

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2009

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE EXCHANGE ACT OF 1934

Commission file number: 000-51476

LIXTE BIOTECHNOLOGY HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-2903526
(I.R.S. Employer
Identification Number)

248 Route 25A, No. 2
East Setauket, New York 11733
(Address of principal executive offices)

(631) 942-7959
(Registrant's telephone number, including area code)

Not applicable
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of October 30, 2009, the Company had 29,502,178 shares of common stock, \$0.0001 par value, issued and outstanding.

Documents incorporated by reference: None

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

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Forward-Looking Statements

This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. For example, statements regarding the Company's financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about future product demand, supply, manufacturing, costs, marketing and pricing factors are all forward-looking statements. These statements are generally accompanied by words such as "intend," "anticipate," "believe," "estimate," "potential(ly)," "continue," "forecast," "predict," "plan," "may," "will," "could," "would," "should," "expect" or the negative of such terms or other comparable terminology. The Company believes that the assumptions and expectations reflected in such forward-looking statements are reasonable, based on information available to it on the date hereof, but the Company cannot provide assurances that these assumptions and expectations will prove to have been correct or that the Company will take any action that the Company may presently be planning. However, these forward-looking statements are inherently subject to known and unknown risks and uncertainties. Actual results or experience may differ materially from those expected or anticipated in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, regulatory policies, available cash, research results, competition from other similar businesses, and market and general economic factors. This discussion should be read in conjunction with the condensed consolidated financial statements and notes thereto included in Item 1 of this Quarterly Report on Form 10-Q.

**LIXTE BIOTECHNOLOGY HOLDINGS, INC.
AND SUBSIDIARY**
(a development stage company)

CONDENSED CONSOLIDATED BALANCE SHEETS

	<u>September 30, 2009</u>	<u>December 31, 2008</u>
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 110,431	\$ 10,381
Advances on research and development contract services	—	12,500
Prepaid expenses and other current assets	38,479	28,644
Total current assets	148,910	51,525
Office equipment, net of accumulated depreciation of \$1,909 and \$1,782 at September 30, 2009 and December 31, 2008, respectively	—	128
Total assets	<u>\$ 148,910</u>	<u>\$ 51,653</u>
LIABILITIES AND STOCKHOLDERS' DEFICIENCY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 104,245	\$ 108,484
Notes payable to consultant	100,000	100,000
Research and development contract liabilities	56,500	—
Liquidated damages payable under registration rights agreement	74,000	74,000
Due to stockholder	92,717	92,717
Total current liabilities	<u>427,462</u>	<u>375,201</u>
Commitments and contingencies		
Stockholders' deficiency:		
Preferred stock, \$0.0001 par value; authorized - 10,000,000 shares; issued - none	—	—
Common stock, \$0.0001 par value; authorized - 100,000,000 shares; issued and outstanding - 29,502,178 shares and 27,932,178 shares at September 30, 2009 and December 31, 2008, respectively	2,950	2,793
Additional paid-in capital	4,192,297	3,171,877
Deficit accumulated during the development stage	(4,473,799)	(3,498,218)
Total stockholders' deficiency	<u>(278,552)</u>	<u>(323,548)</u>
Total liabilities and stockholders' deficiency	<u>\$ 148,910</u>	<u>\$ 51,653</u>

See accompanying notes to condensed consolidated financial statements.

LIXTE BIOTECHNOLOGY HOLDINGS, INC. AND SUBSIDIARY
(a development stage company)

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended		Nine Months Ended		Period from
	September 30,		September 30,		August 9,
	2009	2008	2009	2008	(Inception) to September 30, 2009 (Cumulative)
Revenues	\$ —	\$ —	\$ —	\$ —	\$ —
Costs and expenses:					
General and administrative, including \$231,282 and \$254,915 of stock-based expense during the three months ended September 30, 2009 and 2008, respectively, \$306,692 and \$319,709 of stock-based expense during the nine months ended September 30, 2009 and 2008, respectively, and \$1,652,523 of stock-based expense for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative)	300,850	348,514	555,743	566,385	2,671,867
Depreciation	—	155	128	473	1,909
Research and development costs, including \$19,236 and \$61,493 of stock-based expense during the three months ended September 30, 2009 and 2008, respectively, \$116,835 and \$144,862 of stock-based expense during the nine months ended September 30, 2009 and 2008, respectively, and \$380,732 of stock based expense for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative)	152,235	147,818	419,341	446,051	1,700,130
Reverse merger costs	—	—	—	—	50,000
Total costs and expenses	453,085	496,487	975,212	1,012,909	4,423,906
	(453,085)	(496,487)	(975,212)	(1,012,909)	(4,423,906)
Interest income	31	342	83	3,181	25,796
Interest expense	—	—	(452)	—	(1,689)
Liquidated damages under registration rights agreement	—	—	—	—	(74,000)
Net loss	\$ (453,054)	\$ (496,145)	\$ (975,581)	\$ (1,009,728)	\$ (4,473,799)
Net loss per common share - basic and diluted	\$ (0.02)	\$ (0.02)	\$ (0.03)	\$ (0.04)	
Weighted average common shares outstanding - basic and diluted	29,458,156	27,932,178	29,054,705	27,921,959	

See accompanying notes to condensed consolidated financial statements.

LIXTE BIOTECHNOLOGY HOLDINGS, INC.
AND SUBSIDIARY
(a development stage company)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIENCY)

Period from August 9, 2005 (Inception) to September 30, 2009

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount			
Balance, August 9, 2005 (inception)	—	\$ —	\$ —	\$ —	\$ —
Shares issued to founding stockholder	19,021,786	1,902	(402)	—	1,500
Net loss	—	—	—	(16,124)	(16,124)
Balance, December 31, 2005	19,021,786	1,902	(402)	(16,124)	(14,624)
Shares issued in connection with reverse merger transaction	4,005,177	401	62,099	—	62,500
Shares issued in private placement, net of offering costs of \$214,517	3,555,220	355	969,017	—	969,372
Stock-based compensation	—	—	97,400	—	97,400
Net loss	—	—	—	(562,084)	(562,084)
Balance, December 31, 2006	26,582,183	2,658	1,128,114	(578,208)	552,564
Shares issued in private placement, net of offering costs of \$118,680	999,995	100	531,220	—	531,320
Stock-based compensation	250,000	25	890,669	—	890,694
Stock-based research and development Costs	—	—	50,836	—	50,836
Net loss	—	—	—	(1,648,488)	(1,648,488)
Balance, December 31, 2007	27,832,178	2,783	2,600,839	(2,226,696)	376,926
Stock-based compensation	—	—	357,987	—	357,987
Stock-based research and development costs	100,000	10	213,051	—	213,061
Net loss	—	—	—	(1,271,522)	(1,271,522)
Balance, December 31, 2008	27,932,178	2,793	3,171,877	(3,498,218)	(323,548)
Shares issued in private placement, net of offering costs of \$112,950	1,420,000	142	596,908	—	597,050
Stock-based compensation	150,000	15	306,677	—	306,692
Stock-based research and development costs	—	—	116,835	—	116,835
Net loss for the nine months ended September 30, 2009	—	—	—	(975,581)	(975,581)
Balance, September 30, 2009 (Unaudited)	29,502,178	\$ 2,950	\$ 4,192,297	\$ (4,473,799)	\$ (278,552)

See accompanying notes to condensed consolidated financial statements.

**LIXTE BIOTECHNOLOGY HOLDINGS, INC.
AND SUBSIDIARY**
(a development stage company)

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Nine Months Ended September 30,		Period from August 9, 2005
	2009	2008	(Inception) to September 30, 2009 (Cumulative)
Cash flows from operating activities:			
Net loss	\$ (975,581)	\$ (1,009,728)	\$ (4,473,799)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	128	473	1,909
Stock-based compensation	306,692	319,709	1,652,523
Stock-based research and development	116,835	144,862	380,732
Changes in operating assets and liabilities:			
(Increase) decrease in -			
Advances on research and development contract services	12,500	38,180	—
Prepaid expenses and other current assets	(9,835)	6,663	(38,479)
Increase (decrease) in -			
Accounts payable and accrued expenses	(4,239)	27,280	104,245
Liquidated damages payable under registration rights agreement	—	—	74,000
Research and development contract liabilities	56,500	(11,725)	56,500
Net cash used in operating activities	<u>(497,000)</u>	<u>(484,286)</u>	<u>(2,242,369)</u>
Cash flows from investing activities:			
Purchase of office equipment	—	—	(1,909)
Net cash used in investing activities	<u>—</u>	<u>—</u>	<u>(1,909)</u>
Cash flows from financing activities:			
Proceeds from sale of common stock to consulting firm	—	—	250
Proceeds from sale of common stock to founder	—	—	1,500
Proceeds from note payable to consultant	100,000	—	200,000
Repayment of note payable to consultant	(100,000)	—	(100,000)
Cash acquired in reverse merger transaction	—	—	62,500
Gross proceeds from sale of common stock	710,000	—	2,543,889
Payment of private placement offering costs	(112,950)	—	(446,147)
Advances from stockholder	—	—	92,717
Net cash provided by financing activities	<u>597,050</u>	<u>—</u>	<u>2,354,709</u>
Net increase (decrease) in cash	100,050	(484,286)	110,431
Cash at beginning of period	10,381	508,070	—
Cash at end of period	<u>\$ 110,431</u>	<u>\$ 23,784</u>	<u>\$ 110,431</u>
Supplemental disclosures of cash flow information:			
Cash paid for -			
Interest	\$ 851	\$ —	\$ 1,685
Income taxes	<u>—</u>	<u>—</u>	<u>—</u>

See accompanying notes to condensed consolidated financial statements.

LIXTE BIOTECHNOLOGY HOLDINGS, INC.
AND SUBSIDIARY
(a development stage company)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

**Three Months and Nine Months Ended September 30, 2009 and 2008, and
Period from August 9, 2005 (Inception) to September 30, 2009 (Cumulative)**

1. Basis of Presentation

The condensed consolidated financial statements of Lixte Biotechnology Holdings, Inc. and its wholly-owned subsidiary, Lixte Biotechnology, Inc. (the "Company") at September 30, 2009, for the three months and nine months ended September 30, 2009 and 2008, and for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative), are unaudited. In the opinion of management, all adjustments (including normal recurring adjustments) have been made that are necessary to present fairly the financial position of the Company as of September 30, 2009, the results of its operations for the three months and nine months ended September 30, 2009 and 2008, and for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative), and its cash flows for the nine months ended September 30, 2009 and 2008, and for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative). Operating results for the interim periods presented are not necessarily indicative of the results to be expected for a full fiscal year. The condensed balance sheet at December 31, 2008 has been derived from the audited financial statements.

The statements and related notes have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been omitted pursuant to such rules and regulations. These financial statements should be read in conjunction with the financial statements and other information included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, as filed with Securities and Exchange Commission.

2. Organization and Business Operations

Organization

On June 30, 2006, Lixte Biotechnology, Inc., a privately-held Delaware corporation ("Lixte"), completed a reverse merger transaction with SRKP 7, Inc. ("SRKP"), a non-trading public shell company, whereby Lixte became a wholly-owned subsidiary of SRKP. On December 7, 2006, SRKP amended its Certificate of Incorporation to change its name to Lixte Biotechnology Holdings, Inc. ("Holdings"). Unless the context indicates otherwise, Lixte and Holdings are hereinafter referred to as the "Company".

For financial reporting purposes, Lixte was considered the accounting acquirer in the merger and the merger was accounted for as a reverse merger. Accordingly, the historical financial statements presented herein are those of Lixte and do not include the historical financial results of SRKP. The stockholders' equity section of SRKP has been retroactively restated for all periods presented to reflect the accounting effect of the reverse merger transaction. All costs associated with the reverse merger transaction were expensed as incurred.

Lixte was incorporated in Delaware on August 9, 2005 to capitalize on opportunities to develop low cost, specific and sensitive tests for the early detection of cancers to better estimate prognosis, to monitor treatment response, and to reveal targets for development of more effective treatments.

The Company is considered a "development stage company" under current accounting standards, as it has not yet commenced any revenue-generating operations, does not have any cash flows from operations, and is dependent on debt and equity funding to finance its operations. The Company has selected December 31 as its fiscal year end.

The Company's common stock was listed for trading on the OTC Bulletin Board commencing September 24, 2007.

Operating Plans

The Company is concentrating on developing new treatments for the most common and most aggressive type of brain cancer of adults, glioblastoma multiforme (“GBM”), and the most common cancer of children, neuroblastoma. The Company has expanded the scope of its anti-cancer investigational activities to include the most common brain tumor of children, medulloblastoma, and also to several other types of more common cancers. This expansion of activity is based on documentation that each of two distinct types of drugs being developed by the Company inhibits the growth of cell lines of breast, colon, lung, prostate, pancreas, ovary, stomach and liver cancer, as well as the major types of leukemias. Activity of lead compounds of both types of drugs was recently demonstrated against human pancreatic cancer cells in a mouse model. Because there is a great need for any kind of effective treatment for pancreatic cancer, this cancer will be studied concomitantly with the primary target of the Company’s research program focused on brain cancers. More recently, studies in animal models of human melanoma, lymphoma, sarcoma, and the rare neuroendocrine cancer, pheochromocytoma, have demonstrated potent anti-tumor activity of the Lixte LB-100 series of compounds in conjunction with standard chemotherapeutic drugs, which on their own have only modest activity. These new studies confirm that the LB-100 compounds combined with any of several “standard anti-cancer drugs” have broad activity, affecting many different cell types of cancer. This is unusual and important because these compounds may be useful for treatment of cancer in general.

The research on brain tumors is proceeding in collaboration with the National Institute of Neurological Disorders and Stroke (“NINDS”) of the National Institutes of Health (“NIH”) under a Cooperative Research and Development Agreement (“CRADA”) entered into on March 22, 2006, as amended. The research at NINDS continues to be led by Dr. Zhengping Zhuang, an internationally recognized investigator in the molecular pathology of cancer. Dr. Zhuang is aided by two senior research technicians supported by the Company as part of the CRADA. The goal of the CRADA is to develop more effective drugs for the treatment of GBM through the processes required to gain Food and Drug Administration (“FDA”) approval for clinical trials. The Company has entered into an amendment to the CRADA to extend its term from September 30, 2009 through September 30, 2011.

