

Chemokine Therapeutics Corp. (TSX: CTI; OTCBB: CHKT) – Reinitiating Coverage; Moving forward with Phase II Clinical trial of lead compound CTCE-9908

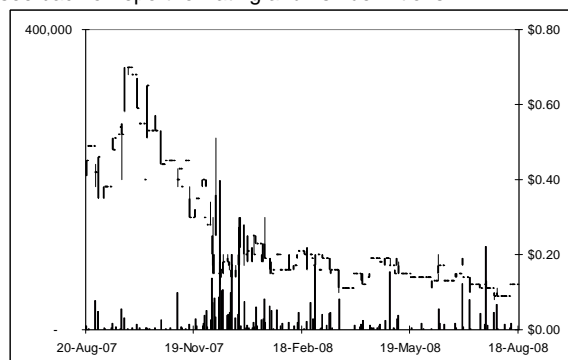
Sector / Industry: Biotechnology

www.chemokine.net

Market Data (as of August 19, 2008)

Current Price	US\$0.08
Fair Value	US\$0.60
Rating*	BUY
Risk*	5 (Highly Spec)
52 Week Range	\$0.08 – \$0.71
Shares O/S	53,333,575
Market Cap	US\$4.27 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	10.66
YoY Return	-82.2%
YoY TSX	-0.4%

*see back of report for rating and risk definitions



Investment Highlights

- Chemokine Therapeutics Corp. is a development stage biotechnology company that has developed five synthetic chemokines for application in unmet medical needs; two of them are in clinical trials.
- Their two lead drug candidates, CTCE-9908 and CTCE-0214, have the potential to play a significant role in cancer treatment and immune system recovery, respectively.
- Received approval from FDA and Health Protection Branch of Health Canada to commence a Phase II liver cancer study with CTCE-9908. Results of their Phase I/II trial and animal studies were highly encouraging.
- The Phase II study will be open label, which will allow the company to have ongoing results and give the company the opportunity to possibly license the product to major pharmaceutical players before completing the trial.
- CTI has secured 26 chemokine-based patents, with 19 pending.
- The company recently completed a non-brokered private placement to raise approximately \$0.89 million. CTI will have to raise \$4 - \$8 million to fund their working capital and Phase II study with CTCE-9908. The company is also seeking partnerships with other pharmaceutical players, which will allow the company to share costs.

Risks

- Product Failure:** Drug candidates may fail at any stage during the development process.
- Cash Flow/Financings:** As a development stage company CTI has to rely on financings to fund operations and working capital.
- Regulatory:** CTI may face regulatory delays in product approvals (NDA) or any other stage of development.

Key Financial Data (FYE - Dec 31)

(US \$)	2006	2007	2008 6 mo
Cash + Short-term Investments	6,088,976	764,046	850,145
Working Capital	5,862,851	(75,729)	182,514
Total Assets	6,855,160	1,229,316	1,186,335
Net Income	(7,507,866)	(6,239,886)	(1,615,578)
EPS	(0.19)	(0.15)	(0.03)

Founded on July 15, 1998, Chemokine Therapeutics (CTI) is a development stage biotechnology company specifically focused on developing protein-based drugs that belong to a class of cytokines known as chemokines. CTI is located in Vancouver, British Columbia. The company received permission from the FDA and Health Canada to conduct a Phase II clinical trial in liver cancer patients with their lead compound CTCE-9908.

**Company
Overview**

Chemokine Therapeutics Corp. (CTI) is a biotechnology company developing drugs in the field of chemokines. Chemokines are naturally occurring proteins critical for cell movement. They guide the migration of cells involved in the metastatic process, promote the growth of new blood vessels, and are critical for cellular maturation. The majority of natural chemokines are not suitable for use as therapeutic drugs due to their instability, and potential side effects. CTI has developed an approach to discover drug candidates by generating peptide analogs of natural chemokines that copy their function (agonists) or inhibit their function (antagonists) without the potential side effects and instability of natural chemokines. These drugs have the potential to address significant unmet medical needs, including treatment of life threatening diseases like cancer and hematological disorders.

The company currently has five different drug candidates in various stages of research and development targeting various therapeutic areas. Their two lead drug candidates, CTCE-9908 and CTCE-0214, have the potential to play a significant role in cancer treatment and immune system recovery, respectively. Both drug candidates are in clinical trials.

Their lead compound CTCE-9908 attacks cancer, both at the level of blood vessel generation (angiogenesis) and the spreading of cancer (metastasis). This is achieved by competitive binding of the drug candidate CTCE-9908 to the CXCR4 receptors (a receptor expressed in bone marrow support cells and at least 23 different types of cancer), thereby preventing cancer cells from interacting with normal tissues rich in naturally occurring chemokine, stromal cell derived factor-1 (SDF-1). In the absence of CTCE-9908, cancer cells would be attracted to those organs expressing SDF-1 and bind to their receptor enabling cancer cells to settle on those organs.

The other drug candidate, CTCE-0214, an SDF-1 agonist (it mimics the function of SDF-1), stimulates stem cell proliferation and differentiation into multiple functional cell lines. Natural SDF-1 is responsible for the maintenance of infection fighting white blood cells, platelets, and stem cells in humans. Thus, CTCE-0214 can help patients with weakened immune systems cope with cancer chemotherapy, or other disease conditions like AIDS, by recruiting white blood cells necessary to fight infection.

Both lead drug candidates have shown promising results in animal studies and Phase I trials. With positive results from the last trial, the company is now prepared to start a Phase II clinical trial with CTCE-9908 in the U.S., Canada and Hong Kong, with up to 132 patients. The FDA and the Health Protection Branch of Health Canada have approved the study.

**Investment
Highlights**

- Cytokine (broad name of chemokine) based therapeutics generate over US\$20 billion in annual revenues globally. If CTI can capture a small percentage of this market, investors will benefit.
- CTI is one of few players involved in the design and development of peptide based drugs targeting the chemokine system. The company seeks to address unmet medical needs for treating life-threatening diseases like cancer and hematological disorders. Also, we believe, its drug candidates have the potential for better efficacy and safety profile than existing drugs.

- Received approval from the FDA and the Health Protection Branch of Health Canada to commence a Phase II liver cancer study with their lead drug candidate, CTCE-9908. Results of their Phase I/II trials, and animal studies, were highly encouraging.
- CTCE-9908 has a unique mechanism of action for arresting cancer metastases and for intercepting the angiogenesis process. If proven to be successful in the liver cancer trial, it could change the way cancer is managed.
- If CTCE-9908 proves to be successful in the treatment of liver cancer, this could prove to be a successful approach for the treatment of over 23 of the most common cancers.
- CTI has an experienced management team with extensive industry expertise and a proven track record.
- CTI has secured 26 chemokine-based patents, with 19 pending. Patents have been issued in a number of regions like the U.S., Japan, Europe and Australia.

