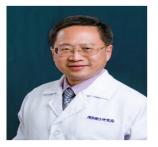


### DBPR22998: A Potent QPCTL (IsoQC) Inhibitor Targeting CD47-SIRPα Axis for Cancer Immunotherapy



Dr. Wan-Ching Yen **Cancer Biology** 





Dr. Chih-Hao Chen Dr. Ya-Ping Chen **Medicinal Chemistry Formulation** 





Dr. Hwei-Jiung Wang **Structure Biology** 



Dr. Teng-Kuang Yeh Dr. Chuing-Tong Chen **Pharmacokinetics Pharmacology** 



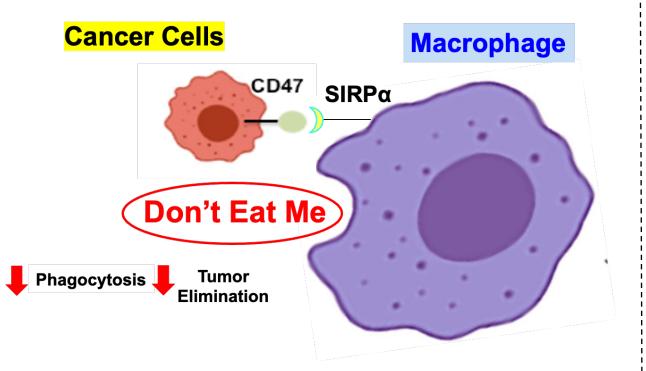
Dr. Kai-Fa Hwang **Protein Chemistry** 



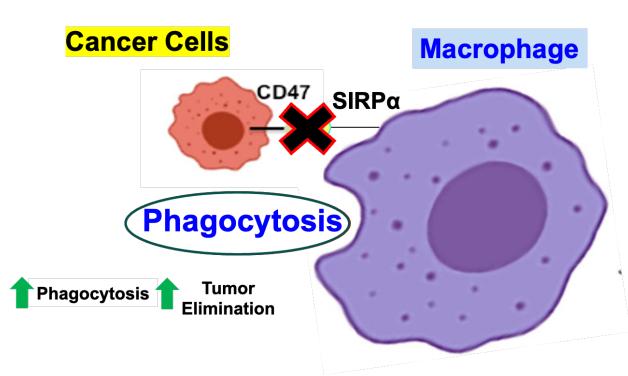


## Disease Background

CD47 and SIRPα Signaling – Mask Macrophage to See Cancer Cells



Blockade of CD47 and SIRPα Signaling – Enhance Macrophage-Mediated Phagocytosis and Tumor Elimination





## Global CD47 Inhibitors Market Analysis

#### Global CD47 Inhibitor Drug Market: Market Size and Forecast from 2023 to 2031





CAGR (2023-2031)

**62%** 



#### **Market Drivers:**

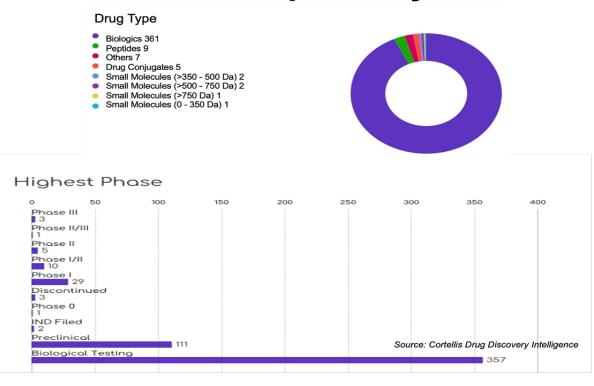
- Rising development in CD47-targeting anti-cancer therapies
- Growing Demands for cost-effective cancer treatments

#### **Market Obstacles:**

- · Therapeutic effectiveness
- · Safety concerns

Combination therapies will dominate the global market owing to their enhanced efficacy and specificity towards the cancer cells.

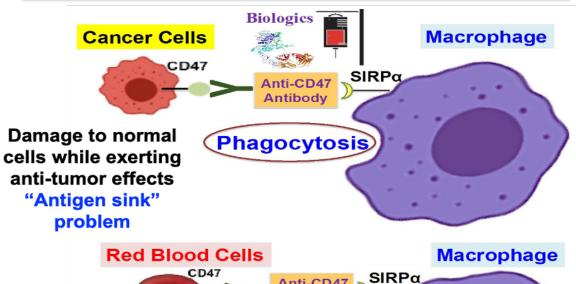
## CD47-Targeting Therapeutics Landscape Analysis

