

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

(Mark One)

QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
for the quarterly period ended March 31, 2009

OR

TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 001-13835

APPLIED NEUROSOLUTIONS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of
incorporation or organization)

39-1661164
(I.R.S. Employer
Identification No.)

50 Lakeview Parkway, Suite 111, Vernon Hills, IL 60061
(Address of principal executive offices)

(847) 573-8000
(Registrant's telephone number)

Indicate by check mark whether the registrant: (1) 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 is a large accelerated filer, an accelerated filer, a non-accelerated filer or a small reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" 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

The number of shares of issuer's outstanding common stock, \$0.0025 par value, as of May 12, 2009 was 130,217,808.

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
QUARTERLY REPORT ON FORM 10-Q
QUARTER ENDED MARCH 31, 2009

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
CONSOLIDATED BALANCE SHEETS

	March 31, <u>2009</u> (unaudited)	December 31, <u>2008</u>
Assets		
Current assets:		
Cash	\$ 994,515	\$ 1,045,020
Accounts receivable	-	4,800
Prepays and other current assets	36,720	157,786
Total current assets	<u>1,031,235</u>	<u>1,207,606</u>
Property and equipment:		
Equipment and leaseholds	2,168,498	2,168,498
Accumulated depreciation and amortization	<u>(2,159,595)</u>	<u>(2,156,805)</u>
Net property and equipment	<u>8,903</u>	<u>11,693</u>
Other assets:		
Deposits	8,281	8,281
Total other assets	<u>8,281</u>	<u>8,281</u>
Total assets	<u>\$ 1,048,419</u>	<u>\$ 1,227,580</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 69,198	\$ 119,866
Deferred revenues	593,066	301,399
Accrued collaboration costs	12,500	-
Accrued consultant fees	18,000	4,500
Accrued vacation wages	26,736	28,703
Accrued 401k match	-	38,550
Accrued interest	15,910	-
Other accrued expenses	<u>12,584</u>	<u>26,432</u>
Total current liabilities	<u>747,994</u>	<u>519,450</u>
Notes payable	<u>535,000</u>	<u>500,000</u>
Total long-term liabilities	<u>535,000</u>	<u>500,000</u>
Stockholders' equity:		
Preferred stock, \$0.0025 par value; 5,000,000 shares authorized; none issued and outstanding	-	-
Common stock, \$0.0025 par value; 200,000,000 shares authorized; 130,217,808 shares issued and outstanding	325,547	325,547
Treasury stock; 23,294 shares, at cost	(10,614)	(10,614)
Additional paid-in capital	50,251,612	50,156,580
Deficit accumulated during the development stage	<u>(50,801,120)</u>	<u>(50,263,383)</u>
Total stockholders' equity / (deficit)	<u>(234,575)</u>	<u>208,130</u>
Total liabilities and stockholders' equity	<u>\$ 1,048,419</u>	<u>\$ 1,227,580</u>

See accompanying notes to consolidated financial statements.

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

	<u>Three Months Ended March 31,</u>		Period from
	<u>2009</u>	<u>2008</u>	March 14, 1992
			(inception) to
			<u>March 31, 2009</u>
Revenues:			
Research agreement revenues	\$ -	\$ -	\$ 1,707,500
Collaboration revenues	208,333	208,333	1,906,933
Grant revenues	<u>-</u>	<u>-</u>	<u>669,022</u>
Total revenues	<u>208,333</u>	<u>208,333</u>	<u>4,283,455</u>
Operating expenses:			
Research and development	340,598	350,960	32,852,794
General and administrative	392,017	477,294	18,488,369
Loss on impairment of intangible assets	-	-	411,016
Loss on writedown of leasehold improvements	<u>-</u>	<u>-</u>	<u>1,406,057</u>
Total operating expenses	<u>732,615</u>	<u>828,254</u>	<u>53,158,236</u>
Operating loss	<u>(524,282)</u>	<u>(619,921)</u>	<u>(48,874,781)</u>
Other (income) expense:			
Interest expense	15,910	-	732,254
Interest income	(2,455)	(21,313)	(924,009)
Amortization of debt discount	-	-	272,837
Beneficial conversion of debt to equity	-	-	274,072
Inducement to convert debt to equity	-	-	1,631,107
Cost of fund raising activities	-	-	62,582
Loss on extinguishments of debt	-	-	4,707,939
Gain on derivative instruments, net	-	-	(4,894,163)
Net other (income) expense	<u>-</u>	<u>-</u>	<u>63,720</u>
Total other (income) expense	<u>13,455</u>	<u>(21,313)</u>	<u>1,926,339</u>
Net loss	(537,737)	(598,608)	(50,801,120)
Less: Deemed dividend to common stockholders	-	-	(391,312)
Less: Fair value of induced preferred stock			
Conversion	<u>-</u>	<u>-</u>	<u>(1,866,620)</u>
Net loss attributable to common stockholders	<u>\$ (537,737)</u>	<u>\$ (598,608)</u>	<u>\$ (53,059,052)</u>
Basic and diluted loss per common share:			
Net loss attributable to common stockholders			
per share – basic and diluted	<u>\$ (0.00)</u>	<u>\$ (0.00)</u>	<u>\$ (1.31)</u>
Weighted average shares outstanding	<u>130,217,808</u>	<u>130,217,808</u>	<u>40,379,871</u>

See accompanying notes to consolidated financial statements.

