nuclear localized factors by conventional means had previously proven problematic. Using a modified antisense conjugated to an endothelium-specific homing peptide, the researchers demonstrated usefulness of the Id-1 PCAO compound as both a single agent and in combination therapy in preclinical models of primary tumor growth and metastasis. Further, this technology circumvents challenges associated with traditional antisense therapeutics by efficiently reaching local targets by systemic delivery, by facilitating cellular uptake, and by prolonging the stability of the compound.

Advantages

- Minimal side effects predicted: No effect on wound healing or weight, no gross histological signs of toxicity observed.
- Successful in both xenografts and spontaneous breast tumor models, as single agent and in combination therapy.
- Prolonged plasma stability of peptide-linked antisense oligonucleotides shown.
- Preferential delivery to tumor site and compartmentalization of compound established.
- Mechanism of uptake of compound elucidated.

Areas of Application

- Id-1 PCAO compound for reduction of primary tumor size and prolonged life following metastasis by targeting endothelium of tumors.
- Other cancer types and antisense are being tested.
- Technology may by a universally applicable tool for antisense delivery in cancer and other diseases.

Stage of Development

The researchers motivated and ready to initiate clinical development. We are looking to identify the best way to develop both the compound Id-1 PCAO and the technology in a broader context. This may be an ideal platform for an already existing company or serve as the basis for formation of a new company.

Lead Inventor

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Patent Information

US Continuation in part and Divisional patents issued.

References

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Stage of Development

Ready to use

Indications

Indications › Cancer

Types

Therapeutics › Nucleic acids