The Company filed five patent applications on August 1, 2008. Two of these patent filings deal with applications filed earlier jointly with NIH for work done under the CRADA as follows: (1) a filing entering the regional stage of a PCT application involving the use of certain compounds to treat human tumors expressing a biomarker for brain and other human cancers; and (2) an application for the treatment of the pediatric tumors, medulloblastoma (the most common brain tumor in children) and neuroblastoma (a tumor arising from neural cells outside the brain that is the most common cancer of children). The three new patent applications include: (1) a joint application with NIH identifying a new biomarker for many common human cancers that when targeted by compounds developed by the Company result in inhibition of growth and death of cancer cells; (2) an application by the Company regarding the structure, synthesis and use of a group of new homologs of its LB-1 compounds; and (3) an application by the Company for the use of certain homologs of its drugs as neuroprotective agents with potential application to common neurodegenerative conditions such as Alzheimer’s and Parkinson’s diseases.

During the nine months ended September 30, 2009, the Company filed eight patent applications. The U.S. Patent Office Examiner began review of the initial patent submitted jointly by the Company and the NINDS. The chemical formula of one of the Company’s lead compounds, LB-100, was disclosed in that patent, and was found to be novel. The Company considers this finding a milestone in the development of the Company’s intellectual property. The specific claims for the structures and methods of synthesis of all compounds in the LB series were filed on the same day in a separate patent application and are the sole property of the Company. The review of this patent will be the determinant of the validity of the novelty of the LB-100 compounds, and the outcome thereof will therefore have a material impact on the future business prospects of the Company.

The results of studies characterizing the novel and potent anti-cancer activity and mechanism of action of LB-102 alone and in combination with standard chemotherapy drugs were published in a leading scientific journal, the Proceedings of the National Academy of Sciences (print version dated July 14, 2009). The primary conclusion was that one of the Company’s lead compounds appears to inhibit cancer cells by stimulating cancer cells to attempt to grow in the presence of a standard cancer drug and interferes with cancer cell defense mechanisms, with the end result being much greater damage to the cancer than occurs when treatment is limited to the standard anti-cancer drug. The authors concluded that treatment with the Company’s compound LB-1.2 may be a general method for enhancing the therapeutic benefit of a number of standard cancer regimens, not limited to the original targets of brain tumors of adults and children. On the basis of this article, the authors were invited to discuss this new approach to drug treatment of cancer in a leading journal focused largely on understanding how to more efficiently attack the cancer cell and published another article expanding on the mechanisms underlying how the LB-100 series of compounds enhances the benefits of common anticancer drugs (Cell Cycle, October 15, 2009).

In addition, an abstract of the characterization of the neuroprotective effects of two lead compounds in standard assays of injury to normal embryonic mouse neurons supporting their continued development for the possible treatment of chronic neurodegenerative diseases such as Alzheimer's Disease and Parkinson's Disease was presented at the annual meeting of the Society for Neuroscience in Chicago, Illinois on October 17, 2009.

The Company continues to evaluate compounds for activity against several types of fungi that cause serious infections, particularly in immuno-compromised individuals, such as those with HIV-AIDS, and those having bone marrow transplantations. The Company is also exploring indications that its compounds have against strains of fungi that cause the most common fungal infections of the skin and nails. Discussions are in progress with experts in fungal infections regarding the most reliable methods of assessing the potential of new agents for the management of common fungal diseases.

The Company expects that its products will derive directly from the intellectual property from its research activities. The development of lead compounds with different mechanisms of action that have activity against brain tumors and other common human cancers, as well as against serious fungal infections, originated from the discovery of a biomarker in GBM. The Company will continue to use discovery and/or recognition of molecular variants characteristic of specific human cancers as a guide to drug discovery and potentially new diagnostic tests. Examples of the productivity of this approach to discovery of new therapeutics are: (1) the recent patent application filing for a new biomarker of several common cancers that when targeted by certain of the Company's drugs results in inhibition of growth and death of cancer cells displaying the marker; and (2) the filing of a patent on certain homologs of one group of compounds as potentially useful for the treatment of neurodegenerative diseases.

Management's goal is to secure one or more strategic partnerships with pharmaceutical companies with major programs in cancer, anti-fungal treatments, and/or neuroprotective measures. The immediate focus has shifted to obtaining approval from the FDA to carry a lead compound of the LB-100 series into clinical trial. The Company believes the potent activity of these drugs in combination with standard non-specific chemotherapeutic drugs against a diverse array of common and uncommon cancers of adults and children merits bringing this treatment to patients as rapidly as possible. In addition, the demonstration of clinical benefit would be very important to potential investors and to large pharmaceutical companies looking to add an entirely new approach to their anti-cancer drug pipelines.

The significant diversity of the potential therapeutic value of the Company's compounds stems from the fact that these agents modify critical pathways in cancer cells and in microorganisms such as fungi and appear to ameliorate pathologic processes that lead to brain injury, caused by trauma or toxins or through as yet unknown mechanisms that underlie the major chronic neurologic diseases, including Alzheimer's Disease, Parkinson's Disease, and Amyotrophic Lateral Sclerosis (ALS, or Lou Gherig's Disease). Studies of the potential neuroprotective effects of homologs of each class of the Company's compounds are continuing under a contract with Southern Research Institute, Birmingham, Alabama. However, the majority of the Company's resources will be directed to the clinical study of LB-100 for cancer therapy.

Going Concern

The Company's consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company is in the development stage and has not generated any revenues from operations to date. The Company has experienced continuing losses since inception and had a stockholders' deficiency at December 31, 2008 and September 30, 2009. As a result, the Company's independent registered public accounting firm, in their report on the Company's 2008 consolidated financial statements, have raised substantial doubt about the Company's ability to continue as a going concern.

The Company's ability to continue as a going concern is dependent upon its ability to develop additional sources of capital and to ultimately achieve profitable operations. The Company's consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

At September 30, 2009, the Company had not yet commenced any revenue-generating operations. All activity through September 30, 2009 has been related to the Company's formation, capital raising efforts and research and development activities. As such, the Company has yet to generate any cash flows from operations, and is dependent on debt and equity funding from both related and unrelated parties to finance its operations. Prior to June 30, 2006, the Company's cash requirements were funded by advances from the Company's founder.

Because the Company is currently engaged in research at an early stage, it will likely take a significant amount of time to develop any product or intellectual property capable of generating revenues. As such, the Company's business is unlikely to generate any revenue in the next several years and may never do so. Even if the Company is able to generate revenues in the future through licensing its technologies or through product sales, there can be no assurance that the Company will be able to generate a profit.

As previously disclosed, the Company estimated that it would require minimum funding in calendar 2009 of approximately \$750,000 in order to fund operations and continuing drug discovery and to attempt to bring two drugs through the pre-clinical evaluation process needed for submission of an Investigational New Drug ("IND") application. In February, March and April 2009, the Company completed three closings from a private placement of its securities, which generated net proceeds aggregating approximately \$597,000. The Company utilized a portion of such net proceeds to repay a \$100,000 short-term note in February 2009, as described at Note 6. Additionally, on September 30, 2009, the Company borrowed \$100,000 from one of its consultants on an unsecured demand promissory note bearing interest at the rate of 5% per annum.

Effective November 6, 2009, the Company raised \$500,000 through the sale of 1,000,000 units at a purchase price of \$0.50 per unit. Each unit consisted of one share of common stock, one three-year warrant to purchase a share of common stock at an exercise price of \$0.50 per share, and one three year-year warrant to purchase a share of common stock at an exercise price of \$0.75 per share. As a result, the Company believes that its current resources are adequate to fund operations only through the first quarter of 2010 at a level that will allow the continuation of the Company's two drug development programs currently in process and initiation of the pre-clinical studies of LB-100. The Company is considering attempting to raise additional equity capital during the remainder of 2009 and 2010 to fund its research and development activities.

The amount and timing of future cash requirements will depend on the market's evaluation of the Company's technology and products, if any, and the resources that it devotes to developing and supporting its activities. The Company will need to fund these cash requirements from a combination of additional debt or equity financings, or the sale, licensing or joint venturing of its intellectual properties. Current market conditions present uncertainty as to the Company's ability to secure additional funds, as well as its ability to reach profitability. There can be no assurances that the Company will be able to secure additional financing, or obtain favorable terms on such financing if it is available, or as to the Company's ability to achieve positive earnings and cash flows from operations. Continued negative cash flows and lack of liquidity create significant uncertainty about the Company's ability to fully implement its operating plan, as a result of which the Company may have to reduce the scope of its planned operations. If cash resources are insufficient to satisfy the Company's liquidity requirements, the Company would be required to scale back or discontinue its technology and product development programs, or obtain funds, if available, through strategic alliances that may require the Company to relinquish rights to certain of its technologies products, or to discontinue its operations entirely.

3. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements include the financial statements of Holdings and its wholly-owned subsidiary, Lixte. All intercompany balances and transactions have been eliminated in consolidation.

Cash and Cash Equivalents and Concentrations

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. At times, such cash and cash equivalents may exceed federally insured limits. The Company has not experienced a loss in such accounts to date. The Company maintains its accounts with financial institutions with high credit ratings.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of fees paid to consultants and outside service providers, patent fees and costs, and other expenses relating to the acquisition, design, development and testing of the Company's treatments and product candidates.

Amounts due, pursuant to contractual commitments, on research and development contracts with third parties are recorded as a liability, with the related amount of such contracts recorded as advances on research and development contract services on the Company's balance sheet. Such advances on research and development contract services are expensed over their life on the straight-line basis, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate.

The funds paid to NINDS of the NIH, pursuant to the CRADA effective March 22, 2006, as amended, represented an advance on research and development costs and therefore had future economic benefit. Accordingly, such costs have been charged to expense when they are actually expended by the provider, which is, effectively, as they perform the research activities that they were contractually committed to provide. Absent information that would indicate that a different expensing schedule was more appropriate (such as, for example, from the achievement of performance milestones or the completion of contract work), such advances have been expensed over the contractual service term on a straight-line basis, which reflects a reasonable estimate of when the underlying research and development costs were being incurred.

Patent Costs

Due to the significant uncertainty associated with the successful development of one or more commercially viable products based on the Company's research efforts and any related patent applications, all patent costs, including patent-related legal and filing fees, are expensed as incurred. Patent costs were \$107,999 and \$53,075 for the three months ended September 30, 2009 and 2008, respectively, \$154,506 and \$127,299 for the nine months ended September 30, 2009 and 2008, respectively, and \$480,197 for the period from August 9, 2005 (inception) to September 30, 2009 (cumulative). Patent costs are included in research and development costs in the Company's condensed consolidated statement of operations.

Income Taxes

The Company accounts for income taxes under an asset and liability approach for financial accounting and reporting for income taxes. Accordingly, the Company recognizes deferred tax assets and liabilities for the expected impact of differences between the financial statements and the tax basis of assets and liabilities.

For federal income tax purposes, substantially all expenses, except for interest, taxes and research and development, are deemed start-up and organization costs and must be deferred until the Company commences business operations, at which time they may be written off over a 180-month period. The Company has elected to deduct research and development costs on a current basis for federal income tax purposes.

The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. In the event the Company was to determine that it would be able to realize its deferred tax assets in the future in excess of its recorded amount, an adjustment to the deferred tax assets would be credited to operations in the period such determination was made. Likewise, should the Company determine that it would not be able to realize all or part of its deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to operations in the period such determination was made.

For federal income tax purposes, net operating losses can be carried forward for a period of 20 years until they are either utilized or until they expire.

On January 1, 2007, the Company adopted new accounting rules which address the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. The Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. The new accounting rules also provide guidance on de-recognition, classification, interest and penalties on income taxes, accounting in interim periods and requires increased disclosures. The adoption of the new accounting rules did not have a material effect on the Company's financial statements. As of September 30, 2009, no liability for unrecognized tax benefits was required to be recorded.

The Company files income tax returns in the U.S. federal jurisdiction and is subject to income tax examinations by federal tax authorities for the year 2005 and thereafter. The Company's policy is to record interest and penalties on uncertain tax provisions as income tax expense. As of September 30, 2009, the Company has no accrued interest or penalties related to uncertain tax positions.

Stock-Based Compensation

The Company periodically issues stock options and warrants to officers, directors and consultants for services rendered. Options vest and expire according to terms established at the grant date.

The Company accounts for share-based payments to officers and directors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense in the Company's financial statements over the vesting period of the awards.

The Company accounts for share-based payments to consultants by determining the value of the stock compensation based upon the measurement date at either (a) the date at which a performance commitment is reached or (b) at the date at which the necessary performance to earn the equity instruments is complete.

Options granted to Scientific Advisory Board committee members and outside consultants are revalued each reporting period to determine the amount to be recorded as an expense in the respective period. As the options vest, they are valued on each vesting date and an adjustment is recorded for the difference between the value already recorded and the then current value on the date of vesting.

Earnings Per Share

The Company's computation of earnings per share ("EPS") includes basic and diluted EPS. Basic EPS is measured as the income (loss) available to common shareholders divided by the weighted average common shares outstanding for the period. Diluted EPS is similar to basic EPS but presents the dilutive effect on a per share basis of potential common shares (e.g., warrants and options) as if they had been converted at the beginning of the periods presented, or issuance date, if later. Potential common shares that have an anti-dilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS.

Loss per common share is computed by dividing net loss by the weighted average number of shares of common stock outstanding during the respective periods. Basic and diluted loss per common share are the same for all periods presented because all warrants and stock options outstanding are anti-dilutive. The 19,021,786 shares of common stock issued to the founder of Lixte in conjunction with the closing of the reverse merger transaction on June 30, 2006 have been presented as outstanding for all periods presented.

At September 30, 2009 and 2008, the Company excluded the outstanding securities summarized below, which entitle the holders thereof to acquire shares of common stock, from its calculation of earnings per share as their effect would have been anti-dilutive.

	September 30,	
	2009	2008
Warrants	2,457,426	546,626
Stock options	2,540,000	2,340,000
Total	4,997,426	2,886,626

Equipment

Equipment is recorded at cost. Depreciation expense is provided on a straight-line basis using estimated useful lives of 3 years. Maintenance and repairs are charged to expense as incurred. When assets are retired or otherwise disposed of, the property accounts are relieved of costs and accumulated depreciation and any resulting gain or loss is credited or charged to operations.