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

	<u>Three Months Ended March 31,</u>		Period from
	<u>2009</u>	<u>2008</u>	March 14, 1992 (inception) to <u>March 31, 2009</u>
Cash flows from operating activities			
Net loss	\$ (537,737)	\$ (598,608)	\$ (50,801,120)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	2,790	4,140	2,644,688
Non-cash expense for equity compensation	-	-	2,379,241
Non-cash (income) expense for equity compensation to employees and directors	95,032	111,159	2,984,714
Non-cash interest expense	-	-	334,912
Amortization of deferred financing costs	-	-	111,000
Non-cash expense for beneficial conversion of debt	-	-	274,072
Non-cash expense for induced conversion of debt	-	-	1,631,107
Non-cash expense for loss on extinguishment of debt	-	-	4,707,939
Non-cash income for gain on derivative instrument, -net	-	-	(4,894,163)
Amortization of intangible assets	-	-	328,812
Loss on writedown of leasehold improvements	-	-	1,406,057
Loss in impairment of intangible assets	-	-	411,016
Gain on sale of equipment	-	-	(250)
Fund raising expense	-	-	62,582
Changes in assets and liabilities:			
Accounts receivable	4,800	-	203,290
Prepays and other assets	121,066	(67,607)	(30,283)
Accounts payable	(50,668)	42,193	165,802
Deferred revenues	291,667	291,667	593,066
Accrued wages	-	(120,000)	-
Accrued collaborator payments	12,500	-	12,500
Accrued consultant fees	13,500	(4,800)	43,000
Accrued interest	15,910	-	15,910
Accrued vacation wages	(1,967)	(1,759)	26,736
Other accrued expenses	<u>(52,398)</u>	<u>(54,450)</u>	<u>135,733</u>
Net cash used in operating activities	<u>(85,505)</u>	<u>(398,065)</u>	<u>(37,253,639)</u>
Cash flows from investing activities			
Acquisition of investment securities	-	-	(9,138,407)
Redemption of investment securities	-	-	9,138,407
Acquisition of intangible assets	-	-	(339,829)
Acquisition of equipment and leasehold Improvements	<u>-</u>	<u>(983)</u>	<u>(4,045,511)</u>
Net cash used in investing activities	<u>-</u>	<u>(983)</u>	<u>(4,385,340)</u>

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

	<u>Three Months Ended March 31,</u>		Period from
	<u>2009</u>	<u>2008</u>	March 14, 1992 (inception) to <u>March 31, 2009</u>
Cash flows from financing activities			
Proceeds from issuance of Preferred Stock	-	-	12,193,559
Proceeds from issuance of units, net of issuance costs	-	-	22,433,555
Proceeds from exercise of warrants	-	-	2,818,128
Proceeds from exercise of options	-	-	76,531
Proceeds from issuance of (repayments of) debt	35,000	-	535,000
Deferred financing costs incurred	-	-	(111,000)
Advances from (repayments to) director and shareholders	-	-	120,000
Principal payments under capital lease	-	-	(11,766)
Proceeds from issuance of promissory loans payable	-	-	4,438,491
Payments to shareholders for registration statement penalties	-	-	(84,000)
Payments to repurchase Common Stock	-	-	(10,614)
Payments received for employee stock purchase notes receivable	-	-	235,610
Net cash provided by financing activities	<u>35,000</u>	<u>-</u>	<u>42,633,494</u>
Net increase (decrease) in cash	(50,505)	(399,048)	994,515
Cash at beginning of period	<u>1,045,020</u>	<u>2,960,141</u>	<u>-</u>
Cash at end of period	<u>\$ 994,515</u>	<u>\$ 2,561,093</u>	<u>\$ 994,515</u>
Supplemental cash flow information			
Cash paid for interest	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 72,090</u>
Supplemental disclosure of non-cash investing and financing activities			
Issuance of stock for prior services	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,149,521</u>
Intangible assets acquired in exchange for stock	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 400,000</u>
Equipment acquired for accounts payable	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 31,649</u>
Equipment acquired under capital lease	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 11,766</u>
Issuance of stock for promissory loans payable	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,473,991</u>
Issuance of stock for accrued interest on promissory Loans payable	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 136,188</u>

See accompanying notes to consolidated financial statements.

APPLIED NEUROSOLUTIONS, INC.
(a development stage company)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1. BUSINESS

Applied NeuroSolutions, Inc. (“APNS” or “the Company”) is a development stage biotechnology company focused on the development of products for the early diagnosis and treatment of Alzheimer's disease (“AD”).

Alzheimer's disease is the most common cause of dementia among people age 65 and older. Dementia is the loss of memory, reason, judgment and language to such an extent that it interferes with a person's daily life and activities. Currently it is estimated that over five million people in the U.S., and almost 30 million worldwide, have Alzheimer's disease and the national cost of caring for people with Alzheimer's is estimated to exceed \$148 billion annually. By 2050, it is estimated that 16 million people in the U.S. will have Alzheimer's, and the global prevalence of Alzheimer's is expected to be greater than 100 million.

Our core technology in the AD field is based on exclusive licenses with Albert Einstein College of Medicine (“AECOM”) covering all diagnostic and therapeutic applications in the field of neurodegenerative disease discovered in the AECOM laboratories of Peter Davies, Ph.D. Dr. Davies, the Company's founding scientist, is the Burton P. and Judith Resnick Professor of Alzheimer's Disease Research at AECOM, and was the recipient of the Lifetime Achievement Award in Alzheimer's Disease at the Alzheimer's Association's 11th International Conference on Alzheimer's Disease (“ICAD”) held in Chicago in July 2008. Dr. Davies has focused his research primarily on Alzheimer's disease and the role of certain proteins, primarily hyperphosphorylated tau, which are involved in the formation of neurofibrillary tangles within neurons (nerve cells). Excessive phosphorylation of tau (the addition of one or more phosphate groups, which are comprised of phosphorous and oxygen) prevents it from stabilizing microtubules, thereby causing the breakdown of the transit system of the nerve cell. This internal neuronal damage leads to the development of the paired helical filaments and neurofibrillary tangles which are contributing factors to the eventual death of the neurons related to Alzheimer's disease. Tau in this abnormally phosphorylated form is the building block for the paired helical filaments and the neurofibrillary tangles (“NFTs”); one of the hallmark pathologies associated with AD. There is a high correlation among the presence of hyperphosphorylated tau, NFTs and AD. Thus, it is believed that the hyperphosphorylated tau represents an early abnormality in the progression of Alzheimer's disease. Research described in numerous articles published in peer-reviewed scientific journals demonstrates that abnormal tau represents an appropriate target for research on neurodegenerative diseases, such as Alzheimer's disease. Dr. Davies has been applying his expertise in research directed towards abnormal tau for many years and, together with Applied NeuroSolutions scientists, has developed a large number of proprietary antibodies and tools which are being used in the development of APNS's diagnostic pipeline to detect AD, and targets directed at AD therapeutic solutions.

In November 2006, we entered into a collaboration agreement with Eli Lilly and Company (“Lilly”). APNS and Lilly are engaged in the discovery and development of novel therapeutics for the development of treatments for Alzheimer's disease based upon an approach developed by Dr. Davies. As a result of Dr. Davies' research, APNS and Lilly are focused on discovery of unique therapeutics that may be involved in a common intracellular phosphorylation pathway leading to the development of the abnormal, destructive brain structures, amyloid plaques and neurofibrillary tangles, that are characteristic of Alzheimer's disease. APNS has identified various biomarkers that we believe will aid in the development of diagnostics and drug specific diagnostic markers that could also play a role in the development of new AD treatments.

