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Single use membrane chromatography to
increase productivity



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- [Downstream Process Development For Vaccine Manufacturing](#)
- their high-value products. The process strategies to improve purity and yield as well as the challenges associated the purification of viral vector process will be discussed.
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Matrix single use membrane chromatography for increased productivity

- The production of viruses, whether for use as viral vaccines, viral vectors for gene therapy, or oncolytic applications, requires complex processes that can translate into high costs, as well as slow development timelines and time to market. In this article, we will present several case studies highlighting the advantages of process intensification using Matrix[®] single-use membrane chromatography to increase your productivity and reduce your capital and operational manufacturing costs.
- The high binding and short residence times of Matrix single-use membrane chromatography, (used in all of the following case studies), are enabled by the combination of a non-woven reinforcing mesh skeleton coupled with a porous hydrogel containing functional groups. The skeleton provides the mechanical strength and durability, while the hydrogel creates a large 3D surface area containing a high density of functional groups with interconnected pores allowing for convective flow channels to achieve high flow rates.
- By Ranjeet Patil, Segment Head for Vaccines and Gene Therapies and Mochao Zhao, Global Product Manager for Single-Use Membrane Chromatography, MilliporeSigma
<https://www.cellandgene.com/doc/downstream-process-intensification-of-virus-purification-using-single-use-membrane-chromatography-0001>