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, prepaid expenses, accounts payable, accrued expenses, notes payable to consultant and due to stockholder approximate their respective fair values due to the short-term nature of these items.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Recently Adopted Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued authoritative guidance on accounting standards codification and the hierarchy of generally accepted accounting principles. The FASB Accounting Standards Codification™ ("Codification") has become the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in accordance with GAAP. All existing accounting standard documents are superseded by the Codification and any accounting literature not included in the Codification will not be authoritative. However, rules and interpretive releases of the Securities and Exchange Commission ("SEC") issued under the authority of federal securities laws will continue to be sources of authoritative GAAP for SEC registrants. The FASB authoritative guidance is effective for interim and annual reporting periods ending after September 15, 2009. Accordingly, beginning with the quarter ending September 30, 2009, all references made by the Company to GAAP in its consolidated financial statements now use the new Codification numbering system. The Codification does not change or alter existing GAAP. The adoption of the Codification by the Company did not have any impact on the Company's consolidated financial statements.

In May 2009, the FASB issued new requirements for reporting subsequent events. These requirements set forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements, and disclosures that an entity should make about events or transactions that occurred after the balance sheet date. Disclosure of the date through which an entity has evaluated subsequent events and the basis for that date is also required. The FASB authoritative guidance is effective for interim or annual financial periods ending after June 15, 2009, and is to be applied prospectively. Accordingly, the Company adopted the new requirements for reporting subsequent events on June 30, 2009.

In December 2007, the FASB issued authoritative guidance on business combinations. The guidance retains the fundamental requirements that the acquisition method of accounting (previously referred to as the purchase method of accounting) be used for all business combinations, but requires a number of changes, including changes in the way assets and liabilities are recognized and measured as a result of business combinations. It also requires the capitalization of in-process research and development at fair value and requires the expensing of acquisition-related costs as incurred. The Company adopted this new guidance on January 1, 2009, and will apply this guidance to business combinations completed in the future.

In December 2007, the FASB issued authoritative guidance that changes the accounting and reporting for noncontrolling interests. Non-controlling interests are to be reported as a component of equity separate from the parent's equity, and purchases or sales of equity interests that do not result in a change in control are to be accounted for as equity transactions. In addition, net income attributable to a noncontrolling interest is to be included in net income and, upon a loss of control, the interest sold, as well as any interest retained, is to be recorded at fair value with any gain or loss recognized in net income. The Company adopted this new guidance on January 1, 2009, and will apply this guidance to noncontrolling interests acquired in the future. Adoption of the new guidance did not have any impact on the Company's consolidated financial statement presentation or disclosures.

Management does not believe that any other recently issued, but not yet effective, accounting standards or pronouncements, if currently adopted, would have a material effect on the Company's consolidated financial statement presentation or disclosures.

4. Share Exchange Agreement and Private Placement

Share Exchange Agreement

On June 30, 2006, pursuant to a Share Exchange Agreement dated as of June 8, 2006 (the "Share Exchange Agreement") by and among Holdings, Dr. John S. Kovach ("Seller") and Lixte, Holdings issued 19,021,786 shares of its common stock in exchange for all of the issued and outstanding shares of Lixte (the "Exchange"). Previously, on October 3, 2005, Lixte had issued 1,500 shares of its no par value common stock to its founder for \$1,500, which constituted all of the issued and outstanding shares of Lixte prior to the Exchange. As a result of the Exchange, Lixte became a wholly-owned subsidiary of Holdings.

Pursuant to the Exchange, Holdings issued to the Seller 19,021,786 shares of its common stock. Holdings had a total of 25,000,832 shares of common stock issued and outstanding after giving effect to the Exchange and the 1,973,869 shares of common stock issued in the initial closing of the private placement.

As a result of the Exchange and the shares of common stock issued in the initial closing of the private placement, on June 30, 2006, the stockholders of the Company immediately prior to the Exchange owned 4,005,177 shares of common stock, equivalent to approximately 16% of the issued and outstanding shares of the Company's common stock, and the former stockholder of Lixte acquired control of the Company.

The Share Exchange Agreement was determined through arms-length negotiations between Holdings, the Seller and Lixte. In connection with the Exchange, the Company paid WestPark Capital, Inc. an aggregate cash fee of \$50,000.

Private Placements

On June 30, 2006, concurrently with the closing of the Exchange, the Company sold an aggregate of 1,973,869 shares of its common stock to accredited investors in an initial closing of a private placement at a per share price of \$0.333, resulting in aggregate gross proceeds to the Company of \$657,299. The Company paid to WestPark Capital, Inc., as placement agent, a commission of 10% and a non-accountable fee of 4% of the gross proceeds of the private placement and issued five-year warrants to purchase common stock equal to (a) 10% of the number of shares sold in the private placement exercisable at \$0.333 per share and (b) an additional 2% of the number of shares sold in the private placement also exercisable at \$0.333 per share. A total of 236,864 warrants were issued. Net cash proceeds to the Company, after the deduction of all private placement offering costs and expenses, were \$522,939.

On July 27, 2006, the Company sold an aggregate of 1,581,351 shares of its common stock to accredited investors in a second closing of the private placement at a per share price of \$0.333 resulting in aggregate gross proceeds to the Company of \$526,590. The Company paid to WestPark Capital, Inc., as placement agent, a commission of 10% and a non-accountable fee of 4% of the gross proceeds of the private placement and issued five-year warrants to purchase common stock equal to (a) 10% of the number of shares sold in the private placement exercisable at \$0.333 per share and (b) an additional 2% of the number of shares sold in the private placement also exercisable at \$0.333 per share. A total of 189,762 warrants were issued. Net cash proceeds to the Company were \$446,433.

In conjunction with the private placement of common stock, the Company issued a total of 426,626 five-year warrants to WestPark Capital, Inc. exercisable at the per share price of the common stock sold in the private placement (\$0.333 per share). The warrants issued to WestPark Capital, Inc. do not contain any price anti-dilution provisions. However, such warrants contain cashless exercise provisions and demand registration rights, but the warrant holder has agreed to waive any claims to monetary damages or financial penalties for any failure by the Company to comply with such registration requirements. Based on the foregoing, the warrants were accounted for as equity and were not accounted for separately from the common stock and additional paid-in capital accounts. The warrants had no accounting impact on the Company's consolidated financial statements.

As part of the Company's private placement of its securities completed on July 27, 2006, the Company entered into a registration rights agreement with the purchasers, whereby the Company agreed to register the shares of common stock sold in the private placement, and to maintain the effectiveness of such registration statement, subject to certain conditions. The agreement required the Company to file a registration statement within 45 days of the closing of the private placement and to have the registration statement declared effective within 120 days of the closing of the private placement. On September 8, 2006, the Company filed a registration statement on Form SB-2 to register 3,555,220 shares of the common stock sold in the private placement. Since the registration statement was not declared effective by the Securities and Exchange Commission within 120 days of the closing of the private placement, the Company was required to pay each investor prorated liquidated damages equal to 1.0% of the amount raised per month, payable monthly in cash.

On the date of the closing of the private placement, the Company believed it would meet the deadlines under the registration rights agreement with respect to filing a registration statement and having it declared effective by the Securities and Exchange Commission. As a result, the Company did not record any liabilities associated with the registration rights agreement at June 30, 2006. At December 31, 2006, the Company determined that the registration statement covering the shares sold in the private placement would not be declared effective within the requisite time frame and therefore accrued six months liquidated damages under the registration rights agreement aggregating approximately \$74,000, which has been presented as a current liability for all periods presented. The Company's registration statement on Form SB-2 was declared effective by the Securities and Exchange Commission on May 14, 2007. At September 30, 2009, the registration penalty to the investors had not been paid.

On December 12, 2007, the Company sold an aggregate of 999,995 shares of its common stock to accredited investors in a second private placement at a per share price of \$0.65, resulting in aggregate gross proceeds to the Company of \$650,000. The Company paid to WestPark Capital, Inc., as placement agent, a commission of 10% and a non-accountable fee of 4% of the gross proceeds of the private placement and issued five-year warrants to purchase common stock equal to (a) 10% of the number of shares sold in the private placement exercisable at \$0.65 per share and (b) an additional 2% of the number of shares sold in the private placement also exercisable at \$0.65 per share. Net cash proceeds to the Company were \$531,320.

In conjunction with the second private placement of common stock, the Company issued a total of 120,000 five-year warrants to WestPark Capital, Inc. exercisable at the per share price of the common stock sold in the private placement (\$0.65 per share). The warrants issued to WestPark Capital, Inc. do not contain any price anti-dilution provisions. However, such warrants contain cashless exercise provisions and demand registration rights, but the warrant holder has agreed to waive any claims to monetary damages or financial penalties for any failure by the Company to comply with such registration requirements. Based on the foregoing, the warrants were accounted for as equity and were not accounted for separately from the common stock and additional paid-in capital accounts. The warrants had no accounting impact on the Company's consolidated financial statements.

As part of the Company's second private placement of its securities completed on December 12, 2007, the Company entered into a registration rights agreement with the purchasers, whereby the Company agreed to register the shares of common stock sold in the second private placement at its sole cost and expense. The registration rights agreement terminates at such time as the common shares may be sold in market transactions without regard to any volume limitations. The registration rights agreement requires the Company to file a registration statement within 75 days of receipt of written demand from holders who represent at least 50% of the common shares issued pursuant to the second private placement, provided that no demand shall be made for less than 500,000 shares, and to use its best efforts to cause such registration statement to become and remain effective for the requisite period. The registration rights agreement also provides for unlimited piggyback registration rights. The registration rights agreement does not provide for any penalties in the event that the Company is unable to comply with its terms.

On February 10, 2009, the Company sold an aggregate of 658,000 common stock units to accredited investors in a first closing of a third private placement at a per unit price of \$0.50, resulting in aggregate gross proceeds to the Company of \$329,000. Net cash proceeds to the Company were \$269,790.

On March 2, 2009, the Company sold an aggregate of 262,000 common stock units to accredited investors in a second closing of the third private placement at a per unit price of \$0.50, resulting in aggregate gross proceeds to the Company of \$131,000. Net cash proceeds to the Company were \$112,460.

On April 6, 2009, the Company sold an aggregate of 500,000 common stock units to accredited investors in a third closing of the third private placement at a per unit price of \$0.50, resulting in aggregate gross proceeds to the Company of \$250,000. Net cash proceeds to the Company were \$214,800.

Each unit sold in the third private placement consists of one share of the Company's common stock and a five-year warrant to purchase an additional share of the Company's common stock on a cashless exercise basis at an exercise price of \$0.50 per common share. The Company paid to WestPark Capital, Inc., as placement agent, a commission of 10% and a non-accountable fee of 4% of the gross proceeds of the third private placement and issued five-year warrants to purchase common stock equal to (a) 10% of the number of shares sold in the third private placement exercisable at \$0.50 per share and 10% of the number of shares issuable upon exercise of warrants issued in the third private placement exercisable at \$0.50 per share; and (b) an additional 2% of the number of shares sold in the third private placement also exercisable at \$0.50 per share and 2% of the number of shares issuable upon exercise of the warrants issued in the third private placement exercisable at \$0.50 per share.

In conjunction with the closings of the third private placement of common stock units during the nine months ended September 30, 2009, the Company issued to investors a total of 1,420,000 shares of common stock and 1,420,000 warrants to acquire common stock. Additionally, the Company issued a total of 340,800 five-year warrants to WestPark Capital, Inc., which are exercisable at the per unit price of the common stock units sold in the third private placement (\$0.50 per unit). Included in the 340,800 warrants issued to WestPark Capital, Inc. are 170,400 warrants which are only exercisable with respect to common shares that are acquired by investors upon their exercise of the warrants acquired as part of the units sold in the third private placement. The warrants issued to WestPark Capital, Inc. do not contain any price anti-dilution provisions. However, such warrants contain cashless exercise provisions and demand registration rights, but the warrant holder has agreed to waive any claims to monetary damages or financial penalties for any failure by the Company to comply with such registration requirements. Based on the foregoing, the warrants were accounted for as equity and were not accounted for separately from the common stock and additional paid-in capital accounts. The warrants had no accounting impact on the Company's consolidated financial statements.

At the request of the holders, the Company has agreed to include any shares sold in the third private placement and any shares issuable upon exercise of the related warrants to be included in any registration statement filed with the Securities and Exchange Commission permitting the resale of such shares, subject to customary cutbacks, at the Company's sole cost and expense.

5. Related Party Transactions

Prior to June 30, 2006, the Company's founding stockholder and Chief Executive Officer, Dr. John Kovach, had periodically made advances to the Company to meet operating expenses. Such advances are non-interest-bearing and are due on demand. At September 30, 2009 and 2008, stockholder advances totaled \$92,717.

The Company's office facilities have been provided without charge by Dr. Kovach. Such costs were not material to the financial statements and, accordingly, have not been reflected therein.

Dr. Kovach did not receive any compensation from the Company during the nine months ended September 30, 2009 and 2008, and for the period from August 9, 2005 (inception) through September 30, 2009 (cumulative), in view of the Company's development stage status and limited resources. Any future compensation arrangements will be subject to the approval of the Board of Directors.

Dr. Kovach is involved in other business activities and may, in the future, become involved in other business opportunities that become available. Accordingly, he may face a conflict in selecting between the Company and his other business interests. The Company has not yet formulated a policy for the resolution of such potential conflicts.

6. Notes Payable to Consultant

On October 3, 2008, the Company borrowed \$100,000 from Gil Schwartzberg, a consultant to the Company (see Note 8), pursuant to an unsecured demand promissory note with interest at 5% per annum, to fund the Company's short-term working capital requirements. The note, including accrued interest of \$834, was repaid on February 7, 2009. An additional interest payment of \$851 was made on April 27, 2009.

On September 30, 2009, the Company borrowed \$100,000 from Gil Schwartzberg, a consultant to the Company (see Note 8), pursuant to an unsecured demand promissory note with interest at 5% per annum, to fund the Company's short-term working capital requirements.

7. Common Stock and Preferred Stock

The Company's Certificate of Incorporation provides for authorized capital of 110,000,000 shares, of which 100,000,000 shares consist of common stock with a par value of \$0.0001 per share and 10,000,000 shares consist of preferred stock with a par value of \$0.0001 per share.

The Company is authorized to issue 10,000,000 shares of preferred stock with such designations, voting and other rights and preferences as may be determined from time to time by the Board of Directors.