Pursuant to the collaboration agreement, Lilly received the exclusive worldwide rights to the intellectual property related to our expertise in understanding the molecular neuropathology of AD as it pertains to the formation of neurofibrillary tangles in the development of AD therapeutics. We received \$2 million in cash, including an equity investment of \$500,000, from Lilly, plus we are receiving annual research and development support for the duration of the collaboration agreement. In addition, Lilly will, based on the achievement of certain defined milestones, provide us over time with up to a total sum of \$20 million in milestone payments for advancing the APNS proprietary target to a therapeutic compound. The collaboration has also made progress on other targets that are part of the collaboration that could provide milestone payments to us over time of up to a total sum of \$10 million for advancing each of these other targets to a therapeutic compound. There is no limit to the number of targets for which we could receive milestone payments from Lilly. Royalties are to be paid to us for AD drug

compounds brought to market that result from the collaboration. There is no limit on the number of drug compounds for which royalty payments may be due to us. Lilly will fund the vast majority of all pre-clinical research and development and will fully finance the clinical testing, manufacturing, sales and marketing of AD therapeutics developed from this collaboration.

Since the start of our collaboration with Eli Lilly & Company, the collaboration management structure, working teams and external resources have become fully operational. The key assets and proprietary tools have been appropriately transferred to support work being undertaken by each of Dr. Davies, Lilly and APNS. Key in-vivo models have been established with the goal to validate our proprietary tau-based target. The collaboration with Lilly has established criteria that provide the team with a clearly mandated and coordinated work plan that will enable them to generate the data to validate the proprietary APNS target. The APNS proprietary tau-based target has already achieved two significant unpaid program milestones: the first one in the second quarter of 2007 and the second one in the first quarter of 2008. The next milestone, if achieved, would be the first milestone for which we receive a cash payment from Lilly. The achievement of the first paid milestone was targeted for review by Lilly's program management team in late March 2009. Prior to the review by Lilly's program management team, the joint Lilly/APNS collaboration management team deferred formal review pending the completion of the milestone requirements. Lilly remains fully committed to the collaboration with resources focused on program progress and milestone achievement. The collaboration continues to make progress toward additional tau-based targets with various screens established and studies underway for identifying other tau-based targets. We anticipate providing an update on the progress of the collaboration with Lilly late in the second quarter of 2009.

We have also been developing both cerebrospinal fluid ("CSF")-based and serum-based tests to detect AD at an early stage. In a research setting, our CSF-based test, which detects a certain AD associated protein found in the CSF of AD patients ("P-Tau 231"), has demonstrated an ability to differentiate AD patients from those with other diseases that have similar symptoms. This test is based on extensive testing in the APNS lab, utilizing in excess of 2,000 CSF samples to differentiate patients diagnosed with AD from patients diagnosed with other forms of dementia and relevant neurological diseases, including major depression, as well as age-matched healthy controls. The data generated from the broad range of studies performed by both U.S. and international academic researchers have been published in 22 peer-reviewed articles in leading neurology and other scientific journals. The CSF-based P-Tau 231 test has demonstrated, based on published research validation studies, overall sensitivity and specificity in the range of 85% to 95%. Our most recent research has sought to further substantiate the utility of the test in the mild cognitive impairment ("MCI") population, as evidenced by reports published in *Neurobiology of Aging* in September 2007, *Neurology* in December 2007 and *Journal of Alzheimer's Disease* in February 2009.

Given the strong body of scientific data available for APNS's P-Tau 231 test as a viable biomarker for Alzheimer's disease, coupled with the growing number of clinical trials directed at creating improved therapeutic solutions for AD patients, we initiated a business development program to offer to pharmaceutical, biotechnology, imaging and other clinical trial support companies the opportunity to use our CSF-based P-Tau 231 test as a cost-effective tool to help optimize their programs. APNS and Dr. Davies met with companies that had expressed an interest in utilizing the P-Tau 231 diagnostic test. The meetings took place at the July 2008 International Conference on Alzheimer's Disease ("ICAD") meeting in Chicago. We have performed initial studies for two major pharmaceutical companies and have had discussions with other interested parties. Net revenue that may be generated by performing this test for interested customers could be deployed to continue progress toward our goal of developing a serum-based test for the early diagnosis of AD. We are actively continuing our efforts and are in discussions with companies that may utilize our CSF-based diagnostic test.

We are utilizing the knowledge gained during the development of our CSF-based diagnostic test to develop two types of serum-based tests to detect Alzheimer's disease: one to "rule out" AD and one, utilizing the Company's P-Tau 231 biomarker, to support the diagnosis of AD. Throughout 2006, APNS scientists, working with external technical expertise, developed an important understanding of the tools necessary to advance the development of a serum-based AD diagnostic test with scientifically accepted tau-based biomarkers. This resulted in our creation of a robust project plan. We began developing these key tools in early 2007 and established 2008 milestones for the development of serum-based diagnostic tests.

As part of our project plan, in 2007, we secured additional expertise and resources by conducting a scientific advisory board meeting that brought together APNS scientists, Dr. Davies and three outside diagnostic experts to assist us in assessing the most effective approaches and resources to advance our diagnostic development programs. Through 2007, we followed our work plans to develop program related tools, primarily antibodies, that met our scientific criteria. We achieved a key milestone in the first quarter of 2008 by identifying several antibodies that met our requirements. These antibodies support advancing development of a “rule out” serum based test for AD. We successfully met our next key milestone in the second quarter of 2008 through the creation of proprietary tau-based antibodies required for the development of a serum-based test to support the early diagnosis of AD, utilizing our P-Tau 231 biomarker (the “P-Tau test”). These new P-Tau related antibodies may also support enhancing the commercial viability of our CSF-based test.

Throughout the antibody development process we have been assessing specialized technologies that we believe are necessary to advance our serum diagnostic development programs. The goal of collaboration is to bring together a company’s proprietary technology and related know-how with APNS’ new proprietary antibodies and extensive knowledge of the protein tau, and determine the opportunity for a joint effort to develop a serum-based diagnostic test. Technology assessments and discussions with companies for initial collaborations led to the establishment of key working arrangements with several specialized technology companies. We began working with these specialized technology companies throughout the second half of 2008. The primary focus of the initial work was to determine feasibility of our proprietary P-Tau test in serum with a supportive technology. The results to date from one of these technology companies have produced variable data that do not provide clear-cut feasibility for our P-Tau serum-based diagnostic test in development with their proprietary technology. Additional antibodies were developed in the fourth quarter of 2008 and the first quarter of 2009 that potentially could be utilized to address the issues connected with the development of the P-Tau test with this specialized technology company. Our work to establish feasibility for a P-Tau test is ongoing with one other company.

