Therapy for the Targeted Treatment of Metastatic Breast Cancer

Nanoparticle-based Therapy for the Targeted Treatment of Metastatic Breast Cancer

Background
Over 1 million new cases of breast cancer are diagnosed globally each year. The majority of breast cancer deaths are due to metastasis, the spreading of the cancer to other sites in the body. There is no cure for metastatic, stage IV, breast cancer and most of the available treatments generally involve chemotherapy which can have toxic side effects due to a lack of specificity.

Invention
UCF researchers have developed a nanoparticle-based technology for targeted treatment of metastatic breast cancer. It features a proprietary therapeutic peptide encapsulated in a cancer targeting nanoparticle that has been optimized for in vivo drug delivery. Treatment with the nanoparticle-peptide complex reduced the motility of metastatic breast cancer cells in vitro and resulted in significant tumor regression in a breast cancer mouse model.

Looking for Partners
We are seeking funding and partners to further develop this technology for clinical use.

Stage of Development
Preclinical

Inventors
Annette Khaled, Ph.D.; J. Manuel Perez, Ph.D.

Benefits
- Targeted treatment
- Minimal side effects to healthy cells
- Cost-effective to produce

Applications
- Cancer therapy

Tech Fields
Cancer, Drugs, Therapeutics

Keywords
cancer, nanoparticle, nanotechnology, peptide, drug delivery

If you or your company are interested in this opportunity, Contact:
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