

## Webinar on Plasma Therapy for COVID 19

- Organized by Venture Center -

Webinar overview	Plasma therapy has the potential of being a life-saving effective therapy for patients especially with a bad prognosis with COVID-19. Long being used as a treatment for acute symptoms following infectious diseases, this therapy has some limitations and risks. One of the first patients treated with plasma therapy in India, died of anaphylactic shock1. A systematic process of Failure Mode and Effects Analysis (FMEA) to identify and prioritize the risks associated with this therapy was done. While there are obvious risks, such as anaphylactic shock and potential transmission of infectious organisms, we have outlined several other risks that can occur due to a sequence of events, and or cascading events, such as inflammation induced by Neutrophil-Enhancing-Traps (NET) and Cytokine Storm. This webinar attempts to provide a list of ranked risks and treatment strategies for each of the adverse events to assist health care institutions providing plasma therapy for COVID-19 patient. The panel discussion will try to bring together an array of clinicians who are the frontliners in this war against COVID and are using this therapeutic approach to tackle this infection. Discussion with these COVID warriors will help to point out to some of the ground realities of this therapy and indicate some of the gaps which technologists may try to address.	
Organized by	<ul> <li>NIDHI Center of Excellence @ Venture Center</li> <li>Task Force on Repurposing of Drugs for COVID 19</li> <li>Social innovations @ Venture Center</li> </ul>	
Supported by	NIDHI Center of Excellence supported by DST-NSTEDB @ Venture Center	
For whom	<ul> <li>Innovators and technologists</li> <li>NGOs and Social Innovators, Researchers and students</li> <li>Industry professionals</li> <li>Entrepreneurs/ startups with interest in COVID 19 therapeutics</li> <li>COVID 19 clinicians, paramedics and other frontliners</li> </ul>	
When	Friday   24 July 2020   Time: 1600 - 1730 hrs	
Contact	<u>Technical queries:</u> Dr Mugdha Lele, <u>mugdha@venturecenter.co.in</u> , 7410045652	Registration queries: Ms Neha Khaladkar, <u>neha@venturecenter.co.in</u> , 8956677543 Ms. Lipika Biswas, <u>eventsdesk@venturecenter.co.in</u> +91-20-25865877, 64011023
Registration	<ul> <li>Webinar attendance is free. Registration is mandatory</li> <li>Webinar will be conducted using online platform. Only registered participants will be allowed to participate in the webinar.</li> </ul>	



- Register Here: <u>https://bit.ly/24Jul2020</u>
  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: <u>https://www.venturecenter.co.in/socialinnovations/events/</u>
  - Webinar will also be live at: <u>https://www.facebook.com/venturecenterpune</u>

## 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 Webinar Background	V Premnath	
1610-1700	Session 1: A systematic evaluation of Risks and Mitigation strategies for Plasma Therapy for COVID-19	Narendra Chirmule	
1700-1745	<ul> <li>Session 2: Panel discussion and Q &amp; A</li> <li>Ground realities of this therapy in Indian patients</li> <li>What works and what does not work</li> </ul>	Moderator: Narendra Chirmule and Priya Nagraj Panelists: Dipyaman Ganguly Raman Govindarajan Brinda Kakkar Aparna Mukherjee	



## Speaker



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. The drug 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.