Additional antibodies to support a serum-based “rule out” test were developed in the fourth quarter of 2008 and the first quarter of 2009. In early 2009, we expanded on our initial work with the specialized technology companies to determine feasibility for a “rule out” test. In addition, we began work in-house on a total tau “rule out” serum-based test, to support the external efforts. Our current plans target the feasibility of both the P-Tau test and the “rule out” test in the second quarter of 2009.

We are currently focused on establishing feasibility for our serum-diagnostic tests in development. In order to maximize the value, and minimize the time to commercialization, of our diagnostic programs, we are exploring additional partnerships, including collaborations, strategic and technical alliances, and/or licensing arrangements.

History

On September 10, 2002, Hemoxymed, Inc. and Molecular Geriatrics Corporation (“MGC”) established a strategic alliance through the closing of a merger (the “Merger”). The Merger Agreement provided that the management team and Board of Directors of MGC took over control of the merged company. The transaction was tax-free to the shareholders of both companies. In October 2003, we changed our name to Applied NeuroSolutions, Inc. The Merger transaction has been accounted for as a reverse merger. For financial reporting purposes, MGC (now APNS) is continuing as the primary operating entity under the Company’s name, and its historical financial statements have replaced those of the Company. Thus, all financial information prior to the Merger date is the financial information of MGC only.

After the Merger, we had two wholly-owned operating subsidiaries, which were dissolved during 2004. The assets of these dissolved subsidiaries were transferred to us.

One of the wholly-owned operating subsidiaries dissolved was MGC, a development stage biopharmaceutical company incorporated in November 1991, with operations commencing in March 1992, to develop diagnostics to detect AD, and therapeutic targets directed at AD solutions.

The other wholly-owned operating subsidiary we dissolved was Hemoxymed Europe, SAS, a development stage biopharmaceutical company incorporated in February 1995 to develop therapies aimed at improving tissue oxygenation by increasing oxygen release from hemoglobin to provide therapeutic value to patients with serious, medical needs. We are not currently funding the development of this technology.

We are subject to risks and uncertainties common to small-cap and micro-cap biotech companies, including competition from larger, well capitalized entities, patent protection issues, availability of funding and government regulations. We have experienced significant operating losses since our inception. As of March 31, 2009, we had an accumulated deficit of approximately \$50.8 million. Notwithstanding payments that we may receive under our collaboration agreement with Eli Lilly and Company, we expect to incur operating losses over the next several years as our research and development efforts continue. At our current level of operations, our funds will last into the middle of the third quarter 2009. We need to raise additional capital prior to the middle of the third quarter 2009 to continue our operations.

We currently have no regulatory approved therapeutic or diagnostic products on the market and have not received any commercial revenues from the sale or license of any such products.

NOTE 2. BASIS OF PRESENTATION

The consolidated financial statements include the accounts of APNS and its wholly-owned subsidiaries prior to the Company dissolving its subsidiaries in 2004. All significant intercompany balances and transactions have been eliminated. The accompanying unaudited interim consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America and applicable Securities and Exchange Commission regulations for interim financial information. These financial statements do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. It is presumed that users of this interim financial information have read or have access to the audited financial statements of APNS contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2008. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the interim periods presented are not necessarily indicative of the results that may be expected for the full year ending December 31, 2009.

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

Certain amounts from prior period and prior year consolidated financial statements and related notes have been reclassified to conform to the current period and current year presentation.

The consolidated financial statements have been prepared in accordance with the provisions of Statement of Financial Accounting Standards ("SFAS") No. 7, "Accounting and Reporting by Development Stage Enterprises," which requires development stage companies to employ the same accounting principles as operating companies.

Our financial statements have been prepared assuming that we would continue as a going concern. We have had recurring net losses, including net losses for each of the years ended December 31, 2008 and 2007, and have an accumulated deficit of approximately \$50.8 million as of March 31, 2009. These conditions raise substantial doubt about our ability to continue as a going concern. We anticipate that our cash balances at March 31, 2009 should be sufficient to fund our current level of operations into the middle of the third quarter of 2009. We will need additional funding prior to the middle of the third quarter of 2009 in order to continue our research, product development and operations. If we are successful in achieving our next milestone to establish the feasibility of the Company's serum-based diagnostic test, we believe the Company could begin generating revenue from our serum diagnostic program in late 2010 to mid 2011 under the Clinical Laboratory Improvement Amendment of 1988 ("CLIA"). Under CLIA, companies can supply either "investigational use only" or "research use only" tests, which do not require FDA approval, but are subject to certain regulatory conditions. In order to sell our serum-based diagnostic test under CLIA, we would need to contract or partner with a CLIA certified lab. Since we do not expect to generate significant revenues from the sales of our serum-based diagnostic test under CLIA until 2011, our ability to continue as a going concern depends, in large part, on our ability to raise additional capital prior to the middle of the third quarter 2009, either through some form of collaboration or joint venture or debt or equity financing, which may include the exercise of outstanding stock options and/or warrants. If we are unable to raise additional capital, we may be forced to discontinue our business.

NOTE 3. STOCK BASED COMPENSATION

On February 24, 2009, the Board of Directors approved a grant of 199,938 stock options to each of the four outside directors of the Company (799,752 stock options in total) as part of each outside director's compensation per the director compensation program. The value of these options was calculated based on the Black-Scholes valuation model using the following assumptions; risk free interest rate 1.03%; dividend 0.00%; expected volatility 219.74%; and expected life 2 years. The total value of these options, \$20,000, is being amortized, and included in general and administrative expense, over the vesting life of the options.

In March 2009, the Company entered into stock option exchange agreements with five employees and the Company's founding scientist. In return for exchanging 10,812,940 previously granted stock options with exercise prices ranging from \$0.15 to \$0.285, the Company issued 3,604,313 new stock options, 1 new option for every 3 options returned, with an exercise price of \$0.0495. The vesting schedules and the expiration dates of the new options are the same as the vesting schedules and expiration dates of the returned options. The stock option exchange was approved by the Company's Board of Directors.

