



Lior Shaltiel: NurExone

Could you introduce yourself and share a brief update on NurExone's journey translating exosome-based therapies for central nervous system indications?

I am Lior Shaltiel, CEO and board member at NurExone. Over the past year, NurExone has made significant progress in advancing our exosome-based therapies for central nervous system (CNS) indications. We have completed important preclinical studies and are preparing for our first clinical trials. Our multidisciplinary team continues to optimize exosome 3D production and delivery of siRNA, moving closer to clinically meaningful solutions for patients with CNS injuries and disorders.

Transitioning from 2D culture to automated 3D bioreactors is notoriously challenging. What is the single biggest bottleneck when scaling up EV volumes for clinical supply?

The biggest bottleneck is ensuring consistent exosome yield and quality at scale. The transition from 2D to 3D bioreactors introduces new variables that can impact exosome characteristics, requiring careful optimization of culture conditions and monitoring to reliably produce clinical-grade material.

How can bioprocess teams effectively mitigate shear sensitivity and eliminate lot-to-lot variability during high-density upstream culture?

Mitigating shear sensitivity requires precise control over agitation and flow rates in the bioreactor, as well as thoughtful design of the culture environment in the bioreactor. Implementing real-time monitoring and using standardized operating protocols are key strategies to minimize lot-to-lot variability and maintain exosome integrity.

What practical, data-driven bioprocessing takeaway can attendees expect from your session on managing bioreactor dynamics?



Attendees will receive actionable insights on leveraging real-time process analytics to optimize bioreactor parameters and downstream insights, resulting in more consistent exosome production. I will share data on how specific adjustments to bioreactor dynamics improved both yield and quality in our manufacturing pipeline.

What practical, data-driven bioprocessing takeaway can attendees expect from your session on managing bioreactor dynamics?

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With Exosomes Europe co-located with Cell & Gene Therapy and LNPs Europe, which cross-industry discussions are you most eager to participate in?

I'm particularly interested in discussions around the integration of exosome and LNP technologies for targeted delivery, as well as cross-talk on regulatory pathways and manufacturing challenges shared across these innovative modalities.

Lior & NurExone will be joining us at Exosomes Europe this November in Berlin.

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