

Startups in China use AI models to facilitate AAV gene therapy development

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To jointly establish an artificially designed gene delivery system to help more partners

China-based startup Porton Advanced has announced the establishment of a strategic partnership with BioMap. Founded in 2020, BioMap is a disruptive life science AI company responsible for building xTrimo, the first and largest protein-centric large language model platform.

BioMap will leverage Porton Advanced's unique Adeno-Associated Virus (AAV) vector technology platform and research data to develop AAV assembly efficiency models and an assembly distribution model. The goal is to harness the power of large-scale life science models, accelerating the design of AAV vectors, and expanding the application of artificial intelligence (AI) models in the field of gene therapy.

Over the past decade, the development of gene therapies based on AAV vectors has significantly propelled a new round of biotechnology revolution. Despite many great achievements in research on the construction and assembly of AAV vectors, the creation of tissue-specific AAV coat proteins, a key step towards unlocking their therapeutic potential, remains a longstanding challenge.

However, the limitations of natural serotype AAVs in satisfying clinical needs have stimulated scientists' interest in fostering innovative AAV development through AI technology, especially AI models.

With the increasing data in the gene delivery vector field and the emergence of large protein language models, it is believed that AI will assume a key role in gene delivery vector research in the foreseeable future and serve as a driver for innovation and significant advancements in human health throughout this new era.