage preservation and retrieving microbial cultures, microbial growth curve, analysis of air and water for microbiological attributes, monitoring the microbiological attributes of personal and specific staining methods for flora microorganisms. They also did media preparation, non-viable particle counting, streaking on YPB agar plates, etc.

Similarly, the Biosciences students went through a 6-day program where they learned the 'scale-up' process from a 5L seed fermenter to that of a 40L pilot scale fermenter. The students also had training on drawing of the P&ID (Piping and Insulation Diagram), Sterilization of FSIP (Full-Vessel) and ESIP (Empty Vessel) and also CIP (Clean-in-place) over the entire week-long session

The hands-on experience at BiOZEEN helped the students get a comprehensive overview of the engineering behind the sophisticated Bioreactors or Microbial cultured plates. It was indeed an enriching experience for the students.

AIM BATCH 6

BIOSCIENCES BATCH 16

Biocon Academy
Adding Value, Enhancing Skills

Message from the Academic Manager

Emerging Trends in Reshaping Biotechnology Industry in 2020

Dr RAMGOPAL RAO
ACADEMIC MANAGER,
BIOCON ACADEMY

Biotechnology is the backbone of the Life Science sector in making significant contributions to the advancements of science and technology with a wide range of applications in food & agriculture, healthcare, environment, energy, and other service sectors. Last couple of decades has seen Biotechnology becoming the driving force in bringing radical changes in the innovation processes and playing an important role in enhancing market competitiveness for high economic growth and citizen welfare. This flourishing of the biotech industry was made possible with support from the government, a range of public-private investment and a competitive objective driven workforce. The Indian Biotechnology sector is fortunate to have an effective collaborative ecosystem consisting of large industrial establishments, start-up companies along with interfacing government agencies like DBT & CSIR labs. BIRAC has initiated many schemes, networks and platforms in collaboration with several national and global partners to bridge gaps in the industry-academia innovation research and facilitate novel, high-quality affordable product development.

Many biotechnology companies are collaborating with a multitude of stakeholders to access the best research and development platforms to foster their progress. Biotech is a unique industry where technology advances rapidly but returns are slow, most public research organizations and companies have started protecting their innovation with strong IPR to to protect their investments in R&D. Both Companies and Regulatory agencies have adapted to new disruptive technologies that are challenging the traditional methods and processes. Investors are shifting their focus from conventional companies to AI-enabled biopharma companies and AI-oriented diagnostics and tools. Due to accelerated approval possibilities, there is continued focus on rare disease therapeutics and an increased interest in companies focused on digital health for improving patient outcomes.

Biopharmaceutical industry platforms are seen maturing yielding positive data and new drugs using a range of more complex drug platforms, be it monoclonal antibodies, nucleic acid therapies or gene-based medicines. Last year’s approval for Alnylam's Onpattro followed by FDA’s recent approval for Givlaari suggest that drug makers are as well interested in RNA interference. The successful launch of Novartis' Zolgensma suggests that expensive gene therapies could have a viable market, although whether they'll live up to the expectations is still unclear. Experimental CAR-T cell therapies and novel Antibodies for multiple myeloma have attracted a lot of attention due to early success evident from Bristol-Myers - Bluebird study called ide-cel followed by Phase 2 extension study of J&J (Cartitude-1).

On M&A front, the year 2019 saw 12 deals in Biotech surpassing $1 billion in value, the major ones being Bristol-Myers' $74 billion buyouts of Celgene and AbbVie's $63 billion acquisition of Allergan.

Students Corner

MOULY CHATTERJEE BITS BIOCON CERTIFICATE PROGRAM IN APPLIED INDUSTRIAL MICROBIOLOGY, BATCH 6

"The QMS has the responsibility to develop a culture of quality in the company and hence prevent the risk of product recalls. It sets policies and procedures required for planning and execution of the product right from it is filed till the time it is released in the market and even after that. It is also responsible for ensuring data integrity in the company which plays a crucial role in achieving a consistent system of quality compliance."

