

INNOVATION AND ENTREPRENEURSHIP DISCUSSION SERIES

Strategic Front-End Innovation: Bridging Technology and Market Needs

THURSDAY APRIL 17TH, 2025
12:00PM-1:00PM WEBEX

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Abstract:

Large corporations often grapple with the inherent tension between sustaining core business operations and driving disruptive innovation that create new products and services. While research teams pursue new discoveries, these innovations often face resistance from core business units that perceive them as operational risks. For innovation to thrive, it must be people-driven and customer-inspired, not merely technology-driven.

This seminar introduces a strategic framework, integrating front-end innovation principles, to guide technology development well before product conceptualization. This approach addresses the high uncertainty inherent in early-stage development, bridging the gap between emerging capabilities and real-world applications. In environments where business uncertainties eclipse technological challenges, this framework enables technology teams to move beyond engineering-centric problem-solving and focus on critical non-technical factors: achieving robust product-market fit, establishing clear and adaptable requirements, and maintaining disciplined scope management.

Through an in-depth MedTech case study, participants will explore how this framework helps technology teams avoid developing solutions for the wrong problems by focusing on customer needs first. Attendees will gain actionable strategies for driving innovation that leverages the scale of industry to create meaningful societal benefits.

Biography:

Matt Dressler is a seasoned leader in technology commercialization and medical innovation with a strong focus on de-risking early-stage technologies and startups. As Funds Manager at Purdue Innovates, he guides innovations through the “valley of death” by managing funds to increase Technology Readiness Levels and implementing structured processes for technology development and portfolio management. Previously, he spent over 15 years at DePuy Synthes, where he held progressive leadership roles in front-end R&D and applied research, managing international teams and driving differentiated technology solutions for medical devices. His expertise spans biomechanical research, product development, and digital surgery innovation, and tribology, with a proven ability to identify critical unmet needs, craft evidence-based adoption strategies, and lead teams in executing high-impact solutions. Before transitioning to industry, he conducted research in tissue engineering and biomechanics, investigating age-related tendon changes and stem cell-based therapies. With a Ph.D. and M.S. in Engineering Mechanics/Biomechanics from the University of Cincinnati and a B.S. in Mechanical Engineering from UMBC, Dr. Dressler brings a unique combination of technical depth, strategic leadership, and a passion for fostering innovation, mentoring engineers, and advancing commercialization pathways for emerging technologies.