



# Sartorius Workshop

## Accelerate mRNA Vaccines from Development to Commercialization

April 12, 2023

11:00 AM – 1:00 PM (CET)

Simplifying Progress



# SARTORIUS

Sartorius Workshop

## Accelerate mRNA Vaccines from Development to Commercialization

Wednesday , April 12, 2023, 11:00 AM - 1:00 PM (CET)

Start Time Zone (CET)	End Time Zone (CET)	Topic	Presenter
11:00	11:05	Opening Remarks	DCVMN
11:05	11:10	Introduction and Workshop Agenda	Raman Rani
11:10	11:50	Accelerating mRNA process using scalable , flexible and reliable solutions	Niddhivinayak Mishra   Rok Sekirnik
		Live Poll Session	DCVMN
11:50	12:40	Seeing is Believing: Explore Cutting-edge Technologies for mRNA Process Live from Sartorius Application Center, Bangalore	Sartorius Stedim Biotech Technical Team
12:40	01:00	Q&A Session	Panelists: Rok Sekirnik Buwadas Raut Niddhivinayak Mishra

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## Accelerate mRNA Vaccines from Development to Commercialization

Messenger RNAs (mRNAs) are fast-emerging biotherapeutics that offer new opportunities for targeted treatment of challenging diseases. The clinical potential of mRNA extends beyond vaccines to advanced therapies.

The journey to develop new mRNA process can be complex to achieve desired purity, yield with optimal manufacturing strategy and facility design. This complex process begins with a DNA plasmid (pDNA) produced in *Escherichia coli* and its subsequent purification. The process continues with in vitro transcription (IVT), followed by purification of the mRNA.

This workshop session will take you through simplified solutions for mRNA process with shorter development time and accurate quality control assays followed by a live experience of latest and innovative solutions with our technology experts from state-of-the-art Sartorius Application Center, Bangalore, India.

Join us to experience your mRNA journey !!!

### Niddhivinayak S. Mishra



Niddhivinayak S. Mishra is an expert in downstream process development with more than 12 years experience in Biopharmaceutical Industry. He has completed his M.Tech in Bioprocess Technology from ICT Mumbai, India. Niddhivinayak, started his career as a Process Development Scientist in Syngene International Ltd, subsequently too an Expert role in Merck Life sciences, India focusing on the down stream processes. In both the roles he has worked extensively on multiple customer projects involving purification process optimization, stability studies, scale up and technology transfer.

Currently he is associated with Sartorius Stedim India Pvt Ltd as Manager of Field Application Services. In this role he leads a team of technical professionals to support the Bioprocess solutions.

His leadership qualities along with knowledge in understanding the pain and challenges of Biopharmaceutical industry helps to recommend right solutions to the industry needs.

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## Sartorius Stedim Biotech Technical Team

Rok Sekirnik



Rok Sekirnik, graduated in Chemistry at University of Oxford, where he also completed his PhD. He has worked in the areas of mAb, vaccine and gene therapy vector development in various roles, including Principal Scientist at Novartis and Project Manager at Batavia Biosciences.

He is the Head of Process Development, mRNA/ pDNA at Sartorius BIA Separations. His team at Sartorius BIA Separations is working on developing high yielding, cost-effective purification approaches for pDNA and mRNA production.

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Buwadas Raut



Buwadas R Raut is a Product Specialist of Chromatography Consumables for APAC region in Chromatography Task Force Team of Sartorius Stedim Biotech.

Buwadas has total 11+ years of experience and master's degree in Biotechnology. Prior to joining Sartorius he worked in industries like Lupin Ltd., Enzene Biosciences and Wockhardt Ltd. He was involved in purification process development of recombinant proteins (microbial & mammalian source), tech transfer etc.

His focus area includes evaluation of consumables like resin, membrane adsorbers and Monolith columns for purification of biotherapeutics, nucleic acids and viral vectors.

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## Sartorius Stedim Biotech Technical Team

Raman Rani



Raman Rani has more than 18 years of experience of working in the biopharmaceutical industry. She is post graduate in Microbiology.

She started her career in 2001 with Panacea Biotec and there she worked in multiple roles and levels viz: product development, scale-up, manufacturing, quality assurance and regulatory affairs. Product developments include various pediatric vaccines like HibTT, Pneumococcal conjugate vaccines, Acellular pertussis, DPT based combination vaccines.