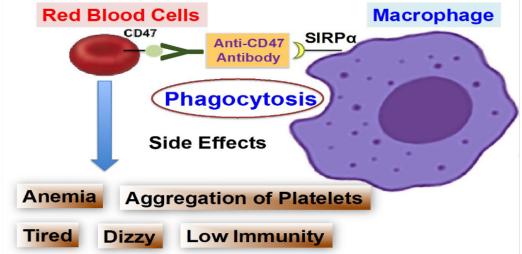




# Product Mechanism of Action and Advantages Over Current CD47 Inhibitors

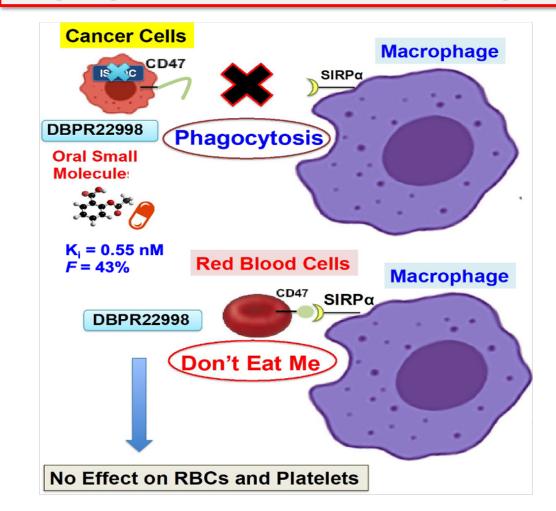
Anti-CD47 Antibody Blocks CD47 and SIRPα Interaction on Both Tumor Cells and on Red Blood Cells





#### **DBPR22998** –

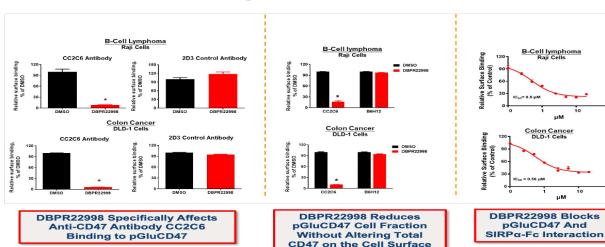
Oral Small Molecule IsoQC (QPCTL) Inhibitor Targeting CD47 and SIRPα "Don't Eat Me" Signal



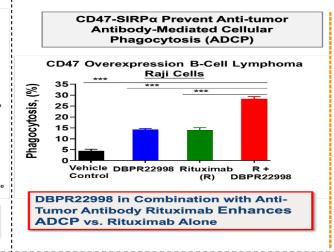


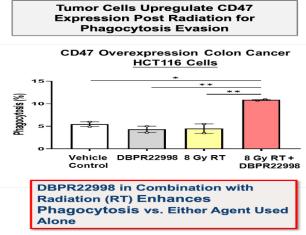
## **Key POC Data**

#### **Key POC Data – 1**

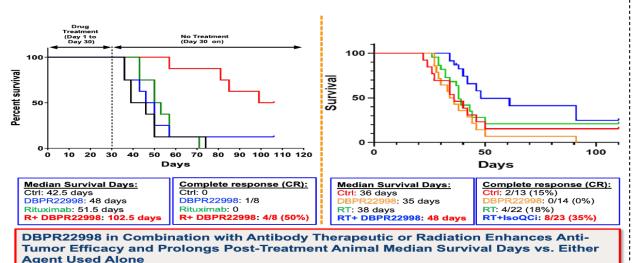


#### **Key POC Data – 2**

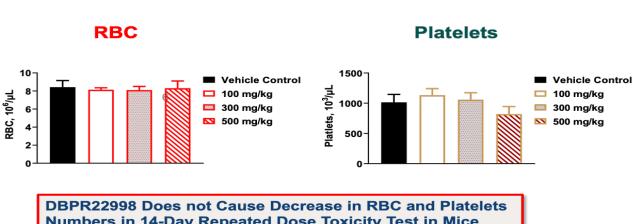




#### **Key POC Data – 3**



#### **Key POC Data – 4**



Numbers in 14-Day Repeated Dose Toxicity Test in Mice



## **Competitive Landscape and Target Product Profiles**



## **DBPR22998: Product Summary**

#### **Key Features**

- An orally bioavailable small molecule isoQC (QPCTL) inhibitor modulating CD47-SIRPα "Do not eat me" cancer immune checkpoint activities
- Target post translational modification process of CD47 protein synthesis
- Opportunity for combination with anti-tumor antibody therapeutics, radiation, chemotherapy and immune checkpoint inhibitors (ICIs)

#### **Pharmaceutical Development**

- Crystalline form identified; physicochemical properties/pre-formulation/formulation evaluation completed
- Preclinical kilogram-scale production of the active pharmaceutical ingredient (API) available
- Non-GLP 14-day repeated-dose toxicity studies in rats completed, providing valuable insights into the safety profile

#### **Intellectual Properties**

- Substance patents: US, China, Taiwan, Japan, Korea, Canada, India, Singapore and Australia 9 countries granted
- Cancer indication patents: Taiwan patent granted, PTC patent applications under review

#### Market Positioning

As opposed to antibody approaches in clinical development, our small molecule isoQC (QPCTL) inhibitor DBPR22998 is a best-in-class
and innovative therapeutic approach for boosting the efficiency of cancer immunotherapy while avoiding anti-CD47 antibody-induced
anemia and thrombocytopenia

#### **Business Opportunities**

Technology transfer/co-development