

# PRODUCT

Topical sunscreen.

#### INDICATIONS

Dermal protection from both UVA and UVB wavelengths.

#### VALUE PROPOSITION

A more effective, more stable, and safer sunscreen active or booster ingredient.

### **DEVELOPMENT STAGE**

Preclinical proof-of-concept established. Preclinical testing ongoing.

#### INTELLECTUAL PROPERTY

Issued Patents: US 9,950,977 US 10,925,817 EP 3411008 AU 2017214687

#### **CONTACT INFORMATION**

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# PhotoSorb: A Polyhydroxy Fullerene Topical Sunscreen

Vijay Krishna, PhD and colleagues – Lerner Research Institute

# **OPPORTUNITY**

There is an urgent need for new, safe sunscreens. Approximately 1MM+ new cases of skin cancer are reported annually, and current sunscreens only partially protect against UV-induced melanoma, have poor stability, and may cause photo-allergic reactions. The FDA has proposed to remove 10 out of the 12 organic active ingredients currently used in 80% of sunscreens. Further, many currently available sunscreens cause environmental damage.

# SOLUTION

PhotoSorb, comprised of polyhydroxy fullerenes (PHF), is a broad-spectrum UV absorber that could replace or augment current sunscreen ingredients resulting in simpler, safer, and more stable sunscreen formulations.

- Greater UV absorption compared to currently available sunscreen ingredients and UVA/UVB ratio of 1.6 exceeds the FDA minimum for sunscreen.
- Not photolabile; Does not produce free radicals such as reactive oxygen species.
- Dermal sensitization studies suggest it is safer on skin than commercial sunscreens.
- Use as an SPF/PFA booster in current sunscreens may accelerate the regulatory pathway.
- Minimal expected environmental impacts.

