







Webinar on

COVID 19 Diagnostics Portfolio: The Ground Reality in India

- Organized by Venture Center -

Webinar overview	COVID-19 is here to stay, and the situation warrants that we need to be prepared to face it for a longer period of time. Quick and efficient community level diagnosis at key entry points is going to be the mainstay of this war against COVID. This webinar aims to give a technical overview of the various diagnostic kits currently approved for use and will focus on identifying the strengths and shortcomings in the current methods. The panel discussion will point out the gaps in the diagnostics portfolio and also help in indicating some technology solutions to address these gaps.		
Organized by	 NIDHI Center of Excellence @ Venture Center Pune Diagnostics Action Group @ Venture Center Social innovations @ Venture Center 		
Supported by	NIDHI Center of Excellence supported by DST-NSTEDB @ Venture Center		
For whom	 Innovators and technologists NGOs and Social Innovators Industry professionals Researchers and students Entrepreneurs/ startups with interest in COVID 19 diagnostics COVID 19 clinicians, paramedics and other frontliners 		
When	Monday 20 July 2020 Time: 1600 - 1730 hrs		
Where	This webinar will be held on an online platform		
Contact	<u>Technical queries:</u> Dr Mugdha Lele, mugdha@venturecenter.co.in, 7410045652	Registration queries: Ms Neha Khaladkar, neha@venturecenter.co.in, 8956677543 Ms. Lipika Biswas, eventsdesk@venturecenter.co.in +91-20-25865877, 64011023	
Registration	 Webinar attendance is free. Registration is mandatory Webinar will be conducted using online platform. Only registered participants will be allowed to participate in the webinar. Register Here: https://bit.ly/20-july-2020 Registration Process: Step 1: Interested participants need to fill in registration form at the following link. Step 2: Email invite with link to webinar will be sent post screening of registration details. NOTE: Registration closes once 90 seats are full More details at: https://www.venturecenter.co.in/socialinnovations/events/ Webinar will also be live at: https://www.facebook.com/venturecenterpune 		

Webinar Outline

Event shall consist of: Talk and Panel discussion with Q & A session









Schedule			
Time	Session title	Lead	
1600-1610	Welcome to Venture Center and Introductionto the Pune Diagnostics Action Group and Social Innovations @ Venture Center	V Premnath	
1610-1700	COVID 19 Diagnostics Portfolio: The Ground Reality in India Session 1: Cost effective population screening and testing for covid- 19 Abstract: It has been a remarkable testimony to the advances in molecular measurement and genomic technologies that the global biotechnology sector has been able to rapidly roll out clinical grade testing at a scale where judicious testing and tracing has helped to contain the pandemic in several regions of the world and our country. The informatics community has also stepped up with intelligent systems for screening such as contact tracing, modeling and smart pooling strategies. Going forward, we will need the ability to screen and test populations repeatedly for SARS-Cov2 RNA, Antigen, and Antibodies until vaccination and inexpensive therapies become available. Cost effective and high-speed testing platforms are being rolled out in rapid succession. It is perhaps time to take stock and provide decision support and guidance to authorities overseeing public spaces and leadership of institutions (including our campuses) with cost effective screening and testing strategies to protect their populations.	Vijay Chandru	
1700-1730	Session 2: Panel discussion and Q & A Focused to identify: • the gaps in the diagnostic portfolio • some technology solutions to address the gaps • diagnostic industry perspectives Ideas for compilation will focus on: • Defining problems and areas where technology interventions are warranted • Exploring user-friendly solutions for using in the community set up • Where will technology intervention work within a reasonable time frame and cost	Moderator: V Premnath Panelists: Anurag Agrawal Rahul Bhambure Vijay Chandru Narendra Chirmule Nikhil Phadke Sridhar Sivasubbu Rapporteur: Mugdha Lele	









Speaker



Vijay Chandru

Vijay Chandru (PhD, MIT 1982) is an academic and an entrepreneur whose research in computational mathematics led to fellowship of both academies of science and engineering. He is a distinguished technologist of the INAE and adjunct professor in BioSystems Science and Engineering at the Indian Institute of Science. At Strand Life Sciences, Vijay was founder executive chairman 2000-2018. He serves on the councils of the national biotech industry body (ABLE) and on vision groups for technology in Karnataka.

