

Japan's Otsuka Pharma inks \$1.5 B deal to develop novel AAV gene therapies for ocular diseases

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To develop novel treatment options for people living with serious eye diseases



Japanese firm Otsuka Pharmaceutical and US-based ShapeTX have announced a multi-target collaboration to develop intravitreally-delivered adeno-associated viruses (AAVs) for ocular diseases, with options to add additional targets and tissue types.

The companies will collaborate to apply ShapeTX's AAVid capsid discovery platform and transgene engineering technology along with Otsuka's expertise in genetic payload design and ophthalmology to develop novel treatment options for people living with serious eye diseases.

ShapeTX's artificial intelligence (AI)-driven AAVid platform combines massive throughput screening of billions of unique AAV variants and machine learning to identify novel AAV capsids for direct-to-NHP in vivo selection to maximise clinical translation. AAVid capsids are designed for precise target tropism while detuning for off-target biodistribution, thereby reducing the required dose and associated clinical safety risks. As part of the collaboration, ShapeTX will also apply the company's transgene engineering technology to optimise payloads provided by Otsuka for therapeutic levels of gene expression in targeted cell types.

Under the terms of the agreement, ShapeTX will receive an initial payment from Otsuka and is eligible to receive development, regulatory, and sales milestone payments potentially exceeding \$1.5 billion in aggregate value. ShapeTX is also eligible to receive tiered royalties on future sales of products resulting from the collaboration.