## Panelists (in alphabetical order of last names)



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	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.
Dipyaman Ganguly	Dipyaman is a trained doctor turned into a Scientist with PhD in Biotechnology, from IICB in 2008, followed by another PhD in Immunology and Biomedical Science, UT MD Anderson Cancer Center, Houston, USA in 2010. His areas of interest are Immunology, Innate Immunity, Dendritic cells, Autoimmune disorders, Metabolic syndrome, Mechanosensors, T cells and B cells, with particular focus currently on novel therapies for metabolic syndrome, novel anti-parasitic small molecules, novel molecule exploration for diet-induced obesity, protective immunity in cerebral malaria and mechanisms in obesity associated insulin resistance. He has been conferred several National and International honours and awards like the National Bioscience Award from DBT and the Swarnajayanti Fellowship from DST, Govt of India to name a few recent ones. In addition to guiding several research students for their PhDs and Post- docs, he has many national-international publications and patents to his credit.
Raman Govindarajan	Raman Govindarajan is a Consultant to the Pharmaceutical and Biotechnology Industry and Founder Director at Jivagen Biotherapeutics and Founder Director at Samrud Foundation for Health and Research. He is a physician scientist, with a MD PhD in Medicine and Cell and Molecular Biology. After his Post doctoral training at Dept of Medicine and then in the Dept of Cell Biology at Cornell University Medical College, he has been leading several teams for nearly 3 decades in industrial R&D at Unilever, Johnson and Johnson, Jubilant and Sanofi. His expertise in Medicine, Cell Biology, Toxicology, Microbiology, Oncology, Metabolic disease, target identification and validation, Clinical and Translational Medicine along with Science Management and building strong industry-academia links has led to many inventions, patents, papers and book chapters. His current interests are novel antibody development for cancer, autoimmune and infectious diseases, novel target discovery and developing artificial intelligence algorithms for medical diagnostic applications.
Brinda Kakkar	Brinda is trained as a doctor from University of Mauritius, and a DNB gold medalist in Immunohematology and Blood Transfusion, Indraprastha Apollo Hospital, New Delhi, where she completed a Fellowship in Immunohematology & Apheresis Technology. Currently she is an Associate Consultant in Transfusion Medicine at Jehangir Hospital, Pune. She has also worked in as a Senior resident at Tata Memorial Centre, Mumbai and at Institute of Liver and Biliary Sciences, New Delhi. Her areas of interest are Immunohematology, Therapeutic apheresis and Transfusion transmitted infections.
Aparna Mukherjee	Aparna is currently Scientist with ICMR and is heading the ICMR's national trial for Plasma Therapy for COVID 19. She is a trained pediatrician followed by a PhD from AIIMS, New Delhi. She was working at AIIMS earlier as a Clinician-Scientist and is also an Early Career Fellow under the Wellcome Trust/DBT India Alliance Fellowship program, where her primary area of work is on tuberculosis, focused on studying Differential Cytokine Patterns during Treatment of Tuberculosis and exploring the



	possibility of monitoring therapeutic response in children by a simple blood test.
Priya Nagraj	Priya is Bioincubation Manager at Venture Center. She holds a Ph.D. in Cell Biology from University of Virginia, USA. She worked with Advinus Therapeutics Ltd, a pharmaceutical drug discovery company for over 5 years. She has research experience in biochemistry, cell biology, developmental biology, molecular biology and drug Discovery.
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.



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NIDHI CENTER OF EXCELLENCE @ Venture Center	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/	
TFORD COVID19 India	The Principal Scientific Advisor to the Gol, Dr K Vijay Raghavan, has constituted a S&T Core Group on COVID19. Under the aegis of the S&T Core Group on COVID19, a Task Force has been constituted focused on Repurposing of Drugs for COVID19 (in short "TFORD-COVID19"). The Task Force is being coordinated by Dr V Premnath, Head, NCL Innovations at CSIR-NCL and Director, Venture Center and Dr Anurag Agarwal, Director, CSIR-IGIB. Project title: Speeding up the Lab to Market Journey: Repurposing Drugs for COVID-19. The Nerve Center for the Coordination is at Venture Center, Pune (located in the campus of CSIR-NCL).The scope of the TFORD is to look at drugs approved for other indications in any part of the world   At this stage, the Task Force is not looking at NCEs except if it is in advanced stages of clinical trials For more information, visit: https://nclinnovations.org/covid19/	
Venture Center is committed to Social innovation and entrepreneurship. We actively nucleate and nurture enterprises that focus on solving socially importan 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 othe social sectors that can leverage Venture Center's innovation ecosystem. For more information: <a href="http://www.venturecenter.co.in/socialinnovations">http://www.venturecenter.co.in/socialinnovations</a>		











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INCLUSION Solutions from CSIR India	The National Chemical Laboratory, India is a research, development and consulting organization with focus on chemistry and chemical engineering. It has a successful record of research partnership with industry. NCL Innovations is resource center of NCL that supports, promotes and champions the cause of technology innovations within NCL. For more information, visit: <u>http://www.nclinnovations.org/</u>	
	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: <u>http://www.venturecenter.co.in/</u>	
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: <u>http://www.nstedb.com/</u>	
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: <u>https://dst.gov.in/</u>	

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