IL-17RB/MLK4標靶療法在胰臟癌精準醫療中的臨床轉化

主要領域 胰臟癌治療

- **產品/技術簡介**

藉由破壞 IL-17RB/MLK4 交互作用，精準阻斷 IL-17B/IL-17RB 致癌訊息軸。核心技術包含兩類抑制劑：
新型環狀胜肽：依蛋白質結構與同源性設計（原有線性胜肽優化版）
標靶小分子：經高通量（基於 pY447 訊號）與虛擬篩選取得。

- **應用**

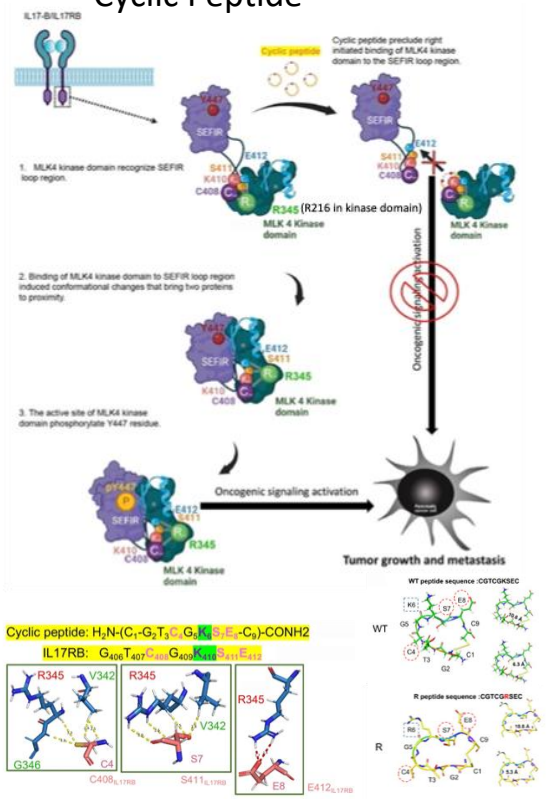
精準醫療：胰臟癌和其他有高IL-17RB表達癌症的標靶治療。
預防轉移：有效抑制癌細胞生長與全身擴散。

- **優勢**

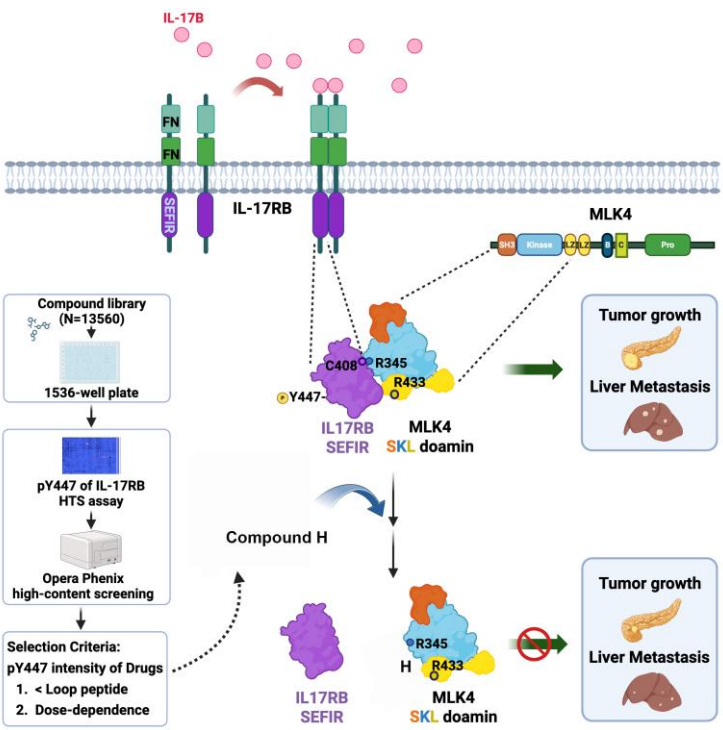
首創機制 (First-in-Class)：創新標靶 IL-17RB/MLK4 途徑。
活體療效確認：於原位（orthotopic）小鼠模型中展現卓越抗腫瘤表現
AI 結構優化：導入 AI 設計出低毒性、高水溶性之新一代分子，大幅加速臨床轉化。

- **專利現況:** 1. ANTAGONIST OF INTERLEUKIN-17B RECEPTOR (IL-17RB) AND USETHEREOF. (PCT/US2021/063226) 2. Novel Peptide for the Suppression of Tumor Growth and Metastasis. (US/PCT 63/742,072) 1/06/2025 3. Compounds screening method and compounds for inhibiting IL-17RB oncogenic signaling for cancer treatment. (28A-1110406) PCT/US 2026/05 in application

Cyclic Peptide



Small molecule



Clinical Translation of Targeted IL-17RB/MLK4 Therapies for Pancreatic Cancer Precision Medicine

Research Area | **Pancreatic Cancer Treatment**

- Technical statement

Disrupts the IL-17RB/MLK4 interaction to block the IL-17B/IL-17RB oncogenic axis. We developed two potent inhibitors:
Novel Cyclic Peptides: Rationally designed via IL-17RB structure and homology (an optimized upgrade from our linear peptide).
Targeted Small Molecules: Identified through pY447 signal-based high-throughput (HTS) and virtual screening.