Unique and diversified pipeline

The company has a unique and diversified pipeline of drugs in attractive therapeutic areas such as oncology, hematopoiesis, angiogenesis, autoimmune diseases, wound healing and stroke, in different phases of development as shown in the table below.

DRUG	STAGE OF DEVELOPMENT				
	Research & Preclinical	Phase I	Phase II	Phase III	Market
CTCE-9908	Cancer				
CTCE-0214	Immune System Recovery				
CTCE-0324	Vascular Disease				
CTCE-0422	Wound Healing				
CTCE-0501	Stroke				

Source: Company

Their two lead drug candidates, CTCE-9908 and CTCE-0214, are being investigated for the treatment of cancer, and for neutrophil and stem cell mobilization, respectively. Their other three drug candidates are in preclinical development in the areas of Peripheral Arterial Disease (PAD) (CTCE-0324), wound healing (CTCE-0422), and stroke prevention (CTCE-0501).

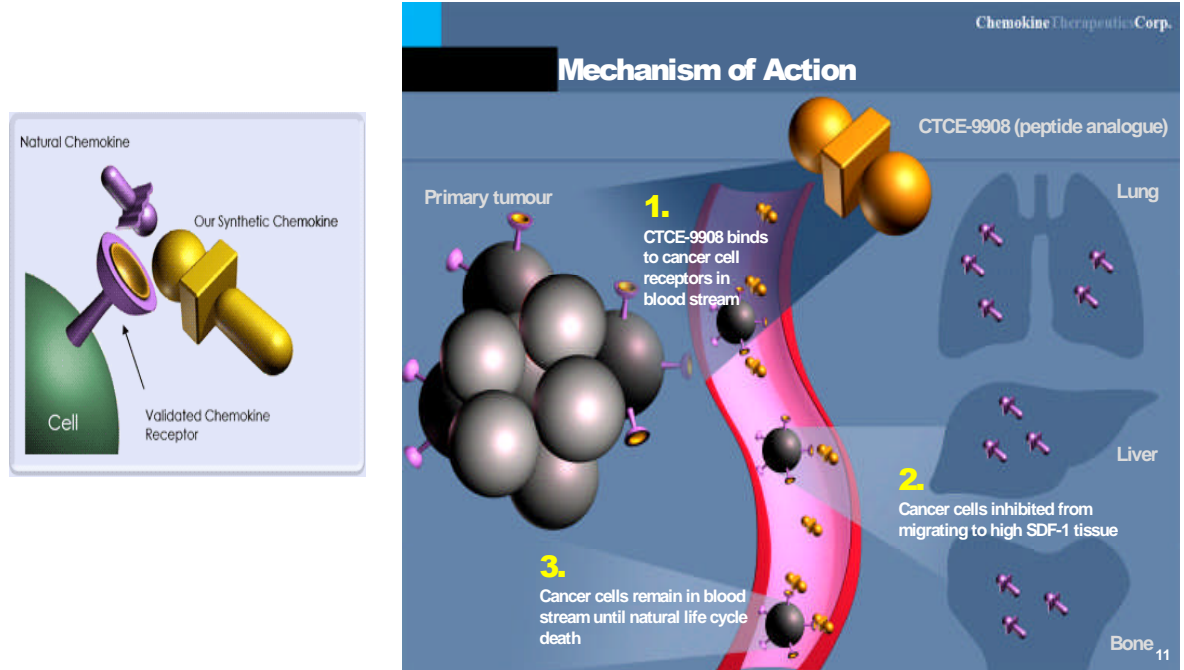
CTCE-9908

The first lead drug candidate, CTCE-9908, is an anti-metastases and anti-angiogenic compound that is applicable to a wide variety of cancers. According to the National Cancer Institute, cancer expenditures in the U.S. are around 5% of total healthcare spending (\$2.3 trillion in 2007, \$7,600 per person or 16 % of GDP). The market is huge, and capturing even a small percentage of it can deliver substantial revenues.

Mechanism: The growth and spread of cancer is influenced by a naturally occurring chemokine known as stromal cell-derived factor 1 (SDF-1), which is produced in organs such as the bone marrow, liver, and lungs, and has a role in the regulation of stem cells. SDF-1 acts on two important receptors - CXCR4 and CXCR7; these are expressed in both

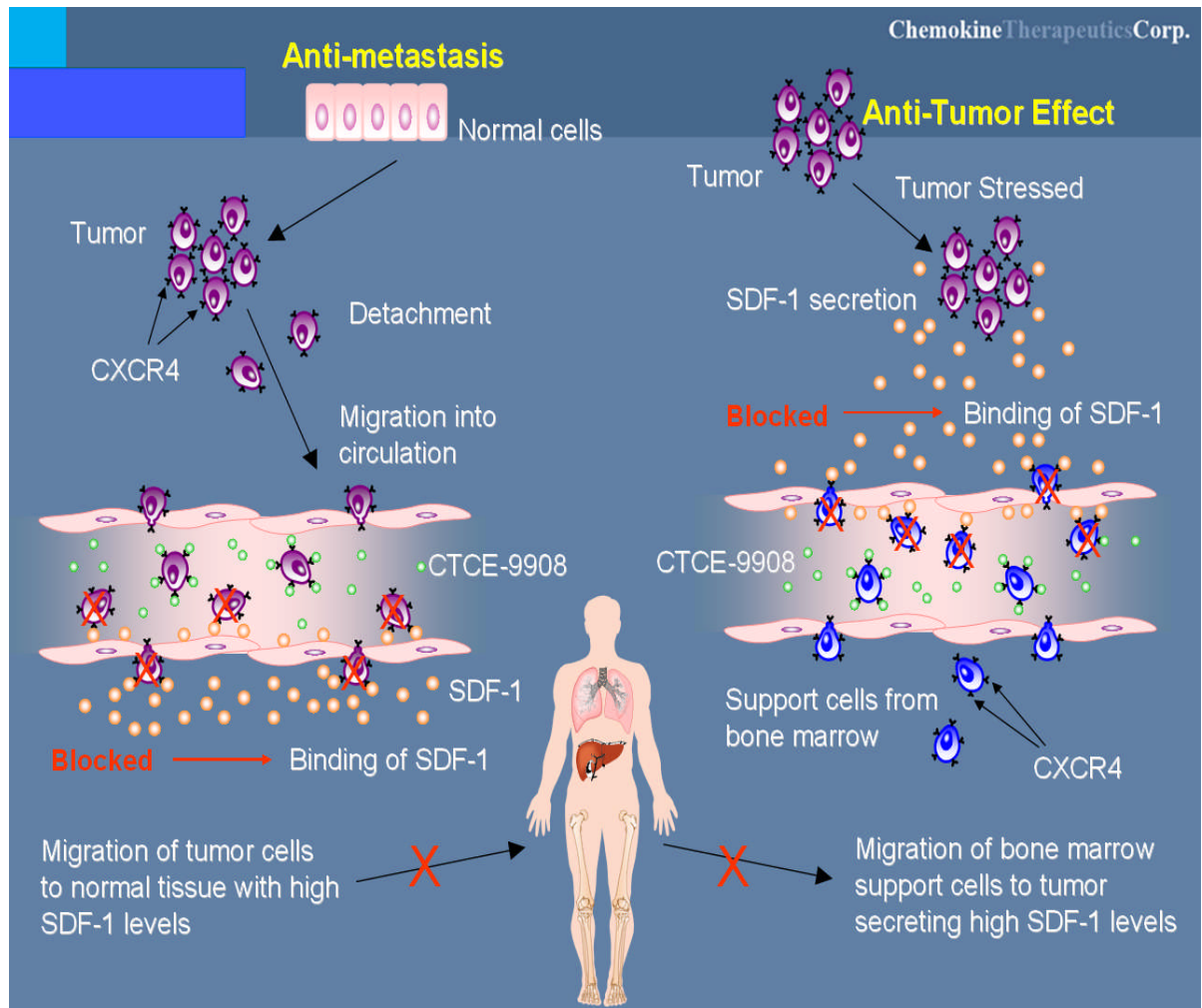
healthy stem cells and various common cancers (lung, breast, and bone). The presence of CXCR4 on cancer cells allows these cells to migrate from the original cancer site to new sites that are rich in SDF-1, such as bone marrow, liver, and lungs, where they develop new blood vessels (angiogenesis) and form new tumors (metastases).

