

# Research and development of the lead $\Delta 42$ PD1 antibody drug as an immunotherapy against cancers and infections

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## Technology

$\Delta 42$ PD1 exhibits a completely different mechanism from the canonical PD-1: instead of interacting with normal PD-1 ligands,  $\Delta 42$ PD1 acts with toll-like receptor 4 pathway to trigger pro-inflammatory response. To demonstrate the role of  $\Delta 42$ PD1 in promoting mucosal pathogenesis during acute HIV-1 infection and liver cancer growth using preclinical models and clinical samples, laying the foundation for exploring the innovative  $\Delta 42$ PD1-targeting immunotherapy. The HKU team has generated  $\Delta 42$ PD1-blocking antibodies with immunotherapeutic potential.

## Stage of Development

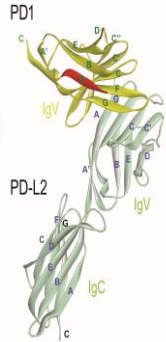
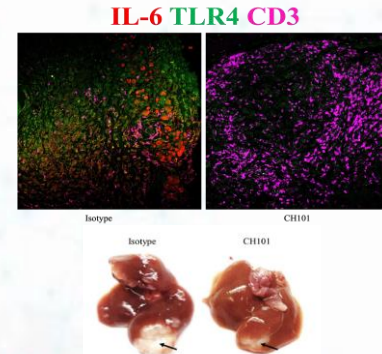
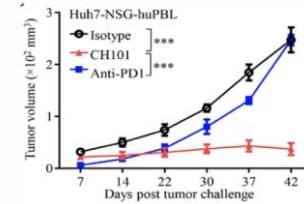
- Translation Preclinical R&D and Evaluation of the Therapeutic Anti-delta42PD1 huCH101 candidate
- Exploratory Clinical Characterisation of huCH101 candidate for Liver Cancer
- R&D on New Cancer or Infectious Diseases Indication and Next Generation delta42PD1-Targeting Therapy
- Clinical Development and Evaluation of the huCH101 candidate for Cancer or Infectious Diseases

## Key Advantages

- Liver cancer, one of the most common cancer types worldwide, has a global market size of US\$10.5 billion in 2021.
- However, the response rate to current immunotherapies remains low (~20%), highlighting the urgent need for novel therapeutics targeting immune-modulatory pathways.
- More than 45% of the 900,000 new global liver cancer cases occurs in China.

## Opportunities

- We aims to tap into the Mainland China market primarily and explore secondary markets and additional indications, to provide commercial viability.



## Intellectual Property

US Patent no.: US 10,047,137 B2  
US Patent no.: US 11,236,144 B2  
CN Patent no.: ZL 2014 8 00321570

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