



BREAKING THE MOULD

Brian Doherty
Technical Specialist
IMMY, Norman, OK

The importance of the diagnosis and management of disease has become very clear over the past year. The 42-year-old IVD manufacturer IMMY, based in Norman, Oklahoma has focused on this issue, specializing in Mycology. Fungi is an often-neglected area of infectious disease with most attention paid to bacteria or viruses. The eukaryotic nature of fungi involves complex gene expression that can make the diagnosis and treatment of fungal pathogens difficult. IMMY uses a multidisciplinary approach to develop new diagnostics that impacts disease worldwide. An extensive research and development team, as well as an ISO certified manufacturing facility, helps to develop and produce these diagnostics that are used in over 80 countries across the world. The company has also implemented a clinical laboratory that has performed diagnostic testing for over 250,000 Oklahomans, as well as an on-going vaccination program for COVID-19. This presentation will detail some of the issues healthcare providers are faced with and how IMMY has met these challenges with innovative, nimble solutions.

CYTOVANCE BIOLOGICS' ROLE DURING A PANDEMIC

Stephanie Wickham Ph.D.
Senior Director of Development
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Cytovance Biologics, OKC, OK



During a pandemic, scientific research that has been slowly progressing for years or even decades is suddenly thrust into the forefront. This also means that these academic research ideas need to have an avenue to large scale production to reach the masses for vaccination programs. This is where contract development and manufacturing organizations (CDMO) really become crucial during a pandemic response. CDMOs by their nature are flexible facilities that contain a wide variety of equipment for the manufacturing of biological therapeutics. Scaling from bench to manufacturing for a mammalian or microbial process are very similar despite the organisms having drastically different upstream growth profiles and requirements. Likewise, the downstream process for both mammalian and microbial processes are very similar in general concepts regarding protein purification strategies. These similarities allow for rapid mobilization of CDMOs to support pandemic vaccine production efforts. This talk will present the equipment utilized during vaccine production and the general process involved for generating a vaccine along with the different types of vaccines in production.

6:45-7:00 pm Social

7:00-8:00 pm Presentations

The meeting will be virtual via zoom.

The evening will be structured with a short social period, followed by the two 30-minute presentations and a general question and answer period. Students are welcome and encouraged to participate.

This meeting has a waiting room. Please wait for the host will let you in.

[ZOOM LINK](#)

Meeting ID: **974 4080 4509**

Passcode: **459849**

Need Zoom help? → contact Cheryl Frech: cfrech@uco.edu or 405-613-7903

No Internet? You can also join by calling one of these phone numbers and follow the prompts.

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zoom meeting link

Brian Doherty Biographical Sketch

B.S. Microbiology OU 2007, A.A.S. Biotechnology 2004. Codeveloper of the Cryptococcus Antigen Lateral Flow Assays, Cryptococcus antigen ELISA, Histoplasma antigen ELISA and the Coccidioides antibody lateral flow assay. All FDA approved and CE marked products that are sold all over the world and help to decrease mortality from invasive fungal infections.

Stephanie Wickham Biographical Sketch

Dr. Stephanie Wickham has over 16 years of experience in research and industry cell culture and protein purification. Graduate and post-doctoral fellowships focused on transfection, fermentation, and purification of proteins from mammalian and microbial hosts while studying structure/function protein interactions and developing small molecule enzyme inhibitors. Her focus at Cytovance has been process transfer into manufacturing, designing scale-up processes, and leading the R&D and MST teams as they help every client transition from bench- to full-scale clinical supply batches. Areas of expertise include mammalian upstream and downstream, along with microbial upstream and downstream, producing various proteins ranging from monoclonal antibodies, enzyme, fusions, and cytokines. Dr. Wickham received a B.S. in Chemistry and Mathematics and a Ph.D. in Microbiology.