8. Stock Options and Warrants

On June 30, 2006, effective with the closing of the Exchange, the Company granted to Dr. Philip Palmedo, an outside director of the Company, stock options to purchase an aggregate of 200,000 shares of common stock, exercisable for a period of five years at \$0.333 per share, with one-third of the options (66,666 shares) vesting immediately upon joining the Board and one-third vesting annually on each of June 30, 2007 and 2008. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$62,000 (\$0.31 per share), of which \$20,666 was charged to operations on June 30, 2006, and the remaining \$41,334 was charged to operations ratably from July 1, 2006 through June 30, 2008. During the nine months ended September 30, 2008, the Company recorded a charge to operations of \$10,332 with respect to these options.

On June 30, 2006, effective with the closing of the Exchange, the Company also granted to Dr. Palmedo additional stock options to purchase 190,000 shares of common stock exercisable for a period of five years at \$0.333 per share for services rendered in developing the business plan for Lixte, all of which were fully vested upon issuance. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$58,900 (\$0.31 per share), and was charged to operations at June 30, 2006.

On June 30, 2006, effective with the closing of the Exchange, the Company granted to two members of its Scientific Advisory Committee stock options to purchase an aggregate of 100,000 shares of common stock exercisable for a period of five years at \$0.333 per share, with one-half of the options vesting annually on each of June 30, 2007 and June 30, 2008. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was charged to operations ratably from July 1, 2006 through June 30, 2008. During the nine months ended September 30, 2008, the Company recorded a credit to operations of \$3,336 with respect to these options. In August 2008, one of the members resigned from his position and waived his right to his vested stock option to purchase 50,000 shares of common stock.

On June 30, 2006, the fair value of the aforementioned stock options was initially calculated using the following Black-Scholes input variables: stock price - \$0.333; exercise price - \$0.333; expected life - 5 to 7 years; expected volatility - 150%; expected dividend yield - 0%; risk-free interest rate - 5%. On June 30, 2007, the Black-Scholes input variables utilized to determine the fair value of the aforementioned stock options were stock price - \$0.333; exercise price - \$0.333; expected life - 4 to 6 years; expected volatility - 150%; expected dividend yield - 0%; risk-free interest rate - 4.5%. On June 30, 2008, the fair value of the aforementioned stock options was calculated using the following Black-Scholes input variables: stock price - \$0.30; exercise price - \$0.333; expected life - 3 to 5 years; expected volatility - 154.5%; expected dividend yield - 0%; risk-free interest rate - 3.28%.

On June 20, 2007, the Board of Directors of the Company approved the 2007 Stock Compensation Plan (the "2007 Plan"), which provides for the granting of awards, consisting of common stock options, stock appreciation rights, performance shares, or restricted shares of common stock, to employees and independent contractors, for up to 2,500,000 shares of the Company's common stock, under terms and condition, as determined by the Company's Board of Directors.

On September 12, 2007, in conjunction with his appointment as a director of the Company, the Company granted to Dr. Stephen Carter stock options to purchase an aggregate of 200,000 shares of common stock under the 2007 Plan, exercisable for a period of five years from vesting date at \$0.333 per share, with one-half (100,000 shares) vesting annually on each of September 12, 2008 and 2009. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$204,000 (\$1.02 per share), and is being charged to operations ratably from September 12, 2007 through September 12, 2009. During the three months ended September 30, 2009 and 2008, the Company recorded a charge to operations of \$20,679 and \$25,653, respectively, with respect to these options. During the nine months ended September 30, 2009 and 2008, the Company recorded a charge to operations of \$71,260 and \$76,375, respectively, with respect to these options.

On September 12, 2007, the Company entered into a consulting agreement with Gil Schwartzberg, pursuant to which the Company granted to Mr. Schwartzberg stock options to purchase an aggregate of 1,000,000 shares of common stock, exercisable for a period of four years from the vesting date at \$1.00 per share, with one-half of the options (500,000 shares) vesting immediately and one-half (500,000 shares) vesting on September 12, 2008. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was initially determined to be \$945,000 (\$0.945 per share), of which \$465,000 was attributed to the fully-vested options and was thus charged to operations on September 12, 2007. The remaining portion of the fair value of the options was charged to operations ratably from September 12, 2007 through September 12, 2008. On September 12, 2008, the fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$325,000 (\$0.65 per share). During the three months and nine months ended September 30, 2008, the Company recorded a charge to operations of \$229,262 and \$236,338, respectively, with respect to these options (see Note 6).

On September 12, 2007, the Company entered into a consulting agreement with Francis Johnson, a co-owner of Chem-Master International, Inc., and granted to Professor Johnson stock options to purchase an aggregate of 300,000 shares of common stock, exercisable for a period of four years from the vesting date at \$0.333 per share, with one-third (100,000 shares) vesting annually on each of September 12, 2008, 2009 and 2010. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was initially determined to be \$300,000 (\$1.00 per share), and is being charged to operations ratably from September 12, 2007 through September 12, 2010. On September 30, 2009 and 2008, the fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$225,000 (\$0.75 per share) and \$150,000 (\$0.50 per share), respectively, which resulted in a charge to operations of \$13,904 and \$45,925 during the three months ended September 30, 2009 and 2008, respectively, and \$56,721 and \$47,630 during the nine months ended September 30, 2009 and 2008, respectively, .

On September 12, 2007, the fair value of the aforementioned stock options was initially calculated using the following Black-Scholes input variables: stock price - \$1.05; exercise price - \$0.333 to \$1.00; expected life - 4 to 6 years; expected volatility - 150%; expected dividend yield - 0%; risk-free interest rate - 5%. On September 30, 2008, the fair value of the aforementioned stock options was calculated (for stock options revalued pursuant to EITF 98-16) using the following Black-Scholes input variables: stock price - \$0.50; exercise price - \$0.333 to \$1.00; expected life - 4.98 years; expected volatility - 275.7%; expected dividend yield - 0%; risk-free interest rate - 2.48%. On September 30, 2009, the fair value of the aforementioned stock options was calculated (for stock options revalued pursuant to EITF 98-16) using the following Black-Scholes input variables: stock price - \$0.75; exercise price - \$0.333 to \$1.00; expected life - 4.98 years; expected volatility - 259.1%; expected dividend yield - 0%; risk-free interest rate - 1.91%. As the Company's common stock commenced trading on September 24, 2007, the Company was able to utilize such trading data to generate revised volatility factors at September 30, 2009 and 2008.

On October 7, 2008, the Company appointed Dr. Mel Sorensen to its Board of Directors. Dr. Sorensen is a medical oncologist with extensive experience in cancer drug development, first at the National Cancer Institute, then at Bayer and GlaxoSmithKline, before becoming President and CEO of a new cancer therapeutics company, Ascenta Therapeutics, in 2004. Dr. Sorensen was paid an annual consulting fee of \$40,000, payable in quarterly installments over a one year period commencing October 7, 2008, to assist the Company in identifying a strategic partner. Dr. Sorensen was also granted a stock option to purchase 200,000 shares of the Company's common stock, exercisable at \$0.50 per share for a period of five years from each tranche's vesting date. The option vests as to 25,000 shares on January 1, 2009, and a further 25,000 shares on the first day of each subsequent calendar quarter until all of the shares are vested. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$100,000 (\$0.50 per share), and is being charged to operations ratably from October 7, 2008 through October 7, 2010. During the three months and nine months ended September 30, 2008, the Company recorded a charge to operations of \$12,603 and \$37,432, respectively, with respect to these options.

On October 7, 2008, the fair value of the aforementioned stock options was calculated using the following Black-Scholes input variables: stock price - \$0.50; exercise price - \$0.50; expected life - 5 years; expected volatility - 275.7%; expected dividend yield - 0%; risk-free interest rate - 2.48%.

Additional information with respect to common stock warrants and stock options issued is provided at Notes 4, 9 and 10. Warrants to purchase common stock that were issued in conjunction with the Company's private placements in 2006, 2007, 2008 and 2009 are included in the tables presented below.

If and when the aforementioned stock options and warrants are exercised, the Company expects to satisfy such stock obligations through the issuance of authorized but unissued shares of common stock.

A summary of stock option and warrant activity for the years ended December 31, 2007 and 2008, and the nine months ended September 30, 2009 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options and warrants outstanding at December 31, 2006	916,626	\$ 0.333	4.51
Granted	1,720,000	0.743	4.35
Exercised	—	—	—
Cancelled	—	—	—
Options and warrants outstanding at December 31, 2007	2,636,626	0.600	4.32
Granted	500,000	0.927	4.71
Exercised	—	—	—
Cancelled	(50,000)	0.333	2.75
Options and warrants outstanding at December 31, 2008	3,086,626	\$ 0.658	3.55
Granted	1,910,800	0.539	4.30
Exercised	—	—	—
Cancelled	—	—	—
Options and warrants outstanding at September 30, 2009	4,997,426	\$ 0.612	3.38
Options and warrants exercisable at December 31, 2008	2,286,626	\$ 0.641	3.06
Options and warrants exercisable at September 30, 2009	4,502,026	\$ 0.603	3.24

The intrinsic value of exercisable but unexercised in-the-money stock options and warrants at September 30, 2009 was \$1,114,933, based on a fair market value of \$0.75 per share on September 30, 2009. The intrinsic value of exercisable but unexercised in-the-money stock options and warrants at December 31, 2008 was \$276,490, based on a fair market value of \$0.57 per share on December 31, 2008.

Total deferred compensation expense for the outstanding value of unvested stock options was approximately \$186,000 at September 30, 2009, which will be recognized subsequent to September 30, 2009 over a weighted-average period of 13.2 months. Total deferred compensation expense for the outstanding value of unvested stock options was approximately \$351,000 at December 31, 2008, which will be recognized subsequent to December 31, 2008 over a weighted-average period of 18.3 months.

Information regarding stock options and warrants outstanding and exercisable is summarized as follows at September 30, 2009 and December 31, 2008:

	Exercise Prices	Warrants and Options Outstanding (Shares)	Warrants and Options Exercisable (Shares)
September 30, 2009:			
	\$ 0.333	1,566,626	1,466,626
	\$ 0.500	1,960,800	1,665,400
	\$ 0.650	120,000	120,000
	\$ 0.750	50,000	50,000
	\$ 1.000	1,050,000	1,050,000
	\$ 1.250	50,000	50,000
	\$ 1.650	200,000	100,000
		<u>4,997,426</u>	<u>4,502,026</u>

December 31, 2008:	Exercise Prices	Warrants and Options Outstanding (Shares)	Warrants and Options Exercisable (Shares)
	\$ 0.333	1,566,626	1,166,626
	\$ 0.500	200,000	—
	\$ 0.650	120,000	120,000
	\$ 1.000	1,000,000	1,000,000
	\$ 1.650	200,000	—
		<u>3,086,626</u>	<u>2,286,626</u>

Outstanding options and warrants to acquire 325,000 shares and 800,000 shares of the Company's common stock had not vested at September 30, 2009 and December 31, 2008, respectively. At September 30, 2009, warrants and options exercisable do not include warrants to acquire 170,400 shares of common stock that are contingent upon the exercise of warrants contained in units sold as part of the third private placement (see Note 4).

9. Commitments and Contingencies

Effective March 22, 2006, the Company entered into a CRADA, as amended, with the NINDS of the NIH. The CRADA is for a term of 66 months from the effective date and can be unilaterally terminated by either party by providing written notice within sixty days. The CRADA provides for the collaboration between the parties in the identification and evaluation of agents that target the Nuclear Receptor CoRepressor (N-CoR) pathway for glioma cell differentiation. The CRADA also provides that NINDS and the Company will conduct research to determine if expression of N-CoR correlates with prognosis in glioma patients. Pursuant to the CRADA, the Company initially agreed to provide funds under the CRADA in the amount of \$200,000 per year to fund two technical assistants for the technical, statistical and administrative support for the research activities, as well as to pay for supplies and travel expenses. The first \$200,000 was due within 180 days of the effective date and was paid in full on July 6, 2006. The second \$200,000 was paid in full on June 29, 2007. In June 2008, the CRADA was extended to September 30, 2009, with no additional funding required for the period between July 1, 2008 and September 30, 2008. For the period from October 1, 2008 through September 30, 2009, the Company agreed to provide additional funding under the CRADA of \$200,000, to be paid in four quarterly installments of \$50,000 each commencing on October 1, 2008. The first and second quarterly installments of \$50,000 were paid on September 29, 2008 and March 5, 2009, respectively. During August 2009, the Company entered into an amendment to the CRADA to extend its term from September 30, 2009 through September 30, 2011. Pursuant to such amendment, the Company has agreed to aggregate payments of \$100,000 in two installments of \$50,000 payable on October 1, 2010 and January 5, 2011, inclusive of any prior unpaid commitments.

On January 5, 2007, the Company entered into a Services Agreement with The Free State of Bavaria (Germany) represented by the University of Regensburg (the "University") pursuant to which the Company retained the University to provide to it certain samples of primary cancer tissue and related biological fluids to be obtained from patients afflicted with specified types of cancer. The University also agreed to provide certain information relating to such patients. The Company agreed to pay the University 72,000 Euros in two equal installments. The first installment of 36,000 Euros (\$48,902) was paid on March 7, 2007. On January 12, 2008, the Company terminated the Services Agreement in accordance with its terms, as a result of which payment of the second installment of 36,000 Euros was cancelled. The University agreed to deliver 50% of the aforementioned samples under the terminated Services Agreement.

