



## Molecular Targeting Technologies, Inc. Development Pipeline

**CLASS:** Therapeutic

**NAME:** ZAPS SN-38

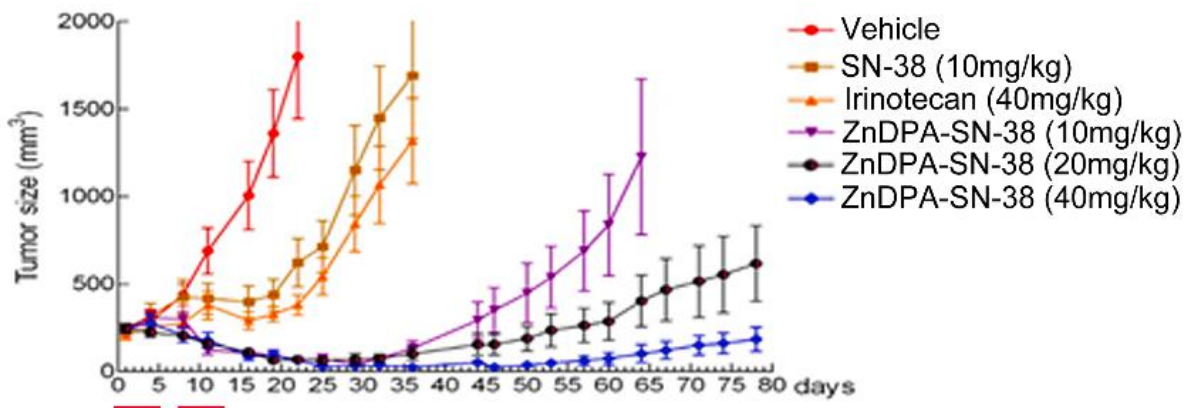
**INDICATION:** Cancer

**USES:** cancer treatment

**TECHNOLOGY:** Zinc-dipicolylamine (Zn-DPA, ZAPS) targets Phosphatidylserine (PS). Tumor microenvironments are rich in PS. Linking Zn-DPA to an anticancer drug increases the concentration of that drug in the microenvironment, enhancing antitumor activity.

**UNMET NEED:** Pancreatic cancer tumors are difficult to treat and exhibit a 5 %, 5-year survival rate.

**PROOF OF CONCEPT:** SN-38 is an antineoplastic drug, the active metabolite of irinotecan (Camptosar, CPT-11) a topoisomerase I inhibitor. Linking Zn-DPA to SN-38 demonstrated a significant amplification of drug homing on pancreatic cancer tumor xenografts in mice.



**Figure 1.** The effect of ZnDPA-SN-38 on the growth of MIA PaCa-2 pancreatic cancer xenograft tumors in nude mice. All drugs were administered i.v. daily for five consecutive days for two weeks as indicated by colored lines at the bottom of the graph.

**STAGE OF DEVELOPMENT:** Phase I clinical planned by Taivex Pharmaceutical in 2019.

**PARTNER:** National Health Research Institutes (NHRI, Taiwan) for preclinical studies.

**IP:** MTTI/NHRI US Patent 9,388,193B2 July 12, 2016

**OWNERSHIP:** MTTI/NHRI sublicensed ZAPS technology to Taivex Pharmaceutical