

JAMES N. WARNOCK, PH.D. is a professor and the founding chair of the School of Chemical, Materials and Biomedical Engineering at the University of Georgia, Athens, USA. Before coming to Athens, Dr. Warnock served as the associate dean for academic affairs at Mississippi State University's Bagley College of Engineering. He earned a doctorate in chemical engineering and a master's in biochemical engineering from the University of Birmingham, United Kingdom, before completing a two-year postdoctoral fellowship at the Institute for Bioengineering and Biosciences at the Georgia Institute of Technology.

Dr. Warnock has conducted research in the areas of cell and gene biomanufacturing, bioreactor design, tissue engineering and cellular mechanobiology. He is actively involved in engineering education research and has earned international acclaim for his work using problem-based learning to enable students to develop professional skills. He currently serves as the director for Engineering Workforce Development for the NSF Engineering Research Center in Cellular Manufacturing Technologies (CMaT).



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Founding Chair & Professor of the School of Chemical, Materials and Biomedical Engineering
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FRIDAY, JANUARY 21, 2022 | 9:00 AM | EC 2300

TRAINING THE NEXT GENERATION WORKFORCE FOR CELL MANUFACTURING

ABSTRACT: With the approval of the first cell and gene therapies by the FDA and the tremendous promise of emerging biopharmaceutical drugs – biomanufacturing, especially the transformative areas of cell and gene-therapy manufacturing, has rapidly become one of the most critical sectors of the biotech and pharma industry in the United States, and around the world. While early progress has been made to transition from lab-bench scale production through the first phase I and II clinical trials, to now more industrial, scaled manufacturing with 'Big Pharma' companies like Novartis, Bristol Myers Squibb, and Gilead launching commercial products, there are still large gaps that need to be addressed to move the current state of cell and gene therapy manufacturing into the future.

The 2016 National Roadmap (and the subsequent 2017 and 2019 updates) from the National Cell Manufacturing Consortium (NCMC) – a public-private consortium of industry, government, clinical, and academic leaders – identified lack of skilled cell-manufacturing workforce as a major barrier for the acceleration of promising therapies into products – and suggested that these areas need immediate national attention.

This seminar will describe the process of developing a competency model that provides the framework to train the future biomanufacturing workforce across different educational levels.



Through the generous support of the Wallace H. Coulter Foundation, the Department of Biomedical Engineering facilitates weekly lectures each year during academic terms. Experts in all areas of Biomedical Engineering are invited to provide a research seminar and to meet with faculty and students to discuss the latest developments and research in Biomedical Engineering.

Friday, January 21, 2022

9:00AM-10:00AM | <https://bme.fiu.edu/seminars>