CTI's CTCE-9908, which is an antagonist of SDF-1, binds competitively to the CXCR4 receptors (CXCR4 receptors are expressed on at least 23 different types of human cancers), and thereby inhibits the growth and spread of these cancers, as cancer cells will no longer be able to interact with naturally occurring SDF-1 in various organs of the body. The pictures below show how CTCE-9908 blocks SDF-1 by binding to cell receptors, and inhibits cancer cells from migrating to high SDF-1 tissue.



Source: Company

This mechanism not only inhibits migration of cancer cells (metastasis), but also inhibits angiogenesis (formation of new blood vessels) and has a significant effect on the primary tumor. Here is how it works: Primary tumors typically release SDF-1 to recruit support cells from the bone marrow. CTI's CTCE-9908 binds to these support cells, thereby inhibiting their migration to the primary tumor. The tumor does not get the required support, cannot form enough blood vessels, and eventually dies. The picture on the next page illustrates the two functions of the CTCE-9908 compound.



Source: Company

CTCE-9908 targeting metastasis and angiogenesis is a novel therapeutic approach without predecessors and few proven clinical development models. If successful, we believe, this compound has the potential to become part of a new generation of drugs.

CTCE-9908 can be potentially used with existing therapies (chemotherapy, surgery, and radiation) to improve treatment outcomes. There is evidence from animal studies that CTCE-9908 could be used after chemotherapy to decrease the rate of disease progression. Adding CTCE-9908 to chemotherapy further inhibited the primary tumor compared to chemotherapy alone, and adding CTCE-9908 to an anti-angiogenic drug (similar to the cancer drug Avastin) further increased the efficacy of that therapy. CTI is continuing to explore the possible additive or synergistic effects of CTCE-9908 when added to established chemotherapy regimens as well as its use in combination with other new therapies.

Initial target – Liver Cancer: Based on evidence collected in previous studies, the mechanism of action and the presence of CXCR4 receptors, a number of solid tumors types are possible candidates for continued clinical development, with liver cancer presenting the best opportunity to demonstrate the dual mechanism of CTCE-9908 in a human clinical trial

setting. Liver cancer is the sixth most common cancer worldwide. Approximately 600,000 cases of liver cancer are diagnosed each year and it is the third leading cause of cancer-related deaths. Currently, the 5-year survival rate for patients with liver cancer (with non-resectable tumors) is 11% in the U.S., less than 8% in Europe, and less than 10% in Asia. By targeting liver cancer, the company can possibly compete with Nexavar® (Bayer HealthCare Pharmaceuticals and Onyx Pharmaceuticals, Inc.), which is the only approved drug for the treatment of patients with hepatocellular carcinoma (HCC), the most common form of liver cancer. With annual sales over \$500 million, Nexavar® is estimated to increase survival by 3 months.

Promising results: The Phase I/II preliminary study in 2007 showed the drug to be safe and well tolerated at all the administered dose levels, and also showed early evidence of a response to CTCE-9908. The recent Phase I/II results further demonstrated the safety and efficacy. The company has received approval from the FDA to conduct a Phase II study in the U.S., which is planned to begin in Q1/2009.

Clinical Development Plan for CTCE-9908

<u>Description</u>	<u>Clinical Phase</u>	<u>No. of Subjects</u>	<u>Duration</u>	<u>Location(s)</u>
Single-Dose Safety Study in Healthy Volunteers	I (completed 2005)	24	6 months	United Kingdom
Safety and Preliminary Efficacy Study	I/II (Completed June 2008)	Up to 30	2 years	Hamilton, Ontario and Montreal, Quebec
Liver Cancer in Patients undergoing TACE procedures	II (pending)	Up to 132	3 Year*	Canada /USA /Other
Ovarian Cancer Patients following primary therapy	II (pending)	~ 50	3 Year*	Canada /USA /Other
*Duration of clinical trials dependant on final trial protocol design.				

Animal studies showed that CTCE-9908 reduces metastasis to different organ sites when compared to a control.

- Liver cancer by approximately 56 %.
- Non Small Cell Lung Cancer metastasis to the lungs by approximately 68%;
- Bone cancer metastasis to the lungs by approximately 67%;
- Skin cancer metastasis to the lungs by approximately 55%;
- Prostate cancer metastasis by approximately 61%;
- Primary breast cancer by 80% and metastasis of breast cancer by 90%; and
- Fibrosarcoma metastasis to tissues outside the lungs by more than 90%.

Also, the size of breast and liver tumors were reduced by 80%.

In addition, on August 6, 2008, CTI announced that positive research results were presented by the laboratory of Dr. Welch at the University of Alabama, Birmingham. Researchers at the University of Alabama have been studying the ability of CTCE-9908 to inhibit metastasis of human breast cancer in pre-clinical models as part of a collaborative research effort with CTI. Their data demonstrated, in pre-clinical models, that CTCE-9908 decreased the spread of breast cancer to the ovary by about half, decreased the size of tumors in the femur, and decreased the number of tumors in the heart and other organs examined. The overall amount of tumor in these studies was reduced by 50%.