On March 7, 2008, the Board of Directors approved a grant of 117,185 stock options to each of the four outside directors of the Company (468,740 stock options in total) as part of each outside director's compensation per the director compensation program. The value of these options was calculated based on the Black-Scholes valuation model using the following assumptions; risk free interest rate 1.53%; dividend 0.00%; expected volatility 246.38%; and expected life 2 years. The total value of these options, \$43,113, is being amortized, and included in general and administrative expense, over the vesting life of the options. Two of the outside directors who received these grants were no longer directors as of the vesting date, January 2, 2009, and the 234,370 stock options previously granted to them were returned to the Company.

As of March 31, 2009, 12,787,252 options were outstanding. 10,120,585 outstanding stock options were granted under the Company's 2003 stock option plan and 2,666,667 outstanding stock options were granted outside the 2003 stock option plan. As of March 31, 2009, there was approximately \$103,236 of total unrecognized non-cash compensation costs related to the outstanding stock options, which is expected to be recognized over a weighted-average period of .65 years.

The Company calculates expected volatility for stock options using historical volatility. The starting point for the historical period used is September 2002, the timing of the Merger (see Note 1). The Company currently estimates the forfeiture rate for stock options to be minimal.

NOTE 4. NET LOSS PER SHARE

Net loss attributable to common shareholder per share is computed based upon the weighted average number of common shares outstanding during the period.

For each period, net loss attributable to common shareholder per share is computed based on the weighted average number of common shares outstanding with potential equivalent shares from all stock options, warrants, restricted stock and convertible investor bridge loans excluded from the computation because their effect is antidilutive. The Company had 12,787,252 stock options and 8,583,079 warrants outstanding to issue common stock at March 31, 2009. The Company had 19,711,087 stock options and 44,418,453 warrants outstanding to issue common stock at March 31, 2008.

NOTE 5. COLLABORATION AGREEMENTS

Under the terms of various license and collaborative research agreements with Albert Einstein College of Medicine ("AECOM") the Company is obligated to make semi annual maintenance payments and quarterly funding payments. In addition, the agreements call for royalty and revenue sharing agreements upon the sale and/or license of products or technology licensed under the agreements. In March 2002, September 2002, October 2006 and December 2008 the Company renegotiated various terms of the AECOM agreements. As part of the December 2008 amendment, AECOM has agreed to defer the 2009 semi-annual maintenance payments until the earlier of

December 31, 2009 or a fund raise at least equal to \$3,500,000. In exchange for this deferral, the Company agreed to prepay the quarterly funding payments that are due in February 2009, May 2009 and August 2009. This prepayment of \$112,500 was made in December 2008.

The Company has a consulting agreement with Dr. Peter Davies, its founding scientist, which has been renewed through November 2011, but in some instances, may be terminated at an earlier date by the Company and the consultant.

Future minimum payments, as of March 31, 2009, under the above agreements are as follows:

<u>Year ending December 31,</u>	<u>Collaborations</u>	<u>Consulting</u>
2009 – remainder of year	\$ 387,500	\$81,000
2010	500,000	108,000
2011	500,000	99,000
2012	500,000	-
2013	<u>500,000</u>	<u>-</u>
Total	<u>\$ 2,387,500</u>	<u>\$ 288,000</u>

The Company is obligated to pay AECOM \$500,000 each year subsequent to 2008 that the Agreements are still in effect. The future minimum payment for 2008 excludes \$112,500 that was prepaid in December 2008 as part of the December 2008 amendment. In addition, the Company is obligated to pay AECOM a percentage of all revenues received from selling and/or licensing aspects of the AD technology licensed from AECOM that exceeds the minimum obligations reflected in the annual license maintenance payments. The Company can terminate the Agreements at any time with sixty days written notice, but would be required to return all rights granted under the Agreements to AECOM and reimburse AECOM for any salary obligations undertaken by AECOM for the research projects covered by the Agreements for up to one year from the termination date.

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

The following discussion of the financial condition and results of operations of the Company should be read in conjunction with the financial statements and the related notes thereto included in this document.

OVERVIEW

Our business strategy is to build on our strong scientific research, and commitment to develop a range of solutions to meet the unmet needs of the growing number of Alzheimer patients. Through our tau based approach we continue to develop proprietary technology, know-how and tools. We are seeking to offer options for early diagnosis and disease modifying therapeutic solutions that will enhance the physicians' ability to effectively manage their patient's treatment. We initiated a business development program in the second half of 2008 to offer to pharmaceutical, biotechnology, imaging and other clinical trial support companies the opportunity to use our CSF-based P-Tau 231 test as a cost-effective tool to help optimize their clinical trial programs. We have performed initial studies for two major pharmaceutical companies and have had discussions with other interested parties.

Our unique science, stemming from the work of our founding scientist, Peter Davies, Ph.D., is focused on developing a range of diagnostic tests. In addition, through our collaboration with a top tier Pharmaceutical company, Eli Lilly and Company, our tau-based science is the foundation of the development and commercialization of novel therapeutics to modify the course of AD. During the first half of 2008, we achieved three important program milestones; we passed a significant unpaid program milestone in our therapeutic program collaboration with Eli Lilly and Company, we identified tools that meet our requirements to advance our serum diagnostic development program to "rule out" AD, and we created proprietary tau-based tools required for the development of a serum-based test to support the early diagnosis of AD, utilizing our P-Tau 231 biomarker. To achieve our next diagnostic program milestones, we established key working arrangements with several specialized technology companies in the second half of 2008. Utilizing our newly developed proprietary tools with these specialized technology companies, we are advancing the development of our serum diagnostic development programs. Our principal development programs, and plan of operation for each, are as follows:

- **AD Therapeutic Program** – We are involved in the discovery and development of novel therapeutic targets for the development of treatments for Alzheimer's disease based upon a concept developed by Dr. Davies, the Company's founding scientist and the Burton P. and Judith Resnick Professor of Alzheimer's Disease Research at AECOM. As a result of Dr. Davies' research, and the Company's expertise, we are focused on discovery of unique targets that may be involved in a common intracellular phosphorylation pathway leading to the development of the abnormal, destructive brain structures, amyloid plaques and neurofibrillary tangles, that are characteristic of Alzheimer's disease. A patent application was filed in 2006 covering Dr. Davies work relative to the therapeutic work. In November 2006, we entered into an agreement with Eli Lilly and Company to develop therapeutics to treat AD. The agreement forms a collaboration that combines the expertise, research tools and tau-based approach advanced by Dr. Davies and our team at APNS, with the scientists, therapeutic development expertise and financial resources at Eli Lilly and Company. The agreement calls for Lilly to receive the exclusive worldwide rights to the intellectual property related to our expertise in understanding the molecular neuropathology of AD as it pertains to the formation of neurofibrillary tangles. Lilly will fund the vast majority of all pre-clinical research and development and will fully finance the clinical testing, manufacturing, sales and marketing of AD therapeutics developed from our collaboration.

