



AsiDNA™

A new category of drugs to tackle DNA damage

AsiDNA™ harnesses strong innovation potential for patients suffering from different types of cancer. So how does it work? AsiDNA™ disrupts and depletes the ability of tumour cells to repair their DNA by diverting them from their target as soon as damage is detected.

Carnot Curie Cancer Institute

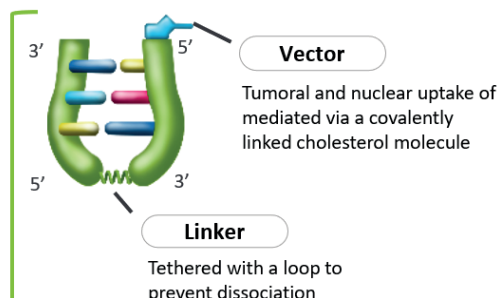
Scientific / technological breakthrough

In 2016, Carnot Curie Cancer teamed up with biotechnology company Onxeo to develop AsiDNA™ technology, the fruit of research conducted by DNA Therapeutics, which was spun off in 2006 from Carnot Curie Cancer, the CNRS (National Centre for Scientific Research) and the French Natural History Museum.

AsiDNA™ is a double-stranded DNA fragment that acts as a decoy, mimicking a DNA double-strand break in the tumour cell. It sends a false distress signal that mobilises DNA break detection and repair enzymes and prevents the repair of real DNA damage. The cancer cells therefore continue to divide despite these breaks, ultimately leading to cell death. Conversely, healthy cells stop dividing until they can repair their DNA once the product has been evacuated from the body.

AsiDNA™

Active 32 bp DNA duplex



Competitive advantage for the economic stakeholders

The AsiDNA™ approach differs from that of other products targeting tumour DNA repair insofar as it does not inhibit the action of a specific enzyme but targets the entire succession of cellular events that forms the tumour's response to its own DNA damage, acting at an earlier stage via a decoy with an agonist effect. Thanks to its novel action path and robust preclinical and promising clinical data obtained, AsiDNA™ can play a key role in liaising with cytotoxic agents such as radiation or chemotherapy, or with targeted oncology therapies for which medical needs remain very great.

Partnership

- **ONXEO** is a clinical-stage biotechnology company designing and developing novel oncology drugs that target tumour.