

PRODUCT

Novel Topical Treatment for Skin Cancer.

INDICATION

Therapeutic, Small Molecule, Oncology.

VALUE PROPOSITION

- Single therapeutic agent that possesses both immune-stimulatory and antiproliferation properties.
- Well tolerated and minimal topical irritation.
- No systemic toxicity.

DEVELOPMENT STAGE

Preclinical testing in two murine skin cancer models.

INTELLECTUAL PROPERTY

Patent Pending.

RELATED PUBLICATIONS

Collins, K. D., & Stark, G. R. (1971). Aspartate transcarbamylase: Interaction with the transition state analogue N-(phosphonacetyl)-L-aspartate. *Journal of Biological Chemistry*, 246(21), 6599-6605.

CONTACT INFORMATION

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Topical Therapy for Skin Cancer

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UNMET NEED

Each year, 4.3 million Americans are diagnosed with non-melanoma skin cancers (NMSC) and an additional 40 million individuals undergo treatment of precancerous actinic keratosis lesions. The most effective treatments of NMSC are invasive, expensive, and require specialized medical training, which limits access to care. Other therapies used to treat these cancers are topical 5-fluorouracil (5-FU; a chemotherapeutic drug) and topical imiquimod (IMQ; an immune modulator), which have more limited efficacy and significant side effects.

SOLUTION/PRODUCT

This topical ointment delivers N-phosphonacetyl- L-aspartate (PALA) to concurrently stimulate innate immune responses against the tumor and inhibit pyrimidine synthesis. Previous research has demonstrated the efficacy of PALA to inhibit the aspartate transcarbamylase activity of the multifunctional enzyme specifically, carbamyl phosphate synthetase / aspartate transcarbamylase / dihydroorotase (CAD) and act as an anti-tumor agent in murine models of solid tumors.

- PALA is a single agent that combines the immune stimulatory action of imiquimod and the antiproliferative action of 5-FU.
- PALA has demonstrated antineoplastic activity.

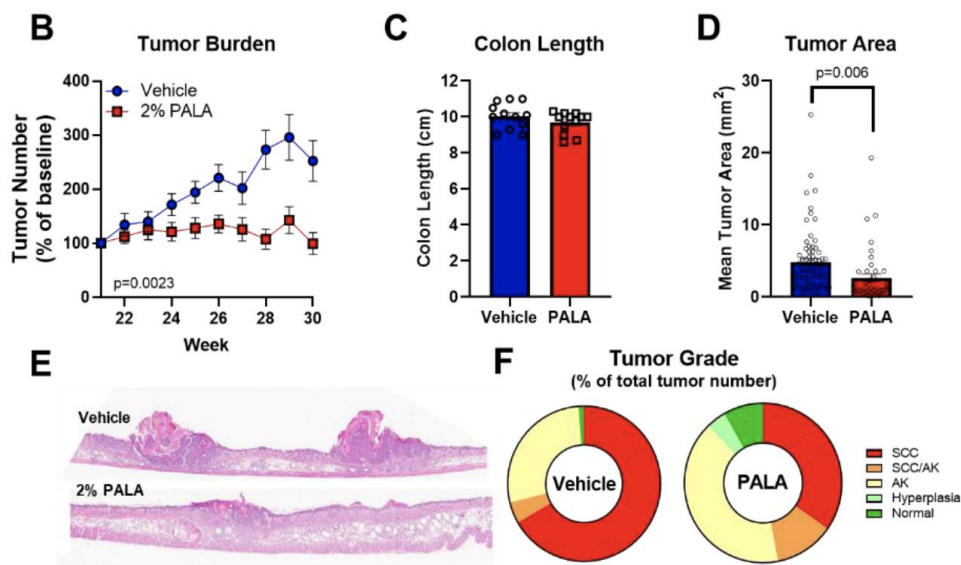


Figure 1: UVB-Induced Squamous Cell Carcinoma Model