Since the start of our collaboration with Eli Lilly & Company, the collaboration management structure, working teams and external resources have become fully operational. The key assets and proprietary tools have been appropriately transferred to support work being undertaken by each of Dr. Davies, Lilly and APNS. Key in-vivo models have been established with the goal to validate our proprietary tau-based target. The collaboration with Lilly has established criteria that provide the team with a clearly mandated and coordinated work plan that will enable them to generate the data to validate the proprietary APNS target. The APNS proprietary tau-based target has already achieved two significant unpaid program milestones: the first one in the second quarter of 2007 and the second one in the first quarter of 2008. The next milestone, if achieved, would be

the first milestone for which we receive a cash payment from Lilly. The achievement of the first paid milestone was targeted for review by Lilly's program management team in late March 2009. Prior to the review by Lilly's program management team, the joint Lilly/APNS collaboration management team deferred formal review pending the completion of the milestone requirements. Lilly remains fully committed to the collaboration with resources focused on program progress and milestone achievement. The collaboration continues to make progress toward additional tau-based targets with various screens established and studies underway for identifying other tau-based targets. We anticipate providing an update on the progress of the collaboration with Lilly late in the second quarter of 2009.

- **AD Diagnostic Program** – Our diagnostic program is based on Dr. Davies' research of the tau pathology, and revolves around developing a pipeline of diagnostic tests that could include: (i) the detection of hyperphosphorylated tau in CSF, (ii) the detection of hyperphosphorylated tau in serum, and (iii) a screening test to rule out AD in serum. Our product farthest along in development is a CSF-based diagnostic test to detect whether a person has AD. This diagnostic, based upon the detection of a certain AD associated protein found in the CSF of AD patients (P-Tau 231), has demonstrated, based on published research validation studies, an overall sensitivity and specificity in the range of 85% to 95% (depending on patient diagnosis). This test is based on extensive testing in our lab, utilizing in excess of 2,000 CSF samples to differentiate patients diagnosed with AD from patients diagnosed with other forms of dementia and relevant neurological diseases, including major depression, as well as age-matched healthy controls.

CSF-Based Diagnostic - Our most recent research has sought to further substantiate the utility of the test in the mild cognitive impairment ("MCI") population. Two studies published in 2007 show the ability of our CSF-based test to be a strong predictor of the decline from MCI to AD. The September 2007 online edition of *Neurobiology of Aging* presented a study comparing five of the best-known CSF biomarkers for AD. Our P-Tau 231 biomarker was the strongest predictor of the decline from MCI to AD. The December 2007 issue of *Neurology* published an internationally based multi-center study that demonstrated our P-Tau 231 biomarker was a significant predictor of the decline from MCI to AD in a clinically useful time period of 1.5 years. Studies published in the December 2005 edition of *Neuroscience Letters* and in the March 2006 journal *Neurobiology of Aging* support the use of our P-Tau 231 CSF-based diagnostic test in identifying individuals with MCI who, over time, are most likely to develop AD. Current data seems to suggest that 60% to 80% of individuals with MCI will eventually progress to AD. As a neurodegenerative disease, it is theorized that early detection of AD could greatly enhance the ability of current and future therapies to better manage the disease. A study published in the January 2004 edition of *Archives of General Psychiatry* has shown that detecting phosphorylated tau ("P-Tau") proteins in CSF comes closest to fulfilling the criteria of a biological marker for AD. This publication reported that our P-Tau 231 CSF-based test exceeded standards for an AD diagnostic test established by the National Institute of Aging and the Ronald and Nancy Reagan Research Institute of the Alzheimer's Association in a 1998 published "Consensus Report". It was determined by that group that a successful biological marker would be one that had a sensitivity level and specificity level of at least 80%. A Position Paper, "Research Criteria for the Diagnosis of Alzheimer's Disease: Revising the NINCDS-ADRDA Criteria", was published in the August 2007 edition of *Lancet Neurology* that describes suggested revisions to the criteria for the diagnosis of Alzheimer's disease, including the use of CSF biomarkers, specifically referencing our P-Tau 231 CSF-based test. The February 2009 issue of *Journal of Alzheimer's Disease* showed the added value of our ptau biomarker when used in conjunction with an MRI. New P-Tau 231 antibodies that have been created for our serum-based diagnostic development may also allow us to enhance the commercial viability of our CSF-based test.

Serum-Based Diagnostic - We are utilizing the knowledge gained during the development of our CSF-based diagnostic test to develop two types of serum-based tests to detect Alzheimer's disease: one to "rule out" AD and one, utilizing our P-Tau 231 biomarker, to support the diagnosis of AD. Throughout 2006, APNS scientists, working with external technical expertise, developed an important understanding of the tools necessary to advance the development of a serum-based AD diagnostic test with scientifically accepted tau-based biomarkers. This resulted in APNS

creating a robust project plan. We began developing these key tools in early 2007 and established 2008 milestones for the development of serum-based diagnostic tests.

As part of our project plan, in 2007, we secured additional expertise and resources by conducting a scientific advisory board meeting that brought together APNS scientists, Dr. Davies and three outside diagnostic experts to assist us in assessing the most effective approaches and resources to advance our diagnostic development programs. Through 2007, we followed our work plans to develop program related tools, primarily antibodies, that met our scientific criteria. We achieved a key milestone in the first quarter of 2008 by identifying several antibodies that met our requirements. These antibodies support advancing development of a “rule out” serum based test for AD. We successfully met our next key milestone in the second quarter of 2008 through the creation of proprietary tau-based antibodies required for the development of a serum-based test to support the early diagnosis of AD, utilizing our P-Tau 231 biomarker (the “P-Tau test”). These new P-Tau related antibodies may also support enhancing the commercial viability of our CSF-based test.

Throughout the antibody development process we have been assessing specialized technologies that we believe are necessary to advance our serum diagnostic development programs. The goal of collaboration is to bring together a company’s proprietary technology and related know-how with APNS’ new proprietary antibodies and extensive knowledge of the protein tau, and determine the opportunity for a joint effort to develop a serum-based diagnostic test. Technology assessments and discussions with companies for initial collaborations led to the establishment of key working arrangements with several specialized technology companies. We began working with these specialized technology companies throughout the second half of 2008. The primary focus of the initial work was to determine feasibility of our proprietary P-Tau test in serum with a supportive technology. The results to date from one of these technology companies have produced variable data that do not provide clear-cut feasibility for our P-Tau serum-based diagnostic test in development with their proprietary technology. Additional antibodies were developed in the fourth quarter of 2008 and the first quarter of 2009 that potentially could be utilized to address the issues connected with the development of the P-Tau test with this specialized technology company. Our work to establish feasibility for a P-Tau test is ongoing with one other company.