Encouraging Phase I/II results - In June 2008, the company announced positive results of the Phase I/II clinical trial for CTCE-9908 conducted at the Juravinski Cancer Center (Ontario) and the Segal Cancer Centre, Jewish General Hospital (Quebec).

The primary objective of the trial was to determine the tolerability and safety of repeated administration of CTCE-9908. The secondary objective was to evaluate early signs of efficacy such as tumor stabilization and reduction of tumor growth and spread. The study was conducted on 25 patients with advanced metastatic disease that stopped responding to standard treatments or for whom no curative therapy exists. Seventeen patients were given the highest dose of 5 mg/kg/day and eight patients were treated in the dose escalation portion of the study. All patients entered into the study had at least one previous surgery and had received an average of three previous chemotherapy regimens.

The study results were highly encouraging as the compound not only demonstrated safety over a prolonged period of administration, but also showed some preliminary signs of efficacy. The results demonstrated that repeated dosing of CTCE-9908 is well tolerated with no dose limiting toxicity observed up to the maximum dose of 5.0 mg/kg/day. Six patients (30%) had overall stable disease after one cycle (one month). Of the six patients that showed stable disease after one month, three patients came off study for various reasons after one cycle, one patient developed progressive disease, and two patients continued having overall stable disease after two cycles. One patient with ovarian cancer had a significant reduction in the tumor marker CA125 with a correlating reduction in target tumor size after less than one cycle of treatment. One patient with small bowel cancer had stable disease without any sign of further progression for seven cycles.

Eight serious adverse events (SAEs) were reported for five patients during the study, but none of the SAEs were attributed to CTCE-9908. They were the result of disease

progression. The most common side effect that was attributed to the study drug was mild to moderate injection site irritation in the 5.0 mg/kg/day dose group.

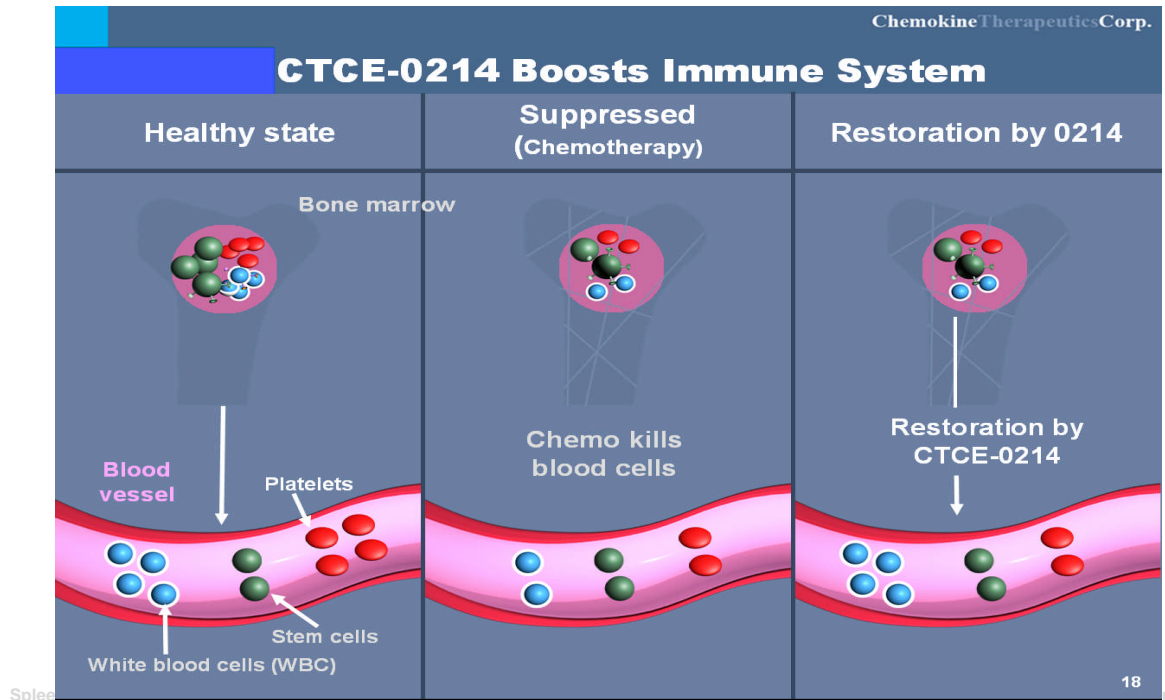
Phase II trial - Liver Cancer in Patients undergoing TACE procedures - The Phase II trial will be a multi-centre, randomized, controlled, open label study assessing the efficacy and safety of CTCE-9908 administered at a dose of 5 mg/kg. The primary objective will be to determine the response rate of tumors in patients with liver cancer treated with CTCE-9908 following transarterial chemoembolization (TACE), a therapy used for non-resectable liver cancer, compared with patients receiving TACE alone. CTI will also track progression free survival, overall survival, as well as various tumour and angiogenic factors.

Due to the significant costs involved in conducting clinical trials, CTI intends to enter into agreements with larger biotechnology/pharmaceutical companies to co-develop their products through Phase II, Phase III and Phase IV of clinical trials. Our discussions with management indicated that the company would require about \$4 - \$8 million to pursue Phase II trials for CTCE-9908.

CTCE-0214

CTCE-0214, the company's second lead drug candidate, is a hematopoietic drug targeted at the multi-billion dollar blood disorder market. CTCE-0214, an agonist of the chemokine receptor to SDF-1 present on blood stem cells, is expected to contribute to a rapid increase in the number of white blood cells (WBC), or the infection fighting cells, for patients with chemotherapy-induced neutropenia (low WBC count) and thrombocytopenia (presence of relatively few platelets in blood.). This helps patients with weakened immune systems to cope with cancer chemotherapy or other disease conditions like AIDS. According to Business Communications Company Inc., a technical-market research firm, this class of drugs generated worldwide sales of approximately US\$3 billion in 2003, and are expected to grow to over US\$4.5 billion by 2008.

CTCE-0214 enhances the level of neutrophils (a form of infection fighting white blood cells), platelets, as well as stem cells in the blood (as evident from preclinical animal studies), which increase the effectiveness of immune responses. The picture on the next page displays the mechanism of CTCE-0214.