Professor Chandru co-founded the Simputer Trust which designed and manufactured India's first indigenous handheld computers at the start of the millennium. He is associated with the International Institute of Art, Culture and Democracy (IIACD) where he pursues his scholarly interests in heritage studies. A Technology Pioneer of the World Economic Forum, he was listed in the 50 pioneers of change by the India Today magazine in 2008.

Panelists (in alphabetical order of last names)



Anurag Agrawal

Anurag Agrawal is a physician-scientist and the director of the CSIR-Institute of Genomics and Integrative Biology. Known for his studies on lung diseases, Agrawal is a senior DBT-Wellcome Trust India Alliance fellow. He received the Shanti Swarup Bhatnagar Prize, for his contributions to Medical Sciences in 2014, as well as the National Bioscience Award for Career Development in 2015. He is interested in experimental and computational approaches for understanding biological and clinical aspects of respiratory diseases, especially asthma. His group has developed integrated solutions for healthcare delivery and digital data collection in resource-limited settings as well as computational tools for visualization and analysis of complex medical datasets.



Rahul Bhambure

Rahul is MTech from ICT, Mumbai, PhD from IIT-D and Post Doc from University of Delaware, USA in Chemical and Biomolecular Engineering. He is Scientist at CSIR-NCL in the Chemical Engineering and Process Development Division since 2016. He is an expert in downstream process development for therapeutic proteins and oligonucleotides, proficient in preparative and analytical chromatographic theory and operations, characterization of chromatography media using inverse size exclusion chromatography, small angle x-ray scattering, confocal laser scanning electron microscopy, high throughput process development for chromatography, object oriented programming for Tecan liquid handling platform used in high throughput process development.











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Narendra Chirmule

Narendra Chirmule is the co-founder and CEO of SymphonyTech Biologics, a data analytics company focused on engineering solutions to biology. As former Head of R&D at Biocon (Bangalore), and leadership positions in Amgen (Thousand Oaks, CA) and Merck Vaccines (West Point, PA), has contributed to clinical development of vaccines and biopharmaceuticals. development experiences include landmark vaccines for cervical cancer [HPV], shingles [Varicella zoster], childhood diarrhea [Rotavirus]), and biologics for osteoporosis (Prolia), rheumatoid arthritis (Enbrel), platelet loss (NPlate), breast cancer (Ogrivi) and gene therapy using viral vectors. He also worked on the development of the Adenovirus-vector based HIV vaccine, which was tested in the seminal STEP trial. The results of the trial were instrumental in informing the field of HIV vaccine on the importance of both cell as well as humoral immune protective immune responses. He has published extensively and presented seminars on subjects of basic immunology and development of biologics and vaccines. The topics of his publications include white-papers and regulatory guidance's on novel methodologies of measuring immune responses to biologics and vaccines, utilization of quality by design approaches of molecule design, and statistical methods for analyses of pharmacokinetic and pharmacodynamics. The subject of his PhD was on development of a leprosy vaccine, from Cancer Research Institute, Mumbai; post-doctoral studies on pathogenesis of AIDS from Cornell University Medical College-North Shore Hospital, New York; teaching and research as assistant professor in gene therapy at University of Pennsylvania, Philadelphia. Dr. Chirmule is on the NIH advisory committee for HIV vaccines.



Mugdha Lele

Mugdha is Sr. Manager - Social Innovations at Venture Center with a Ph.D in Health Sciences from Pune University. She drives the Social Innovation initiatives at Venture Center. She is nominee director on the board of Synthera Biomedical Pvt Ltd (a dental biomaterials startup) incubated at Venture Center. She was a Chevening Rolls Royce Science, Innovation, Policy and Leadership Programme (CRISP) Fellow at the Saïd Business School,









University of Oxford, UK in 2016. In 2018 she has also been part of the Aritra Accelerator Program for Leadership in the Social Sector at IIM Bangalore with Phicus Solutions and Dr. Reddy's Foundation.