Additional antibodies to support a serum-based “rule out” test were developed in the fourth quarter of 2008 and the first quarter of 2009. In early 2009, we expanded on our initial work with the specialized technology companies to determine feasibility for a “rule out” test. In addition, we began work in-house on a total tau “rule out” serum-based test, to support the external efforts. Our current plans target the feasibility of both the P-Tau test and the “rule out” test in the second quarter of 2009.

CSF-Based Diagnostic Test Business Development Program - Given the strong body of scientific data available for our P-Tau 231 test, coupled with the growing number of clinical trials directed at creating improved therapeutic solutions for AD patients, APNS has initiated a business development program to offer to pharmaceutical, biotechnology, imaging and other clinical trial support companies the opportunity to use our CSF-based P-Tau 231 test as a cost-effective tool to help optimize their programs. APNS and Dr. Davies met with companies that had expressed an interest in utilizing the P-Tau 231 diagnostic test. The meetings took place at the July 2008 International Conference on Alzheimer’s Disease (“ICAD”) meeting in Chicago. We have performed initial studies for two major pharmaceutical companies and have had discussions with other interested parties. Net revenue we may generate by performing our test for interested customers could be deployed to continue progress toward our goal of developing a serum-based test for the early diagnosis of AD. We are actively continuing our efforts and are in discussions with companies that may utilize our CSF-based diagnostic test.

- **Transgenic Mice** – Dr. Peter Davies, through collaboration with a researcher at Nathan Klein Institute (“NKI”), has developed a transgenic mouse containing the human tau gene that develops human paired helical filaments, the building blocks of the neurofibrillary tangles, which are

known to be involved in the pathology of Alzheimer's disease. The pathology in these mice is Alzheimer-like, with hyperphosphorylated tau accumulating in cell bodies and dendrites as neurofibrillary tangles. In addition, these transgenic mice have exhibited extensive neuronal death that accompanies the tau pathology. These transgenic mice could be used for testing the efficacy of therapeutic compounds. To date, no widely accepted animal model that exhibits both AD pathologies has been developed. AECOM and the New York State Office of Mental Health, the agency that oversees NKI, each have an interest in these transgenic mice. Through our agreements with AECOM, we have license rights to AECOM's interest in these transgenic mice. In 2006, we entered into additional license agreements that provide us with the exclusive rights to sell these mice. The mice are currently available through Jackson Laboratories. In December 2006, we entered into an agreement to sell a breeding pair of these mice.

As we currently do not have any approved products in the marketplace, we do not have a time frame for generating significant revenues from our research and development activities.

Liquidity and Capital Resources

As of March 31, 2009, we had a cash balance of \$994,515. We anticipate that our cash balance at March 31, 2009 should be sufficient to fund our current level of operations into the middle of the third quarter of 2009. We will need additional funding prior to the middle of the third quarter of 2009 to continue our research, product development and our operations. We intend to seek such additional funding through private and/or public financing, through exercise of currently outstanding stock options and warrants or through collaborative or other arrangements with partners. In September 2008, at our annual stockholders meeting, the stockholders approved a proposal to amend our certificate of incorporation to effect a reverse stock split of our common stock at any time prior to June 30, 2009 at a ratio between 1-for-20 and 1-for-30 as determined by our Board of Directors and to decrease our authorized common stock from 200 million shares to 100 million shares. After the reverse stock split and the change in authorized shares of common stock have occurred, we will have sufficient available authorized shares of common stock to issue in a funding and for other uses as deemed appropriate by our Board of Directors. The cash on hand will be used for ongoing research and development, working capital, general corporate purposes and possibly to secure appropriate partnerships and expertise.

If we are successful in achieving our next milestone to establish the feasibility of the Company's serum-based diagnostic test, we believe the Company could begin generating revenue from our serum diagnostic program in late 2010 to mid 2011 under the Clinical Laboratory Improvement Amendment of 1988 ("CLIA"). Under CLIA, companies can supply either "investigational use only" or "research use only" tests, which do not require FDA approval, but are subject to certain regulatory conditions. In order to sell our serum-based diagnostic test under CLIA, we would need to contract or partner with a CLIA certified lab. Since we do not expect to generate significant revenues from the sales of our serum-based diagnostic test under CLIA until 2011, our ability to continue as a going concern depends, in large part, on our ability to raise additional capital prior to the middle of the third quarter 2009, either through some form of collaboration or joint venture or debt or equity financing, which may include the exercise of outstanding stock options and/or warrants. If we are unable to raise additional capital, we may be forced to discontinue our business.

Recent Accounting Pronouncements

Our "critical accounting policies" are those that require application of management's most difficult, subjective or complex judgements, often as a result of the need to make estimates about matters that are inherently uncertain and may change in future periods. We have identified the following as our critical accounting policies: revenue recognition, research and development, equity compensation, net deferred tax asset valuation allowance, and accounting for derivative financial instruments. For a discussion of these policies, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Estimates" in our Annual Report on Form 10-K for the year ended December 31, 2008.

RESULTS OF OPERATIONS – THE THREE MONTHS ENDED MARCH 31, 2009 COMPARED TO THE THREE MONTHS ENDED MARCH 31, 2008

REVENUES

We recognized \$208,333 of revenues in each of the three-month periods ended March 31, 2009 and March 31, 2008 from the recognition of part of our initial funds and annual research and development support received from our collaboration with Eli Lilly and Company.