On February 5, 2007, the Company entered into a two-year agreement (the "Chem-Master Agreement") with Chem-Master International, Inc. ("Chem-Master"), a company co-owned by Francis Johnson, a consultant to the Company, pursuant to which the Company engaged Chem-Master to synthesize a compound designated as "LB-1", and any other compound synthesized by Chem-Master pursuant to the Company's request, which have potential use in treating a disease, including, without limitation, cancers such as glioblastomas. Pursuant to the Chem-Master Agreement, the Company agreed to reimburse Chem-Master for the cost of materials, labor, and expenses for other items used in the synthesis process, and also agreed to grant Chem-Master a five-year option to purchase 100,000 shares of the Company's common stock at an exercise price of \$0.333 per share. The fair value of this option, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$31,000 (\$0.31 per share) using the following Black-Scholes input variables: stock price on date of grant - \$0.333; exercise price - \$0.333; expected life - 5 years; expected volatility - 150%; expected dividend yield - 0%; risk-free interest rate - 4.5%. The \$31,000 fair value was charged to operations as research and development costs during the year ended December 31, 2007, since the option was fully vested and non-forfeitable on the date of issuance. The Company has the right to terminate the Chem-Master Agreement at any time during its term upon sixty days prior written notice. On February 5, 2009, provided that the Chem-Master Agreement had not been terminated prior to such date, the Company agreed to grant Chem-Master a second five-year option to purchase an additional 100,000 shares of the Company's common stock at an exercise price of \$0.333 per share. As of September 30, 2008, the Company determined that it was likely that this option would be issued. Accordingly, the fair value of the option has been reflected as a charge to operations for the period from October 1, 2008 through February 5, 2009. On February 5, 2009, the fair value of this option, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$60,000 (\$0.60 per share), which resulted in a charge to operations of \$19,143 during the nine months ended September 30, 2009. The Company granted the second five-year option on February 5, 2009.

On September 30, 2008, the fair value of the aforementioned stock option was initially calculated using the following Black-Scholes input variables: stock price - \$0.50; exercise price - \$0.333; expected life - 5.35 years; expected volatility - 275.7%; expected dividend yield - 0%; risk-free interest rate - 2.48%. On February 5, 2009, the fair value of the aforementioned stock option was calculated (for the stock option revalued pursuant to EITF 98-16) using the following Black-Scholes input variables: stock price - \$0.60; exercise price - \$0.333; expected life - 5 years; expected volatility - 414.1%; expected dividend yield - 0%; risk-free interest rate - 1.89%.

On January 29, 2008, the Chem-Master Agreement was amended to extend its term to February 15, 2014, and to expressly provide for the design and synthesis of a new series of compounds designated as "LB-3". Pursuant to the amendment, the Company issued 100,000 shares of its restricted common stock, valued at \$75,000, and granted an option to purchase 200,000 shares of common stock. The option is exercisable for a period of two years from the vesting date at \$1.65 per share, with one-half (100,000 shares) vesting on August 1, 2009, and one-half (100,000 shares) vesting on February 1, 2011. The fair value of this option, as calculated pursuant to the Black-Scholes option-pricing model, was initially determined to be \$96,000 (\$0.48 per share) using the following Black-Scholes input variables: stock price on date of grant - \$0.75; exercise price - \$1.65; expected life - 5 years; expected volatility - 120.1%; expected dividend yield - 0%; risk-free interest rate - 3.09%.

The fair value of the restricted common stock issued was charged to operations as research and development costs on January 29, 2008. On September 30, 2009, the fair value of the aforementioned stock options was determined to be \$150,000 (\$0.75 per share) calculated using the following Black-Scholes input variables: stock price - \$0.75; exercise price - \$1.65; expected life - 3.34 years; expected volatility - 259.07%; expected dividend yield - 0%; risk-free interest rate - 1.91%, which resulted in a charge to operations of \$5,332 and \$41,171 during the three months and nine months ended September 30, 2009, respectively. On September 30, 2008, the fair value of the aforementioned stock options was determined to be \$100,000 (\$0.50 per share) calculated using the following Black-Scholes input variables: stock price - \$0.50; exercise price - \$1.65; expected life - 4.34 years; expected volatility - 275.7%; expected dividend yield - 0%; risk-free interest rate - 2.48%, which resulted in a charge to operations of \$15,568 and \$22,232 during the three months and nine months ended September 30, 2008.

Pursuant to the Chem-Master Agreement, the Company reimbursed Chem-Master for the costs of materials, labor, and expenses aggregating \$9,000 and \$8,750 during the three months ended September 30, 2009 and 2008, respectively, and \$9,000 and \$37,750 during the nine months ended September 30, 2009 and 2008, respectively.

On September 12, 2007, the Company entered into two consulting agreements for financial and scientific services. Compensation related to these agreements was primarily in the form of stock options (see Note 8).

On September 20, 2007, the Company entered into a one-year consulting agreement (the "Mirador Agreement") with Mirador Consulting, Inc. ("Mirador"), pursuant to which Mirador was to provide the Company with various financial services. Pursuant to the Mirador Agreement, the Company agreed to pay Mirador \$5,000 per month and also agreed to sell Mirador 250,000 shares of the Company's restricted common stock for \$250 (\$0.001 per share). The fair value of this transaction was determined to be in excess of the purchase price by \$262,250 (\$1.049 per share), reflecting the difference between the \$0.001 purchase price and the \$1.05 price per share as quoted on the OTC Bulletin Board on the transaction date, and was charged to operations as stock-based compensation during the year ended December 31, 2007, being that the shares were fully vested and non-forfeitable on the date of issuance. The Company made payments under the Mirador Agreement aggregating \$10,000 during 2007. The Mirador Agreement was amended in February 2008, pursuant to which Mirador agreed to forgive all accrued but unpaid monthly fees through February 29, 2008, and the Company agreed to pay Mirador a fee of \$2,000 per month for the remaining six months of the Mirador Agreement.

In September 2008, the Company engaged an internet-based investor information service to enhance awareness of the Company's progress in developing a portfolio of pharmacological agents at an initial cost of \$2,500, plus \$500 per month for a period of twelve months.

Effective as of September 19, 2008, the Company entered into an agreement with the NIH providing the Company with an exclusive license for all patents submitted jointly with the NIH under the CRADA. The agreement provides for an initial payment of \$25,000 to NIH within 60 days of September 19, 2008, and for a minimum annual royalty of \$30,000 on January 1 of each calendar year following the year in which the CRADA is terminated. The agreement also provides for the Company to pay specified royalties based on (i) net sales by the Company and its sub-licensees, (ii) the achievement of certain clinical benchmarks, and (iii) the granting of sublicenses. The Company paid the initial \$25,000 obligation on November 10, 2008 and charged the amount to general and administrative costs during the year ended December 31, 2008.

During October 2008, the Company engaged Southern Research Institute, Birmingham, Alabama, to assess one lead compound from each of two classes of its proprietary pharmacological agents for effects on normal neuronal cells and to determine if the compounds protect normal brain cells from injury in several different models of chemical and traumatic brain injury. The goal is to determine if these agents have promise as potentially useful for the prevention, amelioration or delay of progression of neurodegenerative diseases such as Alzheimer's disease and other neurological diseases or impairments resulting from trauma and/or other diverse or unknown origins. The Company agreed to pay a fee not to exceed a total of \$50,000 for such services. As of September 30, 2009, expenditures of \$39,000 had been incurred under this agreement.

On July 27, 2009, the Company entered into an agreement with Pro-Active Capital Group, LLC ("Pro-Active") to retain Pro-Active on a non-exclusive basis for a period of twelve months to provide consulting advice to the Company to assist the Company in obtaining research coverage, gaining web-site exposure and coverage on financial blogs and web-sites, enhancing the Company's visibility to the institutional, retail brokerage and on-line trading communities, and organizing, or assisting in organizing, investor road-shows and presentations. In exchange for such consulting advice, at the initiation of the agreement the Company agreed to issue to Pro-Active 150,000 shares of restricted common stock and three-year warrants to purchase an aggregate of 150,000 shares of common stock, exercisable 50,000 at \$0.75 per share, 50,000 at \$1.00 per share, and 50,000 at \$1.25 per share. The fair value of the 150,000 shares issued was determined to be \$100,500 (\$0.67 per share), reflecting the price per share of the Company's common stock, as quoted on the OTC Bulletin Board, on the transaction date. The fair value of the three-year warrants, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$97,500 (\$0.65 per share) using the following Black-Scholes input variables: stock price on date of grant - \$0.67; exercise price - \$0.75 to \$1.25; expected life - 3 years; expected volatility - 259.1%; expected dividend yield - 0%; risk-free interest rate - 1.91%. The \$198,000 aggregate fair value of the shares and warrants issued was charged to operations as stock-based compensation on July 27, 2009, since the shares and warrants were fully vested and non-forfeitable on the date of issuance.

10. Subsequent Event

The Company has evaluated subsequent events occurring from October 1, 2009 through November 12, 2009, the date that the Board of Directors approved the filing of the Company's September 30, 2009 interim consolidated financial statements.

Effective November 6, 2009, the Company raised \$500,000 through the sale to an accredited investor of 1,000,000 units at a purchase price of \$0.50 per unit. Each unit consisted of one share of common stock, one three-year warrant to purchase a share of common stock at an exercise price of \$0.50 per share, and one three year-year warrant to purchase a share of common stock at an exercise price of \$0.75 per share. The warrants do not have any reset provisions. The closing price of the Company's common stock on November 6, 2009 was \$0.50 per share. There were no commissions paid with respect to the private placement. Upon request by the holder, the Company has agreed to include the shares issued and those shares issuable upon exercise of the warrants in any registration statement filed by the Company with the Securities and Exchange Commission permitting the resale of such securities, subject to customary cutbacks. The units sold were not registered under the Securities Act of 1933, as amended (the "Act") in reliance upon the exemption from registration contained in Section 4(2) of the Act and Regulation D promulgated thereunder. The Company intends to use the net proceeds from the private placement to pursue development of proprietary compounds for the submission of an IND to the FDA for a Phase I clinical trial and for working capital. The Company expects to account for the issuance of the units as a capital transaction.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

On June 30, 2006, Lixte Biotechnology, Inc., a privately held Delaware corporation ("Lixte"), completed a reverse merger transaction with SRKP 7, Inc. ("SRKP"), a non-trading public shell company, whereby Lixte became a wholly owned subsidiary of SRKP. On December 7, 2006, SRKP amended its Certificate of Incorporation to change its name to Lixte Biotechnology Holdings, Inc. ("Holdings"). Unless the context indicates otherwise, Lixte and Holdings are hereinafter referred to as the "Company".

For financial reporting purposes, Lixte was considered the accounting acquirer in the merger and the merger was accounted for as a reverse merger. Accordingly, the historical financial statements presented herein are those of Lixte and do not include the historical financial results of SRKP. The stockholders' equity section of SRKP has been retroactively restated for all periods presented to reflect the accounting effect of the reverse merger transaction. All costs associated with the reverse merger transaction were expensed as incurred.

Lixte was incorporated in Delaware on August 9, 2005 to capitalize on opportunities to develop low cost, specific and sensitive tests for the early detection of cancers to better estimate prognosis, to monitor treatment response, and to reveal targets for development of more effective treatments.

The Company is considered a "development stage company" under current accounting standards, as it has not yet commenced any revenue-generating operations, does not have any cash flows from operations, and is dependent on debt and equity funding to finance its operations. The Company has selected December 31 as its fiscal year end.

Going Concern

The Company's consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company is in the development stage and has not generated any revenues from operations to date. The Company has experienced continuing losses since inception and had a stockholders' deficiency at December 31, 2008 and September 30, 2009. As a result, the Company's independent registered public accounting firm, in their report on the Company's 2008 consolidated financial statements, have raised substantial doubt about the Company's ability to continue as a going concern.

The Company's ability to continue as a going concern is dependent upon its ability to develop additional sources of capital and to ultimately achieve profitable operations. The Company's consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

At September 30, 2009, the Company had not yet commenced any revenue-generating operations. All activity through September 30, 2009 has been related to the Company's formation, capital raising efforts and research and development activities. As such, the Company has yet to generate any cash flows from operations, and is dependent on debt and equity funding from both related and unrelated parties to finance its operations. Prior to June 30, 2006, the Company's cash requirements were funded by advances from the Company's founder.

Because the Company is currently engaged in research at an early stage, it will likely take a significant amount of time to develop any product or intellectual property capable of generating revenues. As such, the Company's business is unlikely to generate any revenue in the next several years and may never do so. Even if the Company is able to generate revenues in the future through licensing its technologies or through product sales, there can be no assurance that the Company will be able to generate a profit.

As previously disclosed, the Company estimated that it would require minimum funding in calendar 2009 of approximately \$750,000 in order to fund operations and continuing drug discovery and to attempt to bring two drugs through the pre-clinical evaluation process needed for submission of an Investigational New Drug ("IND") application. In February, March and April 2009, the Company completed three closings from a private placement of its securities, which generated net proceeds aggregating approximately \$597,000. The Company utilized a portion of such net proceeds to repay a \$100,000 short-term note in February 2009. Additionally, on September 30, 2009, the Company borrowed \$100,000 from one of its consultants on an unsecured demand promissory note bearing interest at the rate of 5% per annum.

Effective November 6, 2009, the Company raised \$500,000 through the sale of 1,000,000 units at a purchase price of \$0.50 per unit. Each unit consisted of one share of common stock, one three-year warrant to purchase a share of common stock at an exercise price of \$0.50 per share, and one three year-year warrant to purchase a share of common stock at an exercise price of \$0.75 per share. As a result, the Company believes that its current resources are adequate to fund operations only through the first quarter of 2010 at a level that will allow the continuation of the Company's two drug development programs currently in process and initiation of the pre-clinical studies of LB-100. The Company is considering attempting to raise additional equity capital during the remainder of 2009 and 2010 to fund its research and development activities.

The amount and timing of future cash requirements will depend on the market's evaluation of the Company's technology and products, if any, and the resources that it devotes to developing and supporting its activities. The Company will need to fund these cash requirements from a combination of additional debt or equity financings, or the sale, licensing or joint venturing of its intellectual properties. Current market conditions present uncertainty as to the Company's ability to secure additional funds, as well as its ability to reach profitability. There can be no assurances that the Company will be able to secure additional financing, or obtain favorable terms on such financing if it is available, or as to the Company's ability to achieve positive earnings and cash flows from operations. Continued negative cash flows and lack of liquidity create significant uncertainty about the Company's ability to fully implement its operating plan, as a result of which the Company may have to reduce the scope of its planned operations. If cash resources are insufficient to satisfy the Company's liquidity requirements, the Company would be required to scale back or discontinue its technology and product development programs, or obtain funds, if available, through strategic alliances that may require the Company to relinquish rights to certain of its technologies products, or to discontinue its operations entirely.

