

# Leveraging Cryo-Electron Microscopy to Reshape Drug Discovery Landscape

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Since the early 2010s and the Nobel Prize Chemistry Award in 2017, Cryo-Electron Microscopy (Cryo-EM) has evolved to a mainstream structural biology method and a game-changing technology for structure-based drug discovery of challenging targets such as GPCR, Ion channels, Kinases & Viral targets... Cryo-EM was adopted as a well-established technique in the pharmaceutical industry due to its ability to visualize macromolecular assemblies and investigate the intricate interactions between drug and receptor, enabling informed, accelerated drug discovery and design accurately and rapidly.

Initially, limited in resolution, throughput and attainable molecular weight, cryo-EM is now rapidly overcoming its main limitations for more widespread use through a new wave of technological advances to share with the audience.

This presentation will discuss how cryo-EM has already impacted drug discovery, and how the state-of-the-art is poised to further revolutionize its application to previously intractable proteins as well as new use cases from Structure Based Drug Discovery and sparkling applications for Antibody Discovery/ Biologics, Vaccine & Gene/ Cell therapy.

In addition to outstanding advances in single particle Cryo-EM, this talk will also touch base to Cryo-electron Tomography as one of the new technological trends that have the potential of transforming the way we do drug discovery in the coming years.

## *References:*

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