RESEARCH AND DEVELOPMENT

Research and development expenses consist primarily of compensation of personnel and related benefits and taxes, funding for research & development programs, funding of research related to license agreements, scientific consultant expenses and overhead costs. Research and development expenses for the three-month period ended March 31, 2009 decreased 3% or \$10,362 to \$340,598 from \$350,960 for the three-month period ended March 31, 2008. Below is a summary of our research and development expenses:

	For the three months ended		Increase/ (Decrease)
	March 31,		
	<u>2009</u>	<u>2008</u>	
Compensation, taxes and benefits	\$ 103,082	\$ 119,988	\$ (16,906)
Program R & D funding, license fees and consulting	201,268	192,987	8,281
Rent, telephone and utilities	28,149	27,954	195
Stock option compensation expense	-	-	-
Other research and development expenses	<u>8,099</u>	<u>10,031</u>	<u>(1,932)</u>
Total Research and Development Expenses	<u>\$ 340,598</u>	<u>\$ 350,960</u>	<u>\$ (10,362)</u>

This decrease was primarily due to a decrease in compensation related expenses caused by a reduction in our headcount, a decrease in benefits and a reduction in costs of ongoing benefits. This decrease was partially offset by an increase in our program R & D funding. SFAS 123R requires companies to measure and recognize compensation expense for all stock based payments at fair value. There was no non-cash expense for stock based payments in 2009 and 2008. We estimate that we may incur costs of approximately \$110,000 to \$150,000 per month on research and development activities going forward. This excludes the non-cash effect of accounting for equity instruments included in the annual amounts mentioned above. These expenditures, however, may fluctuate from quarter-to-quarter and year-to-year depending upon the resources available, our development schedule, and our progress. Results of preclinical studies, clinical trials, regulatory decisions and competitive developments for our diagnostic programs may significantly increase the amount of our research and development expenditures.

GENERAL AND ADMINISTRATIVE

General and administrative expenses consist primarily of compensation of personnel and related benefits and taxes; public company compliance expenses, including legal and accounting expenses; and occupancy related expenses. General and administrative expenses for the three-month period ended March 31, 2009 decreased 18% or \$85,277 to \$392,017 from \$477,294 for the three-month period ended March 31, 2008. Below is a summary of our general and administrative expenses:

	For the three months ended		Increase/ (Decrease)
	March 31,		
	<u>2009</u>	<u>2008</u>	
Compensation, taxes and benefits	\$ 160,477	\$ 180,399	\$ (19,922)
Consulting	17,500	26,175	(8,675)
Professional fees	75,436	108,866	(33,430)
Rent, telephone and utilities	10,677	10,964	(287)
Stock option compensation expense	95,032	111,159	(16,127)
Other general and administrative expenses	<u>32,895</u>	<u>39,731</u>	<u>(6,836)</u>
Total General and Administrative Expenses	<u>\$ 392,017</u>	<u>\$ 477,294</u>	<u>\$ (85,277)</u>

This decrease is primarily due to decreases in compensation related expenses, professional fees and non-cash stock option compensation. The decrease in compensation related expenses is due to a reduction in benefits and a decrease in costs of ongoing benefits. The decrease in professional fees is due to a reduction in legal expenses and costs associated with patent expenses and patent maintenance costs. SFAS 123R requires companies to measure and recognize compensation expense for all stock based payments at fair value. Non-cash expense for all stock based payments in 2009 was \$95,032 and in 2008 was \$111,159. We estimate that we may incur costs of approximately \$100,000 to \$130,000 per month on general and administrative activities going forward. This excludes the non-cash effect of accounting for equity instruments included in the annual amounts mentioned above. These expenditures, however, may fluctuate from quarter-to-quarter and year-to-year depending upon the resources available, SEC requirements, and our development schedule.

OTHER (INCOME) EXPENSE

Interest expense for the three-month period ended March 31, 2009 was \$15,910, due to accrued interest related to the \$535,000 notes payable. We did not incur any interest expense for the three-month period ended March 31, 2008. Interest income for the three-month period ended March 31, 2009 decreased 88% or \$18,858, to \$2,455 from \$21,313 for the three-month period ended March 31, 2008. The decrease is primarily due to lower average invested balances and a lower rate of return.

We currently do not hedge foreign exchange transaction exposures. Our assets and liabilities denominated in foreign currencies are immaterial.

ITEM 4. CONTROLS AND PROCEDURES

(a) *Disclosure Controls and Procedures.* Our management, with the participation of our principal executive officer (chief executive officer) and principal financial officer (chief financial officer), conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as of December 31, 2008 and updated the evaluation as of the end of the period covered by this report (the “Evaluation Date”). Based on this evaluation, and due to the material weaknesses in our internal control over financial reporting (as described in the December 31, 2008 “**Report of Management on Applied NeuroSolutions, Inc.’s Internal Control over Financial Reporting**” which was filed in our annual report on Form 10-K for the year ended December 31, 2008), our chief executive officer and chief financial officer concluded that as of March 31, 2009, our disclosure controls and procedures were not effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms.

(b) *Internal Controls Over Financial Reporting.* There was no change in our internal control over financial reporting during our most recently completed fiscal quarter that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

PART II – OTHER INFORMATION

- ITEM 1. LEGAL PROCEEDINGS – None**
- ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS - None**
- ITEM 3. DEFAULTS UPON SENIOR SECURITIES – None**
- ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS - None**
- ITEM 5. OTHER INFORMATION - None**
- ITEM 6. EXHIBITS**

<u>Number</u>	<u>Description</u>
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

SIGNATURE PAGE

In accordance with Section 13 or 15(d) of the Exchange Act, the company has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

APPLIED NEUROSOLUTIONS, INC.

Dated: May 12, 2009

By: /s/ DAVID ELLISON
Chief Financial Officer
(Principal Financial
and Accounting Officer)

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

CERTIFICATE OF CHIEF EXECUTIVE OFFICER

I, Ellen R. Hoffing, the Chief Executive Officer of Applied NeuroSolutions, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Applied NeuroSolutions, 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 company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us 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 our 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 company's disclosure controls and procedures and presented in this report our 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 company's internal control over financial reporting that occurred during the company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company'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 company'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 company's internal control over financial reporting.

/s/ ELLEN R. HOFFING

Ellen R. Hoffing, Chief Executive Officer

Date: May 12, 2009

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

CERTIFICATE OF CHIEF FINANCIAL OFFICER

I, David Ellison, the Chief Financial Officer of Applied NeuroSolutions, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Applied NeuroSolutions, 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 company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us 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 our 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 company's disclosure controls and procedures and presented in this report our 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 company's internal control over financial reporting that occurred during the company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company'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 company'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 company's internal control over financial reporting.

/s/DAVID ELLISON

David Ellison, Chief Financial Officer

Date: May 12, 2009

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Applied NeuroSolutions, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Ellen R. Hoffing, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Ellen R. Hoffing
Ellen R. Hoffing, Chief Executive Officer
May 12, 2009

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

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Applied NeuroSolutions, Inc. (the “Company”) on Form 10-Q for the quarter ended March 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, David Ellison, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ David Ellison
David Ellison, Chief Financial Officer
May 12, 2009

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