

## TECHNOLOGY OFFERS

# Therapeutic annexin composition of reduced offtarget effects (P-1434)

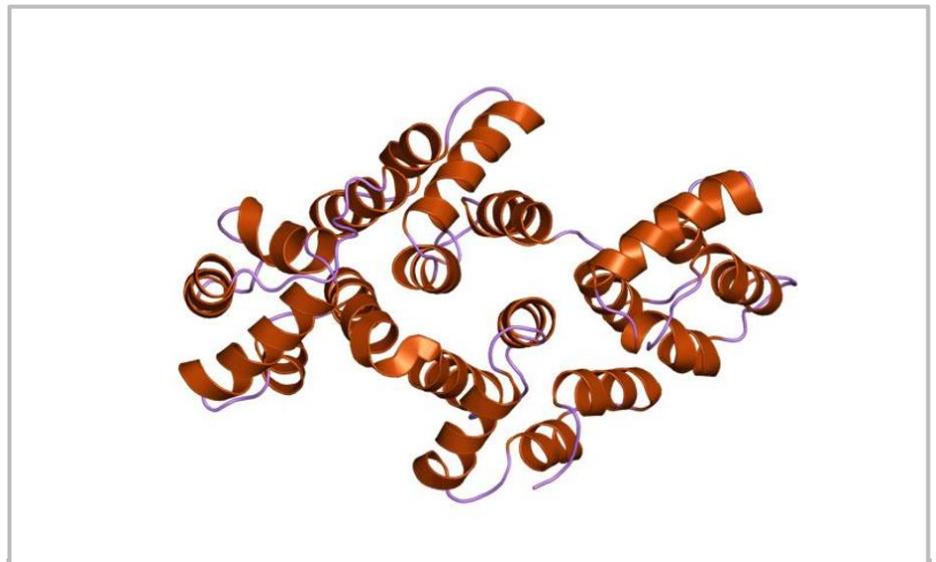
*a novel annexin-formulation of enhanced receptor-mediated effects*

## EXECUTIVE SUMMARY

Annexins have therapeutic potential in diseases like chronic inflammatory and autoimmune disorders, allergy and cancer vaccination as well as cardiovascular diseases. Common to most of these therapeutic annexin applications is the use of a soluble annexin-preparation.

However, in addition to desired binding to specific receptor(s), soluble annexin is known to bind to negatively charged phospholipids such as phosphatidylserine. Thus, high background binding and off-target effects are often observed for soluble annexin preparations.

DKFZ provides an easy annexin preparation that exhibits lower off-target binding and thus has a higher effective annexin concentration for binding to target receptors than soluble annexin, which improves the therapeutic application.



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### Category

Therapeutics

### Indication

Brain cancer

### Development stage

Laboratory model

### Seeking

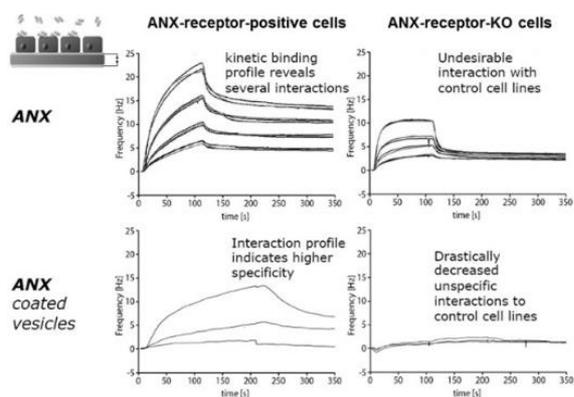
Licensing, Development partner

## BENEFITS

- **Annexin preparation** and/or a product that has the therapeutic efficacy of annexin
- Annexin preparation that exhibits **lower off-target binding**
- Has a **higher effective annexin concentration** than a soluble annexin preparation

# TECHNOLOGY BACKGROUND

The innovative composition is well established and can easily be implemented in any laboratory. Employing such preparations in our experiments we have measured receptor-mediated effects 10,000x higher compared to soluble annexin.



## DEVELOPMENT STAGE

The method is currently applicable at research laboratory scale.

## APPLICATIONS

In the field of therapeutic use of annexins our formulation raises the effective concentration. With a more precise dosage of the drug and fewer side effects the patient suffers less, and production costs can be reduced. We expect that annexin doses can be reduced up to 10,000x when applied in the provided composition.

## INTELLECTUAL PROPERTY

Priority patent application EP19156258.6 "Annexin-coated particles" has been filed February 2<sup>nd</sup> in 2019, which has not been published yet.

## PUBLICATIONS & REFERENCES

- Not published

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## ABOUT THE DKFZ INNOVATION MANAGEMENT

Working at the interface of research and industry, the Innovation Management of the German Cancer Research Center (DKFZ) helps to get new cancer medications, diagnostic tests, and research instruments onto the market as quickly as possible.

The DKFZ with its more than 3,000 employees is the largest biomedical research institution in Germany. At the Center more than 1,300 scientists investigate how cancer develops, identify cancer risk factors and endeavor to find new strategies to prevent people from getting cancer. They develop novel approaches to make tumor diagnosis more precise and treatment of cancer patients more successful. DKFZ is a member of the Helmholtz Association of National Research Centers, with ninety percent of its funding coming from the German Federal Ministry of Education and Research and the remaining ten percent from the State of Baden-Württemberg