Mouly Chatterjee, alumnus from batch 6 of BITS Biocon Certificate Program in Applied Industrial Microbiology.

She is currently working in Kemwell Biopharma in Quality Assurance. She pursued her post-graduation in Biotechnology from the University of Hyderabad. She holds a strong academic record with a focus on core biotechnology. She did her internship from Indian Institute of Engineering Science & Technology, Shibpur and worked on a project to identify the Effect of Cigarette Smoke Extract on Oral Squamous Carcinoma Cells.

Mouly's hobbies include reading, writing and dancing. She has shown her contribution for BioZesta, where she has written a blog on 'A view from the industry on Quality Management System' after attending the guest lecture delivered by Mr. Pravin Kulkarni, General Manager, Quality, Biocon Biologics.

To read the blog: **Click Here**

In Conversation with Guest Lecturer

"Quality Management System (QMS) is the backbone of the biopharma company. Any failures, deviations, and changes are handled through the QMS. QMS system provides the overall health status & culture of the organizational"

Mr. Pravin Kulkarni delivers guest lectures at Biocon Academy on a regular basis. He is currently heading QCMB, QCAT in Biocon Biologics. He conducted an informative guest lecture on '**The role of Quality Management System in Pharmaceutical Industry**' for the 6th Batch of **BITS Biocon Certificate Program in Applied Industrial Microbiology.**

Pravin spoke about the importance of Quality from a biopharma perspective. He explained various elements of Quality Management System to the budding scientists, who are on the threshold of launching their careers. He also explained how it is beneficial in shaping minds of students and how Biocon Academy is adding immense value through such workshops.

Read his full interview: **Click here**

MR. PRAVIN KULKARNI, GENERAL MANAGER, QUALITY, BIOCON BIOLOGICS

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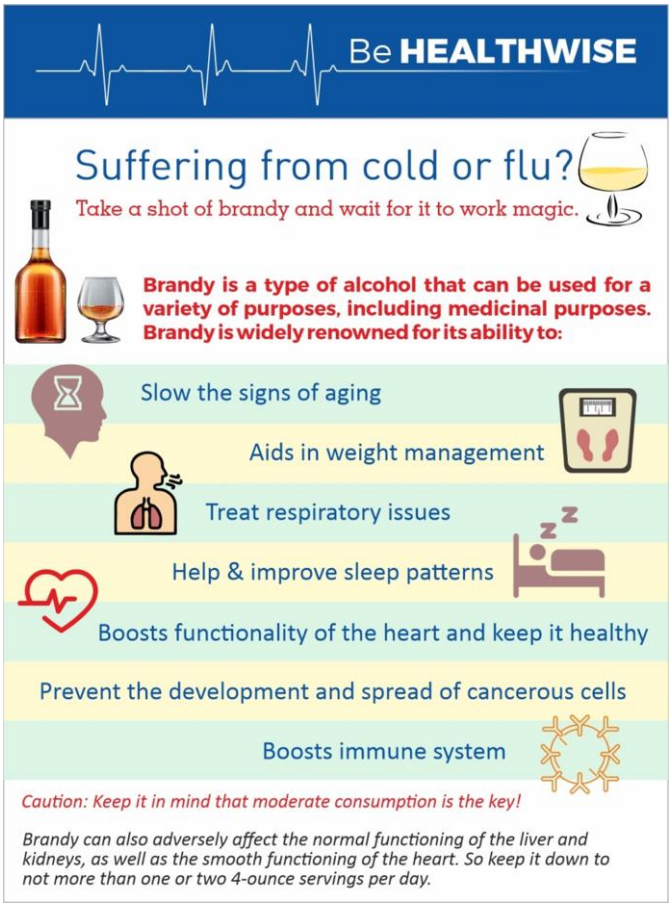
NEWS

During the pandemic, be aware about your nearby hotspot areas and take all precautionary measures. Practice #physicaldistancing and #BeSafe!

Know more:
https://www.covid19india.org/

Tips to Stay Productive Amidst The Crisis!



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