- Applications

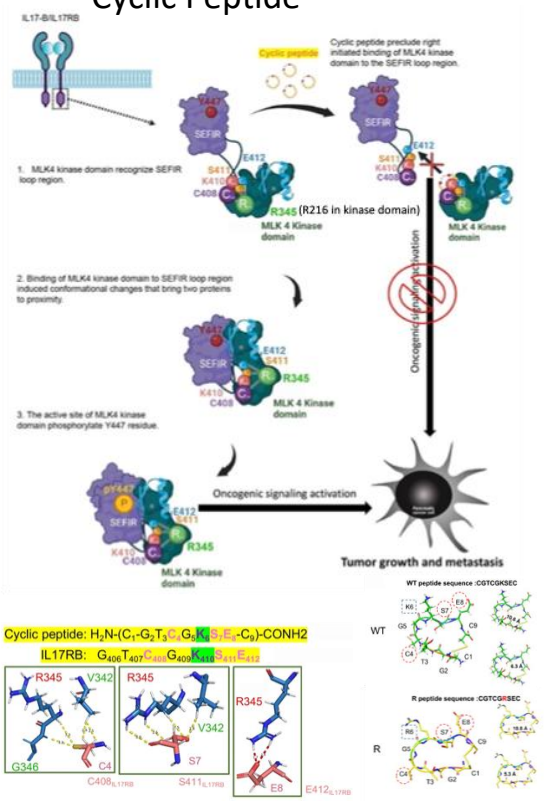
Precision Medicine: Targeted therapy for pancreatic cancer and other cancers with high IL-17RB expression.
Metastasis Suppression: Effectively blocks cancer cell growth and spread.

- Advantages

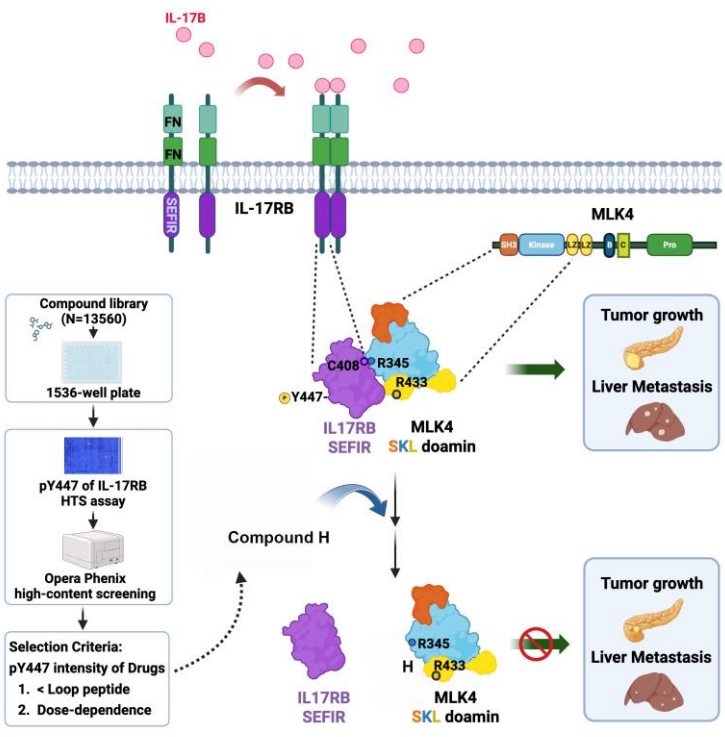
First-in-Class Mechanism: Novel targeting of the IL-17RB/MLK4 pathway.
Proven *In Vivo* Efficacy: Strong anti-tumor and anti-metastasis results in orthotopic mouse models.
AI-Optimized: AI integration creates next-gen molecules with lower toxicity and higher aqueous solubility, accelerating clinical translation.

- Patent status: 1. ANTAGONIST OF INTERLEUKIN-17B RECEPTOR (IL-17RB) AND USETHEREOF. (PCT/US2021/063226) 2. Novel Peptide for the Suppression of Tumor Growth and Metastasis. (US/PCT 63/742,072) 1/06/2025 3. Compounds screening method and compounds for inhibiting IL-17RB oncogenic signaling for cancer treatment. (28A-1110406) PCT/US 2026/05 in application

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