

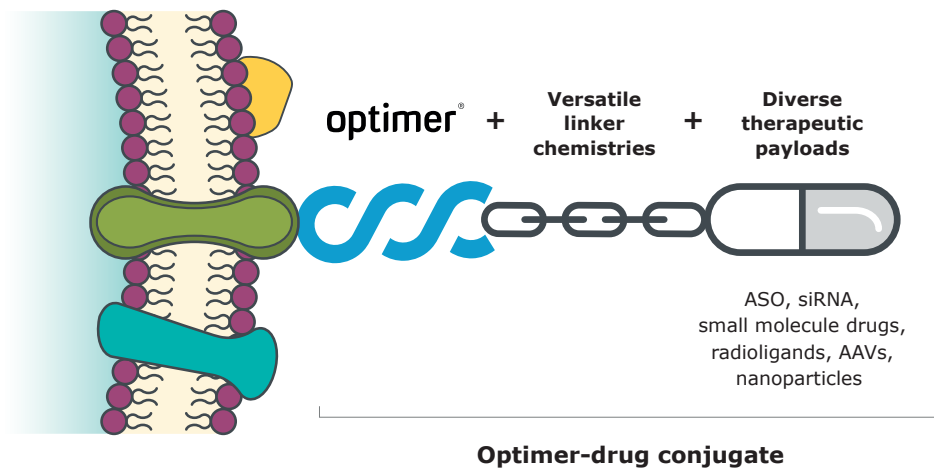
# Optimer<sup>®</sup>-drug conjugates

Optimer delivery vehicles are precision-targeted and tuneable for the successful and improved delivery of diverse therapeutic payloads.



## Precision targeting of your payload with Optimer delivery vehicles

Optimer delivery vehicles are engineered to specifically bind your protein target for assured site-specific therapeutic targeting and delivery.



## The Optimer advantage

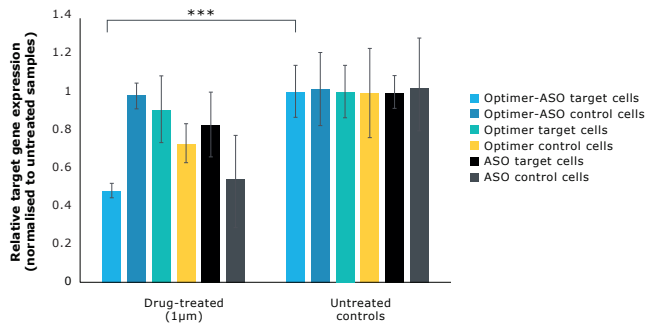
Optimer binders are single stranded nucleic acid molecules that possess a number of significant advantages as delivery vehicles.

Feature	Optimer advantage
Small size	~15 times smaller than antibodies for increased tissue penetration.
Immunogenicity	Limited to no immunogenicity improves therapeutic index.
Highly target specific	<i>In vitro</i> selection overcomes reliance on the immune system. Selection with conjugated therapeutic for increased success.
Tuneable half-life	Able to tune for long half-life or 'hit-and-run' strategies as required.
Tuneable target binding	Selection for specific kinetics, internalisation, organelle targeting to improve deliverability.
Simple, consistent modification	Simple, site-specific modifications with a range of linkers offers consistent Optimer-drug ratio.
Scalable, batch consistent production	Manufactured via solid phase synthesis to overcome scalability and batch consistency issues.

# Functional delivery vehicles for diverse payloads

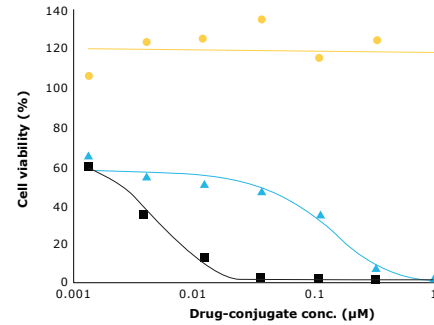
Optimer binders are functional when conjugated to different payloads enabling targeted delivery to your cell or tissue of interest.

## Optimer-ASO delivery leads to target transcript knockdown



Treatment with the Optimer-ASO conjugate results in specific knockdown of transcript expression in the targeted cell type. Reduced ASO penetration is seen in off-target cell types when conjugated to the Optimer delivery vehicle.

## Optimer-drug delivery leads to reduced cell viability

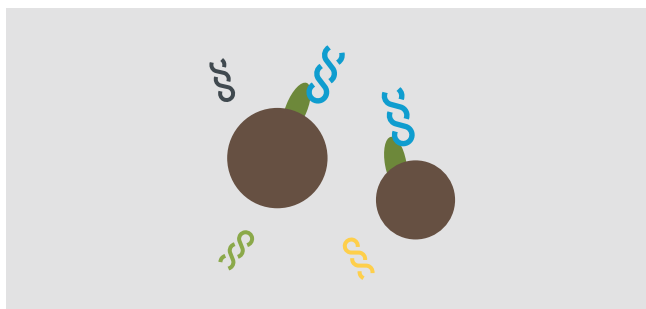


Treatment with Optimer-drug conjugates results in a concentration dependent reduction in cell viability, via luminescent assays. Use of the Optimer vehicle alone shows no effect on cell viability.

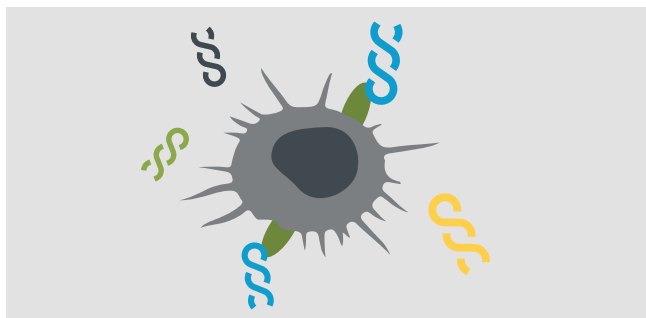
# Tailored discovery processes to maximise success

- Develop Optimer ligands to specific biomarkers using our protein discovery process and further validate the function using the cell discovery process.
- If a biomarker is unknown, hypothesis-free discovery can identify Optimers to specific cell phenotypes (eg healthy vs disease) with biomarker ID performed post-discovery.

## Protein-targeted discovery



And  
**Cell-targeted validation**



## Hypothesis-free discovery

