

Top pharma experts to evaluate Optimer for precision liver medicines

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Evaluating Optimer binder for targeted delivery of therapeutic payloads to fibrotic liver disease cells



US-based Aptamer Group plc, the developer of novel Optimer binders to enable innovation in the life sciences industry, has announced that its Optimer binder against cells associated with fibrotic liver disease, developed for targeted delivery of therapeutic payloads to fibrotic liver disease, has been shipped to a top 15 pharmaceutical companies for evaluation in their own therapeutic applications.

The Optimer delivery vehicle was developed to selectively target cells linked to fibrotic liver disease, as part of a fee-forservice partnership with the pharmaceutical company that began in 2020. Subsequent work at Aptamer Group combining the Optimer with a model gene therapy payload has shown that the Optimer enables selective delivery of the gene therapy specifically to fibrotic human liver cells in laboratory tests, with no interaction with other liver cell types. This allows the gene therapy to be effective in target fibrotic liver disease cells, with no effect in the non-target liver cells.

A significant effect was seen from the Optimer-delivered gene therapy, compared to the gene therapy alone, with a p-value of less than 0.01, indicating the probability of these results is more than 99% due to the Optimer delivery of the gene therapy. As these data demonstrate the successful therapeutic delivery using the Optimer binder, the pharmaceutical partner requested samples of the material for their own evaluation, with a view to licensing this binder for further development of new precision liver medicines. The required material has been manufactured by Aptamer Group and, following internal testing by the company, has been released to the pharmaceutical partner.

Dr Arron Tolley, Chief Technical Officer of Aptamer Group, said "We are delighted to be able to supply our Optimer binders to our pharma partner for evaluation. Their positive feedback on our in-house data suggests that the Optimer binders could outperform the alternative molecules they are currently testing."