

# A PHASE I STUDY OF VB6-845, AN ANTI-EpCAM FUSION PROTEIN TARGETING ADVANCED SOLID TUMOURS OF EPITHELIAL ORIGIN: PRELIMINARY RESULTS

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## ABSTRACT

**Background:** VB6-845 is a recombinant fusion protein comprised of a humanized Fab anti-EpCAM antibody linked to a de-immunized version of the ribosome inactivating protein, bouganin (de-bouganin). EpCAM is highly expressed on carcinoma cells of epithelial origin. VB6-845 targets and mediates cell death in EpCAM-positive tumors. Preliminary results from a phase I trial of VB6-845 systemically administered into patients with advanced epithelial tumours are presented.

**Methods:** Dose cohorts of 3-6 patients with EpCAM-positive advanced epithelial tumours were entered into the study.

Patients were treated with VB6-845 via IV infusion, once weekly in 4-week cycles. Patients received treatment until an unacceptable toxicity occurred, all lesions completely disappeared or disease progressed.

Doses were escalated from 1.0 mg/kg according to a modified Fibonacci design until 2 out of 3 or 2 out of 6 patients experienced a DLT. The MTD will be reached when <2 out of 6 patients experience a DLT. An additional 12 patients will be enrolled at the MTD for further characterization of VB6-845 at that level. All toxicities were assessed according to the NCI CTC AE v3.0.

Blood samples were obtained for safety labs, immunogenicity and pharmacokinetics.

**Results:** To date, 11 patients have been treated with the longest treatment being 14 weeks. Three patients were enrolled at 1.0 mg/kg and dose escalation has proceeded to 2.0 mg/kg. A single DLT of a grade 4 infusion reaction has been observed at the 2.0 mg/kg dose level. The most common toxicities reported included fever, hypotension and hypoalbuminemia. Immunogenicity data (10 patients) reveal anti-de-bouganin levels that are either below or near the limit of detection. Enrollment and testing in the higher dose levels is ongoing.

**Conclusions:** Preliminary results reveal that VB6-845 is well tolerated and demonstrates a markedly attenuated antibody response against the de-bouganin. These results support continued evaluation of VB6-845 as a promising new therapy for advanced solid tumours of epithelial origin.