

COMPANY OVERVIEW

Targeted Cancer Therapeutics

Esperance Pharmaceuticals, Inc. is developing a new class of targeted oncology products that selectively kill cancer cells without harming normal cells. Targeting occurs through binding to specific receptors on the cancer cell surface. The novel product candidates destroy dividing and non-dividing cancer cells including those known to be resistant to chemotherapeutics.

- ❖ **Proprietary discovery and development expertise**
- ❖ **Cationic lytic peptide (CLYP™) technology platform**
 - **Targeted membrane disrupting peptides (MDPs)**
 - **Antibody drug conjugates (ADCs)**

UNIQUE APPROACH TO CANCER THERAPY

The CLYP™ technology platform has generated a robust portfolio of novel product candidates that selectively seek and destroy cancer cells that express specific target receptors. The compounds are designed with bi-functional activity consisting of a selective cancer cell targeting ligand domain and a cell membrane disrupting peptide domain.

Esperance product candidates induce rapid cancer cell death by binding to specific target receptors on cancer cells and subsequently disrupt the cancer cell membrane without a need for cellular internalization. These candidates have been shown to destroy primary tumors and eliminate metastatic cancer cells in preclinical animal models targeting a wide variety of human cancers including breast, prostate, ovarian, endometrial and testicular cancers.

Our unique cancer targeting technology and novel mechanism of action create distinct differentiation in peptide and antibody targeting product candidates, representing a major technical advance over other approaches that attempt to deliver cytotoxic molecules to cancer cells.

PRODUCT PIPELINE

Compound	Drug Design	Receptor Target	Indications	Development Status	Pending Milestone
EP-100	Peptide conjugate	LHRH	Ovarian, breast, prostate, endometrial, pancreatic, hematological malignancies	Phase 1 ongoing	Establish maximum tolerated dose
EP-200	Peptide conjugate	LH/hCG	Breast, prostate, endometrial, ovarian	PoC demonstrated <i>in vitro</i> and <i>in vivo</i>	Completion of IND-enabling studies
EP-300	Peptide conjugate	Nucleolin	AML, renal, pancreatic, prostate	PoC <i>in vitro</i> and <i>in vivo</i>	Selection of IND-enabling study candidate
EP-400 series	Antibody drug conjugates (ADCs)	Multiple	Solid tumors, hematological cancers	PoC <i>in vitro</i> and <i>in vivo</i>	Additional <i>in vivo</i> studies

MANAGEMENT TEAM

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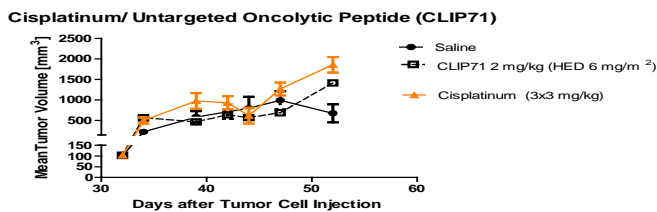
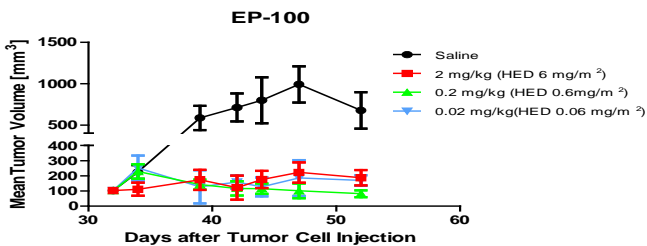
EP-100: A TARGETED MEMBRANE DISRUPTING PEPTIDE IN PHASE 1

EP-100 is in Phase 1 clinical trials for advanced or recurrent solid tumors and hematological cancers that over-express luteinizing hormone-releasing hormone (LHRH) receptors. Over-expression of LHRH receptors has been demonstrated in a variety of cancers including hormone-dependent cancers such as ovarian (80%), prostate (86%), endometrial (80%) and breast cancer cells (52%) and non-hormone-dependent cancers such as pancreatic (68%) cancer and hematological malignancies such as non-Hodgkin's lymphoma and cutaneous T-cell lymphoma. The receptor is not expressed in normal visceral tissues and organs.

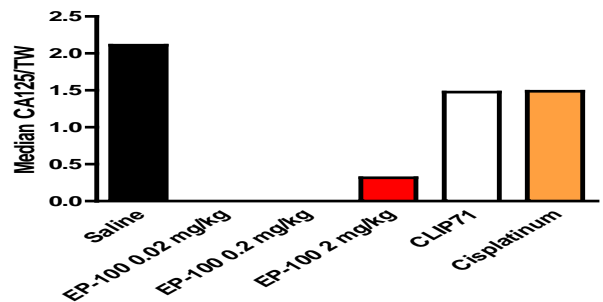
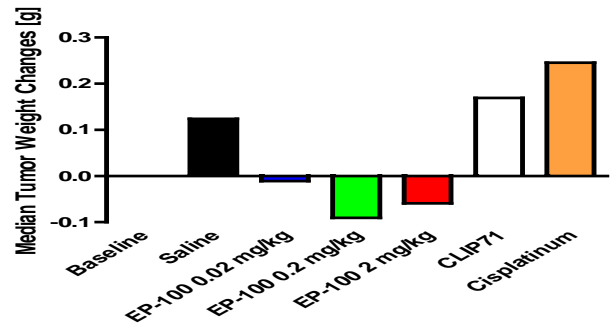
EP-100 is a small peptide that targets LHRH receptors. It consists of the targeted LHRH receptor-binding ligand and a proprietary lytic peptide domain designated CLIP-71. The ligand is joined to CLIP-71 without a linker. EP-100 is manufactured by standard peptide synthesis processes and is highly water soluble.

The Phase 1 clinical trial initiated in the second half of 2009 and is actively enrolling patients with LHRH receptor positive tumors. The multicenter, open-label, dose-escalation study will enroll up to 36 patients and is designed to evaluate the safety and pharmacokinetics of EP-100 and to assess early indication of anti-tumor activity in selected patients with cancers that express the target LHRH receptors. EP-100 is administered intravenously weekly for three out of four week cycles. Following the completion of the phase 1 study, a dose will be selected for phase 2 studies in indications where the drug has activity, a distinct unmet medical need and potential for accelerated approval. A companion diagnostic test is being used to select patients whose tumors express LHRH

EP-100 causes tumor regression along with reduction of tumor volumes and weights in drug-resistant OVCAR-3 ovarian cancer xenografts in nude mice. Tumor regression is associated with reduction of CA125, a clinical biomarker for cancer



Treatments: day 33, 40, 47
Necropsy: day 53
N=10, p<0.03 vs saline controls and CLIP71



PARTNERSHIP OPPORTUNITY

Differentiated alternatives for oncology

Esperance is seeking partnerships to leverage our unique discovery expertise and to accelerate the development of differentiated product candidates in multiple cancers. We are seeking:

- ❖ Research and development collaborations utilizing CLYP™ technology for both peptide and antibody conjugation
- ❖ Out licensing of clinical stage product candidates, including EP-100

CONTACT INFORMATION

Additional information available

If interested in learning more, please contact:

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