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IIT-K and Reliance Life Sciences to revolutionise gene therapy for hereditary eye diseases

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Makes history by licensing gene therapy technology to an Indian biotech firm



In a historic moment, the Indian Institute of Technology, Kanpur (IIT-K) has licensed a pioneering technology to Reliance Life Sciences that has the potential to revolutionise the field of gene therapy, especially for many genetic eye diseases.

This marks the first time that a gene therapy related technology has been developed and transferred from an academic institution to a company in India. The gene therapy technology from IIT-K will be further developed as an indigenous product by Reliance Life Sciences.

Developed by Prof. Jayandharan Giridhara Rao and Shubham Maurya from the Department of Biological Sciences and Bioengineering (BSBE), IIT-K, the patented technology modifies the gene of an organism to treat a hereditary disorder. In this case, the site refers to a specific location on an Adeno-associated virus (AAV) (viral vector) used for gene therapy.

The technology modifies this location to optimise its ability to deliver genes to the affected cells and improve its effectiveness. The technology has the ability to improve gene therapy for many hereditary diseases, especially inherited eye diseases. It has shown significant promise in correcting the vision impairment in animal models of blindness.

Reliance Life Sciences is developing several gene therapies to address unmet clinical needs. In addition to gene therapies, Reliance Life Sciences is developing a range of human and animal health vaccines and mRNA products.