Source: Company

CTCE-0214 has the potential to restore a cancer patient's immune system and blood cells between cycles of chemotherapy, thereby enabling the patient to receive aggressive chemotherapy without substantially compromising his or her immunity. Another potential application is in HIV and other immuno-compromised patients (weak immune system). Competing and/or current procedures require cancer patients to be administered with G-CSF (granulocyte colony-stimulating factor) for at least 10-14 days to restore white blood cells to normal levels. CTCE-0214 has the potential to reduce the time for restoration of infection-fighting white blood cells either alone or in combination with G-CSF. CTCE-0214 also has the potential to decrease the time of mobilization of stem cells and the number of leukapheresis sessions required to complete this process. It may also prove to be useful in combination with G-CSF in this setting.

Phase I trials were completed in 2005. The objective of the study was to evaluate the safety of CTCE-0214, as well as to know more about its modality of action in the human body and to learn about its absorption, metabolism and blood levels. The study was conducted on 24 subjects in six dose escalation groups. The low number of subjects was offset by trial design, ensuring unbiased results. The study results were encouraging. CTCE-0214 was well tolerated among the subjects, except for injection site tenderness and erythema (injection site redness), which resolved on their own. **CTCE-0214 also showed an excellent immune response in humans (raised neutrophils by 300%).** Overall, results from the trials demonstrated adequate safety profile for the drug, and encouraging signs of biological activity with elevations in infection-fighting white blood cells.

The table on the next page shows the response shown by CTCE-0214 by intravenous injection in animals.

Animal Trials: Response to CTCE - 0214	
Blood Cell	Approximate Increase in Count
Neutrophils	700%
Platelets	200%
Stem Cells	350%

CTI plans to conduct further tests going forward using an intravenous mode of administration which might give better pharmacokinetic (levels of drug in the blood) results, thereby delivering better treatment results.

Other Drug Candidates

CTI's other three drug candidates are in preclinical development in the areas of neovascularization (CTCE-0324), wound healing (CTCE-0422), and stroke prevention (CTCE-0501). A brief description on the three drug candidates follows.

CTCE-0324 - This drug candidate is expected to stimulate angiogenesis in patients with Peripheral arterial disease (PAD). The drug candidate, which is in the preclinical stage, may help patients with PAD by enhancing blood supply to regions where blood supply has been compromised due to occlusive factors like fatty deposits, stenotic conditions or spasms.

PAD is a relatively common disorder in the elderly. The American Heart Association estimates that as many as 8 to 12 million Americans have PAD and that nearly 75% of them are asymptomatic. Over a 5-year period, 25% to 35% of persons with PAD will suffer a myocardial infarction or stroke and an additional 25% will die, usually from cardiovascular causes.

The company intends to carry out further animal testing of the compound to determine the potential of CTCE-0324 for PAD.

CTCE-0422 - CTI is working with additional novel peptides, such as CTCE-0422, evaluating the potential application for wound healing. These types of peptides would function by recruiting infection fighting cells to the site of tissue injury, reducing the possibility of wound infection and decreasing the time for healing.

CTCE-0501 - This drug candidate has the potential to prevent stroke by inhibiting platelet formation thereby preventing clots which causes stroke.

Strategic Partnership

CTI has successful collaborations with the following academic institutions and research centers in Canada, USA, and England.

1. Memorial Sloan Kettering Cancer Center, New York, New York
2. M. D. Anderson Cancer Center, Houston, Texas
3. University of Hong Kong, Hong Kong
4. The Lady Davis Institute for Medical Research, Montreal, Quebec
5. University of Alabama at Birmingham, Birmingham, Alabama
6. University of South Texas Medical Center, Dallas, Texas
7. Wayne State University School of Medicine, Detroit, Michigan

8. Medical University of South Carolina, Charleston, South Carolina
9. Queen Mary’s School of Medicine and Dentistry, London, England
10. University of California, Riverside, California

The company provides their drugs and expertise to collaborators in these academic institutions to conduct various *in vitro* and animal studies. CTI’s benefit from these partnerships is that it helps validation of scientific findings at lower costs. CTI and their collaborators often present their results to larger scientific communities in international meetings.

Market Potential

Most of the major global pharmaceutical companies including, Pfizer (NYSE: PFE), Amgen (NASDAQ: AMGN), Novartis (NYSE: NVS), Roche (NASDAQ: ROCM), Schering-Plough (NYSE: SGP), AstraZeneca (LSE; AZN), and GlaxoSmithKline (NYSE: GSK), are pursuing chemokine based development programs. The following were a few of the major M&A or partnership deals in the chemokine space since 1999:

- Genzyme-AnorMED (2006) \$580 million
- GlaxoSmithKline-ChemoCentryx (2006) \$1.5 billion
- Pfizer-Incyte Genomics (2005) \$800 million
- Amgen-Tularik (2004) \$1.2 billion
- Millennium-LeukoSite (1999) \$600 million

Note - Takeda Pharmaceutical Company Limited (Japan) acquired Millennium Pharmaceuticals in April 2008 for approximately \$8.8 billion to boost its cancer drug portfolio.

Among the deals mentioned above, the one that requires special mention is the acquisition of AnorMED (a company based in Langley, BC) by Genzyme Corporation (NASDAQ: GENZ) for US\$580 million in October 2006. Genzyme/AnorMED was developing AMD3100 (currently awaiting marketing approval from the FDA and Europe), a competing drug candidate of CTI’s CTCE-0214.

CTCE-9908

Cancer is the second-leading cause of death in the U.S. (behind cardiovascular diseases), responsible for 23% of all deaths. More than 45% of all men and 41% of all women are expected to develop cancer in their lifetimes. Nearly 50% of people who develop cancer eventually die of the disease. According to IMS Health, cancer drugs reached \$34.6 billion in sales in 2006, in the U.S., up 20.5% from the previous year.

The company’s CTCE-9908 has potentially wide applications for different types of cancers. Initially, it is being tested in a multi-tumor setting and for liver cancer. The table on the next page shows the number of new cancer cases in the U.S. every year.

Potential Markets for CTCE-9908, Number of New Cancer Cases in US each year (2004 data)

	Type of Cancer	New US cases/year
1	Prostate Cancer	218,000
2	Lung Cancer	213,000
3	Breast Cancer	180,000
4	Ovarian Cancer	22,000
5	Liver Cancer	19,000

Source: American Cancer Society, Inc.

The table below shows the growth in annual revenues of some of the therapies that have been approved for the treatment of cancers.

Target	Drug	Company	2005 Sales (in \$mm)	2006 Sales (in \$mm)	YOY Growth
VEGF receptor	Avastin ®	Genentech/Roche	\$1,183	\$1,853	56.6%
Erb-B2 receptor	Herceptin ®	Genentech/Roche	\$764	\$1,330	74.1%
EGF receptor	Erbitux ®	Imclone/BMS	\$413	\$652	57.9%
-	Tarceva ®	OSI/Genentech	\$275	\$402	46.2%

Source: Company

Competition: Metastatix, Inc. and Biokine Therapeutics Ltd. are two companies actively developing CXCR4 antagonists as cancer therapies.