Recently Adopted Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued authoritative guidance on accounting standards codification and the hierarchy of generally accepted accounting principles. The FASB Accounting Standards Codification™ ("Codification") has become the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in accordance with GAAP. All existing accounting standard documents are superseded by the Codification and any accounting literature not included in the Codification will not be authoritative. However, rules and interpretive releases of the Securities and Exchange Commission ("SEC") issued under the authority of federal securities laws will continue to be sources of authoritative GAAP for SEC registrants. The FASB authoritative guidance is effective for interim and annual reporting periods ending after September 15, 2009. Accordingly, beginning with the quarter ending September 30, 2009, all references made by the Company to GAAP in its consolidated financial statements now use the new Codification numbering system. The Codification does not change or alter existing GAAP. The adoption of the Codification by the Company did not have any impact on the Company's consolidated financial statements.

In May 2009, the FASB issued new requirements for reporting subsequent events. These requirements set forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements, and disclosures that an entity should make about events or transactions that occurred after the balance sheet date. Disclosure of the date through which an entity has evaluated subsequent events and the basis for that date is also required. The FASB authoritative guidance is effective for interim or annual financial periods ending after June 15, 2009, and is to be applied prospectively. Accordingly, the Company adopted the new requirements for reporting subsequent events on June 30, 2009.

In December 2007, the FASB issued authoritative guidance on business combinations. The guidance retains the fundamental requirements that the acquisition method of accounting (previously referred to as the purchase method of accounting) be used for all business combinations, but requires a number of changes, including changes in the way assets and liabilities are recognized and measured as a result of business combinations. It also requires the capitalization of in-process research and development at fair value and requires the expensing of acquisition-related costs as incurred. The Company adopted this new guidance on January 1, 2009, and will apply this guidance to business combinations completed in the future.

In December 2007, the FASB issued authoritative guidance that changes the accounting and reporting for noncontrolling interests. Non-controlling interests are to be reported as a component of equity separate from the parent's equity, and purchases or sales of equity interests that do not result in a change in control are to be accounted for as equity transactions. In addition, net income attributable to a noncontrolling interest is to be included in net income and, upon a loss of control, the interest sold, as well as any interest retained, is to be recorded at fair value with any gain or loss recognized in net income. The Company adopted this new guidance on January 1, 2009, and will apply this guidance to noncontrolling interests acquired in the future. Adoption of the new guidance did not have any impact on the Company's consolidated financial statement presentation or disclosures.

Management does not believe that any other recently issued, but not yet effective, accounting standards or pronouncements, if currently adopted, would have a material effect on the Company's consolidated financial statement presentation or disclosures.

Critical Accounting Policies and Estimates

The Company prepared its consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Management periodically evaluates the estimates and judgments made. Management bases its estimates and judgments on historical experience and on various factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates as a result of different assumptions or conditions.

The following critical accounting policies affect the more significant judgments and estimates used in the preparation of the Company's consolidated financial statements.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of fees paid to consultants and outside service providers, patent fees and costs, and other expenses relating to the acquisition, design, development and testing of the Company's treatments and product candidates.

Amounts due, pursuant to contractual commitments, on research and development contracts with third parties are recorded as a liability, with the related amount of such contracts recorded as advances on research and development contract services on the Company's balance sheet. Such advances on research and development contract services are expensed over their life on the straight-line basis, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate.

Patent Costs

Due to the significant uncertainty associated with the successful development of one or more commercially viable products based on the Company's research efforts and any related patent applications, all patent costs, including patent-related legal and filing fees, are expensed as incurred.

Stock-Based Compensation

The Company periodically issues stock options and warrants to officers, directors and consultants for services rendered. Options vest and expire according to terms established at the grant date.

The Company accounts for share-based payments to officers and directors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense in the Company's financial statements over the vesting period of the awards.

The Company accounts for share-based payments to consultants by determining the value of the stock compensation based upon the measurement date at either (a) the date at which a performance commitment is reached or (b) at the date at which the necessary performance to earn the equity instruments is complete.

Options granted to Scientific Advisory Board committee members and outside consultants are revalued each reporting period to determine the amount to be recorded as an expense in the respective period. As the options vest, they are valued on each vesting date and an adjustment is recorded for the difference between the value already recorded and the then current value on the date of vesting.

The fair value of stock-based compensation is affected by several variables, the most significant of which are the life of the equity award, the exercise price of the security as compared to the fair market value of the common stock on the grant date, and the estimated volatility of the common stock over the term of the equity award.

Income Taxes

The Company accounts for income taxes under an asset and liability approach for financial accounting and reporting for income taxes. Accordingly, the Company recognizes deferred tax assets and liabilities for the expected impact of differences between the financial statements and the tax basis of assets and liabilities.

The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. In the event the Company was to determine that it would be able to realize its deferred tax assets in the future in excess of its recorded amount, an adjustment to the deferred tax assets would be credited to operations in the period such determination was made. Likewise, should the Company determine that it would not be able to realize all or part of its deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to operations in the period such determination was made.

Plan of Operation

General Overview of Plans

The Company is concentrating on developing new treatments for the most common and most aggressive type of brain cancer of adults, glioblastoma multiforme ("GBM"), and the most common cancer of children, neuroblastoma. The Company has expanded the scope of its anti-cancer investigational activities to include the most common brain tumor of children, medulloblastoma, and also to several other types of more common cancers. This expansion of activity is based on documentation that each of two distinct types of drugs being developed by the Company inhibits the growth of cell lines of breast, colon, lung, prostate, pancreas, ovary, stomach and liver cancer, as well as the major types of leukemias. Activity of lead compounds of both types of drugs was recently demonstrated against human pancreatic cancer cells in a mouse model. Because there is a great need for any kind of effective treatment for pancreatic cancer, this cancer will be studied concomitantly with the primary target of the Company's research program focused on brain cancers. More recently, studies in animal models of human melanoma, lymphoma, sarcoma, and the rare neuroendocrine cancer, pheochromocytoma, have demonstrated potent anti-tumor activity of the Lixte LB-100 series compounds in conjunction with standard chemotherapeutic drugs, which on their own have only modest activity. These new studies confirm that the LB-100 compounds combined with any of several "standard anti-cancer drugs" have broad activity, affecting many different cell types of cancer. This is unusual and important because these compounds may be useful for treatment of cancer in general.

The research on brain tumors is proceeding in collaboration with the National Institute of Neurological Disorders and Stroke ("NINDS") of the National Institutes of Health ("NIH") under a Cooperative Research and Development Agreement ("CRADA") entered into on March 22, 2006, as amended. The research at NINDS continues to be led by Dr. Zhengping Zhuang, an internationally recognized investigator in the molecular pathology of cancer. Dr. Zhuang is aided by two senior research technicians supported by the Company as part of the CRADA. The goal of the CRADA is to develop more effective drugs for the treatment of GBM through the processes required to gain Food and Drug Administration ("FDA") approval for clinical trials. The Company has entered into an amendment to the CRADA to extend its term from September 30, 2009 through September 30, 2011.

The Company filed five patent applications on August 1, 2008. Two of these patent filings deal with applications filed earlier jointly with NIH for work done under the CRADA as follows: (1) a filing entering the regional stage of a PCT application involving the use of certain compounds to treat human tumors expressing a biomarker for brain and other human cancers; and (2) an application for the treatment of the pediatric tumors, medulloblastoma (the most common brain tumor in children) and neuroblastoma (a tumor arising from neural cells outside the brain that is the most common cancer of children). The three new patent applications include: (1) a joint application with NIH identifying a new biomarker for many common human cancers that when targeted by compounds developed by the Company result in inhibition of growth and death of cancer cells; (2) an application by the Company regarding the structure, synthesis and use of a group of new homologs of its LB-1 compounds; and (3) an application by the Company for the use of certain homologs of its drugs as neuroprotective agents with potential application to common neurodegenerative conditions such as Alzheimer's and Parkinson's diseases.

During the nine months ended September 30, 2009, the Company filed eight patent applications. The U.S. Patent Office Examiner began review of the initial patent submitted jointly by the Company and the NINDS. The chemical formula of one of the Company's lead compounds, LB-100, was disclosed in that patent, and was found to be novel. The Company considers this finding a milestone in the development of the Company's intellectual property. The specific claims for the structures and methods of synthesis of all compounds in the LB series were filed on the same day in a separate patent application and are the sole property of the Company. The review of this patent will be the determinant of the validity of the novelty of the LB-100 compounds, and the outcome thereof will therefore have a material impact on the future business prospects of the Company.

The results of studies characterizing the novel and potent anti-cancer activity and mechanism of action of LB-102 alone and in combination with standard chemotherapy drugs were published in a leading scientific journal, the Proceedings of the National Academy of Sciences (print version dated July 14, 2009). The primary conclusion was that one of the Company's lead compounds appears to inhibit cancer cells by stimulating cancer cells to attempt to grow in the presence of a standard cancer drug and interferes with cancer cell defense mechanisms, with the end result being much greater damage to the cancer than occurs when treatment is limited to the standard anti-cancer drug. The authors concluded that treatment with the Company's compound LB-1.2 may be a general method for enhancing the therapeutic benefit of a number of standard cancer regimens, not limited to the original targets of brain tumors of adults and children. On the basis of this article, the authors were invited to discuss this new approach to drug treatment of cancer in a leading journal focused largely on understanding how to more efficiently attack the cancer cell and published another article expanding on the mechanisms underlying how the LB-100 series of compounds enhances the benefits of common anticancer drugs (Cell Cycle, October 15, 2009).

In addition, an abstract of the characterization of the neuroprotective effects of two lead compounds in standard assays of injury to normal embryonic mouse neurons supporting their continued development for the possible treatment of chronic neurodegenerative diseases such as Alzheimer's Disease and Parkinson's Disease was presented at the annual meeting of the Society for Neuroscience in Chicago, Illinois on October 17, 2009.

The Company continues to evaluate compounds for activity against several types of fungi that cause serious infections, particularly in immuno-compromised individuals, such as those with HIV-AIDS, and those having bone marrow transplantations. The Company is also exploring indications that its compounds have against strains of fungi that cause the most common fungal infections of the skin and nails. Discussions are in progress with experts in fungal infections regarding the most reliable methods of assessing the potential of new agents for the management of common fungal diseases.

The Company expects that its products will derive directly from the intellectual property from its research activities. The development of lead compounds with different mechanisms of action that have activity against brain tumors and other common human cancers, as well as against serious fungal infections, originated from the discovery of a biomarker in GBM. The Company will continue to use discovery and/or recognition of molecular variants characteristic of specific human cancers as a guide to drug discovery and potentially new diagnostic tests. Examples of the productivity of this approach to discovery of new therapeutics are: (1) the recent patent application filing for a new biomarker of several common cancers that when targeted by certain of the Company's drugs results in inhibition of growth and death of cancer cells displaying the marker; and (2) the filing of a patent on certain homologs of one group of compounds as potentially useful for the treatment of neurodegenerative diseases.

Management's goal is to secure one or more strategic partnerships with pharmaceutical companies with major programs in cancer, anti-fungal treatments, and/or neuroprotective measures. The immediate focus has shifted to obtaining approval from the FDA to carry a lead compound of the LB-100 series into clinical trial. The Company believes the potent activity of these drugs in combination with standard non-specific chemotherapeutic drugs against a diverse array of common and uncommon cancers of adults and children merits bringing this treatment to patients as rapidly as possible. In addition, of course, the demonstration of clinical benefit would be very important to investors and to large pharmaceutical companies looking to add an entirely new approach to their anti-cancer drug pipelines.

The significant diversity of the potential therapeutic value of the Company's compounds stems from the fact that these agents modify critical pathways in cancer cells and in microorganisms such as fungi and appear to ameliorate pathologic processes that lead to brain injury, caused by trauma or toxins or through as yet unknown mechanisms that underlie the major chronic neurologic diseases including Alzheimer's Disease, Parkinson's Disease, and Amyotrophic Lateral Sclerosis (ALS, or Lou Gherig's Disease). Studies of the potential neuroprotective effects of homologs of each class of the Company's compounds are continuing under a contract with Southern Research Institute, Birmingham, Alabama. However, the majority of resources will be directed to the clinical study of LB-100 for cancer therapy.

Plans for the Remainder of 2009 and Beyond

The Company's primary objective is to support the clinical development of a lead compound from the LB-100 series, which would require approximately \$3,000,000 of additional operating capital. Subject to the availability of such operating capital, the Company expects that it would be able to pursue its primary objective of bringing LB-100 to and potentially through a clinical trial, as well as maintain its other research studies developing the LB-200 series of compounds to the point of pursuing a clinical trial.

The Company's initial goal is to take its lead phosphatase inhibitor, LB-100, up to and possibly through initial evaluation in humans, which would include: (1) determination of the maximum tolerable dose of the drug that can be given on a schedule deemed optimal for combination with other cytotoxic drugs, such as temozolomide for the treatment of patients with cancers unresponsive to known chemotherapy regimens in so called Phase I trials; (2) determination of the behavior of the drug in humans (what concentrations are achieved and how long the drug remains in the blood after oral and intravenous administration (pharmacokinetic studies); and (3) demonstration that at tolerable doses in humans the drug inhibits its target enzyme (pharmacodynamic studies) ..

The critical need for the next step in the clinical development of LB-100 is to obtain investigational new drug approval (IND) from the FDA to administer the drug to patients. In order to do this, the Company must demonstrate that LB-100 can be administered safely to human beings at a dose and at a frequency that achieves the desired pharmacologic effect, in this case inhibition of a specific enzyme, without being associated with toxicities considered unacceptable. As discussed earlier, a compound that has a mechanism of action similar to that of LB-100 has been given with safety and benefit to cancer patients outside the United States in the past. This compound has a chemical feature which appears to be responsible for most of its toxicity. This feature has been removed from LB-100, making it likely that the Company's compound will be less toxic and, therefore, safer for human use.

The FDA requires that before any new drug is given to human beings, its behavior and potential toxicity must be determined in at least one and possibly two species of animals, whichever are the most sensitive among rats, rabbits and dogs. The determination of toxicity requires formal evaluations by experts in animal toxicology to obtain the required data while minimizing the number of animals needed for study.

The FDA also requires that LB-100, although already used in a purified state in studies done by the Company to date, be prepared under strict laboratory conditions by a certified chemical company to assure the purity of the compound and the reproducibility of its method of synthesis so that a supply adequate for future clinical studies is assured.