Nikhil Phadke

Nikhil is Founder & Chief Scientific Officer at GenePath Diagnostics, founded with a view to bringing state-of-the-art in vitro diagnostic tests to the Indian medical community and to develop novel high quality affordable molecular diagnostic tests and platforms for the developing world. Here he leads a multidisciplinary team of clinicians, scientists, bioinformaticians and engineers. He is a PhD from the University of Michigan, Ann Arbor and has over 18 years experience in the fields of Molecular Biology, Proteomics and Molecular Diagnostics. Earlier, he was a core team member of HandyLab (acquired by Becton Dickinson), a highly successful microfluidics based molecular diagnostics startup in Ann Arbor, Michigan, USA. He has several publications in international peer-reviewed journals and also has a number of granted patents and active patent applications in the US and in India. Nikhil is also the founder of I-SHARE Foundation, a not-for-profit organization with a mission to innovate solutions for healthcare access, research and education. He is also the managing partner at Phadke Hospital in Pune, which is a specialty women's and children's hospital that has been in continuous operation since 1945.



Sridhar Sivasubbu

Sridhar is Principal Scientist at CSIR-Institute of Genomics and Integrative Biology. He is interested in exploiting the advantages of zebrafish to dissect molecular mechanisms of gene function and regulation in vertebrates. His lab has identified molecular mechanisms of miRNA-mediated regulation of vascular integrity. His lab is also deeply involved in the human genome sequencing, which provides a template for analysis of personal genomes for precision medicine in humans.



Premnath Venugopalan

Premnath is currently the Head- NCL Innovations, Head -Intellectual Property Group at NCL, Scientist-Polymer Science & Engineering Division at NCL and Director-Venture Center. He has helped found and be the first Director of Venture Center, CSIR-Tech (a technology commercialization company), Orthocrafts Innovations (degradable synthetic polymer based biomed products start-up) and BiolMed Innovations (silk based biomaterials start-up). He holds a B.Tech. from the IIT-B and a Ph.D. from the MIT, USA. He has also been a Chevening Technology Enterprise Fellow with the Centre for Scientific Enterprises, London Business School and Cambridge University, UK. He brings with him considerable experience in technology development and commercialization (two successfully commercialized families of biomedical products), incubation and innovation management, working with start-up companies (in Cambridge-UK and India) and engaging with large corporations on research and consulting projects as project leader.









Organized by



The National Science and Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology, Government of India has awarded Venture Center with the status of a NIDHI-CoE (National Initiative for Developing and Harnessing Innovations — Center of Excellence an umbrella programme conceived by DST). This award is accompanied by a grant of Rs. 50 Cr for 5 year duration to help Venture Center scale-up its activities and demonstrate greater success to accommodate more than 100 startups at any time and to upgrade and add new facilities for supporting science and technology based startups. NIDHI-COE is catalyzed and supported by NSTEDB Division, Department of Science and Technology, New Delhi.

For more information, visit: http://nidhicoe.venturecenter.co.in/



Venture Center is committed to Social innovation and entrepreneurship. We actively nucleate and nurture enterprises that focus on solving socially important problems and build sustainable entities (for profit or not-for-profit) to deliver the solutions to society. Focus areas at Venture Center include affordable health and nutrition, empowering farmers, clean energy, sustainable resource utilization, environment and circular economy, water, sanitation, hygiene and any other social sectors that can leverage Venture Center's innovation ecosystem.

For more information:http://www.venturecenter.co.in/socialinnovations

The Pune Diagnostics Action Group is a Social Innovations initiative by Venture Center, started as a response to the COVID 19 pandemic. The aim is to mobilize, enthuse and build a diagnostics ecosystem in the Western part of the country with specific focus to infectious diseases and broadly focused on public health disease conditions. The initiative looks forward to build a platform of like-minded experts in the domain of public health diagnostics with expertise in identifying the key needs, defining quality standards, develop solutions and further identify potential partners to deliver these for the broader social good.

(https://www.venturecenter.co.in/socialinnovations/pdag/)









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VENTURE C E N T E R	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/		
NSTEDB	The National Science & Technology Entrepreneurship Development Board (NSTEDB), established in 1982 by the Government of India under the aegis of Department of Science & Technology, is an institutional mechanism to help promote knowledge driven and technology intensive enterprises. The Board, having representations from socio-economic and scientific Ministries/Departments, aims to convert "job-seekers" into "job-generators" through Science & Technology (S&T) interventions. For more information: http://www.nstedb.com/		
विज्ञान एवं प्रौद्योगिकी विभाग DEPARTMENT OF SCIENCE & TECHNOLOGY	Department of Science & Technology (DST) was established in May 1971, with the objective of promoting new areas of Science & Technology and to play the role of a nodal department for organising, coordinating and promoting S&T activities in the country. For more information: https://dst.gov.in/		