Metastatix, Inc. is a privately held pharmaceutical company based in Atlanta (USA). Their drug candidate, MSX-122, is basically a CXCR4 antagonist with anti-metastasis activities in vitro and in vivo. Metastatix commenced a Phase 1 trial in late 2007. However, the study was recently suspended.

Biokine Therapeutics Ltd, an Israeli company focusing on chemokine and chemokine receptors, has tested BKT140 (CXCR4 antagonist) in pre-clinical studies and is considering developing this drug as a treatment for glioma, a form of lethal brain tumor.

We believe these two companies can pose competition for CTI going forward. However, CTI has a major first mover advantage as its compound is at a more advanced stage of development. Also, CTI has received patents that cover the use of a wide range of compounds targeting the CXCR4 receptor in the field of cancer.

Chemocentryx is another company, like CTI, that has a broad pipeline of chemokine-based therapeutics. Their lead drug candidate, Traficet-EN, is targeting Crohn's Disease (Phase II/III), Celiac Disease (Phase II), Ulcerative Colitis (Phase I). Celiac disease is a chronic inflammatory disorder predominantly affecting the bowel, while Crohn's Disease and

Ulcerative Colitis are both characterized by inflammation of the gastrointestinal tract. ChemoCentryx has an early stage oncology program. One of its oncology drug candidates acts on CXCR7 to prevent angiogenesis. This analog can potentially compete with CTCE-9908, however it is in pre-clinical trials.

CTCE-0214

CTCE-0214 has the potential to serve in combination with currently approved products. There is a huge patient population undergoing chemotherapy, or affected by HIV and other immuno deficient patients. CTCE-0214 can also be used for other applications such as stem-cell transplants. In 2002, there were approximately 45,000 stem-cell transplants worldwide (International Bone Marrow Transplant Registry). According to CTI, the market for neutrophil and stem cell mobilization is currently served by a limited number of products.

CTCE-0214 has the potential to be more effective than the currently available cytokine-based drugs for treating immunosuppression based on its unique mechanism of action (the table below gives an overview of potential competing drugs for CTCE-0214). According to CTI, the existing main line drug, Amgen's Neupogen[®], requires several days of injections to restore infection fighting white blood cells to normal levels. In comparison, animal trials have demonstrated CTCE-0214's rapid recruitment of blood cells in 6 to 12 hours. Amgen's Neupogen[®] and Neulasta[®], which are two types of G-CSF, recorded global sales of \$4.28 billion in 2007, up 9% YOY.

Another competing drug candidate is AMD3100 (Mozobil[™]), which is currently in NDA (market approval) in the U.S. and Europe. The drug was being developed by AnorMED (based in Langley, BC). AMD 3100, in conjunction with Neupogen[®], is expected to mobilize higher yields of stem cells, another application of cytokines used for the stem cell transplant market. CTI is developing CTCE-0214 with a more direct mode of action on the receptor for mobilization of cells, such as stem cells, than Mozobil[™]. Although both AMD 3100 and CTCE-0214's site of action is the CXCR4 receptor, CTI believes that a more rapid and efficient method would be to increase the concentration of SDF-1 or an analog by directly injecting it into the blood.

CTCE-0214 can also be used in conjunction with Neupogen[®] and it has been demonstrated pre-clinically to deliver best results when used in this manner both for immunosuppression and mobilization. Unlike Neupogen[®] or Mozobil[™], CTCE-0214 also demonstrated the regeneration of platelets in pre-clinical studies. Thus, providing chemotherapy patients a potential drug against life threatening bleeds (thrombocytopenia).

Potential Competition for CTCE-0214

Drug	Stage	Application	Modality/Target	Company
Neupogen [®]	Approved	Stem Cell	Cytokines, *GM-CSF	Amgen
Mozobil [™]	NDA submitted in the US and Europe	Stem Cell	CXCR4	Genzyme
Neumega [®] Oprelvekin ^{**}	Approved	Thrombocytopenia	Interleukin	Wyeth
Leukine [®]	Approved	Stem Cell	GM-CSF	Baxter

* GM-CSF : Granulocyte Macrophage –Colony Stimulating Factor

**Generic Name

Source: FRC Analysis

Management

CTI has an experienced management team with extensive industry expertise and a proven record of accomplishment. The company also has a strong advisory board. Brief biographies of the management team and board of directors, as provided by the company, follow.

Walter Korz, HCA, MBA - President and Chief Executive Officer, Director - Mr. Walter Korz was named President and CEO in April 2008 after serving as Vice President of Drug Development since March 2003. His multi-disciplinary experience spans seventeen years in the biotech sector as well as ten years in the healthcare sector. He brings with him a broad drug development background, including experience in regulatory, clinical, business development and medical affairs. His experience with therapeutic and diagnostic research drugs encompasses various indications including cancer, MS, rheumatoid arthritis, and psoriasis. He has managed medical studies from the preclinical to the pivotal clinical stages. Prior to joining us he held the position of Clinical Development Manager with Angiotech Pharmaceuticals, Inc. from 2000 to 2003. Mr. Korz's experience includes overseeing the development of diagnostic and therapeutic products with AltaRex Corp. in Edmonton and Boston. His initial drug development, clinical and regulatory experiences were gained with Biomira Inc.

Bashir Jaffer, CA - Chief Financial Officer - Mr. Bashir Jaffer brings to Chemokine 30 years of extensive and diverse experience in public practice, entrepreneurial, professional, management and leadership roles in business and with community organizations. Mr. Jaffer was previously Chief Financial Officer of Veridicom International Inc., a publicly traded company in the field of biometric software and hardware development. Prior to that he was the owner and President of a travel management company from 1998 to 2003, and from 1983 to 1998, Mr. Jaffer was a partner at a firm of chartered accountants located in Vancouver, British Columbia. Mr. Jaffer has previously worked for a public company and an international CA firm in London, UK and also with KPMG (previously Thorne Riddell) and PricewaterhouseCoopers (previously Coopers & Lybrand) in Vancouver. Mr. Jaffer has also served as the Chairman of the Board of Directors of United Way of Canada and also as the Board Chair of the United Way of the Lower Mainland. Currently he serves on the Board of Providence Health Care. Bashir Jaffer is a member of the Institute of Chartered Accountants of British Columbia and the Canadian Institute of Chartered Accountants since 1976. He is also a Fellow of the Institute of Chartered Accountants of England & Wales.

