

CZ48 and Pipeline Drugs

A Clinical Stage
Investment
Opportunity

Taking natures best anti-cancer compound, and making man's best cancer drugs.



CAO BHADAACEITICAIS

Why we are excited about CZ48 and CPT Pipeline Drugs

- National Cancer Institute study of anti-cancer activity of naturally occurring compounds.
- First clinical trial in the early 1990's with unmodified CPT showed promise with one complete response and three partial responses, but with toxicity
- Second clinical trial late 1990's with 9Nitro-Camptothecin (9NC) demonstrated improved activity and lower toxicity and licensed
- Because CZ48 prevents cancer cell division, it inhibits tumor growth for many types of cancer. As a result, the number of potential patients is over one million in the U.S. and over nine million worldwide.
- The CZ48 capsule is taken orally and has very low to no toxicity. No intravenous treatment is required and no side-effects like nausea, hair loss, weight loss, or lethargy like with traditional chemotherapy.

CZ48 Results - Total inhibition of human tumors grown in nude mice by oral administration in 28 out of 29 patients diagnosed with 10 different tumor types.

Bladder	1 out of 1	Lung	3 out of 3
Breast	6 out of 6	Melanoma	2 out of 2
Colon	4 out of 4	Ovary	3 out of 3
DSRCT	2 out of 2	Pancreas	5 out of 5
Kidney	1 out of 2	Prostate	1 out of 1



H₃C OH O

CZ48 Phase I clinical trial with new formulation

- Higher toxicity than expected initially
- Reducing dosage from 3 times to 2 times a day substantially reduced toxicity.
- Phase I clinical trial complete.
- Very low toxicity was successfully achieved.



CZ48 development plan

Combination drug studies in support of Phase II trial design

Simon 2 Step Approach Step 1, ~20 - 40 patients over 12-18 months

Initiate one to three Phase II trials

If Step 1 successful: Step 2, ~50-100 additional patients over 12 to 24 months



Pipeline Drugs

- Synthesized and tested over 50 new CPT based derivatives
- Identified 3 or 4 potential lead candidates with equal or greater efficacy all and substantially less toxicity
- Potential responses with humans comparable to study with mice

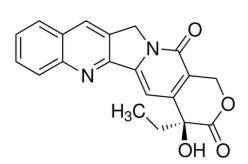


Recent CPT drug licensing









- 2014 Baxter licensed MM-398 pre-NDA application (Onivyde) from Merrimack for non-US sales
 - Initial payment \$100M
 - Milestone of up to \$870M
 - Unspecified royalties on net sales
- Received FDA approval with 'black box' warning for toxicity for diarrhea and leukopenia
- Expected annual sales of \$1.5B



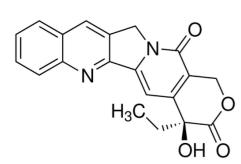
Recent oncology drug licensing





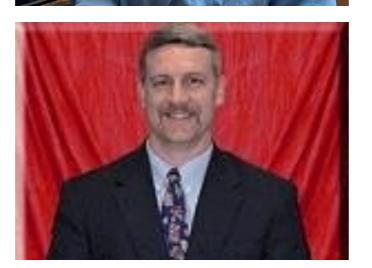


- Loxo developed Vitrakvi approved by the FDA in 2018
- 2,500 to 3,000 new patients fit treatment with Viktrakvi per year
- Loxo Oncology purchased by Eli Lilly for \$8B in Jan 2019
- Treatment cost one-year adult treatment = \$393,300
- In contrast
 - CZ48 actual drug cost is \$3,900 for one year
 - Target of pancreatic cancer alone has an estimated incidence of 56,770 U.S. patients and 458,900 worldwide patients in 2019





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Zhisong Cao, PhD. CEO & Chief Chemist

Dr. Cao has over twenty years of experience in CPT (camptothecin) chemistry and is an inventor and co-holder of 17 CPT related patents, and licensing of CPT compounds. Prior to founding Cao Pharmaceuticals, he served as the Associate Laboratory Director and Chief Chemist for the Stehlin Foundation for Cancer Research. He was responsible for all Chemistry R&D, strategic direction of drug development, patenting and licensing. In twenty years of sole focus on CPT drugs, he has synthesized hundreds of CPT drugs using thousands of drug intermediates. This rare amount of knowledge provides Cao Pharmaceuticals Inc. a distinct advantage in the design and synthesis of pipeline candidates of these drugs .

Yang Wang, PhD. Chief Pharmacologist

Prior to joining Cao Pharmaceuticals, Dr. Wang had over twenty years of experience in CPT (camptothecin) related drug development as a Research Scientist at the Stehlin Foundation for Cancer Research. At Cao Pharmaceuticals she oversees both the pre-clinical testing and formulation development of the pipeline drugs, and the clinical pharmacokinetics, pharmacodynamics, and biomodeling studies of the phase I clinical trial of CZ48, a camptothecin derivative.

Chris Wood, VP Investor Relations

Heads our Investor Relations with over 30 years of finance, accounting, information technology, management, and business ownership experience. He is currently coordinating investor relations and securing funding to complete the CZ48 FDA Phase I trial and begin the FDA Phase II trials.