With the approval of the FDA, the Company will also conduct an initial Phase I clinical trial. A typical Phase I study involves up to 30 patients at an average cost of \$25,000 per patient, for a total expense of approximately \$750,000. These funds cover the non-standard expenses of the academic institution doing the study, such as laboratory studies of patients needed because they are in a study, pharmacologic studies during the study, and monitoring and analysis of the trial results.

The Company has had discussions with several leading organizations in the United States that have extensive experience in preparing pharmaceuticals for human use, including the conduct of pre-clinical toxicology and pharmacology studies, preparation of an appropriate application to the FDA, and planning and monitoring early drug trials with the National Cancer Institute. The Company intends to work with leaders in each of these disciplines to assure that all FDA regulatory and safety issues are addressed during development of its drugs.

Subject to the extent of the resources available to fund future activities, the Company may commence animal toxicology studies of LB-100 and complete some of the pharmacologic studies in rodents in anticipation of subsequent studies in larger animals, necessary for FDA approval of the drug in the future. With these data in hand, the Company would then pursue a strategic partnership with a large pharmaceutical company to jointly bring LB-1 through FDA approval or attempt to raise additional capital.

With sufficient resources, a second goal of the Company is further characterization of the fungal activity of certain homologs of drugs of the LB-200 series. These studies would be done in collaboration with academic partners. Recently, the Company confirmed that its lead compound of the LB-200 series has potential to cure two types of fungi in a guinea pig model that are representative of the most common skin infections of humans and domestic animals. Cure was achieved by topical application of the drug on a daily basis for 14 days, with no evidence of toxicity.

The Company is also screening other homologs of lead compounds of the LB-100 and LB-200 series for neuroprotective activity in laboratory models of brain cell injury. During October 2008, the Company engaged Southern Research Institute, Birmingham, Alabama, to assess one lead compound from each of two classes of its proprietary pharmacological agents for effects on normal neuronal cells and to determine if the compounds protect normal brain cells from injury in several different models of chemical and traumatic brain injury. The goal is to determine if these agents have promise as potentially useful for the prevention, amelioration or delay of progression of neurodegenerative diseases such as Alzheimer's disease and other neurological diseases or impairments resulting from trauma and/or other diverse or unknown origins. The initial studies in the test tube support the Company's hypothesis that one of its lead compounds appears to have a beneficial effect upon the growth and differentiation of normal brain cells.

Given the progress in identifying two lead compounds with activity in animal models of GBM, the Company is devoting its resources to bring the agents to a point at which an Investigational New Drug ("IND") application can be submitted to the FDA for a Phase I clinical trial. One lead compound (LB-100) is the most advanced in the process and, subject to the availability of capital, the Company plans to be ready for IND submission 2010. The other lead compound (LB-205 or LB-201), which inhibits cancer cells by a mechanism distinct from that of LB-1, is anticipated to complete its laboratory evaluation of anti-cancer activity by the end of 2010, and, resources permitting, would be placed into pre-clinical evaluation aiming toward approval for clinical testing.

On January 29, 2008, the Chem-Master Agreement was amended to extend its term to February 15, 2014, pursuant to which Chem-Master was engaged to synthesize certain compounds, and to expressly provide for the expansion of the Company's drug development program, through consultation with the medicinal chemists at Chem-Master. The Company is exploring the synthesis of additional novel anti-cancer drugs. Several targets for anti-cancer drug development are under consideration. When the next group of compounds is developed, it will be designated as "LB-3", as distinguished from the first two classes of compounds that were designated as "LB-1" and "LB-2". This process is currently in the planning stage and no compounds have been made as yet.

Existing resources will not permit evaluation of activity of the Company's lead drugs against all the common cancers with respect to which the Company's compounds may have anti-cancer activity. Current resources also will not be sufficient to carry out pre-clinical studies necessary to apply to the FDA for approval of drug evaluations in Phase I trials.

The Company faces several potential challenges in its efforts to achieve commercial success, including raising sufficient capital to fund its business plan, achieving commercially applicable results of its research programs, competition from more established, well-funded companies with competitive technologies, and future competition from companies that are developing new competitive technologies, some of whom are larger companies with greater capital resources than the Company. Because of these challenges, there is substantial uncertainty as to the Company's ability to fund its operations and continue as a going concern (see "Going Concern" above). Should the Company be unable to raise the required capital on a timely basis, the Company's business plans would be materially adversely affected, and the Company may not be able to continue to conduct operations.

Results of Operations

The Company is a development stage company and had not commenced revenue-generating operations at September 30, 2009.

Three Months Ended September 30, 2009 and 2008

General and Administrative Expenses. For the three months ended September 30, 2009, general and administrative expenses were \$300,850, which consisted of the fair value of restricted common stock and common stock warrants issued to a vendor of \$198,000, the vested portion of the fair value of stock options issued to directors and consultants of \$33,282, consulting and professional fees of \$55,968, insurance expense of \$5,983, travel and entertainment costs of \$893, and other operating costs of \$6,724.

For the three months ended September 30, 2008, general and administrative expenses were \$348,514, which consisted of the vested portion of the fair value of stock options issued to directors and consultants of \$254,915, consulting and professional fees of \$42,811, insurance expense of \$5,955, travel and entertainment costs of \$6,764, licensing and royalty fees of \$25,000, and other operating costs of \$13,069.

Depreciation. For the three months ended September 30, 2009 and 2008, depreciation expense was \$-0- and \$155, respectively.

Research and Development Costs. For the three months ended September 30, 2009, research and development costs were \$152,235, which consisted of the vested portion of the fair value of stock options issued to a consultant and a vendor of \$19,236, patent costs of \$107,999, and other costs of \$25,000.

For the three months ended September 30, 2008, research and development costs were \$147,818, which consisted of the vested portion of the fair value of stock options issued to a consultant and a vendor of \$61,493, patent costs of \$53,075, and other costs of \$33,250.

Interest Income. For the three months ended September 30, 2009, interest income was \$31, as compared to interest income of \$342 for the three months ended September 30, 2008.

Net loss. For the three months ended September 30, 2009, the Company incurred a net loss of \$453,054, as compared to a net loss of \$496,145 for the three months ended September 30, 2008.

Nine Months Ended September 30, 2009 and 2008

General and Administrative Expenses. For the nine months ended September 30, 2009, general and administrative expenses were \$555,743, which consisted of the fair value of restricted common stock and common stock warrants issued to a vendor of \$198,000, the vested portion of the fair value of stock options issued to directors and consultants of \$108,692, consulting and professional fees of \$204,958, insurance expense of \$17,894, travel and entertainment costs of \$3,307, and other operating costs of \$22,892.

For the nine months ended September 30, 2008, general and administrative expenses were \$566,385, which consisted of stock-based compensation of \$319,709, consulting and professional fees of \$148,596, insurance expense of \$17,866, travel and entertainment costs of \$29,216, licensing and royalty fees of \$25,000, and other operating costs of \$25,998.

Depreciation. For the nine months ended September 30, 2009 and 2008, depreciation expense was \$128 and \$473, respectively.

Research and Development Costs. For the nine months ended September 30, 2009, research and development costs were \$419,341, which consisted of the vested portion of the fair value of stock options issued to a consultant and a vendor of \$116,835, patent costs of \$154,506, laboratory supplies of \$9,000, and other costs of \$139,000.

For the nine months ended September 30, 2008, research and development costs were \$446,051, which consisted of the fair value of restricted common stock issued to a vendor of \$75,000, the vested portion of the fair value of stock options issued to a consultant and a vendor of \$69,862, patent costs of \$127,299, laboratory supplies of \$38,750, and other costs of \$135,140.

Interest Income. For the nine months ended September 30, 2009, interest income was \$83, as compared to interest income of \$3,181 for the nine months ended September 30, 2008.

Net Loss. For the nine months ended September 30, 2009, the Company incurred a net loss of \$975,581, as compared to a net loss of \$1,009,728 for the nine months ended September 30, 2008.

Liquidity and Capital Resources – September 30, 2009

The Company's financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company is in the development stage and has not generated any revenues from operations to date. Furthermore, the Company has experienced continuing losses since inception and had a stockholders' deficiency at December 31, 2008 and September 30, 2009. The Company's ability to continue as a going concern is dependent upon its ability to develop additional sources of capital and to ultimately achieve profitable operations. The Company's financial statements do not include any adjustments that might result from the outcome of these uncertainties (see "Going Concern" above).

Operating Activities. For the nine months ended September 30, 2009, operating activities utilized cash of \$497,000, as compared to utilizing cash of \$484,286 for the nine months ended September 30, 2008.

The Company had working capital deficiency of \$278,552 at September 30, 2009. At December 31, 2008, the Company had working capital deficiency of \$323,676. The reduction in the working capital deficiency was due primarily as a result of the sale of the Company's common stock units pursuant to three closings of a third private placement in February, March, and April 2009 that generated net proceeds of \$597,050.

Investing Activities. There were no investing activities during the nine months ended September 30, 2009 and 2008

Financing Activities. For the nine months ended September 30, 2009, financing activities provided net cash of \$597,050, consisting of the gross proceeds from the sale of common stock of \$710,000, reduced by the payment of private placement offering costs of \$112,950, the repayment of a note payable to a consultant in the amount of \$100,000, and the \$100,000 proceeds of a new borrowing from the consultant. There were no financing activities during the nine months ended September 30, 2008.

Principal Commitments

At September 30, 2009, the Company did not have any material commitments for capital expenditures. The Company's principal commitments at September 30, 2009 consisted of \$100,000 due on a note payable to a consultant, the liquidated damages payable under the registration rights agreement of \$74,000, and the contractual obligations as summarized below.

Effective March 22, 2006, Lixte entered into a CRADA, as amended, with the NINDS of the NIH. The CRADA is for a term of 66 months from the effective date and may be unilaterally terminated by either party by providing written notice within sixty days. The CRADA provides for the collaboration between the parties in the identification and evaluation of agents that target the Nuclear Receptor CoRepressor (N-CoR) pathway for glioma cell differentiation. The CRADA also provided that NINDS and Lixte will conduct research to determine if expression of N-CoR correlates with prognosis in glioma patients. Pursuant to the CRADA, Lixte agreed to provide funds under the CRADA in the amount of \$200,000 per year to fund two technical assistants for the technical, statistical and administrative support for the research activities, as well as to pay for supplies and travel expenses. The first \$200,000 was due within 180 days of the effective date and was paid in full on July 6, 2006. The second \$200,000 was paid in full on June 29, 2007. In June 2008, the CRADA was extended to September 30, 2009, with no additional funding required for the period between July 1, 2008 and September 30, 2008. For the period from October 1, 2008 through September 30, 2009, the Company agreed to provide additional funding under the CRADA of \$200,000, to be paid in four quarterly installments of \$50,000 each commencing on October 1, 2008. The first and second installments of \$50,000 were paid on September 29, 2008 and March 5, 2009, respectively. During August 2009, the Company entered into an amendment to the CRADA to extend its term from September 30, 2009 through September 30, 2011. Pursuant to such amendment, the Company has agreed to aggregate payments of \$100,000 in two installments of \$50,000 payable on October 1, 2010 and January 5, 2011, inclusive of any prior unpaid commitments.

On February 5, 2007, Lixte entered into a two-year agreement (the "Chem-Master Agreement") with Chem-Master International, Inc. ("Chem-Master"), a company co-owned by Francis Johnson, a consultant to the Company, pursuant to which Lixte engaged Chem-Master to synthesize a compound designated as "LB-1", and any other compound synthesized by Chem-Master pursuant to Lixte's request, which have potential use in treating a disease, including, without limitation, cancers such as glioblastomas. Pursuant to the Chem-Master Agreement, Lixte agreed to reimburse Chem-Master for the cost of materials, labor, and expenses for other items used in the synthesis process, and also agreed to grant Chem-Master a five-year option to purchase 100,000 shares of the Company's common stock at an exercise price of \$0.333 per share. Lixte has the right to terminate the Chem-Master Agreement at any time during its term upon sixty days prior written notice. On February 5, 2009, provided that the Chem-Master Agreement had not been terminated, the Company agreed to grant Chem-Master a second five-year option to purchase an additional 100,000 shares of the Company's common stock at an exercise price of \$0.333 per share. The Company granted the second five-year option on February 5, 2009.

On January 29, 2008, the Chem-Master Agreement was amended to extend its term to February 15, 2014, and to expressly provide for the design and synthesis of a new series of compounds designated as "LB-3". Pursuant to the amendment, the Company issued 100,000 shares of its restricted common stock and granted an option to purchase 200,000 shares of common stock. The option is exercisable for a period of two years from vesting date at \$1.65 per share, with one-half (100,000 shares) vesting on August 1, 2009, and one-half (100,000 shares) vesting on February 1, 2011.

Pursuant to the Chem-Master Agreement, the Company reimbursed Chem-Master for the costs of materials, labor, and expenses aggregating \$9,000 and \$8,750 during the three months ended September 30, 2009 and 2008, respectively, and \$9,000 and \$37,750 during the nine months ended September 30, 2009 and 2008, respectively.

During September 2008, the Company engaged an internet-based investor information service, to enhance awareness of the Company's progress in developing a portfolio of pharmacological agents at an initial cost of \$2,500, plus \$500 per month for a period of twelve months.

Effective as of September 19, 2008, the Company entered into an agreement with the NIH providing the Company with an exclusive license for all patents submitted jointly with the NIH under the CRADA. The agreement provided for an initial payment of \$25,000 to NIH within 60 days of September 19, 2008, and for a minimum annual royalty of \$30,000 on January 1 of each calendar year following the year in which the CRADA is terminated. The agreement also provides for the Company to pay specified royalties based on (i) net sales by the Company and its sub-licensees, (ii) the achievement of certain clinical benchmarks, and (iii) the granting of sublicenses. The Company paid the initial \$25,000 obligation on November 10, 2008.

During October 2008, the Company engaged Southern Research Institute, Birmingham, Alabama, to assess one lead compound from each of two classes of its proprietary pharmacological agents for effects on normal neuronal cells and to determine if the compounds protect normal brain cells from injury in several different models of chemical and traumatic brain injury. The goal is to determine if these agents have promise as potentially useful for the prevention, amelioration or delay of progression of neurodegenerative diseases such as Alzheimer's disease and other neurological diseases or impairments resulting from trauma and/or other diverse or unknown origins. The Company agreed to pay a fee not to exceed a total of \$50,000 for such services. As of September 30, 2009, expenditures of \$39,000 had been incurred under this agreement.