Donald Wong, PhD - Vice president, Drug Development - Dr. Wong is an experienced researcher with 7 years of postdoctoral and 5 years of doctoral experience in the fields of cytokines, growth factors, and cardiovascular and neuropathological disorders. He is the author of a number of important scientific publications on the role of the blood-brain barrier in multiple sclerosis, stroke and other inflammatory diseases in the brain, as well as the role of a leaky endothelium in atherosclerosis, especially in the context of diabetes and organ transplants. He obtained his Ph.D. in Neuropathology at the University of British Columbia and carried out post-doctoral work at the laboratories of Dr. Steven Vincent and Dr. Bruce McManus. Dr. Wong has written over 20 scientific publications, and over 10 patents. He is responsible for conducting, and managing all the pre-clinical, drug development of Chemokine Therapeutics drugs.

Don Evans - Vice President, Corporate Communications - Mr. Evans has over 20 years experience in business and finance and prior to joining Chemokine he served as Vice President, Corporate Communications for Wex Pharmaceuticals Inc. At Wex Pharmaceuticals Mr. Evans developed an effective shareholder communications program where he broadened the shareholder base and substantially increased the number of retail shareholders. His department helped create extensive media coverage. Mr. Evans was involved in raising capital for the company and his responsibilities included listing the company on the TSX Exchange. While working for Pacific International Securities for three years Mr. Evans managed and maintained accounts for over 400 clients providing investment advice. Mr. Evans has also owned and operated a number of small businesses in Western Canada. Mr. Evans passed the Canadian Securities course with honors in 1991 and completed his Chartered Financial Planner in 1996.

**Board of
Directors**

Edward Taylor, CGA – Chairman: Edward Taylor is a member of the Certified General Accountant's Association of Alberta and British Columbia. Mr. Taylor has been Vice President Finance and Administration and the Chief Financial Officer of Oncothyreon (formerly Biomira Inc.) since May 1995 where he has successfully raised over \$300 million dollars through a variety of financing vehicles. Prior to joining Oncothyreon Mr. Taylor's early career was in the Forest Products industry where he held several senior executive positions, with Crestbrook Forest industries Ltd. (1977 to 1989) and Alberta-Pacific Forest Industries Inc. (1989 to 1995). He was one of the key players in the successful development and start up of a \$1.3 billion greenfield pulp/forestry complex. He is a past Chairman of the British Columbia Institute of Technology and a graduate of the Stanford Executive Program. Mr. Taylor is Chairman of the Board of Ceapro Inc. and is a Director of two private biotechnology companies. Mr. Taylor is a member of the Financial Executives International and a Life Member of the Stanford Business School Alumni Association.

Brian Kuhn, CPA - Director: Mr. Kuhn has been a director since December 2007. He is an experienced businessman with over 20 years in trading securities actively through his fund, Lakeside Investments. For the past 15 years Mr. Kuhn has also provided consulting and review of public offerings for Broidy Capital (a private equity fund based out of Los Angeles, CA). Mr. Kuhn obtained his CPA from the California State Board of Accountancy in 1990. He spent four years at Arthur Andersen & Co. before leaving to start his own firm. He has extensive accounting experience and has participated in a number of public as well as private security investments. Mr. Kuhn is involved in several start-up businesses and charity organizations in Southern California.

Bernard Byrd, BA – Director: Mr. Byrd has been a director since December 2007. He is an entrepreneur with more than 20 years experience in a variety of business ventures. Currently Mr. Byrd is the President and CEO of Secure EDI, a healthcare IT company that operates in the US and in Puerto Rico as Inmediata. Previously, Mr. Byrd served as Chairman of HRAmerica, a company which he founded and served as its Chairman and CEO until April 2005. He was President of Human Resource ONE, a company that he founded, sold and brought public as NovaCare Employee Services in 1997. In the past Mr. Byrd also served as VP of Finance for Your Staff, Inc and CFO of Staffing Services, Inc. Mr. Byrd graduated from California State Polytechnic University and holds a degree in Business Administration.

Mr. Byrd also serves on the Board of Trustees for Speedway Children's Charities.

George Kowalchuk – Director: Mr. Kowalchuk has been a director since December 2007. He is a retired businessman and investor with thirty years of investment experience related to biotechnology companies.

Walter Korz, HCA, MBA - President and Chief Executive Officer, Director

Financials

At the end of Q2 (quarter ended June 2008), the company had \$0.85 million in cash and short-term investments, and \$0.18 million in working capital. The table below shows the company's cash and liquidity position.

(in US\$)	2006	2007	2008 (6 mo)
Cash + Short-term Investments	6,088,976	764,046	850,145
Working Capital	5,862,851	(75,729)	182,514
LT Debts/ Assets	0.1%	-	-
Monthly Burn Rate	(595,698)	(457,237)	(271,117)
Cash Flow from Financing Activities	6,890,424	110,106	1,707,267

In the first six months of FY2008, the company had a burn rate of \$0.27 million per month versus \$0.46 million per month in FY2007 (12 month period ended December 31, 2007). The company has no long-term term debt.

Recent Financing: In June 2008, the company completed a non-brokered private placement to raise \$0.89 million, by issuing 5.90 million units at a unit price of \$0.15. Each unit consists of one common share and one common share purchase warrant (exercise price - \$0.25 per share; maturity period – 5 years).

We estimate the company will have to raise an additional \$1.1 million to fund its working capital and operations for the rest of the year. Our discussions with management indicated that they will have to raise \$4 - \$8 million to fund their working capital and Phase II study with CTCE-9908. Considering the current market conditions, we believe it is challenging for biotech companies to raise capital. Therefore, delays in the proposed financings are likely. The company is also seeking partnerships with other pharmaceutical players, which will allow the company to share costs.

Stock Options and Warrants: CTI currently has about 2.05 million stock options (weighted average exercise price - \$1.00 per share) and 11.15 million warrants (weighted average exercise price - \$0.27 per share) outstanding. All the outstanding warrants and options are currently 'out-of-the-money'.

Valuation

We valued the company based on potential cash flows from the company's two lead drug candidates, CTCE-9908 and CTCE-0214. All other drug candidates are in very early stages, and therefore, we have not accounted for their value in our valuation models.

Our discounted cash flow (DCF) valuation on the company is \$31.87 million, or \$0.60 per share. The table below shows a summary of our valuation model.

DCF Valuation (US\$, 000s)		
Year	Free Cash Flow (FCF)	PV of FCF
2008	(\$2,952)	(\$2,775)
2009	(\$4,949)	(\$4,109)
2010	(\$8,046)	(\$5,902)
2011	(\$7,149)	(\$4,632)
2012	(\$8,256)	(\$4,726)
2013	(\$9,369)	(\$4,738)
2014	(\$8,487)	(\$3,792)
2015	\$19,684	\$7,769
2016	\$31,230	\$10,890
2017	\$31,005	\$9,551
2018	\$21,383	\$5,819
2019	\$21,950	\$5,277
2020	\$22,533	\$4,785
2021	\$23,133	\$4,340
2022	\$19,431	\$3,221
2023	\$20,025	\$2,932
Terminal Value		\$7,193
NPV		\$31,102
Discount Rate	13.2%	
Terminal Growth Rate	3%	
Cash - Debt	\$764	
Equity Value (C\$)	\$31,866	
Shares O/S (dil)	53,334	
Value per share	\$0.60	

Our valuation was based on the following assumptions.

