Novel S100A4 and MACC1 transcriptional inhibitors for targeted anti-metastatic personalized therapy

Unmet need in oncology

› Current cancer therapies insufficiently address metastasis, particularly in colorectal cancer

› Key metastatic drivers (MACC1, S100A4) are associated with poor survival when highly expressed, yet remain untargeted by existing therapies.

Metastrict is developing a novel metastasis inhibitor **MSt-001 (E12)** which:

› Strongly reduces expression of the key metastatic drivers MACC1 and S100A4

› Decreases metastasis formation as well as their proliferation

› Can potentially overcome chemo-resistance

TECHNOLOGY

MSt-001 (E12)

› Novel small-molecule inhibitor to block metastasis at its source by preventing the expression of key drivers MACC1 & S100A4

› Addresses migration and chemotherapy resistance at the transcriptional level in metastatic colorectal cancer

› More fundamental and durable approach than downstream, post-translational interventions

› Biomarker-driven, targets resistance and metastasis formation at its core

Figure 1: Effect of the compound MSt-001 inhibitor (E12) on HCT116 cell wound healing capacity

Wound confluence in % monitored over 72 h using the IncuCyte Live cell imaging system. All compounds were tested from 0.1 – 15 µM.

Figure 2: In vivo imaging of the mice after 21 days of treatment

CDX metastasis mouse model for evaluation of the capability of MSt-001 (E12) to reduce the metastatic phenotype of HCT116/CMVp-Luc colorectal cancer cells.

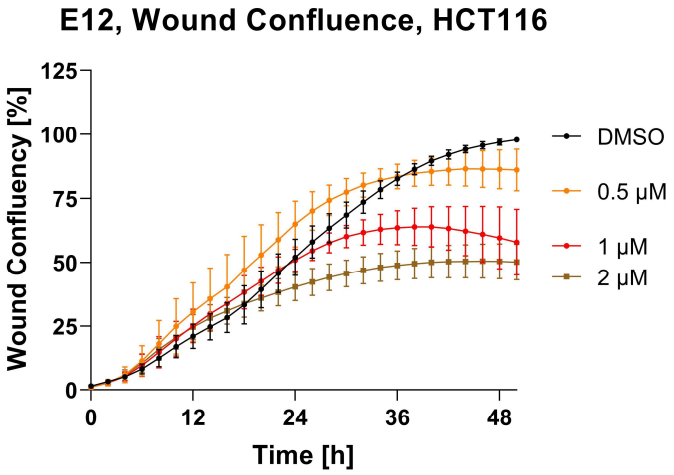

Figure 1

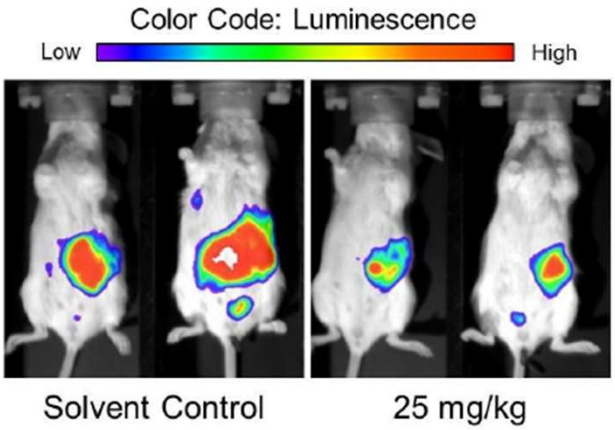

Figure 2

INTELLECTUAL PROPERTY

MSt-001 (E12) Inhibitors of S100A4 transcription

EP25175644.1 (05/2025)

2 more patents in the patent portfolio focusing on inhibition of MACC1 and S100A4 through niclosamide and statins repurposing approaches (WO2012143377A1; WO2020169812A1)

RESEARCH EXPERTISE

› The therapy was developed by the group of Prof. Dr. Ulrike Stein, a key opinion leader in metastatic cancer, discoverer of metastatic drivers

› Her lab specializes in translational oncology of solid tumors

PARTNER WITH US

We are seeking

› Co-development opportunities

PROF. DR. ULRIKE STEIN

PAUL CURTIS SCHÖPE

Schöpe et al. (2025) Int J Biol Sci
doi.org/10.7150/ijbs.113805
Gohlke et al. (2022) Clin Transl Med
doi.org/10.1002/ctm2.726

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