On October 7, 2008, the Company appointed Dr. Mel Sorensen to its Board of Directors. Dr. Sorensen is a medical oncologist with extensive experience in cancer drug development, first at the National Cancer Institute, then at Bayer and GlaxoSmithKline, before becoming President and CEO of a new cancer therapeutics company, Ascenta Therapeutics, in 2004. Dr. Sorensen was paid an annual consulting fee of \$40,000, payable in quarterly installments over a one-year period commencing October 7, 2008, to assist the Company in identifying a strategic partner. Dr. Sorensen was also granted a stock option to purchase 200,000 shares of the Company's common stock, exercisable at \$0.50 per share for a period of five years from each tranche's vesting date. The option vests as to 25,000 shares on January 1, 2009, and a further 25,000 shares on the first day of each subsequent calendar quarter until all of the shares are vested.

On July 27, 2009, the Company entered into an agreement with Pro-Active Capital Group, LLC (“Pro-Active”) to retain Pro-Active on a non-exclusive basis for a period of twelve months to provide consulting advice to the Company to assist the Company in obtaining research coverage, gaining web-site exposure and coverage on financial blogs and web-sites, enhancing the Company’s visibility to the institutional, retail brokerage and on-line trading communities, and organizing, or assisting in organizing, investor road-shows and presentations. In exchange for such consulting advice, at the initiation of the agreement the Company agreed to issue to Pro-Active 150,000 shares of restricted common stock and three-year warrants to purchase an aggregate of 150,000 shares of common stock, exercisable 50,000 at \$0.75 per share, 50,000 at \$1.00 per share, and 50,000 at \$1.25 per share. The shares and warrants issued were fully vested and non-forfeitable on the date of issuance.

Off-Balance Sheet Arrangements

At September 30, 2009, the Company did not have any transactions, obligations or relationships that could be considered off-balance sheet arrangements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 4T. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

The Company carried out an evaluation, under the supervision and with the participation of its management, including its principal executive officer and principal financial officer (who is the same individual), of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act (defined below)). Based upon that evaluation, the Company's principal executive officer and principal financial officer concluded that, as of the end of the period covered in this report, the Company's disclosure controls and procedures were effective to ensure that information required to be disclosed in reports filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to the Company's management, including the Company's principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

The Company's management, including its principal executive officer and principal financial officer, does not expect that its disclosure controls and procedures or its internal controls will prevent all error or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Accordingly, management believes that the financial statements included in this report fairly present in all material respects the Company's financial condition, results of operations and cash flows for the periods presented.

(b) Changes in Internal Controls Over Financial Reporting

In addition, the Company's management, with the participation of its principal executive officer and principal financial officer, has determined that no change in the Company's internal control over financial reporting (as that term is defined in Rules 13(a)-15(f) and 15(d)-15(f) of the Securities Exchange Act of 1934) occurred during or subsequent to the quarter ended September 30, 2009 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The Company is currently not a party to any pending or threatened legal proceedings.

Item 1A. Risk Factors

Not applicable.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

On July 27, 2009, the Company entered into an agreement with Pro-Active Capital Group, LLC ("Pro-Active") to retain Pro-Active on a non-exclusive basis for a period of twelve months to provide consulting advice to the Company to assist the Company in obtaining research coverage, gaining web-site exposure and coverage on financial blogs and web-sites, enhancing the Company's visibility to the institutional, retail brokerage and on-line trading communities, and organizing, or assisting in organizing, investor road-shows and presentations. In exchange for such consulting advice, at the initiation of the agreement the Company agreed to issue to Pro-Active 150,000 shares of restricted common stock and three-year warrants to purchase an aggregate of 150,000 shares of common stock, exercisable 50,000 at \$0.75 per share, 50,000 at \$1.00 per share, and 50,000 at \$1.25 per share. The shares and warrants issued were fully vested and non-forfeitable on the date of issuance.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Submission of Matters to a Vote of Security Holders

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

A list of exhibits required to be filed as part of this report is set forth in the Index to Exhibits, which immediately precedes such exhibits, and is incorporated herein by reference.

SIGNATURES

In accordance with the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

(Registrant)

Date: November 12, 2009

By: /s/ JOHN S. KOVACH

John S. Kovach
Chief Executive Officer and Chief Financial Officer
(Principal financial and accounting officer)

INDEX TO EXHIBITS

Exhibit Number	Description of Document
10.1	Amendment No. 6 to Cooperative Research and Development Agreement, effective August 10, 2009, filed as Exhibit 10.1 to Current Report on Form 8-K dated August 10, 2009, and incorporated herein by reference.
10.2	Consulting Agreement between Lixte Biotechnology Holdings, Inc. and Pro-Active Capital Group, LLC, effective July 27, 2009. (1)
31.1	Certifications under Section 302 of the Sarbanes-Oxley Act of 2002. (1)
32.1	Certifications under Section 906 of the Sarbanes-Oxley Act of 2002. (1)
(1)	Filed herewith.

CONSULTING AGREEMENT

This agreement ("Agreement") is made and entered into this 27th day of July 2009, between Lixte Biotechnology Holdings, Inc. (LIXT), a Delaware corporation ("the Company") and Pro-Active Capital group, LLC., a Delaware corporation (the "Consultant").

In consideration of and for the mutual promises and covenants contained herein, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Purpose. The Company hereby retains the Consultant on a non-exclusive basis during the term specified to render consulting advice to the Company as the Company may reasonably request upon the terms and conditions as set forth herein.

2. Term and Compensation. This Agreement shall be effective commencing on the date first written above for a period of twelve (12) months (the "Engagement Period"). The Company agrees to provide to Consultant as full compensation One Hundred Fifty Thousand (150,000) shares of restricted common stock, due upon signing, and three year warrants ("Warrants") to purchase an aggregate of 150,000 shares, with warrants to purchase the number of shares at the per share exercise prices as follows: 50,000 shares \$0.75, 50,000 shares at \$1.00 and 50,000 shares at \$1.25. The Warrants will contain a cashless exercise feature. All compensation shall be unencumbered and non-assessable.

3. Duties of Consultant. During the term of this Agreement, the Consultant will provide the Company with such regular and customary non-exclusive consulting advice as is reasonably requested by the Company, provided that the Consultant shall not be required to undertake duties not reasonable within the scope of the consulting advisory services contemplated by this Agreement. In performance of these duties, the Consultant shall provide the Company with the benefits of its best judgment and efforts. It is understood and acknowledged by the parties that the value of the Consultant's advice is not measurable in any quantitative manner, and that the Consultant shall not be obligated to spend any specific amount of time doing so. The Consultant's duties may at the direction of the Company include, but not necessarily be limited to on a non-exclusive basis:

- Provide research coverage by a highly-qualified, industry-recognized analyst, on LIXT, including an initial report and 4 quarterly updates;
 - Establish and develop LIXT's Corporate Social Media presence, and assist in gaining website exposure and coverage on a group of effective and relevant financial blogs and websites;
 - Enhance LIXT's visibility to the institutional, retail brokerage and on-line trading communities
 - Organize, or assist in the organization, of investor "road-shows" or presentations, in coordination with LIXT and any other parties involved in the effort to enhance visibility of LIXT.
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It is expressly understood that no actual or express authority on behalf of the Company is granted by the Company hereunder to Consultant.

4. Relationships with others. The Company acknowledges that the Consultant or its affiliates is in the business of providing, among other things, financial advisory service (but not capital raising or market making activities as broadly construed in SEC Release No. 7646) and consulting advice (of all types contemplated by this Agreement) to others. Nothing herein contained shall be construed to limit or restrict the Consultant in conducting such business with respect to others, or in rendering such advice to others. In connection with the rendering of services hereunder, Consultant has been or will be furnished with confidential information concerning the Company including, but not limited to, financial statements and information, cost and expense data, production data, trade secrets, marketing and customer data, and such other information not generally obtained from public or published information or trade sources. Such information shall be deemed "Confidential Material" and, except as specifically provided herein, shall not be disclosed or used for any purpose by Consultant or its employees without prior written consent of the Company except as expressly provided herein. In the event Consultant is required by applicable law or legal process to disclose any of the Confidential Material, it is agreed that Consultant will deliver to the Company immediate notice of such requirement prior to disclosure of same to permit the Company to seek an appropriate protective order and/or waive compliance of this provision. If, in the absence of a protective order or receipt of written waiver, Consultant is nonetheless, by court order, compelled to disclose any Confidential Material, Consultant may do so without liability hereunder provided that notice of such prospective disclosure is delivered to the Company at least five (5) days prior to actual disclosure. Following the termination of this Agreement, Consultant shall deliver to the Company all Confidential Material. Neither party hereto will issue any public announcement concerning this Agreement without the approval of the other party, provided however that nothing shall prevent the Company from fulfilling its obligations to disclose the contents of this Agreement with the U.S. Securities & Exchange Commission (the "SEC").

5. Consultant's Liability. The Consultant agrees to defend, indemnify, and hold the Company, its officers, directors, employees, advisors, attorneys and Consultants harmless from and shall indemnify the foregoing persons and entities against any and all costs, expenses and liability (including reasonable attorney's fees paid in connection with the investigations and/or the defense of the such entities and persons) which may in any way result from a breach of any representation, warranty or covenant made by Consultant or from any services rendered by the Consultant pursuant to or in any connection with this Agreement.

6. Expenses. The Company, upon receipt of appropriate supporting documentation, shall reimburse the Consultant for any and all reasonable and actual out-of-pocket expenses incurred in connection with services provided to the Company, subject in each case to prior written approval of the Company.

7. Limitation Upon the Use of Advice and Services.

(a) No person or entity, other than the Company or any of its subsidiaries or directors or officers of each of the foregoing, shall be entitled to make use of or rely upon the advice of the Consultant to be given hereunder.

(b) Use of the Consultant's name in annual reports or any other report of the Company or releases by the Company must have the prior approval of the Consultant (which consent shall not be unreasonably withheld) unless the Company is required by law to include Consultant's name in such annual reports, other report or release of the Company, in which event Consultant will be furnished with copies of such annual reports or other reports or releases using Consultant's name in advance of publication by the Company.

8. Severability. Every provision of this Agreement is intended to be severable. If any term or provision hereof is deemed unlawful or invalid for any reason whatsoever, such unlawfulness or invalidity shall not affect the validity of this Agreement. At the sole discretion of the Company, this agreement may be terminated upon a ninety (90) day written notice. If said termination is due to cause or breach of this agreement, thirty (30) days advance written notice will be given by Company to Consultant.

9. Representations and Warranties of Consultant.

Consultant makes the following representations and warranties to the Company:

(a) The Consultant shall not make any statements about the Company, in any capacity, without the express prior approval of the Company, unless such statement is clearly marked as an opinion of the Consultant, which the Company has not reviewed and for which the Company bears no responsibility.

(b) Consultant's activities and operations fully comply with all applicable state and federal securities laws and regulations, and for the period of time that Consultant holds any position in the common stock of the Company, it will promptly disclose to the Company any future alleged change in the status of this representation.

(c) Consultant understands that, as a result of its services, it may come to possess material non-public information about the Company, and that it has implemented internal control procedures designed to reasonably insure that it, and none of its employees, Consultants, Consultants or affiliates, trade in the securities of client companies while in possession of material non-public information.

10. Miscellaneous.

(a) Any notice or other communication between parties hereto shall be sufficiently given if sent by certified or registered mail, postage prepaid, or faxed and confirmed if to the Company, addressed to it at:

Lixte Biotechnology Holdings, Inc.
248 Route 25A, No. 2 East Setauket,
NY 11733 Fax:

if to consultant:

Pro-Active Capital Group, LLC
50 Broad Street, Suite 1437
New York, New York 10004
Fax:(646)315-7080

Such notice or other communication shall be deemed to be given on the date of receipt.

(b) If the Consultant shall cease to do business, the provisions hereof relating to duties of the Consultant and all compensation to be paid by the Company as it applies to the Consultant shall thereupon terminate and cease to be in effect.

(c) This Agreement embodies the entire agreement and understanding between the Company and the Consultant and supersedes any and all negotiations, prior discussions and preliminary and prior agreements and understandings related to the central subject matter hereof.

(d) This Agreement has been duly authorized, executed and delivered by and on behalf of the Company and the Consultant.

(e) The validity, interpretation, and construction of this Agreement will be governed by the laws of the State of New York applicable to contracts entered into and performed entirely with said state without regard to the principles of conflict of laws. Notwithstanding anything contained herein to the contrary, nothing contained herein shall prevent either party from initiating a civil action for temporary or permanent injunctive and other equitable relief against the other for breach of this Agreement. The parties expressly consent to the jurisdiction and venue of the Supreme Court of the State of New York, County of New York and the United States District Court for the Southern District of New York for the adjudication of any civil action asserted pursuant to this Paragraph.

(f) There is no relationship or partnership, agency, employment, franchise, or joint venture between the parties. Neither party has the authority to bind the other or incur any obligation on its behalf.

(g) This Agreement and the rights hereunder may not be assigned by either party (except by operation of law or merger) and shall be binding upon and inure to the benefit of the parties and their respective successors, assigns and legal representatives.

(h) Consultant is not a party to any proceeding or action which would prevent it from performing services pursuant to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date hereof.

PRO-ACTIVE CAPITAL GROUP, LLC.

By: JEFFREY S. RAMSON
Jeffrey S. Ramson, President

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

By: JOHN S. KOVACH
Dr. John S. Kovach, M.D., CEO

CERTIFICATIONS OF THE CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John S. Kovach, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2009 of Lixte Biotechnology Holdings, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and I have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to me by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under my supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report my conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 12, 2009

By: /s/ JOHN S. KOVACH

John. S. Kovach
Chief Executive Officer and Chief Financial Officer
(Principal Executive Officer and Principal Financial Officer)

CERTIFICATIONS OF THE CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing by Lixte Biotechnology Holdings, Inc. (the "Registrant") of its Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2009 (the "Quarterly Report") with the Securities and Exchange Commission, I, John S. Kovach, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

A signed original of this written statement required by Section 906 has been provided to the Registrant and will be retained by the Registrant and furnished to the Securities and Exchange Commission or its staff upon request.

Date: November 12, 2009

By: /s/ JOHN S. KOVACH

John S. Kovach
Chief Executive Officer and Chief Financial Officer
(Principal Executive Officer and Principal Financial Officer)