Revenue Forecasts

CTCE – 9908 – Although CTCE – 9908 can be potentially used for several different types of cancers, for conservatism, we have only accounted for potential revenues from the breast and liver markets. Also, our valuation is based on penetration only in the U.S. market (Note that the company intends to conduct a Phase II clinical trial in the U.S., Canada and Hong Kong).

While estimating the market opportunity, our approach has been more from the disease prevalence side. According to a report commissioned by the Board of the American Society of Clinical Oncology (ASCO) and published in its Journal of Oncology Practice, the number of people diagnosed with cancer in the U.S. is expected to grow at a CAGR of 3.2% during 2005 and 2020, from 11.7 million to 18.7 million. Our forecasts for liver and breast cancer patients going forward (which are estimated to account for 1.5% and 12.7%, respectively, of all cancer patients in 2008 - according to the National Cancer Institute) were primarily based on these estimates. We have assumed that the percentage of liver and breast cancer patients as a percentage of all cancer patients going forward will be maintained at 1.5% and 12.7%, respectively.

After forecasting the prevalence of applicable diseases, we calculated the number of patients that will be administered CTCE – 9908 for each of the diseases (i.e., market penetration – we have assumed a conservative 5% market share for CTCE – 9908). We multiplied this figure with the annual expenditure per patient to arrive at our revenue forecasts. Our models assume that the drug will start generating revenues in 2015.

CTCE – 0214 – Although CTCE -0214 could potentially be used for many applications, our revenue forecasts for this drug candidate was based on revenues from its applications on immunodeficiency patients and patients undergoing chemotherapy. Like CTCE-9908, our revenue forecasts for this drug candidate were based on its expected penetration only in the U.S. market.

Our research indicated that more than one million cancer patients in the U.S. undergo chemotherapy every year, and according to the Centres for Disease Control and Prevention, about 0.44 million patients were living with AIDS in the U.S. in 2006 (up from 0.35 million in 2002). For our models, we assumed a conservative 1% growth rate for patients in both categories going forward. It is important to note that we have used only AIDS patients in our forecast, which is a much smaller subset of the entire immunodeficiency patient population. Like CTCE – 9908, we have assumed a market share of 5% for CTCE – 0214. Our models assume that the drug will start generating revenues in 2016.

Revenues beyond patent life: We have assumed that market share of both drug candidates will drop to 1% (from 5%) after their patent lives. Our discussions with management indicated that the patent for CTCE-9908 will expire in 2024, and that for CTCE-0214 will expire in 2022.

Probability of drug approval – Our revenue forecasts were multiplied by their respective probabilities of drug approval. For conservatism, we have assigned a 20% probability for CTCE – 9908, and 10% for CTCE – 0214.

Discount rate estimate – We used a weighted average cost of capital of 13.2%. The table on below shows how we arrived at 13.2%.

Calculation of Weighted Average Cost of Capital (WACC)	
Cost of Equity*	14.9%
Cost of Debt	10.0%
Debt / Capital (long-term avg)	20.0%
Equity / Capital (long-term av	80.0%
Tax	35.0%
WACC	13.2%

* Industry average cost of equity (Yahoo Finance)

Real options valuation - We also estimated the fair value using a real option valuation model and arrived at a fair value of US\$32.71 million, or \$0.61 per share. A summary of our valuation model is shown below.

Option Pricing Method (US\$, 000s)	
PV of Cash Flows	\$89,543
Drug development costs	\$18,000
Standard Deviation in the cash flows (std deviation of firm value of other firms in the industry)	47%
Project Life (yrs)	15
Risk free rate	4.1%
Value of CTCE 9908	\$27,095
PV of Cash Flows	\$23,488
Drug development costs	\$18,000
Standard Deviation in the cash flows (std deviation of firm value of other firms in the industry)	47%
Project Life (yrs)	13
Risk free rate	4.1%
Value of CTCE 0214	\$4,846
Cash - Debt	\$764
Total value of the company	\$32,705
Shares Outstanding	53,334
Value per share \$	\$0.61

The price estimate was arrived at using the net cash flows estimated during the DCF analysis. The advantage of this model is that it also accounts for the value of management's ability to abandon or pursue projects at any stage if the drug candidates are found to be less effective or are not well tolerated in human beings.

Rating

Therefore, based on our two valuation models, we reinstate coverage on Chemokine with a BUY rating and a fair value estimate of \$0.60 per share. We have rated its shares Risk 5 (Highly Speculative).

We believe that our valuation is conservative and adequately accounts for the associated risks. The company's shares have declined in the past 12 months and are down 82% YOY. We believe this was due to the market conditions, and the fact that the company has to pursue financings (about \$4 - \$8 million) to fund their working capital and Phase II study of CTCE-9908. Upside catalysts will arise if and when the company announces positive results from its Phase II study, or a partnership to jointly conduct the study. Our fair value estimate of \$0.60 per share indicates that at current prices, the company could be a good acquisition target for major players pursuing chemokine based development programs.

Risks

Product Failure: The drug candidates may fail at any stage during the development process and may create uncertainty among the investment community. Drug candidates can fail even after being approved. Some side effects may not appear until long after commercialization. Another risk may be the ability of the company to develop and launch products for different indications in time.

Competition: Given the initial successes of the company's drug candidates, competitors may aggressively seek to develop similar classes of drugs. A small company like CTI may find it difficult to match its competitors' investments. For instance, ChemoCentryx, another company that is into chemokine-based therapeutics, might come up with the drug candidates faster with the assistance of a bigger partner. The competitors may also attempt to instigate litigation over patents on various therapies.

Regulatory: Even though Chemokine Therapeutics was able to secure an IND from the FDA, the company may face regulatory delays in product approvals (NDA). The processes becomes far more rigorous in later stages and takes a lot of time. The delays cost time-to-market as well as money. Any delays in the launch of the drugs would naturally delay revenues.

Cash Flow/Share Dilution: It is expected be a challenge for the company to maintain its cash reserve position in the initial stages of its development. The company has been covering basic expenses by issuing equity, which may dilute existing shareholders.

Fundamental Research Corp. Equity Rating Scale:

Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:

1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

2 (Below Average Risk) - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

3 (Average Risk) - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

4 (Speculative) - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

5 (Highly Speculative) - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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