Phase I trial of the DLL3/CD3 bispecific T-cell engager BI 764532 in DLL3-positive small cell lung cancer and neuroendocrine carcinomas

Target indications in this study

DLL3+ SCLC

DLL3+ NECs

⚠ Very high unmet need
No standard treatment for recurrent disease which has a very poor prognosis

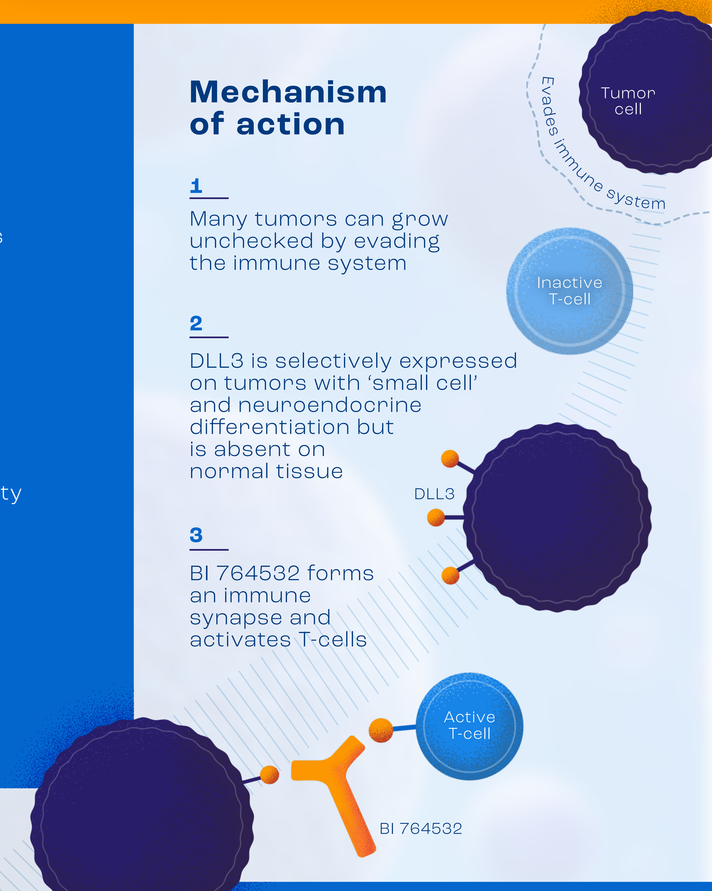
BI 764532 represents a promising therapeutic strategy for tumor types that are not typically responsive to standard immunotherapies

Key features of BI 764532*

- Binds to CD3 on T-cells and DLL3 on tumor cells
- Brings T-cells and tumor cells together
- Strong preclinical activity against DLL3+ tumors
- MHC-independent mechanism of action

*Based on preclinical observations

Mechanism of action



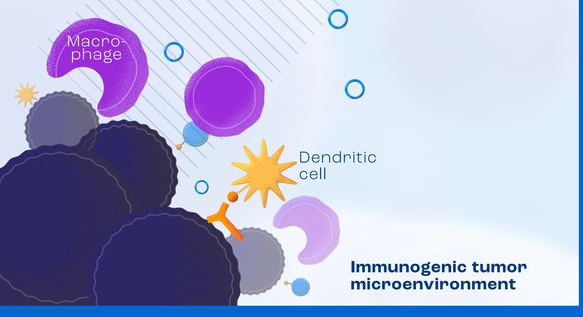
1
Many tumors can grow unchecked by evading the immune system

2
DLL3 is selectively expressed on tumors with 'small cell' and neuroendocrine differentiation but is absent on normal tissue

3
BI 764532 forms an immune synapse and activates T-cells

4
This leads to the destruction of the tumor cell, followed by an immune cascade

5
T-cells proliferate, release cytokines and recruit immune cells leading to tumor destruction



Trial design

Objective
First-in-human study to determine the MTD, assess safety and preliminary efficacy of BI 764532

Patient population
SCLC or NECs: Must have DLL3+ tumors by central review

Treatment history
Failed or not eligible for standard therapy including 1 line of chemotherapy

Dose regimens
Fixed single IV dose every three weeks (escalating doses: 0.3–80µg†)
Fixed single IV dose every week (optional step in dosing)

Endpoints
Primary: MTD; DLTs
Secondary: Tumor response; PK

Status
Currently recruiting in US, Japan, Spain and Germany

†Provisional upper dose

- Flexible dosing regimen
- Biomarker-defined patient population: DLL3+ tumors only

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Abbreviations
DLTs: dose-limiting toxicities
MHC: major histocompatibility complex
MTD: maximum tolerated dose
NECs: neuroendocrine carcinomas
PK: pharmacokinetics
SCLC: small-cell lung cancer

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