Converting Research into Products
-Insights from my Multidisciplinary Problem-Solving Journey-
Organized by TechEx.in

Gains	• Understand the multidisciplinary problem solving journey • Challenges faced during product development • Example of diagnostic product development: insight into the process and key elements that made it successful
Co-coordinator	• Vidula Walimbe, Associate Manager-Innovation Management, Venture Center
Organized by	• TechEx.in, Regional Tech Transfer Office at Venture Center, Pune
Supported by	• National Biopharma Mission (https://birac.nic.in/nationalbiopharmamission.php) • Venture Center, Pune (www.venturecenter.co.in) • BIRAC (https://birac.nic.in/index.php)
For whom	• Researchers • Inventors • Technology developers • Budding entrepreneurs
When	**(Thursday) 23 June 2022 |Time: 4.00 pm – 5:00 pm**
Where	**Session will be held in a hybrid mode (offline at Venture Center campus and on online ZOOM platform)**
Contact	Technical queries: Dr. Vidula Walimbe | Email: vidula@ipface.org Registration queries: Ms. Lipika Biswas | Email: eventsdesk@venturecenter.co.in
Registration	**Event is free, but Registration is mandatory** **Steps for registration:** • Step 1: Interested participants need to fill in registration form at the following link. **Register online at: https://tinyurl.com/23june-techex** • Step 2: Attendance only on confirmation from organizers. Note • Organizers reserve the right to select participants so as to maximize learning and networking opportunities for the group. • Session will be held in a hybrid mode (offline at Venture Center campus and on online ZOOM platform). Only selected participants will be allowed to participate.

TechEx.in Tech Transfer Hub at Venture Center Supported by NBM - BIRAC	VENTURE CENTER 15 years of service to the Nation	nbm NATIONAL BIOPHARMA MISSION	birac Ignite Innovate Incubate

Introduction

When something works for the first time - it's excitement. A moment of breakthrough! An invention is where the journey begins. A product is expected to work every single time without thinking about it. One looks at the iPhone and expects it to unlock instantaneously. When a product doesn't work once, there's despair! The journey of shepherding an invention till it becomes that reliably working product is what product development is about. Intellectually, both phases can pose immense challenges and be very satisfying to lead.

The talk will share one such journey of an evanescent-wave-based diagnostic product and touch upon two other wearable drug delivery products. It will emphasize the need for creativity, rigor, and first-principles-based problem solving that is needed to take concepts to products that are usable in the clinic.

The talk will bring out the interplay of the various engineering and science disciplines. They blend seamlessly in nature and real-world medical products. So the journey of taking these multidisciplinary products from concept to clinic is a bit like conducting an orchestra. One needs to have excellent perspective and judgment - the zoomed-out vision and deep resources in the team to solve technical challenges - the zoomed-in vision. As the CTO of Evanostics, the speaker played that role for a point of care oral-fluids-based diagnostics product. Speaker will share some insight into the process and key elements that made it successful. This will be followed by a discussion on two examples of wearable transdermal drug delivery technologies. Finally, the talk will explore how one can learn from nature and engineer surfaces. At the microscale, surfaces dominate, and an excellent first-principles-based understanding comes in handy.

Event Schedule

Time	Duration	Topic	Lead Speaker
4.00 PM -4.05 PM	5 mins	Introduction to event	Vidula Walimbe
4.05 PM - 4.50 PM	45 mins	Converting Research into Products - Insights from my Multidisciplinary Problem-Solving Journey	Ashutosh Shastry
4.50 PM - 5.00 PM	10 mins	Q & A	

TechEx.in Tech Transfer Hub at Venture Center Supported by NBM - BIRAC	VENTURE CENTER 15 years of service to the Nation	nbm NATIONAL BIOPHARMA MISSION	birac Ignite Innovate Incubate

Speaker	
	**Ashutosh Shastry, PhD** **Founding CTO of Evanostics** Dr. Ashutosh Shastry is a founding CTO of Evanostics and has a passion and expertise in building multidisciplinary teams, technologies, and products for diagnostics and drug delivery. Utilizing his deep experience with microsystems engineering, Dr. Shastry led the product and technology development for the Evanostics point-of-care system. Before joining Evanostics, Dr. Shastry served as Vice President of R&D at iNDx LifeCare and as the Director of Engineering at Corium International. At Corium, he led the technology development and scalable pilot manufacturing of a dissolvable-microneedles patch from early concepts to Phase IIa. Before that, he had led the development of a next-generation infusion pump, which received an Edison Award in the category of "Science & Medical Device Game Changers." At the University of Washington, Dr. Shastry initiated research on super-hydrophobic surfaces for droplet microfluidics. Dr. Shastry has a Ph.D. in Biomedical Engineering and M.Tech and B.Tech. Degrees in Chemical Engineering from the Indian Institute of Technology Bombay. He initiated India's first BioMEMS projects collaborating with Cancer Research Institute. He has authored numerous publications and has over fifteen patents. He has served on the Industrial Advisory Board for UCLA's Bioengineering Department, a National Institute of Health Review Panelist for Allergy and Infectious Diseases, and the National Science Foundation SBIR Review Panel for Biomedical Technologies. As the President of EPPIC Global, he reimagined it as a place where "Technology Meets Health" and currently serves on its Board of Directors."

TechEx.in Tech Transfer Hub at Venture Center Supported by NBM - BIRAC	VENTURE CENTER 15 years of service to the Nation	nbm NATIONAL BIOPHARMA MISSION	birac Ignite Innovate Incubate

Organized by	
TechEx.in	TechEx.in is a Technology Transfer Hub operated by Venture Center, Pune, India and supported by the National Biopharma Mission, BIRAC (Govt of India). TECHEX.IN aims to help technology developers and technology commercialization entities find each other's, forge partnerships and advance the technology closer to the market in a win-win partnership. In this mission, TECHEX.IN will build upon learning's, methods and experiences of NCL Innovations (department of CSIR-NCL championing innovations), IPFACE (IP Facilitation Center) and Venture Center (technology business incubator). The TechEx.in is based in the western part of India. While its focus is on organizations in Maharashtra, Gujarat and Goa states of India, it welcomes technology developers and technology commercialization entities from any part of the world. For more information please visit: www. techex.in

Supported by	
birac Ignite Innovate Incubate	Biotechnology Industry Research & Assistance Council (BIRAC)is a new industry-academia interface and implements its mandate through a wide range of impact initiatives, be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive. For more information, visit: www.birac.nic.in
nbm NATIONAL BIOPHARMA MISSION	National Biopharma Mission (NBM) is a Mission of the Government of India approved by the Cabinet for implementation in May 2017. The NBM's mission is to make India a hub for design and development of novel, affordable and effective biopharmaceutical products and solutions. The NBM has an allocation of US$ 250 million and is jointly funded by the Government of India and the World Bank in equal measure. The NBM is officially known as "An Industry-Academia Collaborative Mission of Department of Biotechnology (DBT) for Accelerating Early Development for Biopharmaceuticals". ; Biotechnology Research Assistance Council (BIRAC) is the implementation partner of the Government of India for the Mission. For more information: visit: https://birac.nic.in/nbm/
VENTURE CENTER 15 years of service to the Nation	Entrepreneurship Development Center (Venture Center) – a CSIR initiative – is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering. For more information, visit: http://www.venturecenter.co.in/