Currently she is working with Sartorius Stedim India Pvt Limited in the role of Manager – FAS North India. In this role she leads a technical team to support bioprocess solutions. Her prior knowledge in understanding of challenges in biopharmaceutical industry for process and regulatory aspects helps tremendously in connecting the industry needs with value proposition from Sartorius to the manufacturers for seamless execution.

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Vinay Prathap



Vinay Prathap is a Bioprocess Data Scientist at Sartorius Stedim India Pvt Ltd. In his current role he focuses on building customer applications in data analytics, delivering trainings and consultancy based on need.

He has over 10 years' experience in Monoclonal antibody separation techniques including filtration and chromatography. During this period, he has contributed towards development of purification platforms, scale up and process characterization of multiple biosimilar projects.

His major areas of interest include Multivariate Data analysis, Statistical modeling and Mechanistic modeling. Vinay has completed his Masters in Science in Industrial and Commercial Biotechnology from Newcastle University, UK.

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## Sartorius Stedim Biotech Technical Team

Loganathan Thangaselvam



Loganathan Thangaselvam is an expert in Upstream process development with more than 7 years experience in Biopharmaceutical Industry. He has completed his B.Tech in Bio-Technology from MEC, Anna University Chennai, India. Loganathan, started his career as a Trainee in Green Signal Biopharma Ltd, and then as a Research Executive for Upstream Process Development in Biocon Research Limited. Prior to joining Sartorius his experience include Dr.Reddy's Laboratories as a Scientist for Upstream Process development group and Syngene international Limited as a Senior Executive in Manufacturing. In all the roles he has worked extensively on multiple customer projects involving Upstream process development and optimization, Technology transfer of the developed process and then to execute the process transferred in the manufacturing across scales.

Currently he is associated with Sartorius Stedim India Pvt Ltd as a Field Application Specialist. In this role he is exploring the customers in India in order to support them with optimum solutions for Upstream process.

His technical capabilities along with his experience in understanding the pain and challenges of Biopharmaceutical industry helps to recommend right solutions to the industry needs.

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Niveditha Shetty



Niveditha Shetty is an expert in downstream process development with more than a decade of experience in Biopharmaceutical Industry

She has completed her Masters in Biotechnology from Bangalore University, (PESIT) and began her career in Sartorius as an executive for process development. She subsequently had a successful tenure at Pall Corporation as senior sales engineer.

Post which she joined Grindwell Norton (Saint – Gobain) as Manager-Healthcare where she focused on SU designing, collaborating with the US team for manufacture of complex designs at the Indian site.

Currently she is working with Sartorius as an application specialist with a focus on single use applications, she is instrumental in providing technical solutions in single-use arena, problem solving and driving sustainable long-term growth for fluid management portfolio

Niveditha is a technical speaker at multiple events and trainings, where she regularly engages with professionals from pharmaceutical and biopharmaceutical industry.

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## Sartorius Stedim Biotech Technical Team

Balaji S S



Balaji S S is an Application Specialist, Separation Technologies at Sartorius India. He is an experienced Biopharmaceutical Professional in Downstream manufacturing of mAbs & Vaccines. He is our Subject Matter Expert for Filtration & Other separation Technologies. He is working as a downstream and filtration expert at Sartorius Stedim India. Prior joining Sartorius in 2022, he worked in Dr. Reddy's Laboratories, Hyderabad as a Production Specialist - MSAT. His major objective is to expand the Sartorius' Filtration and Purification product portfolio in Indian Pharma & Biopharmaceutical market as technical solution provider to produce quality biosimilar drugs and vaccines and to reduce time to market.

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Jaya Saraswathi Vijayaraghavan



Jaya Saraswathi Vijayaraghavan is a Technical Trainer at Sartorius. She holds an M. Tech degree in Industrial Biotechnology from NIT Karnataka and has more than 6 years experience in the Bioprocessing field.

Previously, she has worked as Senior Executive in Biosimilars Production at Biocon Biologics, Bangalore, Executive in Manufacturing at Enzene Biosciences Ltd., Pune and as R&D officer in Poseidon Biotech Pvt. Ltd. Chennai. Her work experiences include working in Upstream and Downstream Processing of mAbs and Recombinant proteins including Continuous processing of mAbs.

Her role at Sartorius involves designing and delivering content for technical trainings as well as facilitating training with external partners. She is the content expert for filtration, downstream processing and single-use topics.

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